

From Entertainment to Education: The Transformation of Social Media in the Promotion of Adolescent Mental Health

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ABSTRACT

Background: Teens undergo significant physical, emotional, and social changes that increase their vulnerability to mental health issues. I-NAMHS reports that one in three adolescents aged 10-17 experience mental health problems. Despite efforts, reaching and engaging adolescents remains challenging. Edutainment offers an innovative approach to promoting adolescent mental health. However, its effectiveness and application across digital platforms are still limited and require further research. **Objective:** This study aims to analyze research trends on edutainment as a tool for education and mental health promotion among adolescents. **Methods:** Using bibliometric analysis, we mapped research trends related to edutainment in mental health promotion. Data were collected from Google Scholar, Scopus, and PubMed, then analyzed with VOSviewer. **Results:** Analyzing 141 articles published between 2019 and 2021, we observed a significant increase in research on edutainment and mental health. Seven main clusters emerged, with social media (Instagram, Twitter, Facebook) being the largest, followed by film, music, and K-pop culture. Mental health apps and video games are more specific but less prominent topics. **Conclusion:** Social media dominates edutainment research for mental health promotion, with film and music also prominent. Video games and mental health apps have a smaller scope but remain relevant. Overall, edutainment continues to grow as an effective approach, with social media playing a key role in recent trends.

Keywords: Edutainment, Health Promotion, Mental Disorder, Mental Health, Social Media

INTRODUCTION

Adolescents are increasingly experiencing mental health problems, such as anxiety, depression, and behavioral disorders, due to various internal and external pressures. According to the Indonesia National Adolescent Mental Health Survey (2022), one in three adolescents aged 10-17 years experiences mental health issues, while one in twenty has experienced a mental disorder in the past year. These alarming figures highlight the urgent need for more effective mental health interventions. Challenges faced by adolescents—including academic pressure, social expectations, exposure to cyberbullying, and excessive use of social media—further increase the risk of developing mental health disorders. (Santika, 2022).

In the digital age, social media and entertainment platforms have become an

inseparable part of teenagers' daily lives. While these platforms offer opportunities for social interaction and access to information, excessive or uncontrolled use can negatively impact mental health, leading to increased stress, anxiety, and negative self-perception. A report from the Centers for Disease Control and Prevention (CDC) indicates that, between 2021 and 2023, there was little improvement in some indicators of adolescent mental health. However, risk factors such as bullying increased from 15% to 19%, and school absenteeism for safety reasons rose from 9% to 13%. (CDC, 2023). In addition, data from the Substance Abuse and Mental Health Services Administration (SAMHSA, 2023) showed that 18% of adolescents experienced a major depressive episode, 12% had suicidal thoughts, and 3% had attempted suicide.

Along with the increasing focus on adolescent mental health, edutainment



has emerged as an innovative approach that combines education and entertainment in health promotion. This approach utilizes multimedia technology and games to make learning more engaging and interactive, thereby enabling mental health messages to be more easily received by adolescents (Corona *et al.*, 2013).

Several studies have shown that edutainment can increase awareness about mental health, reduce stigma, and encourage help-seeking behavior among adolescents. For example, the Riliv app, which offers online meditation and counseling, has been shown to improve mental health knowledge in adolescents who participated in the study (Indriani, 2024). The provision of education through early detection methods using the Strengths and Difficulties Questionnaire (SDQ) instrument in adolescents revealed that most students (63%) experienced emotional and mental health problems or mental emotional disorders (GME). This educational approach has led to an increase in students' knowledge about mental health and their ability to stimulate psychosocial development (Mawaddah, 2023).

In addition to mental health applications, mental health promotion is also conducted through psychology-based extracurricular activities, such as Psyclub, which aims to increase mental health literacy and foster positive behaviors in adolescents (Mumtaz, Rochim and Caturjuniandri, 2021). Social media is also an effective platform for mental health campaigns, as research shows that campaigns on Facebook and Instagram can reach more than 10,300 people in a short period (Mohebi *et al.*, 2018). While social media offers benefits for disseminating mental health information, there are also challenges and risks, such as negative impacts on adolescents' psychological well-being due to excessive exposure to certain content (O'Reilly *et al.*, 2019).

Although research on edutainment in mental health promotion has increased, existing studies remain fragmented and do not provide a comprehensive picture of its effectiveness and reach among adolescents. Most studies have focused solely on specific platforms, such as social media, video games, or movies, without systematically comparing the effectiveness of different forms of edutainment. Additionally, many studies

are cross-sectional, which limits their ability to offer long-term insights into the impact of edutainment on adolescent mental health (Tanjung & Zulkarnain, 2025; Sartika, 2024).

Therefore, a more comprehensive, evidence-based mapping is needed to understand research trends related to edutainment and to identify existing gaps. This study aims to analyze the research landscape of edutainment-based mental health promotion through bibliometric analysis. The results are expected to provide valuable insights for researchers, practitioners, and policymakers to develop more effective and evidence-based strategies for adolescent mental health promotion.

METHODS

The method used to address the purpose of this article is a literature review combined with bibliometric analysis. Bibliometric analysis is a widely used approach to explore and analyze large volumes of scientific data. It aims to measure the output of individuals, research teams, institutions, and countries; identify national and international networks; and map the development of new (often multidisciplinary) fields of science and technology. In short, it is used to answer research questions by examining the development of research and literature (Herawati, 2022).

Bibliometric analysis is conducted using a reference management application called Harzing's Publish or Perish (PoP), which determines the distribution of citations from sources. The metadata of journals, synchronized with databases such as Google Scholar, Scopus, and PubMed—considered reputable data sources—are utilized, including both international and national journals. The process begins by collecting articles related to the research topic using Publish or Perish (PoP).

Research data were obtained from three main databases—Google Scholar, Scopus, and PubMed—which are sources of reputable journals both nationally and internationally. The search was conducted using a combination of keywords: "entertainment as Mental Health Promotion," "entertainment as an educational medium for mental health promotion," and "social media as health

promotion for mental health." The search covered the period from 2019 to June 2024, aligning with the latest research trends in edutainment-based mental health promotion. Searches were managed using Harzing's Publish or Perish (PoP) application, which synchronizes journal metadata with the databases.

To ensure the relevance and quality of the articles analyzed, this study employed specific inclusion and exclusion criteria. Included articles must have been published between 2019 and 2024, discuss edutainment in promoting mental health among adolescents, be available in full text, and be written in English or Indonesian. Additionally, the articles must be published in indexed scientific journals or conference proceedings. Conversely, articles that do not address edutainment within the context of mental health, are editorials or comments without data analysis, discuss edutainment outside of health promotion, lack clear abstracts or methodological information, or are duplicates from other databases will be excluded from the analysis.

The article selection process was conducted in several stages. The first stage involved an initial search using the predetermined keywords across three main databases, resulting in 998 articles from Google Scholar, 8 articles from Scopus, and 3 articles from PubMed. Next, a screening was performed based on titles and

abstracts to filter articles relevant to edutainment in mental health promotion, with those not meeting the inclusion criteria being immediately excluded. Articles that passed the abstract screening were then thoroughly reviewed to ensure their relevance to the research focus. Subsequently, duplicate articles appearing in more than one database were removed to prevent redundancy. The final stage involved a bibliometric analysis of the selected articles, using VOSviewer software to map research networks, identify key clusters, and explore publication trends.

The final outcome of the screening process was 141 articles, which were further analyzed using bibliometric data visualization techniques. The distribution of publication years was analyzed using Microsoft Excel and then visualized with VOSviewer. This analysis included mapping relationships between research topics, examining publication trends over time, and analyzing collaboration networks among researchers and institutions. Through this approach, the study provides comprehensive insights into how edutainment is utilized in promoting adolescent mental health and highlights research gaps for future exploration. The following is an overview of the stages involved in the bibliometric analysis of this study:

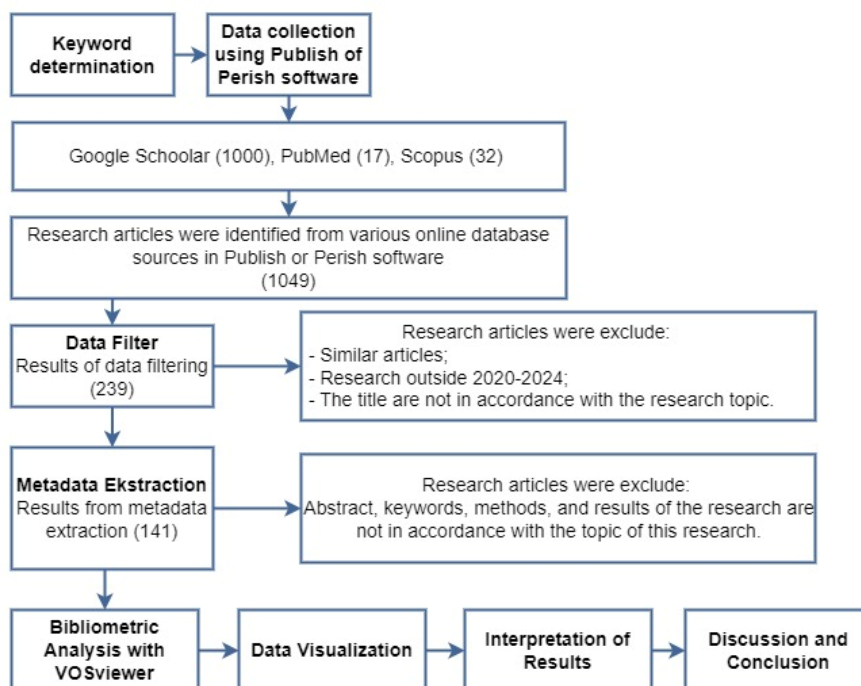


Diagram 1. Stages of research analysis

RESULTS AND DISCUSSION

This study aims to identify research trends and co-authorship patterns related to mental health promotion through entertainment media, such as social media, games, music, and others. This goal was achieved through bibliometric analysis using tools such as Publish or Perish (PoP) and VOSviewer, with data collected from Google Scholar, Scopus, and PubMed databases, which were exported to Mendeley. Based on the bibliometric analysis results, several pieces of information will be presented, including citation data from PoP, mental health research trends over the past six years (2019-2024), a network of edutainment research topics in mental health promotion, and related research clusters. The following table provides a description of these components:

Tabel 1. Citation Data Metrics

Publication years	: 2019-2024
Citation years	: 5(2019-2024)
Papers	: 141
Citations	: 2427
Cites/year	: 485.40
Cites/paper	: 17.21

Cites/author	: 977.98
Papers/author	: 77.05
Author/paper	: 2.65
h-index	: 31
g-index	: 43
hl,norm	: 17
hl,annual	: 3.40
hA-index	: 15
Paper with ACC > =1,2,5,10,20	: 100,88,60,32,7

(Source: *Publish or Perish*, 2024)

Based on Table 1, it can be observed that over the past six years, a total of 141 articles relevant to the keywords “entertainment as mental health promotion” and “entertainment media as mental health promotion” have been published, with full papers, abstracts, and keywords available in the Google Scholar, Scopus, and PubMed databases. The total number of citations across all these articles is 2,427, resulting in an average of approximately 485 citations per year. The average number of citations per paper is 17.21. Additionally, the average h-index among the authors is 31, with the highest number of citations for a single author reaching 43.

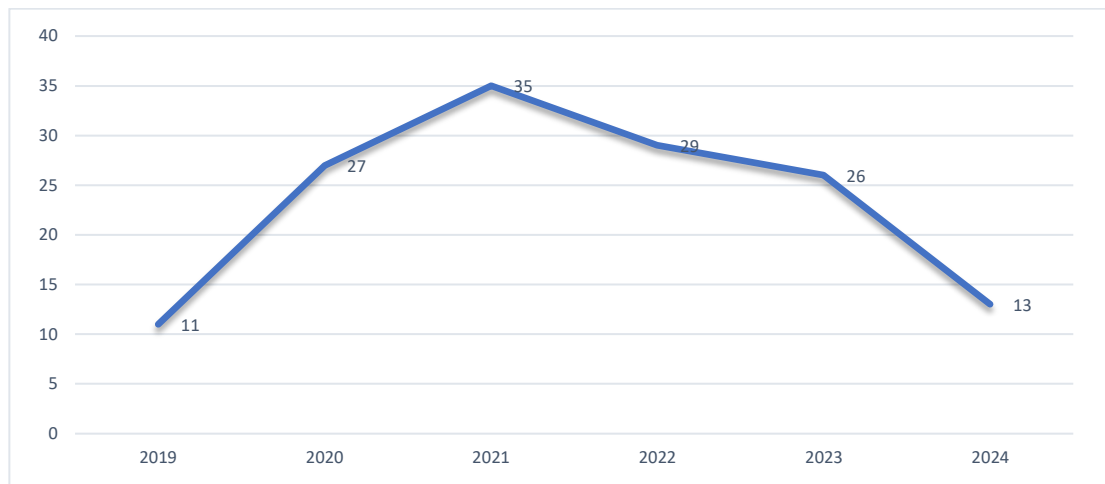


Figure 1. Research trends in edutainment for mental health promotion

The trend of research development on edutainment for promoting mental health, as shown in Figure 1, appears to have experienced significant changes. The

graph illustrates a rising trend from 2019, reaching a peak in 2021, followed by a gradual decline through 2024.

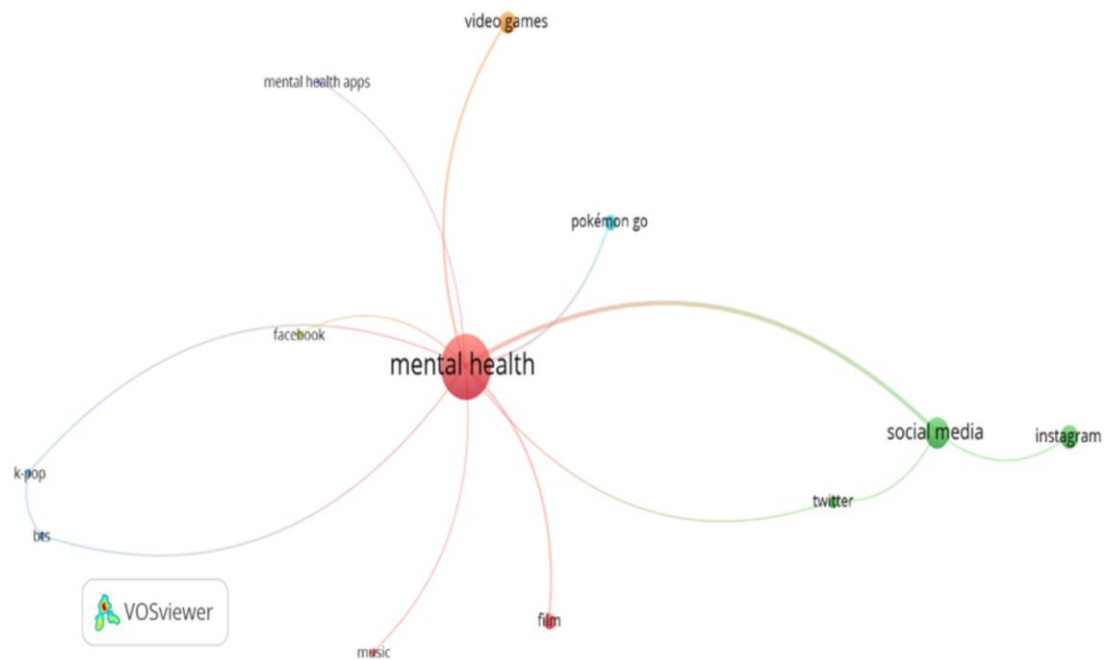


Figure 2. Network visualization of the network between research topics edutainment for mental health promotion

Networks between topics were identified based on research into mental health education strategies, including social media, entertainment media such as games and music, and others. A total of 141 topics were identified from 2019 to 2023. Bibliometric analysis was conducted by visualizing the network structure of relationships between research keywords using VOSviewer software, as shown in Figure 2. The visualization is generated from keyword processing. This mapping provides detailed images, while the clusters offer an overview and general insights. Each circle represents a frequently appearing keyword, and the size of the circle reflects the prominence of the topic within the articles.

All research themes related to entertainment as a method of education and health promotion concerning mental health are grouped into seven main clusters, each distinguished by color: red, green, blue, yellow, purple, light blue, and

orange. Each color cluster shares certain similarities, which can be checked in the 'Items' section of VOSviewer. The five primary clusters, based on the color coding, are: mental health (red), social media (green), K-pop (blue), Facebook (yellow), mental health apps (purple), Pokémon GO (light blue), and video games (orange).

Additionally, the network visualization illustrates the relationships between research issues—highlighting topics that have been widely discussed and those that are still underexplored, thus suggesting areas for further study. In the visualization of Figure 2, larger circles indicate keywords that are prominent, such as mental health, social media, video games, and Instagram. Conversely, smaller circles and longer link distances suggest topics that are less common and have weaker connections to the main themes, indicating potential opportunities for further research.

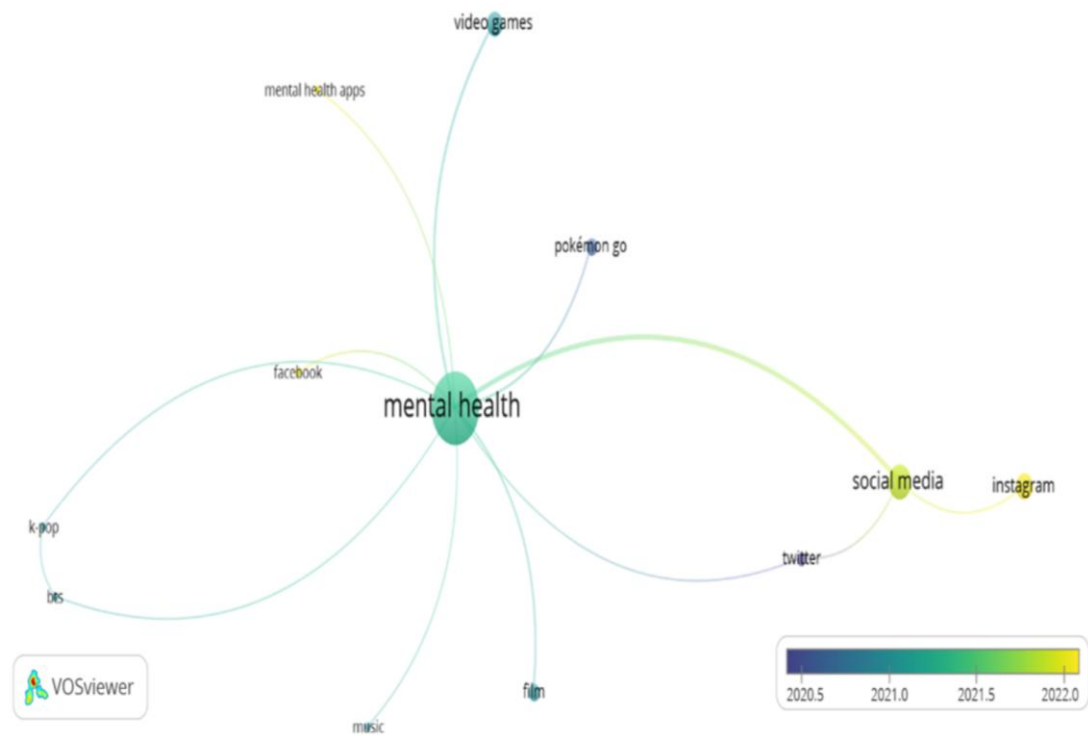


Figure 3. Visualization of research trends overlay based on keywords

Based on the visualization above, the yellow circle indicates the most recent research topic. From Figure 3, it can be seen that there are seven clusters representing research topics related to edutainment in adolescent mental health.

The latest research topics involve the use of media such as Instagram, Facebook, and mental health applications as methods of education and health promotion. The cluster groupings are summarized in Table 2 below.

Table 2. Cluster Identification

Cluster	Total item	Key Words
Cluster 1	3 items	Film, mental health, music
Cluster 2	3 items	Instagram, social media, twitter
Cluster 3	2 items	Bts, k-pop
Cluster 4	1 item	Facebook
Cluster 5	1 item	Mental health apps
Cluster 6	1 item	Pokemon go
Cluster 7	1 item	Video games

(Source: *VOSviewer analysis results, 2024*)

The table above presents the results of a bibliometric analysis conducted using the VOSviewer application to identify research trends related to the use of entertainment as a method for education and the promotion of mental health. This analysis was based on the keywords "entertainment as mental health promotion" and "entertainment media as mental health promotion," which were mapped into seven main clusters. Two dominant clusters and five minor clusters were identified, reflecting a variety of popular topics within the field.

The first cluster emphasizes the use of film and music as mediums to promote mental health, indicating significant interest in audiovisual entertainment as educational tools. The second cluster focuses on the role of social media platforms such as Instagram and Twitter, highlighting their importance in mental health campaigns, particularly among younger populations. The third cluster reveals the influence of Korean pop culture, specifically the music group BTS, which is known for its strong mental health advocacy.

Furthermore, the fourth cluster centers on Facebook as a platform for mental health promotion, while the fifth highlights mental health apps designed to improve mental well-being through technology. The sixth cluster includes augmented reality games like Pokémon GO, which can encourage physical activity and social interaction, thereby contributing to better mental health. Lastly, the seventh cluster encompasses the use of video games in general as therapeutic or educational tools to support mental health.

Overall, this analysis provides valuable insights into emerging research topics and trends concerning the use of various forms of entertainment in mental health promotion. It underscores the significance of entertainment as an effective tool for education and mental health advocacy, guiding future research in this promising area.

DISCUSSION

This study provides a comprehensive analysis of research trends concerning edutainment as a method for the education and promotion of mental health among adolescents. Supported by a bibliometric analysis, the findings reveal an increase in publications between 2019 and 2021. These results suggest a growing awareness of the importance of innovative approaches to address mental health issues in adolescents, which aligns with the high levels of internet and digital media use among Indonesian adolescents—where as many as 98% are internet-savvy, and 79.5% of users actively engage with digital platforms (Sosialita, 2023). The prominence of social media, video games, and music as primary platforms for mental health promotion is consistent with studies indicating that adolescents are deeply connected to technology (Sosialita, 2023).

One of the key findings of the study is that social media, video games, and music are increasingly becoming major platforms for mental health promotion. These findings align with previous research indicating that adolescents are highly connected to technology and social media, suggesting that leveraging these platforms can enhance the effectiveness of mental health education among youth. Previous studies have demonstrated that health education methods delivered through social media can reach a broader audience

and positively influence mental health awareness among adolescents (Mustofa & Sani, 2024; Draganidis et al., 2024; O'Reilly et al., 2019). As by O'Reilly et al., (2019) concluded, social media offers an effective means to educate and engage adolescents in efforts to improve mental well-being.

Furthermore, Draganidis et al. (2024) found that Facebook is one of the most widely used platforms for mental health promotion. Similarly, Latha (2020) reported that Facebook and Instagram, as educational media, managed to reach approximately 10,300 people. These findings demonstrate the effectiveness of social media in disseminating information quickly, raising awareness, and reaching a wide audience. Therefore, the use of edutainment through social media is not only relevant but also strategically significant in the current digital landscape.

Edutainment, as a method that combines education and entertainment, has been proven effective in increasing youth engagement. This approach not only makes educational material more interesting but also facilitates the communication of important messages about maintaining health, including mental health, in a way that is easier to understand. In a study conducted by Muthmainnah (2018) on edutainment training for health promotion in adolescents, it was found that 98% of participants found the training very interesting and useful for designing health promotion efforts that are entertaining and not boring. These findings are consistent with the results of the bibliometric analysis in this study, which shows that various psychology-based health education programs can influence adolescents' attitudes and behaviors related to mental health.

However, despite significant progress, this study also notes that many aspects of edutainment and mental health education methods remain underexplored, such as the use of mental health applications and health education through video game media. Previous research, such as that conducted by Indriani (2024), emphasizes the importance of technology-based applications in supporting adolescent mental health. The study found that apps like Riliv can help teenagers cope with personal problems and maintain their mental well-being. This indicates that

there are substantial opportunities to develop additional applications that serve as effective media for mental health education, particularly for adolescents.

Meanwhile, research by Ayub & Sulaeman (2022) indicates that although adolescents spend significant time on social media, not all interactions contribute positively to their mental well-being. Some studies suggest that excessive use of social media can lead to increased anxiety, depression, and body image issues among adolescents. Therefore, it is important to explore which types of content and interactions in mental health promotion via social media are most effective and safe.

In addition, video games are considered an effective entertainment medium for conveying education about mental health, given that many teenagers frequently engage with them. Although research by Wibowo & Hendry (2021), along with WHO acknowledgment, highlights the great potential of video games, it is essential to recognize that not all games are suitable for this purpose. Game design, content, and interaction mechanisms can influence the psychological impact on players. Consequently, further research is needed to identify the types of games and design strategies that are most effective in delivering positive mental health messages and fostering coping skills.

The importance of this research lies in its contribution to understanding how edutainment can serve as a strategic tool in promoting mental health among adolescents. The results indicate that online counseling is effective in addressing mental health issues such as depression, anxiety, and mood disorders in adolescents (Sosialita, 2023). With the increasing prevalence of mental health disorders among young people, edutainment-based approaches offer innovative solutions that are not only informative but also capable of fostering healthy behaviors over the long term. The impact on public health is significant, particularly in increasing adolescents' access to mental health information that is easily accessible.

This research provides important insights for policymakers, health workers, and educators in developing more effective and engaging health promotion strategies for adolescents. For example, creating mental health apps tailored to

adolescents' needs can help them cope with personal issues and maintain their mental well-being. Additionally, comprehensive intervention programs in schools can enhance adolescent resilience and mental health by fostering a school culture that better supports mental well-being. Moreover, the findings contribute to understanding how edutainment can be utilized as a tool for promoting mental health among adolescents. Nonetheless, further research is necessary to explore various aspects of edutainment and to develop more comprehensive and appealing health promotion strategies specifically tailored for adolescents.

CONCLUSION

Bibliometric analysis shows a significant increase in the number of publications discussing edutainment as a tool for promoting adolescent mental health, particularly through social media, video games, and music. This trend reflects the growing recognition of digital platforms' role in shaping adolescent psychological well-being. The findings indicate that social media platforms such as Instagram and Facebook are the most frequently studied, highlighting their potential in mental health campaigns.

However, bibliometric analysis also reveals several limitations in the existing literature. Many studies focus on specific digital platforms or cultural contexts, which limits the generalizability of the findings to the broader adolescent population worldwide. Additionally, most studies rely on cross-sectional data, lacking longitudinal methodologies that could provide deeper insights into the long-term effects of edutainment on adolescent mental health. To address these gaps, future research should incorporate digital survey applications and data analytics tools for periodic data collection, enabling the development of more comprehensive and sustainable mental health promotion strategies.

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