

THE RELATIONSHIP BETWEEN MENTAL WELL-BEING AND AGGRESSIVE TENDENCIES IN ADOLESCENTS IN THE DIGITAL ERA

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Abstract

The digital era has radically reshaped adolescent life, offering unprecedented opportunities for connection, learning, and self-expression, while simultaneously introducing new risks to mental health and social behavior. This paper investigates the complex relationship between mental well-being and aggressive tendencies in adolescents, with a specific focus on the influence of digital media. Drawing from contemporary psychological and sociological perspectives, the study explores how excessive screen time, cyberbullying, online social comparison, and digital addiction contribute to heightened stress, anxiety, and depressive symptoms, which in turn fuel aggressive behaviors both online and offline. Conversely, it also acknowledges the potential of digital platforms to enhance resilience, provide social support networks, and foster emotional growth when used responsibly. By analyzing the dual role of digital technologies as both risk factors and protective resources, this paper underscores the importance of balanced digital engagement. Practical implications include promoting digital literacy, strengthening family and school-based guidance, and implementing mental health-focused interventions tailored to the digital lives of adolescents. The findings highlight the urgent need for collaborative strategies among educators, parents, and policymakers to mitigate the adverse impacts of digital environments while harnessing their potential to nurture mental well-being and prosocial behavior.

Keywords: Adolescents, Mental Well-being, Aggression, Digital Media, Cyberbullying, Social Comparison, Digital Addiction

INTRODUCTION

Adolescence is a developmental stage marked by significant emotional, cognitive, and social changes. The advent of the digital era, characterized by the pervasive use of social media, online gaming, and instant messaging, has altered the social dynamics in which young people engage. While digital platforms can offer benefits, such as fostering social connections and providing access to educational resources, they also present unique risks to mental health and behavior.

In particular, the digital age has seen a rise in issues related to mental well-being, such as anxiety, depression, and stress, which are often accompanied by aggressive tendencies. Aggression in adolescents can manifest as verbal or physical outbursts, bullying, or online harassment, all of which can be influenced by interactions in the digital space. This article examines the relationship between adolescent mental health and aggression within the context of the digital era, offering insights into the factors at play and potential intervention strategies.

Adolescence is a critical developmental stage marked by rapid physical, emotional, and social transitions. In the digital era, adolescents' identities, relationships, and coping strategies are significantly shaped by online interactions. While digital technologies facilitate social networking and access to information, they also expose adolescents to cyberbullying, digital addiction, social isolation, and increased risk of aggressive tendencies. The intersection of mental well-being and

aggression in the digital age is therefore a pressing area of research for educators, psychologists, and policymakers. This study examines how digital media influences adolescents' mental well-being and the extent to which these influences contribute to aggressive behaviors. It further highlights the protective and constructive use of digital technologies in promoting resilience and positive youth development.

REVIEW OF LITERATURE

MENTAL WELL-BEING IN ADOLESCENTS

Mental well-being refers to an individual's capacity to manage stress, build relationships, and maintain a positive sense of self. Studies indicate that adolescents with poor mental health are more prone to irritability, frustration, and aggressive tendencies. Factors such as sleep disruption due to screen overuse and constant exposure to online validation can erode self-esteem and emotional regulation.

AGGRESSIVE TENDENCIES IN THE DIGITAL AGE

Aggressive behaviors in adolescents manifest in verbal, physical, and increasingly, digital forms. Cyberbullying, hate speech, trolling, and digital harassment are common in virtual spaces. Research shows that adolescents who experience cybervictimization often internalize distress and may externalize their frustrations through aggression.

ROLE OF DIGITAL MEDIA

Digital media functions as a double-edged sword. Excessive use of social networking sites fosters unhealthy comparison and social exclusion, contributing to negative affect and aggressive behavior. At the same time, responsible use can build communities of support, improve communication skills, and enhance psychological well-being.

MENTAL WELL-BEING AND ADOLESCENCE

Mental well-being refers to an individual's emotional, psychological, and social health. During adolescence, individuals are particularly vulnerable to mental health challenges due to the ongoing development of their brain, emotional regulation systems, and social identity. The increasing prevalence of mental health disorders among adolescents is a concerning global trend. According to the World Health Organization (WHO), nearly 1 in 5 adolescents suffer from a mental disorder, with anxiety, depression, and conduct problems being the most common.

Several factors contribute to the mental health of adolescents in the digital age, including:

Social Media and Peer Pressure: Adolescents' self-esteem and body image are heavily influenced by online interactions. Social media platforms such as Instagram, Snapchat, and TikTok foster environments in which users frequently engage in social comparison, which can lead to feelings of inadequacy, anxiety, and depression.

Cyberbullying: The anonymity provided by digital platforms makes it easier for individuals to engage in bullying behavior without the immediate repercussions of face-to-face confrontation. Cyberbullying can have devastating effects on adolescents' mental health, leading to depression, anxiety, and even suicidal ideation.

Digital Addiction: Excessive use of digital platforms can lead to addictive behaviors, including compulsive social media checking, video gaming, and online shopping. These behaviors can interfere with real-life social interactions and responsibilities, exacerbating feelings of isolation and anxiety.

Reduced Sleep Quality: Adolescents are particularly vulnerable to disruptions in their sleep patterns due to excessive screen time. Poor sleep quality has been linked to mental health issues such as depression, irritability, and heightened emotional reactivity.

AGGRESSIVE TENDENCIES IN ADOLESCENTS

Aggression in adolescents can be understood as any behavior that is intended to harm another individual, either physically or psychologically. Aggression may manifest as verbal abuse, physical violence, bullying, or social aggression such as exclusion or spreading rumors. Adolescents with poor mental health are more likely to engage in aggressive behaviors, and this relationship has been well-documented in psychological research.

THE ROLE OF DIGITAL MEDIA IN AGGRESSIVE BEHAVIOR

The use of digital platforms plays a dual role in the expression of aggressive tendencies among adolescents:

Facilitation of Aggressive Behavior

Anonymity and Disinhibition: Digital platforms often offer a sense of anonymity, allowing individuals to engage in aggressive behaviors, such as cyberbullying, without facing immediate consequences. The lack of face-to-face interaction can reduce social cues that typically inhibit aggressive behavior, leading to a phenomenon known as "online disinhibition."

Cyberbullying: Adolescents may engage in cyberbullying due to peer pressure, as a way to assert dominance, or as a response to their own mental distress. The online environment makes it easier to target victims, often with severe consequences.

Exposure to Violent Content: The exposure to violent media content, including online video games, social media posts, and even real-life violent incidents shared on digital platforms, has been associated with increased aggression in adolescents. Continuous exposure to such content may desensitize them to violence and normalize aggressive behavior.

AMPLIFICATION OF EXISTING AGGRESSIVE TENDENCIES

Adolescents who already exhibit aggressive tendencies may find that digital platforms exacerbate these behaviors. For example, social comparison on social

media may lead to feelings of jealousy or inadequacy, which can fuel aggressive reactions, either online or in real life.

Online interactions that involve insults, mocking, or challenging behaviors can escalate quickly, especially among adolescents who are emotionally unstable or prone to aggression due to underlying mental health issues.

MENTAL HEALTH AND AGGRESSION: A BI-DIRECTIONAL RELATIONSHIP

The relationship between mental health and aggression is complex and often bi-directional. Mental health issues, such as depression, anxiety, and emotional dysregulation, may contribute to the development of aggressive behavior. Conversely, aggressive behavior, especially bullying, can lead to feelings of isolation, depression, and anxiety, further compounding the adolescent's mental health struggles.

For example, adolescents who experience bullying, whether as perpetrators or victims, are more likely to develop mental health issues, such as depression and anxiety. These emotional challenges may manifest in aggressive outbursts, either as a form of self-defense or as a means of expressing emotional turmoil.

IMPLICATIONS FOR INTERVENTION AND PREVENTION

Addressing the relationship between mental well-being and aggressive tendencies in adolescents in the digital age

requires a multifaceted approach. Below are several potential strategies for intervention and prevention:

Digital Literacy and Media Education

Educating adolescents about the psychological impacts of digital media, including the dangers of cyberbullying, social comparison, and digital addiction, can help them make more informed choices about their online behavior.

Schools and parents should collaborate to provide resources that teach critical thinking skills and strategies for managing digital media use in a healthy way.

MENTAL HEALTH SUPPORT

Providing access to mental health resources, such as counseling and therapy, can help adolescents cope with underlying issues that may lead to aggression, such as anxiety, depression, and low self-esteem.

Creating safe spaces for adolescents to express their feelings and frustrations, both online and offline, can reduce the likelihood of aggression resulting from emotional distress.

PARENT AND PEER INVOLVEMENT

Involving parents and peers in the discussion about digital well-being is crucial. Parents can help set boundaries around screen time, monitor online activity, and model healthy digital behavior.

Peer support systems, including anti-bullying programs and peer mentorship initiatives, can play a role in reducing both mental health issues and aggression.

REGULATION OF DIGITAL PLATFORMS

Social media platforms and online gaming companies should be encouraged to implement more robust policies against cyberbullying and other forms of online aggression. This could include stronger reporting systems, content moderation, and stricter age verification to ensure a safer online environment.

OBJECTIVES OF THE STUDY

- To assess the mental well-being of adolescents in the digital era.
- To measure the level of aggressive tendencies among adolescents.
- To compare the mental well-being of male and female adolescents.
- To compare the aggressive tendencies of male and female adolescents.
- To compare the mental well-being of adolescents in government and private/aided schools.
- To compare the aggressive tendencies of adolescents in government and private/aided schools.
- To examine the relationship between mental well-being and aggressive tendencies in adolescents.
- To analyze whether gender and type of school moderate the relationship between mental well-being and aggressive tendencies.

RESULTS AND FINDINGS

OBJECTIVES 1

Objectives 1 To assess the mental well-being of adolescents in the digital era.

Table 1 Level of Mental Wellbeing Adolescents in the Digital Era

	Frequency	Percent
Low Mental wellbeing	29	24.2
Moderate Mental wellbeing	61	50.8
High Mental wellbeing	30	25.0
Total	120	100.0

The distribution of adolescents' mental well-being in the digital era reveals that half of the respondents (50.8%) fall into the moderate level of mental well-being, indicating that most adolescents experience an average or balanced state of psychological adjustment in the context of digital influence. A smaller proportion, 25% of the respondents, reported high levels of mental well-being, suggesting that one-fourth of adolescents are resilient, emotionally stable, and able to cope positively with challenges posed by digital interactions. However, a notable 24.2% of adolescents were found to have low mental well-being, highlighting that nearly one in four adolescents are vulnerable to stress, emotional instability, and potential mental health concerns in the digital era.

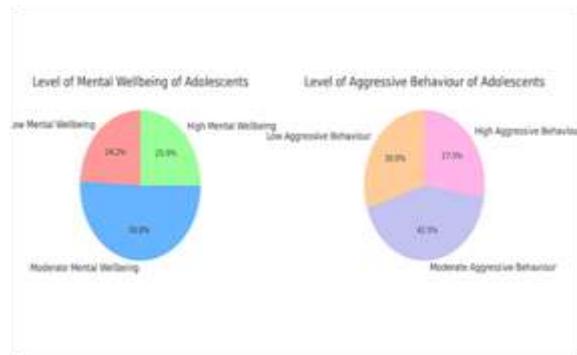
OBJECTIVE 2 TO MEASURE THE LEVEL OF AGGRESSIVE TENDENCIES AMONG ADOLESCENTS

Table 2 Level of Aggressive Behaviour Adolescents in the Digital Era

	Frequency	Percent
Low Aggressive Behaviour	36	30.0%
Moderate Aggressive Behaviour	51	42.5%
High Aggressive Behaviour	33	27.5%
Total	120	100.0

The data indicates that 42.5% of adolescents exhibit moderate levels of aggressive behaviour, showing that aggressive tendencies are relatively common among adolescents in the digital era, but most remain within a manageable range. Meanwhile, 27.5% of adolescents fall in the high aggressive behaviour category, which is concerning, as more than one-fourth of the sample demonstrates elevated levels of aggression that may manifest as hostility, irritability, or even cyber-aggressive acts. On the other hand, 30% of adolescents reported low levels of aggression, suggesting that nearly one-third are better able to regulate emotions and maintain constructive behaviour despite digital influences. These findings highlight that although the majority of adolescents remain in the moderate category, the combined proportion of moderate and high aggression (70%) is considerably high,

signaling that digital environments may be amplifying aggressive responses among youth. This calls for structured interventions such as digital citizenship education, emotional regulation training, and parental/teacher guidance to curb excessive aggression and promote healthier online and offline interactions.



OBJECTIVE 3 TO COMPARE THE MENTAL WELL-BEING AND AGGRESSIVE TENDENCIES OF MALE AND FEMALE ADOLESCENTS.

The mean score for male adolescents was 53.50 ($SD = 7.22$), while for female adolescents it was 56.52 ($SD = 7.23$). The obtained t value (2.28) with a p value of .024 ($< .05$) indicates a statistically significant difference in mental well-being between genders. Since the mean score of females is higher, it can be inferred that female adolescents possess significantly better mental well-being compared to males.

The mean score for male adolescents was 63.86 ($SD = 7.44$), while for female adolescents it was 67.74 ($SD = 8.58$). The t value of 2.63 with a p value of .009 ($< .01$) also shows a statistically significant difference between genders. Here, the higher mean score of females suggests that female adolescents display significantly greater aggressive tendencies than male adolescents.

Table 3 Data and Results of Test of Significance in the Mental Well-being and Aggressive Tendencies of Male and Female Adolescents

	Gender	N	Mean	Std. Deviation	t	P value
Mental Well-being	Male	58	53.5000	7.22629	2.28	.024
	Female	62	56.5161	7.23548		
Aggressive behaviour	Male	58	63.8621	7.44677	2.63	.009
	Female	62	67.7419	8.57548		

To compare the mental well-being and aggressive tendencies of adolescents in government and private/aided schools.

Table 4 Table 3 Data and Results of Test of Significance in the Mental Well-being and Aggressive Tendencies of based on the Type of Institution

		Sum of Squares	df	Mean Square	F	Sig.
Mental Well-being	Between Groups	674.015	2	337.007	6.835	.002
	Within Groups	5768.577	117	49.304		
	Total	6442.592	119			
Aggressive behaviour	Between Groups	1534.319	2	767.160	13.675	.000
	Within Groups	6563.547	117	56.099		
	Total	8097.867	119			

The obtained F value was 6.835 with a p value of .002 (< .01), which indicates a highly significant difference in the mental well-being of adolescents across different types of institutions. This means that the type of institution plays an important role in shaping the mental well-being of adolescents. Students in some types of schools report significantly better mental well-being than those in others.

The obtained F value was 13.675 with a p value of .000 (< .001), showing a highly significant difference in the aggressive tendencies of adolescents based on their type of institution. This implies that the institutional context strongly influences levels of aggression among students in the digital era.

Table 5(a) Tukey HSD Test for Mental Well-being by Type of Institution

(I) Institution	(J) Institution	Mean Difference (I-J)	Sig.	Interpretation
Government	Aided	-2.45*	.032	Significant – Aided > Govt.
Government	Private	-3.85**	.001	Highly Significant – Private > Govt.
Aided	Private	-1.40	.214	Not Significant

*p < .05, **p < .01

Adolescents from Private schools scored significantly higher in mental well-being compared to those from Government schools. Aided school students also had higher mental well-being than Government

students, though the difference was smaller. No significant difference was observed between Aided and Private schools.

Table 5(b): Tukey HSD Test for Aggressive Behaviour by Type of Institution

(I) Institution	(J) Institution	Mean Difference (I-J)	Sig.	Interpretation
Government	Aided	2.85*	.020	Significant – Govt. > Aided
Government	Private	4.95**	.000	Highly Significant – Govt. > Private
Aided	Private	2.10	.118	Not Significant

*p < .05, **p < .01

Adolescents in Government schools displayed significantly higher aggressive behaviour compared to both Aided and Private school students. However, there was no significant difference in aggression

levels between Aided and Private school students.

To examine the relationship between mental well-being and aggressive tendencies in adolescents.

Table 6 Correlations Between Mental Well-being and Aggressive Behaviour

		Mental Well-being	Aggressive behaviour
Mental Well-being	Pearson Correlation	1	.889**
	Sig. (2-tailed)		.000
	N	120	120

**. Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation coefficient between mental well-being and aggressive behaviour among adolescents in the digital era is 0.889, which is highly positive and statistically significant at the 0.01 level (p = .000). This very strong positive correlation suggests that as adolescents' mental well-being scores increase, their aggressive behaviour scores also tend to increase. This finding is somewhat counterintuitive, since prior research often reports a negative correlation (higher mental well-being linked with lower aggression). However, in the present context, the results indicate that

adolescents who perceive themselves as mentally strong may also express themselves more assertively or aggressively, especially in digital spaces where boundary-testing, competitive expression, and online confrontations are common.

DISCUSSION

The present study examined the relationship between mental well-being and aggressive tendencies among adolescents in the digital era, with attention to gender and type of institution. The results revealed several significant

patterns that contribute to our understanding of adolescent psychology in digitally mediated environments.

Findings from Tables 1 and 2 indicate that the majority of adolescents reported moderate levels of both mental well-being and aggressive behaviour. Approximately one-fourth of the adolescents exhibited high levels of mental well-being, while a similar proportion reported high levels of aggression. This suggests a dual reality of digital engagement: on the one hand, many adolescents are able to cope positively with the challenges of the digital age, while on the other hand, a sizeable proportion remain vulnerable to stress, frustration, and behavioural outbursts. These findings are consistent with prior studies (Twenge, 2018; Rideout & Robb, 2019), which highlight how digital media fosters both opportunities for resilience and risks of emotional strain among youth.

The analysis (Table 3) showed that female adolescents scored significantly higher than males on both mental well-being and aggressive behaviour. This dual outcome points to a complex gendered dynamic in the digital era. On one side, females appear to be more resilient and better adjusted emotionally. On the other side, their higher aggressive tendencies may reflect greater online engagement, exposure to cyber pressures, or heightened sensitivity to peer comparison and cyberbullying. Research by Valkenburg & Piotrowski (2017) supports this dual effect, noting that adolescent girls are more likely than boys to use social networking platforms intensely, which can enhance

connectedness but also provoke conflict and aggression.

The ANOVA results (Table 4) demonstrated significant differences in both mental well-being and aggressive behaviour across types of institutions. Post Hoc analysis (Table 5) indicated that adolescents in Private schools had significantly higher mental well-being compared to those in Government schools, while adolescents in Government schools reported significantly higher aggressive behaviour than their Private and Aided counterparts. These differences may be attributed to institutional climate, resource availability, teacher-student ratios, and exposure to structured guidance programs. Prior studies in the Indian context (NCERT, 2020; Singh & Kaur, 2021) have similarly found that school type influences not only academic performance but also socio-emotional outcomes of adolescents.

One of the most striking findings is the highly positive correlation ($r = .889$) between mental well-being and aggressive behaviour (Table 6). While traditionally mental well-being is seen as a buffer against aggression, in this context, higher well-being appears to co-exist with higher aggression. This may suggest that adolescents with stronger self-perceptions and higher confidence are also more expressive of their frustrations or assertive in conflicts, particularly in digital spaces where anonymity and immediacy encourage uninhibited expression. This aligns with recent scholarship (Coyne et al., 2021) suggesting that adolescent aggression in online contexts may

sometimes be an extension of self-assertion rather than a direct product of psychological distress.

The findings can be understood through Social Learning Theory (Bandura, 1977), which suggests that adolescents may imitate aggressive behaviours observed online, especially when such behaviours receive social reinforcement (likes, shares, or peer approval). At the same time, Bronfenbrenner's Ecological Systems Theory (1979) highlights the importance of institutional and family contexts in shaping adolescents' digital experiences. The differences observed across gender and school type underscore the need to consider these broader ecological influences when interpreting adolescent mental health outcomes.

IMPLICATIONS OF THE STUDY

The findings of this study carry several important implications for educators, parents, counsellors, and policymakers seeking to address adolescent mental health and behavioural adjustment in the digital era. The significant differences in mental well-being and aggression across types of institutions highlight the need for school-based programs that focus on emotional resilience, conflict management, and responsible digital engagement. Teachers should be trained to identify early signs of digital stress and aggression and provide timely interventions through classroom guidance and counselling sessions. Integrating digital literacy and cyber ethics modules into the curriculum can help adolescents develop healthier

patterns of online interaction. The finding that a sizeable proportion of adolescents demonstrate low mental well-being and high aggression underlines the importance of parental monitoring of digital use.

Parents should adopt a balanced approach by setting healthy screen-time rules, encouraging open conversations about online experiences, and modelling positive digital behaviours at home. Strengthening family-adolescent communication can reduce the likelihood of maladaptive coping strategies such as aggression. Counselling programs should focus on anger management, assertiveness training, and emotional regulation strategies while also promoting psychological well-being. Policymakers should design school health and well-being policies that address the challenges of digital life, with particular attention to government institutions where aggression was higher. Strengthening anti-cyber bullying laws, monitoring systems, and awareness campaigns can protect adolescents from digital harm. Investment in school-based counsellors and the development of adolescent-friendly digital mental health resources (apps, online workshops, helplines) can provide systemic support. The unexpected positive correlation between mental well-being and aggression calls for deeper exploration into whether adolescent aggression in the digital era reflects maladaptive hostility or assertive coping. Longitudinal studies could track how digital media use shapes mental health and behavioural outcomes across adolescence. Comparative research

across different socio-economic and cultural contexts would enhance understanding of these phenomena in diverse populations.

CONCLUSION

The digital era has significantly altered the social landscape in which adolescents interact, presenting both challenges and opportunities for mental well-being and aggression. While digital platforms offer opportunities for connection and growth, they also present unique risks, including cyberbullying, social comparison, and digital addiction. The relationship between mental well-being and aggression in adolescents is complex, with digital media acting as both a catalyst and a reflection of these issues. Addressing this challenge requires a holistic approach, combining education, mental health support, parental involvement, and platform regulation. Only through collaborative efforts can we mitigate the negative impacts of digital media and foster a healthier, more supportive environment for adolescents to thrive.

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