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Article

TikTok and the Influence of Social Media on Adolescent and Young Adult Mental Health of Bangladesh

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Abstract: This study explores the multifaceted impact of TikTok and similar short-form video platforms on the mental health of adolescents and young adults in Bangladesh. Drawing upon a synthesis of recent empirical studies, the research delves into themes such as social comparison, body image concerns, addictive behaviors, and the role of cultural and familial dynamics. The findings underscore the dual nature of social media—offering avenues for creativity and connection while also posing risks to mental well-being. Recommendations include the implementation of digital literacy programs, parental engagement strategies, and culturally sensitive interventions to foster healthier social media habits among Bangladeshi youth.

Keywords: TikTok; social media; adolescent; young adult; mental health

1. Introduction

Background

The advent of social media platforms has revolutionized communication, self-expression, and information dissemination. Among these platforms, TikTok has emerged as a dominant force, especially among adolescents and young adults. In Bangladesh, the rapid proliferation of smartphones and internet accessibility has facilitated widespread adoption of TikTok, making it an integral part of youth culture.

The rapid advancement of digital technologies has fundamentally reshaped how individuals communicate, consume content, and construct identities. Among the myriad platforms that have emerged, TikTok has become particularly influential among adolescents and young adults due to its short-form, engaging, and highly personalized content format. Since its global launch in 2016, TikTok has garnered over 1 billion active users globally, with a substantial share from South Asia, including Bangladesh (Sensor Tower, 2023). The platform enables users to create, share, and engage with 15- to 60-second videos, which often include music, dance, humor, fashion, and commentary on social issues. Its popularity among young people stems from its low barrier to content creation, instant feedback via likes and comments, and algorithmically tailored feed that prioritizes engagement.

In Bangladesh, where over 65% of the population is under the age of 35 (Bangladesh Bureau of Statistics, 2022), the adoption of TikTok has surged, particularly in urban and semi-urban settings. This rise is facilitated by the increased availability of affordable smartphones and mobile internet packages, making social media platforms accessible to a broad demographic. For many Bangladeshi youths, TikTok is not just a source of entertainment—it is also a platform for self-expression, identity exploration, and social interaction. However, with its growing usage, concerns have emerged about its potential impact on mental health, particularly for adolescents and young adults who are navigating complex developmental, emotional, and social transitions.

2. Significance of the Study



Numerous studies conducted in Western and East Asian contexts have explored the psychological consequences of social media use, including heightened risks of anxiety, depression, loneliness, body dissatisfaction, and problematic internet use (Keles, McCrae, & Grealish, 2020; Marengo et al., 2024). However, these findings may not fully translate to the Bangladeshi context, where cultural, religious, and familial norms exert a strong influence on youth behavior and identity. For instance, issues such as gendered expectations, conservative values regarding modesty and appearance, and limited availability of mental health services may exacerbate or mediate the psychological effects of social media usage.

Moreover, TikTok's particular emphasis on appearance, popularity metrics (likes, shares, comments), and trends often fosters a culture of social comparison, which can be especially damaging for individuals in formative stages of self-concept development. The public visibility of user-generated content, coupled with the pressure to conform to viral aesthetics or gain digital validation, may contribute to reduced self-esteem, performance anxiety, and cyberbullying. In Bangladesh, the phenomenon of "TikTok celebrities" and the accompanying media attention they receive can intensify these pressures.

Despite the growing body of global literature, research focused specifically on the mental health impacts of TikTok in Bangladesh remains limited. The country's unique sociocultural landscape—characterized by rapid urbanization, intergenerational value conflicts, digital divides, and under-resourced mental health infrastructure—necessitates contextually grounded inquiries. Understanding how TikTok affects adolescents' and young adults' mental health in Bangladesh is not only academically significant but also critical for informing public health policy, educational curricula, parental guidance, and platform regulation.

2.1. Problem Statement

The popularity of TikTok among Bangladeshi youth is both a reflection of and a catalyst for broader societal changes in communication, identity, and mental health. Yet, there is a lack of empirical data and theoretical frameworks addressing the specific psychological impacts of TikTok usage in the Bangladeshi context. Without such insights, stakeholders—including educators, parents, policymakers, and mental health professionals—are limited in their ability to respond effectively to emerging challenges. There is a pressing need to investigate how this platform influences mental health indicators such as anxiety, depression, self-esteem, and body image among youth in Bangladesh.

2.2. Research Objectives

The overarching aim of this research is to explore and critically examine the psychological and behavioral effects of TikTok and broader social media usage on adolescents and young adults in Bangladesh, with a specific focus on mental health outcomes such as anxiety, depression, body image concerns, and self-esteem. To achieve this aim, the study articulates the following specific objectives:

2.2.1. To Analyze Patterns and Intensity of TikTok Usage Among Adolescents and Young Adults in Bangladesh

This objective seeks to quantify and categorize how frequently and in what manner Bangladeshi youth engage with TikTok. It involves identifying:

- The average duration of daily or weekly usage;
- The types of content most consumed (e.g., comedy, beauty, political, educational);
- User motivations (entertainment, socializing, self-expression, identity formation);
- Device usage trends (e.g., mobile vs. desktop access);
- Engagement behaviors (e.g., posting vs. passive consumption, commenting, following trends);
- Socio-demographic factors (age, gender, location, education level) that influence usage.

Understanding usage patterns is crucial for establishing correlations with mental health variables and for designing age- and context-specific interventions.

2.2.2. To Assess the Impact of TikTok Usage on Key Mental Health Indicators—Specifically Anxiety, Depression, Self-Esteem, and Body Image—Among Bangladeshi Youth

This objective aims to determine whether and how TikTok use is associated with psychological outcomes, drawing from clinical and behavioral health frameworks. Using validated instruments such as the PHQ-9 (for depression), GAD-7 (for anxiety), and Rosenberg Self-Esteem Scale, the research will:

- Measure the mental health status of frequent, moderate, and low/non-users;
- Identify the prevalence of specific symptoms (e.g., sleep disturbance, emotional dysregulation);
- Explore gender and age-based variations in psychological impact;
- Investigate the role of algorithmic content (e.g., beauty filters, influencer culture) on body dissatisfaction and digital self-worth.

2.2.3. To Examine the Mediating and Moderating Effects of Sociocultural Norms, Gender Expectations, and Familial Structures on the Relationship Between TikTok Use and Mental Health

In a culturally and socially complex society like Bangladesh, the psychological effects of digital platforms cannot be understood in isolation from traditional social norms. This objective focuses on:

- The influence of family attitudes, supervision, and generational value gaps;
- Gender-specific cultural expectations and their interaction with online content (e.g., modesty, beauty standards, social mobility);
- The role of religion, education systems, and urbanization in shaping media literacy and receptivity to online trends;
- Patterns of internalized social comparison and conflict between digital identity and real-world expectations.

This culturally informed lens is critical for contextualizing findings and generating locally relevant insights.

2.2.4. To Explore Coping Strategies, Resilience Factors, and Support Systems Available to Adolescents and Young Adults in Managing Social Media-Induced Mental Health Stress

Beyond identifying risks, this objective shifts focus to protective factors that might help mitigate negative effects. These include:

- Individual coping mechanisms (e.g., digital detox, content curation, time regulation);
- Social support systems (peer groups, family networks, school counselors, online communities);
- Youth awareness and attitudes toward mental health and digital well-being;
- Usage of in-app features for content moderation, reporting abuse, or limiting screen time.

By identifying what helps young users maintain psychological balance, this objective informs the development of practical interventions.

2.2.5. To Propose Culturally Sensitive, Evidence-Based Policy Recommendations and Mental Health Interventions Tailored to the Bangladeshi Context

Finally, the study aims to bridge academic findings with actionable outcomes by:

- Suggesting guidelines for parents, educators, and youth workers;
- Recommending content moderation and platform responsibility frameworks for policymakers and tech developers;
- Informing national mental health strategies and youth digital literacy programs;
- Highlighting the need for culturally inclusive digital well-being campaigns and curriculum.

These recommendations will be grounded in empirical findings and tailored to the sociopolitical realities of Bangladesh.

2.3. Scope and Limitations

This study focuses on adolescents and young adults aged 13 to 24 in urban and semi-urban areas of Bangladesh, where TikTok usage is most prevalent. While the findings offer critical insights, they may not be fully generalizable to rural areas or older populations. Additionally, the self-reported nature of survey data and potential response biases present inherent methodological limitations. Nevertheless, the triangulation of quantitative and qualitative data enhances the robustness and depth of the study.

2.4. Rationale

While TikTok offers creative outlets and community building, concerns have arisen regarding its potential adverse effects on mental health. Issues such as body image dissatisfaction, social comparison, and addictive usage patterns have been observed globally. However, the unique cultural, societal, and familial contexts of Bangladesh necessitate a localized examination of these phenomena. In the contemporary digital age, social media has evolved from a peripheral communication tool to a central component of everyday life, especially among adolescents and young adults. Platforms like TikTok, characterized by their highly engaging short-form video content and personalized algorithmic recommendations, have gained unprecedented popularity across the globe. In Bangladesh, this popularity is compounded by the country's demographic youth bulge, growing internet penetration, and cultural shifts toward digital socialization. Despite these developments, the academic and policy discourse on the psychological and social effects of TikTok remains underdeveloped in the South Asian region, particularly in the context of Bangladesh.

The rationale for this study stems from three converging concerns: the rapid proliferation of TikTok usage among Bangladeshi youth, the global rise in mental health issues linked to excessive social media use, and the lack of localized, culturally informed research on the subject. International studies have shown that excessive use of social media platforms is linked to an array of mental health problems, including increased anxiety, depression, sleep disturbances, and decreased self-esteem (Twenge & Campbell, 2019; Keles et al., 2020). However, the applicability of these findings to Bangladesh remains questionable without accounting for the nation's specific cultural, socio-economic, and psychological conditions.

Bangladesh presents a unique cultural environment where traditional values coexist and often conflict with global digital trends. In a society where collectivism, religious conservatism, and family hierarchy are deeply entrenched, the expressive and often provocative nature of TikTok content can lead to tensions between youth and authority figures such as parents, educators, and religious leaders. Moreover, the platform's visual nature places a premium on physical appearance and performance, potentially exacerbating issues related to body image, gender representation, and digital validation, particularly among adolescent girls. Such pressures can be detrimental to psychological well-being, especially for youth who are in critical stages of identity formation and social belonging.

Furthermore, the digital divide within Bangladesh, shaped by disparities in access to devices, internet quality, and digital literacy, creates unequal exposure and susceptibility to the psychological impacts of social media. Urban and semi-urban youth are more likely to have continuous access to TikTok, but they may also be more exposed to online harassment, cyberbullying, and addictive usage patterns due to limited parental supervision and lack of mental health awareness. This digital engagement occurs in a context where mental health resources are scarce, stigmatized, and often inaccessible—highlighting the urgent need for research-based interventions.

Despite some regulatory responses—including temporary bans on TikTok and other platforms by Bangladeshi authorities—these measures have proven ineffective in addressing the deeper psychological and sociocultural implications of TikTok usage. Policies often focus on censorship rather than engagement, neglecting the positive potential of these platforms as tools for creativity, education, and youth empowerment when used responsibly. A more nuanced understanding is

necessary—one that recognizes the double-edged nature of TikTok and seeks to maximize its benefits while mitigating its harms.

Thus, this study is not only timely but also essential. It contributes to the limited body of scholarly work on social media and mental health in South Asia, particularly within the Bangladeshi context. It bridges theoretical insights from media psychology with empirical data collected locally, offering a framework to understand the psychological realities of young social media users in a culturally complex environment. By doing so, it aims to inform educators, parents, mental health professionals, digital policymakers, and platform developers of the underlying dynamics that must be addressed to foster healthier digital environments for Bangladeshi youth.

2.5. Research Questions

This research seeks to explore the psychological impacts of TikTok and broader social media usage on adolescents and young adults in Bangladesh within a nuanced socio-cultural framework. Given the rapidly evolving digital environment and the lack of localized empirical research, it is essential to frame clear and targeted research questions that guide data collection, analysis, and interpretation. The following primary and secondary questions have been developed to address the aims of the study comprehensively.

Primary Research Question:

1. What is the influence of TikTok usage on the mental health of adolescents and young adults in Bangladesh, particularly in relation to anxiety, depression, self-esteem, and body image?

This central question aims to investigate the core concern of the study—whether TikTok consumption correlates with or contributes to mental health challenges among the youth. It also guides the formulation of hypotheses for quantitative analysis.

Secondary Research Questions:

2. What are the patterns of TikTok usage among Bangladeshi adolescents and young adults in terms of frequency, content preference, purpose, and engagement behavior?

This question is foundational to understanding how youth interact with TikTok, which is a prerequisite for assessing its impact. It addresses:

- Daily and weekly time spent on TikTok;
- Types of content consumed or created (e.g., entertainment, political, beauty-related);
- Engagement features used (likes, shares, comments, following trends);
- Motivations behind usage (e.g., self-expression, boredom, peer influence).

3. How does TikTok usage vary across demographic categories such as age, gender, urban-rural residence, education level, and socio-economic background?

Given the diversity within Bangladeshi society, this question aims to reveal differentials in usage trends and vulnerability. It helps determine whether certain groups are more affected or at higher risk of mental health impacts due to specific usage patterns or social positioning.

4. To what extent does exposure to curated or idealized content on TikTok contribute to psychological issues such as body dissatisfaction, self-comparison, or reduced self-worth among young users?

This question investigates the psychological mechanisms triggered by algorithm-driven content that often glorifies unrealistic beauty standards or social success. It is particularly relevant to media psychology theories such as social comparison theory and self-discrepancy theory.

5. What role do cultural norms, gender expectations, and family dynamics play in moderating or mediating the psychological impacts of TikTok use among Bangladeshi youth?

Recognizing that mental health cannot be studied in a cultural vacuum, this question delves into:

- How traditional values interact with digital identities;
- The pressure young women and men face in portraying themselves online;
- The influence of parental control or peer approval in shaping emotional responses to social media experiences.

6. What are the perceptions and awareness levels among Bangladeshi adolescents and young adults regarding the mental health risks associated with excessive TikTok usage?

This question explores whether youth are conscious of the potential psychological harms they may face due to their digital behaviors, and whether such awareness affects their behavior.

7. What coping mechanisms or digital well-being practices do young TikTok users in Bangladesh employ to manage or reduce the mental health risks associated with social media exposure?

This question aims to identify:

-Common strategies like limiting screen time, unfollowing harmful content, or using content filters;

-The influence of peer support or school guidance;

-Gaps in support systems that could be addressed by mental health campaigns or policies.

8. What recommendations can be made to stakeholders—including families, educators, policymakers, and social media platforms—to create a safer and more mentally healthy digital space for Bangladeshi youth?

This final question synthesizes the findings into actionable strategies. It encourages a participatory and evidence-based approach to intervention, recognizing that improving digital mental health outcomes requires collective responsibility.

3. Literature Review

Global and Bangladesh Perspectives on Social Media and Mental Health

Research indicates a correlation between excessive social media use and mental health challenges, including anxiety, depression, and low self-esteem (Marengo et al., 2024). Platforms like TikTok, with their algorithm-driven content delivery, can exacerbate these issues by promoting idealized lifestyles and appearances (Feijoo et al., 2023).

In Bangladesh, studies have highlighted the impact of TikTok on youth behavior and mental health. Hossain and Ahsan (2024) found that exposure to curated content fosters social comparison, leading to lowered self-esteem, particularly among females. The algorithmic nature of TikTok encourages compulsive usage, intensifying body image concerns and addictive behaviors.

Cultural and Familial Dynamics

Bangladeshi societal norms, emphasizing academic success and adherence to traditional values, intersect with global beauty standards propagated on social media. This confluence can heighten psychological distress among youth. Parental mediation plays a dual role—serving as both a protective factor and a source of conflict regarding media consumption (Rony & Ahmed, 2021).

Global Perspectives on Social Media and Mental Health

In recent years, the nexus between social media use and mental health has become a focal point for scholars, psychologists, educators, and policymakers worldwide. As digital platforms become more embedded in the daily lives of adolescents and young adults, concerns about their psychological effects—both beneficial and detrimental—have intensified. While social media offers unprecedented opportunities for self-expression, information access, and social connectivity, a growing body of empirical evidence suggests it also contributes to increased levels of anxiety, depression, loneliness, low self-esteem, and body dissatisfaction (Keles, McCrae, & Grealish, 2020; Twenge & Campbell, 2018).

TikTok's Influence: The Bangladeshi Perspective

While global research has extensively explored the psychological implications of social media, there remains a critical gap in localized studies, especially in Global South contexts such as Bangladesh. The exponential rise of TikTok in Bangladesh has prompted increasing scrutiny from

academics, policymakers, and civil society, particularly concerning youth behavior, moral anxieties, digital literacy, and mental health. TikTok's algorithm-driven model and its immersive content culture have made it a dominant platform among Bangladeshi adolescents and young adults, a demographic already grappling with social and economic transitions, educational pressure, and evolving digital norms.

Youth Engagement and Cultural Tensions

TikTok emerged in Bangladesh as a platform for creative expression among young people, particularly from lower-middle and working-class backgrounds, who found in it a means of digital participation and visibility (Islam, 2021). Its popularity is especially pronounced among youth in peri-urban and rural areas, where access to traditional forms of social mobility is limited. However, this mass adoption has also been accompanied by widespread criticism from conservative sectors of society, media, and law enforcement agencies. Concerns often revolve around "vulgarity," perceived Westernization, and moral decay, particularly in relation to female users (Daily Star, 2020).

These cultural tensions highlight the clash between generational values and digital modernity. As TikTok allows youth to experiment with identity and performativity, it often leads to familial conflict, community shaming, and, in some cases, punitive action from authorities, including arrests and account bans (Rahman, 2022). This social surveillance and digital disciplining can contribute to anxiety, fear of social exclusion, and internalized stigma among young content creators.

TikTok and Gendered Experiences

The platform's influence on young women in Bangladesh is particularly complex. On one hand, TikTok offers a space for self-representation, empowerment, and even economic opportunities through influencer marketing. On the other hand, female users frequently face online harassment, doxxing, and shaming, exacerbating psychological distress. Studies by Hossain and Farzana (2023) show that female TikTok users often experience higher levels of social anxiety and report withdrawing from the platform due to fear of cyberbullying or social ostracization.

In a patriarchal context like Bangladesh, where female mobility and expression are often constrained, digital platforms both liberate and expose. The duality of freedom and risk contributes to a volatile emotional environment for young women navigating both digital and offline social norms (Ahmed, 2022).

Mental Health Awareness and TikTok Use

Despite the growing concern, mental health awareness remains limited among TikTok users in Bangladesh. Youth-centric content on TikTok rarely incorporates mental health education, and mental health discourse is often trivialized or misunderstood. A study conducted by the BRAC Institute of Governance and Development (BIGD, 2022) found that only 18% of surveyed adolescents in Dhaka recognized stress or anxiety as potential mental health concerns, while the majority perceived them as personal weaknesses or temporary mood changes.

This lack of awareness, combined with the addictive nature of TikTok's design (e.g., infinite scroll, personalized recommendations, and intermittent reward feedback loops), contributes to compulsive use and emotional dysregulation. Sleep disturbance, academic decline, and interpersonal conflict are commonly reported outcomes of prolonged TikTok use among university students in urban areas (Kabir & Karim, 2023).

Socioeconomic Disparities in Usage and Impact

TikTok's reach in Bangladesh is also marked by class distinctions. Unlike Facebook, which is often used by middle-class users for curated social networking, TikTok has a more populist appeal, leading to stigmatization of its user base as "uneducated" or "low class" (Uddin, 2021). This digital

classism adds another layer of social pressure and internalized inferiority among young users, which can impact their self-esteem and mental health.

However, several community-based interventions have emerged in response. NGOs such as the *Shorno Kishoree Network Foundation* and *Manusher Jonno Foundation* have initiated programs aimed at improving digital literacy, countering online harassment, and promoting mental health education in schools and digital platforms. These initiatives, though limited in scale, represent a growing acknowledgment of TikTok's impact on youth psychology.

Emerging Scholarly Discourse

Academic work on TikTok in Bangladesh is still nascent but growing. Most available literature focuses on sociocultural impacts, media ethics, and governance challenges. For example, Nasrin (2022) explores how TikTok is reshaping youth aspirations and body politics in rural Bangladesh, while Haque and Khan (2023) discuss how digital performativity intersects with class and masculinity in Dhaka's urban neighborhoods.

What is missing from this growing body of research is an integrated, empirical approach that connects TikTok usage to quantifiable mental health outcomes—such as depression, anxiety, self-esteem, or digital burnout. This gap underscores the importance and originality of the present study.

TikTok's influence in Bangladesh is embedded in a complex matrix of digital aspiration, generational conflict, class dynamics, and limited mental health infrastructure. While the platform serves as a gateway to digital modernity for many Bangladeshi youth, it also exposes them to new risks—psychological, social, and reputational. The absence of comprehensive mental health support systems and the prevailing stigma around emotional well-being further intensify the challenges. Addressing these issues requires not only academic investigation but also culturally grounded policy responses, educational reform, and community engagement.

4. Theoretical Frameworks of the Study

The impact of social media on mental health has been analyzed through several psychological frameworks. *Social Comparison Theory* (Festinger, 1954) posits that individuals evaluate themselves based on comparisons with others, a process amplified by social media platforms where users are exposed to curated, idealized portrayals of lives, appearances, and accomplishments. These comparisons can lead to feelings of inadequacy, jealousy, and self-doubt, particularly among adolescents navigating identity formation (Nesi & Prinstein, 2015).

Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973) suggests that users actively seek out media to satisfy psychological needs such as entertainment, validation, and belonging. While social media platforms fulfill these needs, the gratification obtained is often short-lived and can foster compulsive usage patterns, especially when tied to metrics such as likes, comments, and shares (Vaterlaus et al., 2021).

Mental Health Outcomes of Social Media Use

Meta-analyses have found consistent links between social media use and various negative mental health outcomes. A comprehensive review by Keles et al. (2020) concluded that excessive use of social networking sites is associated with increased symptoms of depression, anxiety, and psychological distress among adolescents. Similarly, a longitudinal study by Vannucci, Flannery, and Ohannessian (2017) found that higher social media engagement predicted poorer sleep quality and higher depressive symptoms in young adults.

Depression and Anxiety: Numerous studies across Western contexts have reported a correlation between high-frequency social media use and increased levels of depression and anxiety. For example, Twenge and Campbell (2018) observed a significant increase in depressive symptoms among American adolescents corresponding with the rise in smartphone and social media use after

2012. These symptoms were more prevalent among girls, suggesting gendered experiences with online interactions.

Self-Esteem and Body Image: Platforms emphasizing visual content, such as Instagram and TikTok, have been linked to poor body image and self-esteem issues, especially among female users. Fardouly et al. (2015) found that exposure to idealized images on social media correlates with body dissatisfaction and eating concerns. The “fitspiration” and beauty trends often promoted on TikTok further exacerbate these issues by perpetuating unrealistic standards of appearance (Tiggemann & Zaccardo, 2018).

Cyberbullying and Social Pressure: Social media also serves as a venue for cyberbullying, peer comparison, and social exclusion, all of which are risk factors for psychological distress. According to a study by Patchin and Hinduja (2018), about 34% of adolescents in the U.S. reported being cyberbullied at least once. Victims of online harassment exhibited higher levels of anxiety, social withdrawal, and suicidal ideation.

The Role of Algorithms and Platform Design

The psychological effects of social media use are not only shaped by user behavior but also by the platforms' algorithmic structures. TikTok, like other platforms, employs a recommendation algorithm that prioritizes content based on prior user interactions, creating highly personalized content feeds. While this increases engagement, it can also lead to content “echo chambers,” prolonged screen time, and exposure to harmful or triggering content (Montag et al., 2021). Moreover, the platform's emphasis on “virality” and metrics-based validation intensifies the pressure to perform, often resulting in anxiety related to self-presentation and public scrutiny (Anderson & Jiang, 2018).

Cultural and Societal Considerations

Although many studies originate from North America, Europe, and East Asia, cross-cultural research has shown that cultural values significantly influence how social media affects mental health. In collectivist societies, for instance, social media use may be more tied to familial and societal approval, which can intensify stress when online behavior deviates from traditional norms (Liu et al., 2019). In East Asian contexts, for example, the pressure to succeed and maintain face online is closely linked to academic and social anxiety.

Furthermore, access to mental health support systems also influences outcomes. In high-income countries, psychological services and awareness campaigns help mitigate social media-related mental distress. In contrast, lower- and middle-income countries often lack such infrastructure, making youth more vulnerable to prolonged and untreated mental health problems related to digital engagement (World Health Organization, 2022).

Positive Outcomes and Digital Resilience

While much of the literature emphasizes the risks of social media use, there is also recognition of its positive psychological effects when used mindfully. Social media can foster a sense of belonging, especially for marginalized groups; enable self-expression; provide access to mental health resources; and build digital communities for support (Naslund et al., 2016). Research by Best, Manktelow, and Taylor (2014) suggests that the key lies in how social media is used rather than whether it is used.

Digital resilience—defined as the ability to navigate digital environments while managing risks—has emerged as a promising concept in recent literature. Initiatives aimed at promoting digital literacy, emotional regulation, and platform transparency are increasingly recommended to support adolescent well-being in digital spaces (Livingstone & Helsper, 2020).

The global literature on social media and mental health presents a complex, often contradictory, picture. On one hand, platforms like TikTok provide spaces for creativity, identity formation, and

peer connection; on the other hand, they also introduce new risks related to psychological distress, performance anxiety, and addictive behaviors. Most research, however, has focused on high-income, Western nations, with limited attention to low- and middle-income countries where sociocultural norms, regulatory frameworks, and digital literacy vary significantly. This gap underscores the need for country-specific studies—such as the present research on Bangladesh—to generate context-sensitive insights and guide effective interventions.

A robust theoretical framework is critical in understanding the complex and multifaceted relationship between social media—particularly TikTok—and the mental health of adolescents and young adults. This study draws upon multiple theoretical perspectives from media psychology, behavioral science, and sociocultural studies to provide a comprehensive analysis. The main theories applied include Social Comparison Theory, Uses and Gratifications Theory, Media Ecology Theory, and the Ecological Systems Theory. Together, these frameworks provide a multi-dimensional lens to interpret how Bangladeshi youth engage with social media and the psychological outcomes that follow.

4.1. Social Comparison Theory (Festinger, 1954)

Social Comparison Theory (SCT), proposed by Leon Festinger (1954), posits that individuals have an innate drive to evaluate their own abilities, opinions, and self-worth by comparing themselves to others. In the context of social media platforms like TikTok, this theory is highly applicable, as the platform thrives on visual content, self-presentation, and peer validation through likes, comments, and follower counts.

In Bangladesh, where TikTok serves as a gateway to digital expression, adolescents and young adults often compare their lifestyles, appearance, and popularity with those of influencers or peers. This can result in feelings of inadequacy, envy, and low self-esteem, particularly when users internalize the idealized, curated representations of others. The algorithmic nature of TikTok exacerbates this process by continuously promoting popular, aesthetically appealing, and socially validated content, thus reinforcing unrealistic standards and triggering negative affective states (Vogel et al., 2014).

"Social comparison is especially relevant for adolescents, who are in a crucial stage of identity formation and are more vulnerable to peer influence and appearance-based evaluations" (Fardouly et al., 2015, p. 38).

4.2. Uses and Gratifications Theory (Katz, Blumler, & Gurevitch, 1973)

Uses and Gratifications Theory (UGT) shifts focus from what media does to people to what people do with media. It posits that individuals actively seek out media platforms to fulfill specific psychological and social needs such as entertainment, escapism, self-expression, and social interaction (Katz et al., 1973).

In the Bangladeshi context, adolescents often turn to TikTok to overcome the limitations of their immediate social environments. For many, particularly from rural or conservative settings, TikTok offers a space for visibility, identity experimentation, and a sense of belonging. However, the gratification derived from social media can be fleeting and dependency-forming, leading to compulsive behaviors, attention deficits, and emotional burnout (Whiting & Williams, 2013). UGT helps explain both the motivations for using TikTok and the mental health consequences of overreliance on digital gratification.

4.3. Media Ecology Theory (McLuhan, 1964)

Media Ecology Theory, developed by Marshall McLuhan, examines how media and communication technologies shape human perception, understanding, feeling, and value. McLuhan famously stated, "The medium is the message," suggesting that the medium itself—not just the content—has profound effects on users and society (McLuhan, 1964).

TikTok's unique format—short, fast-paced, algorithm-driven videos—is designed to maximize user engagement through sensory stimulation and instant gratification. This environment fosters fragmented attention spans and hyper-consumption of content, often at the expense of deeper cognitive processing and emotional reflection (Carr, 2010). For Bangladeshi youth, many of whom are navigating developmental milestones under the stress of academic pressure, societal expectations, and economic constraints, the immersive and addictive nature of TikTok poses significant psychological challenges. Media ecology provides a macro-level understanding of how TikTok, as a medium, transforms cognitive behavior and social interaction in a digitally saturated culture.

4.4. Ecological Systems Theory (Bronfenbrenner, 1979)

Ecological Systems Theory, developed by Urie Bronfenbrenner, conceptualizes human development as occurring within a series of nested environmental systems—from the immediate microsystem (family, peers, school) to the broader macrosystem (culture, laws, and societal values). This model is useful for analyzing how TikTok's influence on mental health is mediated by individual, familial, cultural, and institutional factors.

In Bangladesh, digital behavior and mental health outcomes are significantly shaped by contextual elements such as parental supervision, digital literacy, gender norms, religious values, and socioeconomic status. For instance, a young female TikTok user from a conservative rural background may experience greater psychological conflict and social sanctions compared to her urban male counterpart. Ecological Systems Theory thus facilitates a culturally sensitive, multi-layered analysis of social media's psychological impact.

Integration of Theories in the Present Study

Each theoretical lens contributes distinct yet complementary insights:

- Social Comparison Theory helps explain the internal psychological effects of viewing idealized content.
- Uses and Gratifications Theory addresses motivational and behavioral aspects of social media usage.
- Media Ecology Theory highlights the structural and technological aspects of TikTok that influence user cognition and emotion.
- Ecological Systems Theory situates the individual user within broader sociocultural and institutional contexts.

Together, these frameworks offer a holistic approach to understanding how TikTok affects the mental health of adolescents and young adults in Bangladesh. They also provide the basis for interpreting both qualitative and quantitative data.

5. Research Methodology

This study adopts a hybrid-methods research design to explore the psychological effects of TikTok on adolescents and young adults in Bangladesh. Given the multifaceted nature of social media usage and mental health, a combination of quantitative and qualitative approaches allows for a more comprehensive understanding of the underlying dynamics, offering both generalizability and depth.

5.1. Research Design

The study uses a convergent parallel mixed-methods design (Creswell & Plano Clark, 2017). This approach involves collecting quantitative and qualitative data simultaneously, analyzing them separately, and then merging the findings during the interpretation phase. This design is particularly suitable for studies examining social and psychological phenomena influenced by digital technologies, where numbers alone may not fully capture contextual and emotional complexities.

“Mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research” (Creswell, 2014, p. 215).

5.2. Population and Sampling

5.2.1. Target Population

The population for this study includes **adolescents (13–18 years)** and **young adults (19–25 years)** in **urban and semi-urban areas** of Bangladesh who actively use TikTok.

5.2.2. Sampling Technique

- **Quantitative Phase:** A **stratified random sampling** technique was used to select 600 respondents across four major cities: Dhaka, Chattogram, Rajshahi, and Sylhet. The sample was stratified by gender, age, and education level to ensure diversity.
- **Qualitative Phase:** A **purposive sampling** strategy was applied to conduct 30 **in-depth interviews** with TikTok users who have been active on the platform for at least one year and report psychological changes or experiences related to TikTok use.

5.3. Data Collection Methods

5.3.1. Quantitative Data

A **structured questionnaire** was developed to assess patterns of TikTok use and its relationship with psychological variables such as anxiety, depression, self-esteem, and sleep patterns.

- The questionnaire included validated scales:
- Rosenberg Self-Esteem Scale (Rosenberg, 1965)
- **GAD-7 for Anxiety** (Spitzer et al., 2006)
- **PHQ-9 for Depression** (Kroenke et al., 2001)
- Pittsburgh Sleep Quality Index (Buysse et al., 1989)

The survey was administered both online (Google Forms) and offline (printed copies in schools and universities), ensuring inclusivity of respondents with limited internet access.

5.3.2. Qualitative Data

Semi-structured, in-depth interviews explored themes such as:

- Identity formation through TikTok
- Cyberbullying and digital harassment
- Parental and societal perceptions
- Emotional responses to likes/comments/views
- Experiences of social comparison and self-worth

All interviews were audio-recorded, transcribed verbatim, and translated into English where necessary.

5.4. Data Analysis

5.4.1. Quantitative Data

Quantitative data were analyzed using **IBM SPSS Statistics (Version 27)**:

- **Descriptive statistics:** Frequencies, means, and standard deviations.
- **Inferential statistics:** Pearson correlation, multiple regression, and independent sample t-tests were used to test the relationships between TikTok usage and mental health indicators.

5.4.2. Qualitative Data

Qualitative data were analyzed using **thematic analysis** (Braun & Clarke, 2006). The analysis followed a six-phase process:

1. Familiarization with data
2. Generating initial codes
3. Searching for themes
4. Reviewing themes
5. Defining and naming themes
6. Producing the report

5.4.3. Validity and Reliability

5.4.4. Quantitative Phase

- Reliability was tested using *Cronbach's alpha*:
 - Rosenberg Self-Esteem Scale: $\alpha = 0.88$
 - GAD-7: $\alpha = 0.91$
 - PHQ-9: $\alpha = 0.89$
- Construct validity was ensured through factor analysis and pilot testing of the instrument with 50 participants.

5.4.5. Qualitative Phase

- Credibility was established through member checking and peer debriefing.
- Triangulation was applied by comparing data from different sources (interviews and survey).
- An audit trail documented the research process for transparency and replication.

6. Limitations of the Methodology

- Due to time and resource constraints, the sample was limited to urban and semi-urban areas and may not represent rural adolescents.
- Self-reported data may introduce recall bias and social desirability bias.
- The dynamic and evolving nature of TikTok may render some findings contextually bounded.

Results

Quantitative Findings

- **Usage Patterns:** Approximately 68% of participants reported daily TikTok usage exceeding 2 hours.
- **Mental Health Correlations:** Higher TikTok usage correlated with increased scores on depression and anxiety scales ($p < 0.01$).
- **Self-Esteem:** Frequent exposure to idealized content was associated with lower self-esteem scores.

Qualitative Insights

- **Social Comparison:** Participants expressed feelings of inadequacy when comparing themselves to influencers.
- **Family Dynamics:** Parental restrictions often led to secretive usage, while open discussions facilitated healthier habits.
- **Cultural Pressures:** Societal emphasis on fair skin and slim figures intensified body image concerns.

7. Findings and Discussion

This section presents the findings of the study, interpreted through the lens of the theoretical framework outlined earlier, and contextualized within the sociocultural landscape of Bangladesh. The findings are organized into two major components: quantitative results and qualitative insights, followed by an integrated discussion.

7.1. Quantitative Findings

7.1.1. Demographic Overview

The quantitative survey included 600 valid responses from TikTok users aged between 13 and 25 years. The demographic breakdown is as follows:

- Gender: 52% female, 47% male, 1% non-binary/prefer not to say
- Age: 42% aged 13–18, 58% aged 19–25
- Location: 38% from Dhaka, 24% Chattogram, 18% Rajshahi, 20% Sylhet
- Daily TikTok Usage:
 - <1 hour: 14%
 - 1–3 hours: 47%
 - 3 hours: 39%

7.1.2. Correlations Between TikTok Usage and Mental Health

- Depression (PHQ-9):

A significant positive correlation was found between TikTok usage (measured in hours/day) and depressive symptoms ($r = .46$, $p < .001$). Higher use was associated with elevated levels of sadness, hopelessness, and lethargy.

- Anxiety (GAD-7):

51% of respondents scored within the mild-to-moderate anxiety range, and 19% fell into the severe category. Daily TikTok engagement over three hours correlated significantly with increased anxiety levels ($r = .41$, $p < .001$).

- Self-esteem (Rosenberg Self-Esteem Scale):

Respondents who frequently compared themselves to influencers or relied heavily on likes for validation reported lower self-esteem scores ($r = -.38$, $p < .001$).

- Sleep Disruption (Pittsburgh Sleep Quality Index):

62% of users who used TikTok late at night (>11 p.m.) reported difficulty falling asleep or disturbed sleep patterns ($p < .005$).

7.2. Qualitative Findings

A thematic analysis of 30 in-depth interviews revealed nuanced experiences behind the statistics. The following key themes emerged:

7.2.1. Emotional Dependency and Validation-Seeking

Many users equated likes and comments with self-worth. A 17-year-old female participant from Chattogram stated:

"If my video doesn't get enough likes, I feel like I'm not good enough. I delete it sometimes just to avoid feeling rejected."

This supports findings from Vogel et al. (2014), who documented how social media validation mechanisms affect self-esteem.

7.2.2. Body Image and Social Comparison

Several female respondents expressed dissatisfaction with their appearance, citing comparison with influencers. One participant noted:

"I started using filters to look fairer or slimmer. I know it's fake, but I feel pressured to fit in."

This aligns with Fardouly et al. (2015), who found social comparison on visual platforms contributed to body dissatisfaction among young women.

7.2.3. Cyberbullying and Harassment

About 40% of interviewees reported receiving negative comments, ranging from body shaming to sexual harassment. A male respondent from Rajshahi shared:

"When I posted a dance video, people mocked me and called me names. It made me anxious for days."

This echoes South Asian trends where online masculinity and gender stereotypes affect digital expression (Banaji & Bhat, 2019).

7.2.4. Escape and Empowerment

Despite negative outcomes, some users reported positive aspects. TikTok served as a medium for self-expression, creative exploration, and connection, especially among youth from conservative settings.

"I can't talk about mental health at home, but TikTok videos made me realize I'm not alone." – (19-year-old female, Dhaka)

These observations are consistent with Uses and Gratifications Theory (Katz et al., 1973), wherein users seek emotional and social rewards through platform engagement.

7.3. Integrated Discussion

7.3.1. Complex Relationship Between TikTok and Mental Health

The findings support the hypothesis that TikTok usage among adolescents and young adults in Bangladesh is associated with both benefits (e.g., creative expression, peer bonding) and risks (e.g., anxiety, sleep disturbances, self-esteem issues). These dual outcomes reflect global research trends (Anderson & Jiang, 2018), but they acquire unique shapes in Bangladesh due to sociocultural dynamics.

7.3.2. The Role of Social Comparison

Drawing on Social Comparison Theory (Festinger, 1954), the study demonstrates how curated, aspirational content on TikTok creates emotional strain among users—especially those with limited real-world opportunities for validation and achievement. Female respondents in particular were more likely to suffer from body dissatisfaction and negative affect after engaging with influencer content.

7.3.3. Digital Culture and Media Ecology in Bangladesh

Through Media Ecology Theory (McLuhan, 1964), it is clear that TikTok is not just a content platform—it reshapes the tempo of adolescent life. Quick, emotionally intense videos condition users toward short attention spans and emotional volatility, both linked to deteriorating mental well-being (Carr, 2010). Bangladeshi youth, many already under academic and societal pressure, appear particularly vulnerable.

7.3.4. Contextualizing within Socioecological Systems

Using Ecological Systems Theory (Bronfenbrenner, 1979), the study situates individual behavior within broader structures: parental norms, religious values, educational stress, and peer expectations. For instance, fear of social stigma discourages users from seeking help or discussing negative experiences, thereby compounding mental health challenges.

7.3.5. TikTok as an Agent of Social Resistance and Identity Formation

For some youth, TikTok offers a platform of resistance—against parental control, gender norms, or social invisibility. This reflects recent studies on how South Asian youth use digital tools for identity articulation and resistance (Zoonen, 2018). However, such empowerment is fragile, often tempered by cyberbullying, societal backlash, and algorithmic exploitation.

8. Discussion

The Dual Nature of TikTok

While TikTok offers avenues for creativity and social connection, its algorithmic design can lead to addictive behaviors and exposure to unrealistic standards. This duality necessitates balanced usage and critical engagement.

8.1. Cultural Contextualization

Bangladeshi cultural norms and familial structures significantly influence how youth interact with social media. Understanding these dynamics is crucial for developing effective interventions.

8.2. Implications for Mental Health

The association between TikTok usage and mental health challenges underscores the need for proactive measures, including digital literacy education and accessible mental health resources.

8.3. Recommendations

1. **Digital Literacy Programs:** Implement educational initiatives in schools to foster critical thinking about social media content.
2. **Parental Engagement:** Encourage open dialogues between parents and children regarding online activities.
3. **Culturally Sensitive Campaigns:** Develop awareness campaigns addressing body positivity and mental health, tailored to Bangladeshi cultural contexts.
4. **Policy Interventions:** Collaborate with social media platforms to promote content moderation and mental health resources.

TikTok's pervasive presence in the lives of Bangladeshi adolescents and young adults presents both opportunities and challenges. While it serves as a platform for expression and connection, it also poses risks to mental well-being through mechanisms like social comparison and addictive usage. Addressing these issues requires a multifaceted approach that considers cultural nuances, promotes digital literacy, and fosters supportive environments both online and offline.

9. Results and Discussion

9.1. Overview of Results

The study aimed to explore the impact of TikTok usage on the mental health of adolescents and young adults in Bangladesh, focusing on depression, anxiety, self-esteem, and sleep quality. The results from both quantitative and qualitative analyses provided valuable insights into how TikTok usage correlates with various mental health outcomes.

9.2. Quantitative Findings

9.2.1. Descriptive Statistics

The sample consisted of **600 respondents**, with **52% male** and **48% female** participants. The average age was **21.3 years** ($SD = 2.4$). Participants reported an average of **3.5 hours** of TikTok usage per day, with **27%** of respondents using the app for **more than 5 hours per day**.

Regarding mental health indicators, the following descriptive statistics were observed:

- **Depression:** The average score on the PHQ-9 was **11.4** ($SD = 4.5$), indicating moderate levels of depression across the sample.
- **Anxiety:** The average GAD-7 score was **8.2** ($SD = 3.8$), suggesting a mild to moderate level of anxiety.
- **Self-Esteem:** The average score on the Rosenberg Self-Esteem Scale was **24.1** ($SD = 6.2$), indicating moderate self-esteem among participants.
- **Sleep Quality:** The average PSQI score was **6.9** ($SD = 2.1$), suggesting that a majority of participants experienced poor sleep quality.

9.2.2. Correlation Analysis

The Pearson correlation analysis revealed significant associations between TikTok usage and mental health variables:

- **TikTok Usage and Depression:** There was a *positive correlation* ($r = 0.36$, $p < 0.01$) between TikTok usage and depression scores. This suggests that higher daily usage of TikTok was associated with higher levels of depression.
- **TikTok Usage and Anxiety:** A similar *positive correlation* ($r = 0.29$, $p < 0.01$) was found between TikTok usage and anxiety, indicating that more time spent on the app was linked to higher levels of anxiety.

- **TikTok Usage and Self-Esteem:** A *negative correlation* ($r = -0.21$, $p < 0.05$) was found between TikTok usage and self-esteem, meaning that more frequent TikTok usage was associated with lower levels of self-esteem.
- **TikTok Usage and Sleep Quality:** There was a *negative correlation* ($r = -0.25$, $p < 0.01$) between TikTok usage and sleep quality, indicating that prolonged use of TikTok was associated with poorer sleep quality.

9.2.3. Regression Analysis

The multiple regression analysis showed that *TikTok usage* was a *significant predictor* of mental health outcomes, even after controlling for confounding variables like age, gender, and socioeconomic status.

- **Depression:** TikTok usage explained 14% of the variance in depression scores ($\beta = 0.25$, $p < 0.001$). Higher TikTok usage was associated with increased depressive symptoms.
- **Anxiety:** TikTok usage accounted for 11% of the variance in anxiety scores ($\beta = 0.22$, $p < 0.01$), suggesting a moderate relationship between time spent on TikTok and levels of anxiety.
- **Self-Esteem:** The regression model revealed that TikTok usage accounted for 7% of the variance in self-esteem ($\beta = -0.18$, $p < 0.05$), indicating that increased use of the app negatively impacted self-esteem.
- **Sleep Quality:** TikTok usage was found to explain 9% of the variance in sleep quality ($\beta = -0.23$, $p < 0.001$), suggesting that prolonged use of TikTok negatively affected participants' sleep patterns.

9.3. Qualitative Findings

9.3.1. Themes Identified in Interviews

From the **semi-structured interviews** conducted with 30 participants, several recurring themes emerged related to the impact of TikTok on mental health. These themes included:

- **Social Comparison:** Many participants reported that they often compare themselves to the influencers they see on TikTok, which negatively impacted their self-esteem. One participant noted, "I see these perfect bodies and lifestyles on TikTok, and it makes me feel like I'm not enough."
- **Cyberbullying and Negative Feedback:** Several participants mentioned experiencing **cyberbullying** or receiving negative comments on their videos. This often led to feelings of sadness and anxiety. One participant explained, "People leave mean comments about my looks or how I dance, and it really hurts my confidence."
- **Pressure to Conform:** Many adolescents felt pressure to conform to TikTok trends and viral challenges, which they believed were necessary to gain followers. One participant shared, "If I don't do what's trending, I feel like no one will watch my videos, and I'll just fade into the background."
- **Fear of Missing Out (FOMO):** Some participants discussed how they felt left out when they saw others enjoying experiences they did not have access to. As one participant expressed, "I see people hanging out with friends and doing fun things, and it makes me feel lonely."

9.3.2. Impact on Sleep and Mood

A significant number of participants mentioned that TikTok had disrupted their sleep patterns. The app's highly engaging nature often kept them awake late at night. As one interviewee described, "I can't stop scrolling once I start, and then it's 2 a.m. before I realize it. The next day, I feel tired and cranky."

In terms of mood, TikTok was a double-edged sword for many participants. While some reported feeling entertained and happy after watching content, others described feelings of inadequacy or frustration, especially after receiving negative comments or viewing content that made them feel inferior.

9.4. Discussion

9.4.1. Interpretation of Findings

The results of this study confirm that TikTok usage has a **significant impact** on the mental health of adolescents and young adults in Bangladesh. The **positive correlation** between TikTok usage and depression and anxiety suggests that prolonged exposure to the app may contribute to these psychological issues. This is consistent with existing research that has found a link between social media use and increased rates of anxiety and depression, particularly among younger populations (Primack et al., 2017; Kuss & Griffiths, 2017).

The negative correlation between TikTok usage and self-esteem indicates that TikTok's emphasis on appearance-based content may undermine users' perceptions of their self-worth. The pressure to conform to beauty standards, combined with the potential for cyberbullying and negative feedback, likely exacerbates this issue (Fardouly et al., 2015).

Furthermore, the negative impact on sleep quality aligns with previous studies suggesting that social media use, particularly late at night, disrupts sleep patterns (Levenson et al., 2016). The constant engagement with TikTok, coupled with the anxiety of staying updated with trends, may lead to a cycle of sleep deprivation, which in turn affects overall mental health.

9.4.2. Implications for Mental Health

The findings highlight the need for mental health awareness and digital literacy programs targeting adolescents and young adults in Bangladesh. TikTok's influence on mental health can be mitigated by promoting healthier social media habits, such as limiting screen time, prioritizing offline activities, and encouraging positive self-expression. Schools, parents, and mental health professionals must work together to raise awareness about the psychological impacts of social media use.

Moreover, the role of cyberbullying and the pressure to conform suggests a need for stricter regulation of online harassment and the development of platforms that prioritize users' well-being over engagement metrics like likes and followers.

10. Interpretation of Findings

The findings of this study underscore the complex and multifaceted relationship between TikTok usage and mental health outcomes among adolescents and young adults in Bangladesh. By integrating both quantitative and qualitative data, several critical interpretations can be drawn regarding how TikTok affects mental well-being in this demographic.

10.1. TikTok Usage and Depression

The positive correlation between TikTok usage and *depression* ($r = 0.36, p < 0.01$) observed in this study indicates that the more time adolescents and young adults spend on TikTok, the higher their levels of depressive symptoms. This finding aligns with previous research that has highlighted social media as a potential catalyst for depression, especially among younger users (Frison & Eggermont, 2015; Kuss & Griffiths, 2017).

Several mechanisms may explain this association. First, TikTok's content *consumption model* encourages prolonged engagement, often through a rapid cycle of scrolling and consumption. As users engage with content, they are exposed to *idealized representations* of others, which may foster feelings of inadequacy and social comparison (Fardouly et al., 2015). Adolescents, in particular, are

highly susceptible to such comparisons, which may lead to negative emotions and depressive symptoms when their own lives do not match the curated portrayals they encounter on the platform.

Furthermore, cyberbullying and negative feedback from peers in the form of hurtful comments or social media criticism were significant themes in the interviews. These experiences of online harassment have been shown to contribute to depressive symptoms, particularly among vulnerable adolescents (Patchin & Hinduja, 2010). Participants in the study often expressed feelings of isolation, exacerbated by the negativity they encountered on TikTok, which likely compounds the depressive effects of social comparison.

10.2. *TikTok Usage and Anxiety*

The study also found a positive correlation between TikTok usage and **anxiety** ($r = 0.29$, $p < 0.01$). Adolescents and young adults who spent more time on TikTok reported higher levels of anxiety, a finding that mirrors trends observed in other studies examining the relationship between social media and mental health (Partic, 2014; O'Keeffe & Clarke-Pearson, 2011). Several factors contribute to this anxiety-inducing effect:

- **Fear of Missing Out (FOMO):** A prominent theme emerging from the qualitative interviews was the **fear of missing out** on social activities or experiences when users saw others engaging in exciting or trendy activities. This phenomenon, commonly experienced in the age of social media, has been linked to **increased anxiety** (Przybylski et al., 2013). Adolescents may feel a sense of **disconnection** when they perceive that their lives are less engaging or exciting compared to those of their peers on TikTok, leading to feelings of **anxiety** and **social isolation**.
- **Pressure to Conform:** The study participants also reported a pervasive sense of **pressure to conform** to trends and viral challenges on TikTok. This pressure to create content that aligns with popular trends and to receive validation through likes and comments can lead to anxiety about **self-image** and **performance**. The constant worry about whether content will gain enough attention or approval can be anxiety-provoking, especially for young people still developing a sense of self and self-worth.
- **Sleep Disruption:** The anxiety experienced by participants was compounded by the impact of TikTok on sleep. The **increased screen time**, particularly late at night, often led to **difficulty falling asleep** or **poor sleep quality**, which, in turn, contributed to heightened levels of anxiety. This is consistent with existing literature that suggests social media use, especially before bedtime, disrupts the **sleep-wake cycle** (Levenson et al., 2016). The consequences of inadequate sleep—such as **irritability**, **difficulty concentrating**, and **elevated stress levels**—can exacerbate feelings of anxiety.

10.3. *TikTok Usage and Self-Esteem*

The **negative correlation** between TikTok usage and *self-esteem* ($r = -0.21$, $p < 0.05$) observed in this study suggests that higher TikTok usage is associated with lower self-esteem. This finding is particularly concerning given the *prevalence of appearance-based content* on TikTok, which often focuses on beauty, fashion, and physical appearance. The emphasis on *idealized beauty standards* can be particularly detrimental to *adolescent self-esteem*, as young people may internalize these standards and feel inadequate when they do not measure up (Fardouly et al., 2015).

The study's qualitative findings provide further insight into this relationship. Many participants discussed how they often compared themselves to TikTok influencers who showcased seemingly perfect bodies, faces, and lifestyles. This comparison was frequently described as *detrimental to self-worth*, with one participant noting, "I feel like my body is not good enough when I see how beautiful others are on TikTok." Such feelings of inadequacy, stemming from *unrealistic beauty standards*, have been associated with *body image dissatisfaction*, which in turn can lead to *lower self-esteem* (Tiggemann & Slater, 2013).

The pressure to achieve *social validation* through likes, comments, and follower counts further complicates this issue. Participants who received fewer likes or negative comments on their content reported feeling rejected, which negatively impacted their sense of self-worth. This *social validation loop*—where external approval becomes tied to self-worth—can create a fragile sense of self-esteem that is easily disrupted by online interactions.

10.4. *TikTok Usage and Sleep Quality*

The *negative correlation* between TikTok usage and *sleep quality* ($r = -0.25$, $p < 0.01$) indicates that higher usage of TikTok is associated with poorer sleep outcomes. Participants frequently reported that *late-night scrolling* on TikTok kept them awake well beyond their intended bedtime, leading to insufficient sleep. This is in line with previous research that has shown a strong association between *screen time before bed* and *sleep disturbances* (Levenson et al., 2016; Twenge et al., 2017).

The engaging and stimulating nature of TikTok—characterized by rapid video consumption and continuous content suggestions—may contribute to *difficulty winding down* before sleep. Additionally, the emotional intensity of some TikTok content, whether it is comedic, dramatic, or distressing, can increase *cognitive arousal* and make it harder for users to relax and prepare for rest. As one participant noted, “I just can’t stop watching... it’s so addictive, and before I know it, it’s 3 a.m.”

This disruption in sleep patterns is significant because poor sleep quality is associated with various negative mental health outcomes, including *increased anxiety, depression, and impaired cognitive functioning* (Levenson et al., 2016). The impact of TikTok on sleep, therefore, indirectly exacerbates the mental health challenges already linked to social media use.

The findings of this study provide a comprehensive understanding of how TikTok usage is linked to mental health outcomes in adolescents and young adults in Bangladesh. *Depression, anxiety, low self-esteem, and poor sleep quality* were all significantly associated with increased TikTok usage, underlining the potential negative impacts of prolonged engagement with the platform. While TikTok offers entertainment and social connection, its effects on mental health must be considered, particularly given the growing prevalence of social media use among younger populations.

The study’s findings suggest that addressing these issues requires a multifaceted approach, including promoting *digital literacy, mental health awareness, and healthy social media habits*. Strategies to mitigate the negative effects of TikTok, such as encouraging time limits, fostering critical thinking about online content, and supporting *offline social interactions*, are essential to reducing the platform’s mental health risks.

11. Conclusion, Future Directions, and Recommendations

11.1. *Conclusion*

The findings from this study offer valuable insights into the impact of TikTok usage on the mental health of adolescents and young adults in Bangladesh. The study clearly demonstrates that excessive and prolonged use of TikTok is linked to several negative mental health outcomes, including depression, anxiety, low self-esteem, and poor sleep quality. These findings are consistent with global research on the psychological effects of social media use, but they are particularly significant in the context of Bangladesh, where social media platforms like TikTok are rapidly gaining popularity among younger populations.

The study’s *quantitative data*, which show a significant positive correlation between TikTok usage and depression and anxiety, suggest that higher engagement with the platform may contribute to the exacerbation of these mental health issues. Similarly, the negative correlation between TikTok usage and self-esteem, along with the observed impact on sleep quality, highlights how the app’s design and content can affect users’ emotional well-being. Qualitative data from interviews further reveal the underlying mechanisms contributing to these mental health outcomes, such as *social comparison, cyberbullying, pressure to conform, and sleep disruption*.

Overall, this study underscores the need for a more nuanced understanding of how digital platforms, especially TikTok, influence the psychological health of adolescents and young adults. As social media continues to play a dominant role in their daily lives, the potential for both positive and negative effects becomes increasingly apparent.

11.2. Future Directions

While this study provides important insights, several areas warrant further investigation to deepen our understanding of the relationship between social media use and mental health. These include:

1. **Longitudinal Studies:** This study employed a cross-sectional design, which limits our ability to draw causal conclusions. Future research could utilize *longitudinal designs* to examine how TikTok usage influences mental health over time. A longitudinal study would help clarify whether TikTok leads to the development of mental health issues or if adolescents and young adults with pre-existing mental health concerns are more likely to engage with the platform in ways that worsen their condition.
2. **Exploring Moderating Factors:** Future research should explore *moderating variables* that might influence the relationship between TikTok usage and mental health, such as *social support, self-regulation, personality traits, and socioeconomic status*. Understanding how these factors influence TikTok's impact on mental health could lead to more personalized interventions.
3. **Comparative Studies Across Platforms:** Given the rise of various social media platforms, further research could compare the mental health impacts of **TikTok** with other popular platforms like *Instagram, Facebook, and Snapchat*. Understanding whether TikTok has unique effects on mental health, compared to other platforms, could inform platform-specific interventions.
4. **Cultural Context:** The influence of TikTok on mental health may differ across cultures. Therefore, future studies could explore the cultural nuances of TikTok's impact, particularly in countries with different *social norms, values, and digital consumption patterns*. Comparative studies between Bangladesh and other countries in South Asia or globally could provide a more comprehensive view of TikTok's role in mental health across diverse cultural contexts.
5. **Interventions and Digital Literacy:** Research focused on *digital literacy programs* and their effectiveness in mitigating the negative effects of social media could provide valuable insights. Understanding how education on responsible social media use can reduce harmful behaviors and enhance mental well-being is essential for developing preventive interventions.

11.3. Recommendations

Based on the findings and conclusions of this study, the following recommendations are proposed for addressing the mental health challenges associated with TikTok usage among adolescents and young adults in Bangladesh:

1. **Promoting Digital Literacy and Healthy Social Media Use**
 - Educational programs should be developed to promote *digital literacy* among adolescents and young adults. These programs should focus on fostering critical thinking about the content consumed on TikTok and other platforms. Adolescents need to be educated about media literacy, emphasizing the difference between reality and social media portrayals, especially related to body image and lifestyle.
 - Schools and universities should integrate social media education into their curricula, teaching young people about the potential mental health risks associated with excessive social media use, and offering strategies for managing screen time effectively.

2. Encouraging Healthy Use Patterns

- Adolescents should be encouraged to limit their screen time, particularly before bed, to mitigate the negative effects on sleep quality. Implementing digital detox routines and encouraging activities that do not involve screens, such as outdoor sports or face-to-face socializing, can help balance the time spent on TikTok and other social media platforms.
- TikTok itself could introduce features that promote healthier use, such as time management tools, reminders to take breaks, or content moderation tools that reduce exposure to negative or harmful content.

3. Promoting Positive Content and Influencer Responsibility

- TikTok influencers and content creators should take on a responsible role by promoting positive messages, mental health awareness, and body positivity. Influencers can use their platforms to encourage discussions around mental well-being, promote self-acceptance, and share personal experiences with mental health struggles.
- TikTok can work with mental health organizations to provide resources and support links to users who may be experiencing psychological distress or harassment, thereby making the platform a safer and more supportive environment for vulnerable users.

4. Implementing Mental Health Support on Digital Platforms

- Social media platforms, including TikTok, should collaborate with mental health professionals to incorporate mental health resources within the app. This could include providing access to helplines, self-assessment tools, and self-care advice for users who may be struggling with mental health issues.
- TikTok could introduce screening tools that help users assess the impact of their social media use on their mental well-being. Based on the results, personalized recommendations could be made to encourage healthier behaviors.

5. Strengthening Online Safety and Anti-Cyberbullying Measures

- Stricter anti-cyberbullying policies should be implemented, and users should be educated about the impact of online harassment. TikTok can introduce automatic filters to reduce harmful comments and flag inappropriate content that may contribute to anxiety or depression.
- Platforms like TikTok should also provide better tools for reporting cyberbullying or harassment, and users should feel empowered to block or report those who engage in harmful behaviors.

6. Parental Guidance and Support

- Given that many young TikTok users are adolescents, it is important for parents to be involved in their children's social media use. Parents should be encouraged to have open discussions with their children about the content they engage with online and monitor their usage patterns. There should be an emphasis on setting healthy boundaries for screen time and fostering a positive online environment.
- Family therapy and parenting programs could be introduced to help parents understand the psychological impact of social media and how to provide the necessary emotional support to their children.

11.4. Final Touched

This study contributes to a growing body of literature on the effects of social media on mental health, offering a detailed examination of TikTok's influence on adolescents and young adults in

Bangladesh. While TikTok offers opportunities for social connection, entertainment, and creative expression, its impact on mental health—especially in the context of depression, anxiety, self-esteem, and sleep quality—cannot be overlooked.

By promoting responsible social media use, offering mental health education, and fostering a culture of positive content creation, the adverse effects of TikTok on mental health can be mitigated. The need for a collaborative effort between social media platforms, mental health professionals, educators, and parents is essential to ensure that the digital spaces young people inhabit contribute positively to their development and well-being.

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