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Exploring the link between suicidal ideation and digital environments: The hidden impact of marketing content

Raiyan Haider ^{1,*}, Jafia Tasnim Juba ² and Satu Chowdhury ³

¹ University of Central Lancashire, Preston, UK.

² Daffodil International University, Dhaka, Bangladesh.

³ Lecturer, Department of Anatomy, Institute of Applied Health Sciences, Bangladesh.

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Abstract

This paper explores the complex relationship between suicidal ideation and digital environments, with a particular focus on the hidden impact of marketing content. It aims to investigate how targeted advertising and algorithm-driven content can exacerbate mental health vulnerabilities among youth, potentially increasing suicide risk. Emphasizing the need to understand these digital influences, this study highlights the critical role of responsible marketing practices and platform accountability in safeguarding young users. Ultimately, it calls for further research to develop effective interventions within the evolving digital landscape.

Keywords: Suicidal Ideation; Digital Environments; Targeted Advertising; Algorithm-Driven Content; Youth Mental Health; Responsible Marketing

1. Introduction

Digital environments have reshaped human interaction, information dissemination, and commerce. Within this transformed landscape, the pervasive influence of marketing content warrants rigorous scrutiny, particularly concerning its subtle yet potent psychological effects. An increasingly relevant concern involves the potential relationship between exposure to such content and the manifestation of suicidal ideation. Understanding these intricate connections requires a multidisciplinary approach, drawing from public health, psychology, and media studies. This paper systematically reviews existing literature and evidence, highlighting areas where digital marketing intersects with mental health vulnerabilities, specifically suicidal ideation.

1.1. Contextualizing Suicidal Ideation in Digital Environments

Suicidal ideation, characterized by thoughts of ending one's life, represents a critical mental health concern with complex antecedents. While traditional risk factors include mental illness, trauma exposure, and social isolation (Russell et al., 2018) (Cunningham et al., 2019) (Beristain's et al., 2016), the contemporary digital sphere introduces novel influences. Data indicates that lifetime prevalence of passive suicidal ideation among adolescents (13-17 years) can reach 22.2%, with serious ideation at 9.8% and suicide attempts at 6.7% (Orri et al., 2020). These rates are notably higher for females (Orri et al., 2020). The rapid adoption of digital platforms has created new avenues for content exposure, including marketing, which may inadvertently exacerbate psychological distress among susceptible individuals (Frey, 2018).

* Corresponding author: Raiyan Haider | Email: raiyanhaider6@gmail.com

1.2. Problem Statement and Rationale

Despite growing academic interest in the nexus of digital media and mental health, specific mechanisms linking digital marketing content to suicidal ideation remain underexplored. Marketing strategies frequently leverage psychological vulnerabilities, often creating or amplifying perceived needs, anxieties, or insecurities to drive consumption. For individuals predisposed to mental health challenges, such content could inadvertently trigger or intensify feelings of inadequacy, social comparison, or hopelessness. The absence of comprehensive research on this specific linkage impedes the development of targeted public health interventions and ethical guidelines for digital advertisers. Recognizing this gap, a focused investigation into this phenomenon becomes imperative.

1.3. Scope and Objectives of the Study

This study scrutinizes the relationship between suicidal ideation and digital environments, with a particular focus on the covert impact of marketing content. The investigation covers various forms of digital marketing, from traditional banner advertisements to algorithmically curated social media promotions. The primary objective involves identifying how specific characteristics of digital marketing content might contribute to or exacerbate suicidal ideation. Secondary objectives include discerning demographic groups particularly susceptible to these influences, and proposing potential avenues for responsible digital marketing practices and preventative measures. This analysis integrates quantitative observations with qualitative insights from relevant case studies.

2. Methodology: Data Collection and Analytical Frameworks

A comprehensive understanding of the topic required a multi-faceted methodological approach, integrating both systematic literature review and qualitative case study analysis. The synthesis of diverse data sources permitted a robust examination of the complex interplay between digital marketing and suicidal ideation, while acknowledging inherent limitations in direct causal inference.

2.1. Selection Criteria for Literature and Case Studies

Literature selection prioritized peer-reviewed articles published in academic journals, focusing on studies that addressed mental health, digital media use, and marketing. Keyword searches encompassed terms such as "suicidal ideation," "digital marketing," "social media advertising," "mental health impact," and "vulnerable populations." Preference was given to studies employing empirical data, including quantitative analyses and longitudinal designs. Case studies were chosen based on their illustrative value, demonstrating clear instances where digital content, particularly marketing or media coverage, had a discernible impact on mental health discussions or outcomes within specific populations (Stack, 2003) (Stack, 2002).

2.2. Quantitative and Qualitative Data Sources

Quantitative data were primarily extracted from epidemiological studies and surveys measuring the prevalence of suicidal ideation and mental health problems in relation to digital media exposure. For example, some studies utilize self-report questionnaires to assess suicidal ideation and mental health status (Bennink et al., 2014) (Mathias et al., 2012) (Corna et al., 2010). Qualitative data involved thematic analysis of case studies describing specific digital campaigns or media events and their reported psychological consequences. This included analyses of social media discourse and expert commentary on the effects of online content. Furthermore, data on advertising impressions, click-through rates, and recruitment success from digital platforms, such as Facebook, provided context on marketing reach and engagement (Teo et al., 2018).

2.3. Analytical Methods and Limitations

The analytical approach involved synthesizing findings from disparate studies to identify recurring themes and significant correlations. Logistic regression analysis, as employed in some cited works, helped assess associations between variables, such as specific media exposure and mental health outcomes (Stack, 2002). A key limitation involves the challenge of establishing direct causality between digital marketing exposure and suicidal ideation due to the multitude of confounding psychosocial factors influencing mental health (Morgan, 2020) (Woosley et al., 2014). Self-reported data can also introduce biases, and the dynamic nature of digital environments means findings may have a limited temporal validity. Furthermore, the sensitive nature of suicidal ideation research necessitates ethical considerations regarding participant safety and data privacy.

3. Thematic Literature Review: Digital Media, Marketing, and Suicidal Ideation

The convergence of digital media, marketing strategies, and mental health outcomes necessitates a nuanced examination. This review explores how marketing content within digital spaces can influence psychological well-being, specifically in relation to suicidal ideation, alongside the exacerbating roles of social media and algorithmic amplification.

3.1. The Influence of Digital Marketing Content on Mental Health Outcomes

Digital marketing, by its design, aims to influence perceptions and behaviors. This influence extends beyond purchasing decisions, potentially affecting self-perception and mental states. Healthcare organizations, for instance, increasingly leverage digital channels for outreach, recognizing that 77% of patients search online before making health decisions (Grbic et al., 2019). While this can facilitate positive health engagement, the broader landscape of digital advertising, often optimized for maximum engagement, carries inherent risks. The constant exposure to idealized lifestyles, unattainable beauty standards, or aspirational wealth can foster social comparison and feelings of inadequacy, particularly among vulnerable demographics (Brausch and Gutierrez, 2009).

3.1.1. Statistical Correlations Between Marketing Exposure and Psychological Distress

While direct causal links between marketing exposure and suicidal ideation are complex to isolate, correlations between digital media use and psychological distress are evident. Studies reveal that individuals with anxiety disorders exhibit a higher likelihood of suicidal ideation, even after controlling for other mental disorders (Sareen et al., 2005) (O'Neil Rodriguez and Kendall, 2013). Digital marketing, through its persuasive techniques, can contribute to anxiety by creating perceived deficiencies or pressing needs. For instance, the constant presentation of "perfect" lives can exacerbate depression or body image issues, both recognized risk factors for suicidal ideation (Brausch and Gutierrez, 2009). Furthermore, specific advertising formats, such as those that induce fear or urgency, could elevate stress levels in susceptible individuals.

3.1.2. Targeted Advertising and Vulnerable Populations

Targeted advertising, which relies on user data to deliver personalized content, poses particular concerns for vulnerable populations. Algorithms can identify and exploit psychological predispositions, leading to highly specific content delivery. For example, Facebook advertisements have demonstrated effectiveness in recruiting military veterans, including those at risk for mental health problems and suicidality (Teo et al., 2018). While this capability can be leveraged for positive interventions, it also presents a risk if marketing content inadvertently targets individuals based on vulnerabilities, such as past trauma or existing mental health conditions. Such targeting might intensify feelings of isolation or inadequacy by presenting content that implicitly or explicitly highlights perceived deficits.

3.2. Social Media, Algorithmic Amplification, and Suicidal Ideation

Social media platforms are central to digital marketing's reach, operating on algorithms that prioritize engagement. This amplification mechanism can inadvertently promote content that, while not explicitly marketing a product, operates with similar persuasive dynamics and can influence mental states.

3.2.1. Case Studies: Social Media Campaigns and Their Psychological Consequences

Publicized suicide stories in media have a measurable impact on the incidence of suicide, with studies showing a 14.3 times higher likelihood of copycat effects when involving entertainment or political celebrities (Stack, 2003) (Stack, 2002). While this primarily concerns news media, the rapid dissemination and emotional contagion on social media platforms can replicate and amplify such effects. Marketing content, even when seemingly innocuous, can become part of a larger narrative that fosters negative psychological states. For example, highly curated influencer marketing, presenting unattainable lifestyles, can contribute to feelings of envy and dissatisfaction, particularly among adolescents (Frey, 2018).

3.2.2. The Role of Recommendation Systems in Risk Amplification

Recommendation algorithms, designed to maximize user engagement, can inadvertently create "filter bubbles" that reinforce existing biases or vulnerabilities. If an individual interacts with content related to negative self-perception or mental health struggles, the algorithm might subsequently present more content of a similar nature, including marketing that capitalizes on such sentiments. This could lead to a self-perpetuating cycle where an individual is increasingly exposed to content that exacerbates feelings of distress or inadequacy. For example, an algorithm might

infer body image concerns and subsequently flood a user's feed with advertisements for weight loss products or cosmetic procedures, potentially intensifying existing insecurities (Brausch and Gutierrez, 2009).

3.3. Gaps in the Literature: Underexplored Mechanisms and Moderating Factors

Despite the growing body of research, several critical areas require further investigation to fully comprehend the interaction between digital marketing and suicidal ideation.

3.3.1. Methodological Challenges in Measuring Causality

Establishing direct causal relationships between exposure to specific marketing content and the onset or exacerbation of suicidal ideation poses significant methodological hurdles. Ethical considerations prohibit experimental designs that would intentionally expose vulnerable individuals to potentially harmful content. Most research relies on correlational studies or self-reported data, which, while valuable, cannot definitively prove causality (Mathias et al., 2012). Moreover, the dynamic and personalized nature of digital content delivery means that exposure varies widely among individuals, making standardized measurement challenging. Researchers must account for confounding variables, such as pre-existing mental health conditions or socio-economic stressors (Kim et al., 2019).

3.3.2. Cultural and Demographic Variability in Digital Media Effects

The impact of digital marketing content is unlikely to be uniform across diverse cultural and demographic groups. Cultural norms regarding mental health, body image, and consumerism can significantly moderate the effects of advertising. For instance, the prevalence of suicidal ideation varies across racial/ethnic groups and is influenced by trauma exposure (Beristain's et al., 2016). Gender also influences susceptibility, with female adolescents showing higher rates of mental health problems linked to both traditional and cyberbullying victimization (Bennink et al., 2014). Research needs to differentiate how various content types, marketing messages, and platform features interact with these diverse cultural and demographic factors to better understand differential vulnerabilities and build culturally competent interventions.

4. Analysis and Discussion: Implications of Marketing Content on Suicidal Ideation

The preceding review underscores the complex interplay between digital marketing and mental health. This section synthesizes these observations, discusses the pervasive nature of marketing content, explores mediating factors, and addresses policy implications.

4.1. Pervasiveness of Marketing Content in Digital Spaces

Digital platforms are saturated with marketing content, ranging from overt advertisements to subtle product placements and sponsored content. This pervasive presence means users are continuously exposed, often unknowingly, to commercial messages designed to shape their perceptions and desires. The digital realm has fundamentally altered consumer engagement, with 85% of users comparing and reviewing products online before selection (Grbic et al., 2019). This constant exposure creates an environment where mental health vulnerabilities can be subtly, yet significantly, influenced.

4.1.1. Ad Saturation and Everyday Exposure Rates

The sheer volume of digital advertisements ensures high exposure rates. Users encounter ads across social media feeds, websites, mobile applications, and streaming services. A typical internet user can be exposed to thousands of ads daily. This constant bombardment, particularly of idealized or aspirational imagery, can contribute to social comparison, dissatisfaction, and feelings of inadequacy. The consistent presentation of curated realities can distort individual perceptions of normalcy and success, potentially contributing to psychological distress that, for vulnerable individuals, may escalate to suicidal ideation (Brausch and Gutierrez, 2009).

4.1.2. Comparative Analysis Across Digital Platforms

Different digital platforms exhibit varying advertising models and content integration, leading to distinct exposure dynamics. Social media platforms, for instance, excel at targeted advertising, leveraging vast user data to deliver highly personalized content (Teo et al., 2018). E-commerce sites integrate marketing directly into the user journey, while content platforms often rely on programmatic advertising. The mechanisms by which marketing content is presented—whether through direct ads, influencer endorsements, or embedded narratives—all carry unique psychological implications. For example, influencer marketing, due to its perceived authenticity, may have a stronger emotional impact than traditional banner ads, making its potential negative effects more pronounced.

4.2. Mediating Factors: Vulnerability, Moderation, and User Agency

The impact of marketing content is not uniform; individual vulnerabilities and protective factors mediate its effects on suicidal ideation.

4.2.1. Youth, Marginalized Groups, and Disproportionate Risk

Adolescents and young adults, whose identities are still developing, are particularly susceptible to the influences of digital marketing. They often engage more heavily with social media and are more prone to social comparison (Frey, 2018). Marginalized groups, including those with pre-existing mental health conditions, a history of trauma (Beristain et al., 2016) (FLANNERY et al., 2001) (Spokas et al., 2009), or specific demographic risk factors such as unemployment (Kim et al., 2019) (Mubashir et al., 2018), may experience disproportionate negative effects. Marketing content can inadvertently exacerbate feelings of exclusion, body dissatisfaction, or financial inadequacy among these groups, amplifying existing vulnerabilities to suicidal ideation. For instance, individuals experiencing sleep problems, prevalent among young people, face increased likelihood of suicidal ideation, mediated by feelings of defeat and entrapment (Russell et al., 2018).

4.2.2. The Buffering Role of Digital Literacy and Support Networks

Digital literacy, encompassing critical thinking about online content and advertising, can serve as a protective factor. Educating individuals to recognize persuasive techniques and critically evaluate marketing messages may mitigate some negative effects. Strong social support networks, both online and offline, also offer a crucial buffer against the adverse impacts of digital environments (Van Orden et al., 2008). When basic psychological needs for autonomy, competence, and relatedness are met, the odds of suicidal ideation significantly decrease (Britton et al., 2014). Digital platforms could foster these positive connections, counteracting some of the negative influences of marketing content. Individuals connected to support communities show distinct markers of shifts to suicidal ideation, indicating the potential for targeted intervention (De Choudhury et al., 2016).

4.3. Policy, Platform Responsibility, and Ethical Considerations

Addressing the hidden impact of marketing content on suicidal ideation necessitates a multi-pronged approach involving policy, platform accountability, and ethical reflection.

4.3.1. Current Regulatory Responses and Effectiveness

Regulatory frameworks concerning digital advertising largely focus on truthfulness, consumer protection, and data privacy, rather than direct mental health impacts. While some guidelines exist for reporting on suicide in traditional media to prevent copycat effects (Acosta et al., 2019), similar comprehensive regulations for digital marketing content specifically addressing mental health are less developed. The effectiveness of current responses is limited by the rapid evolution of digital marketing techniques and the global nature of online platforms. A significant portion of individuals with suicidal thoughts do not meet criteria for clinical disorders and often do not access mental health care, highlighting a gap in intervention (Corna et al., 2010).

4.3.2. Industry Initiatives Versus Public Health Needs

Some digital platforms and advertising industry bodies have initiated efforts to promote responsible advertising and content moderation. These initiatives include self-regulatory codes and content policies aimed at reducing harmful material. However, these industry-led efforts are often driven by reputational risk and engagement metrics, which may not fully align with public health imperatives, particularly the nuanced prevention of suicidal ideation. A fundamental divergence remains between optimizing for commercial outcomes and prioritizing the psychological well-being of users. The needs of public health agencies extend beyond simple content removal to encompass proactive design principles that mitigate psychological harms, requiring closer collaboration and potentially external oversight.

4.4. Synthesis of Findings and Theoretical Implications

The evidence suggests a discernible, albeit complex, relationship between digital marketing content and suicidal ideation. While direct causality remains challenging to establish due to methodological constraints and multifactorial influences on mental health, the pervasive nature of digital advertising, its sophisticated targeting mechanisms, and its amplification through algorithms contribute to an environment where psychological vulnerabilities can be inadvertently exacerbated. Marketing content, even when seemingly benign, can intensify feelings of inadequacy, social comparison, and distress, particularly among susceptible populations such as youth and marginalized groups. These

findings underscore the need for a re-evaluation of current digital marketing practices within a public health framework, recognizing the potential for content to contribute to psychological distress.

4.5. Recommendations for Policy, Practice, and Future Research

To mitigate the potential adverse effects of digital marketing on suicidal ideation, several recommendations are presented:

4.5.1. For Policy Makers

- Develop explicit guidelines for digital marketing content that address mental health impacts, particularly for platforms targeting vulnerable demographics.
- Promote transparency in algorithmic content delivery, allowing for greater scrutiny of how certain marketing messages are amplified.
- Fund independent research into the long-term psychological effects of digital advertising saturation on diverse populations.

4.5.2. For Digital Platforms and Advertisers

- Implement ethical AI principles in advertising algorithms to prevent the targeting or exploitation of psychological vulnerabilities.
- Invest in digital literacy campaigns that empower users, especially adolescents, to critically evaluate online content and marketing messages.
- Prioritize mental health considerations in content design, moving beyond purely engagement-driven metrics to include well-being indicators.

4.5.3. For Researchers

- Conduct longitudinal studies employing diverse methodologies to better understand causal pathways between specific marketing content characteristics and suicidal ideation.
- Investigate the differential impacts of digital marketing across various cultural and demographic groups to inform targeted interventions.
- Explore the effectiveness of digital interventions, such as gamified applications for mental health support, in counteracting negative influences (Ong, 2020).

5. Conclusion

This study highlights the intricate and multifaceted relationship between digital marketing content and suicidal ideation, emphasizing the subtle yet profound psychological impacts within digital environments. The pervasive nature of targeted advertising, algorithmic amplification, and social media dynamics can exacerbate vulnerabilities, particularly among youth and marginalized groups. Addressing these challenges requires coordinated policy action, ethical platform governance, and enhanced digital literacy to mitigate risks and promote mental well-being. Future research must deepen understanding of causal mechanisms and culturally sensitive interventions to safeguard susceptible populations.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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