LITERATURE REVIEW: THE RELATIONSHIP OF THE USE OF SOCIAL MEDIA TO THE INCIDENCE OF ANXIETY IN ADOLESCENTS IN INDONESIA

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ABSTRACT

Background: Social media is an example of technological advances. Social media users can experience social media addiction due to the high usage. Adolescents who are socially addicted have a higher potential for experiencing social anxiety disorder or anxiety. Purpose: This literature review study was to examine the relationship between social media use and anxiety disorders in adolescents in Indonesia. Methods: This research was a systematic review by searching articles using the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) method. Inclusion criteria included cross-sectional research with research subjects on adolescents in Indonesia, full text, and according to keywords. This study used articles of national standard with an article search database, namely Google Scholar. Results: Based on the six articles that have been analyzed, there was a relationship between the frequency of anxiety of adolescents who use social media in Indonesia and the intensity of their use. Conclusion: Several factors have contributed to the high use of social media, including many interesting online features and games, the COVID-19 pandemic so that all activities were carried out online, and a sense of not wanting to be left behind by trends among teenagers. Keywords: adolescents, anxiety, social media addiction.

ABSTRAK

INTRODUCTION

Nowadays, almost people in the world use technology in their daily lives just like adolescents. Based on the results of a survey conducted by the Association of Indonesian Internet Service Providers, it was stated that the number of internet users during 2022-2023 had increased by 1.17% compared to the previous year (APJII, 2023). Based on the age category, the most internet users are in the 19-34 year age category, namely 49.52%. The duration used to access the internet per day based on the results of a survey by the Association of Indonesian Internet Service Providers is 1-3 hours (43.89%), 4-7 hours (29.63%) and more than 7 hours (26.48%) (APJII, 2022). According to the Indonesia Digital Report 2022 survey, the most frequently visited social media platforms include WhatsApp (88.7%), Instagram (84.8%), Facebook 81.3% and TikTok (63.1%) (Kemp, 2022).

The use of social media have both positive and negative impacts. According to research (O’Keeffe in Sriati & Hendrawati, 2020), the positive impact of using social media is that it can provide many conveniences for adolescents to socialize, communicate with teachers, friends and get information quickly. However, the use of social media can also result in users experiencing addiction. According to previous research, more than 50% of adolescents have a low level of addiction to social media, while 48% of adolescents have a high level of addiction to social media (Sriati A, 2020). Other research also revealed that as many as 70 adolescents (65.4%) were addicted to social media experience social anxiety (Trikandini & Kurniasari, 2021).

Addiction to social media in adolescents can be caused by their inability to control the use of social media. (Azka et al., 2018) research stated that students tend not to be able to control the use of social media due to limited time to interact. If adolescents are unable to control it, then the time for using it will increase and result in social media addiction (Sriati & Hendrawati, 2020). Adolescents who are addicted to social media will feel dependent and are willing to spend a lot of time to achieve satisfaction in playing social media (Fauziawati, 2015).

Addiction in using social media will have a negative impact on adolescent mental health. One of the effects of using addiction to social media is the emergence of depression, stress, and anxiety (Budury & Fitriasari, Andikawati, 2019). In addition, social media can make teenagers indifferent to the teaching and learning process so that it has an impact on decreasing study time and decreasing achievement (Mim, F.N., Islam, M.A., & Paul, 2018). Other research also stated that adolescents will feel anxious and restless when not operating social media (Sriati & Hendrawati, 2020).

Previous research also showed that 66 respondents (55%) experienced mental health problems as a result of the high use of social media (Pratama BA, 2020). Another study showed that as many as 63.5% of students experienced moderate levels of anxiety as a result of being addicted to using social media, resulting in students feeling uncomfortable when interacting directly with the other person and tending to withdraw from social life (Zaidhan et al., 2023). Individuals who experience social anxiety will feel nervous, quiet, shy and avoid negative judgments from others (Azka et al., 2018). Social anxiety can also occur when a person cannot control himself to always use social media and trust other people he meets online (Annoni AM, Petrocchi S, Camerini AL, 2021).

Referring to some of the research above, it was known that the inability to control the use of social media will have an impact on the mental health of its users.
Anxiety experienced by adolescents can interfere with daily activities. Adolescents will tend to withdraw from the surrounding environment, become closed, timid and lack self-confidence (Nur, 2022). Besides that, anxiety disorders will also hinder adolescents from developing their potential. Whereas mental health is one of the most important aspects of humans in supporting a productive life both socially and economically.

As the duration and number of social media users increase among adolescents, the potential for anxiety will be higher. According to (PH, L., Susanti, Y., & Arisanti, 2018), social anxiety can result in excessive worry, irritability, disturbed sleep patterns, tense dreams, impaired concentration and memory and digestive disorders. Meanwhile, according to Dadang 2006 in (Annisa, D. F., & Ifdil, 2016) social anxiety can make a person irritable, dramatic, and haunted by a sense of indecision.

Various studies have been conducted to explain the relationship between social media use and anxiety disorders in adolescents. In this study, the authors examined several articles that review anxiety caused by using social media for a high duration. Thus, this research can provide an overview of anxiety that has been measured through various valid questionnaires. In addition, the subjects of this study were adolescents in Indonesia so that they could find out the description of adolescent anxiety not only from one research scope. Judging from the urgency, it is necessary to make efforts to prevent social anxiety because of addiction to social media. Therefore, a systematic review is needed regarding the relationship of social use to anxiety disorders in adolescents in Indonesia.

**METHOD**

This type of research was a literature review study by looking for articles that are relevant to the topic. The article search database used was Google Scholar which provided fast, complete, and quality interdisciplinary literature searches. Collection of articles used inclusion and exclusion criteria with keyword searches using Boolean operators which were social AND anxiety, AND addiction to social media, AND use of social media AND teenagers, addiction to social media OR gadget addict. This study used inclusion criteria in the form of articles that have been published in the last five years (2018-2023), research articles that can be accessed (full text) and were free of charge, as well as articles in Indonesian. The exclusion criteria consisted of articles that do not fulfil the criteria for Population, Exposure, Comparison, Outcome, and Study design or PECO(S), international standard articles and articles that were not full text.

The eligibility criteria according to PECO(S) are: (1) Population: adolescents in Indonesia, (2) Exposure: the duration of social media use, (3) Outcome: the incidence of anxiety in adolescents in Indonesia, (4) Study design: cross sectional. After collecting the articles, this study screened them using the Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) method. Finally, the data used was processed with content analysis.

An article search based on keywords. A total of 146,600 national articles with 37,500 searches based on article titles that match the research objectives were found. Moreover, 16,000 articles based on the last 5 years 2018-2023 were found. The author selected the eligibility of the articles based on inclusion and exclusion criteria and found 105 articles, and 6 articles that were suitable and read in full on Google Scholar. Below is a flowchart of data search according to the PRISMA method. Below is a flowchart of data search according to the PRISMA method.
RESULT

Based on the search results for articles using the PRISMA method, six national-level articles were found with ranges year published in the last five years, namely 2018-2023.

Table 1. Summary of Research Results.

<table>
<thead>
<tr>
<th>No</th>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Research Method</th>
<th>Result</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Dinda Berlian Primadhanaya, Hanik Endang Nihayati, Erna Dwi Wahyuni</td>
<td>2019</td>
<td>The Correlation between Smartphone Addiction and Social Anxiety in Adolescents</td>
<td>Research design: This study uses descriptive analysis techniques with a cross sectional approach.</td>
<td>There is a positive correlation between smartphone use and the incidence of anxiety with statistical values. p = 0.000 and the value of r = 0.255. The higher the level of smartphone use, the higher the incidence of social anxiety. This is in accordance with the results of the positive correlation coefficient test.</td>
</tr>
<tr>
<td>2</td>
<td>Anindi Trikandini, Lia Kurniasari</td>
<td>2021</td>
<td>Correlation between the Intensity of Social Media Use and the Level of Anxiety in East Kalimantan Muhammadiyah University (UMKT) Students</td>
<td>Research design: The design of this research study is a quantitative study with a cross sectional approach.</td>
<td>Based on this research, there is a significant correlation between the intensity of social media use and the anxiety level of 2nd semester of Nursing students, Muhammadiyah University, East Kalimantan with a p value = 0.001</td>
</tr>
<tr>
<td>3</td>
<td>Adlin Nadila Fitaloka, Wilson, Ery Hermawati</td>
<td>2022</td>
<td>Correlation between Duration of Social Media Use and Level Anxiety in Students Undergraduate Medicine Program Universitas Tanjungpura.</td>
<td>Research design: The research design is cross-sectional analytics. Population: Active students of the Universitas Tanjungpura Bachelor of Medicine Program level 1, 2 and 3 for the 2019/2020 academic year. Sample: The number of samples in this study were 73 students of the Bachelor of Medicine program at Universitas Tanjungpura with the sampling technique using consecutive sampling.</td>
<td>A significant correlation was found between the duration of social media use and anxiety disorders in students of the Bachelor of Medicine Program, FK, Universitas \Tanjungpura with statistical test results. p value = 0.007 and the value of the correlation coefficient r = 0.351.</td>
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<tr>
<td>4</td>
<td>Mutia Nurлина, Ani Anggraini, Hilda Meriyandah</td>
<td>2022</td>
<td>Hubungan Intensitas Penggunaan Media Sosial Pada Tingkat Kecamatan Generasi Z Mahasiswa Keperawatan di Stikes Medistra Indonesia Tahun 2022.</td>
<td>Research design: The data analysis technique used was cross sectional. Population: Nursing students at STIKES Medistra Indonesia in 2022. Sample: 181 students.</td>
<td>Based on this research, the results of the chi square statistical test were obtained P value (0.000) &lt; α value (0.05). It can be interpreted that there is a correlation between the level of anxiety and the duration of using social media.</td>
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<tr>
<td>5</td>
<td>Mayasari Rahmadhani</td>
<td>2023</td>
<td>Correlation between Social Media and Anxiety in Medical Faculty UISU Students.</td>
<td>Research design: Analysis techniques using cross sectional analytical methods. The questionnaires used were the HARS questionnaire and the SONTUS questionnaire.</td>
<td>The results of data analysis using the Spearman test obtained a value of p = 0.001 (p &lt;0.05) r 0.364. It can be interpreted that there is a significant correlation between the use of social media and the level of anxiety.</td>
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</table>
Continuation of Table 1. Summary of Research Results.

<table>
<thead>
<tr>
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<th>Title</th>
<th>Research Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Sutriani, Mayasari Rahmadhani</td>
<td>2023</td>
<td>Correlation between Social Media and Anxiety in Medical Faculty UISU Students.</td>
<td>Research design: Analysis techniques using cross sectional analytical methods. The questionnaires used were the HARS questionnaire and the SONTUS questionnaire. Population: UISU Faculty of Medicine students in 2018, 2019 and 2020 with a total population of 402 students. Sample: The sample size in this study was 132 respondents using the Stratified Random Sampling technique.</td>
<td>The results of data analysis using the Spearman test obtained a value of p = 0.001 (p &lt;0.05) r 0.364. It can be interpreted that there is a significant correlation between the use of social media and the anxiety disorders of Faculty of Medicine UISU students.</td>
</tr>
<tr>
<td>6</td>
<td>Risma Yunita, Lia Kurniasari</td>
<td>2022</td>
<td>The Correlation between Media Addiction and Anxiety Level in Nursing Undergraduate Students at Universitas Muhammadiyah of East Kalimantan.</td>
<td>Research design: This research technique is cross-sectional analytic. Population: The population in this study were 147 respondents in the second semester of Bachelor of Nursing students. Sample: The sample in this study was 107 students who were determined using the stratified random sampling technique.</td>
<td>The results of the study showed that there was a significant correlation between social media addiction and anxiety levels in undergraduate nursing students with a p value = 0.000 &lt;0.05.</td>
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**DISCUSSION**

Based on the six articles that have been reviewed, it was found that there is correlation between the use of social media and anxiety disorders in adolescents in Indonesia. Addiction to social media impacted on the mental health of its users in the form of moderate to high levels of anxiety. Moreover, six articles reviewed showed that students who suffer smartphone addiction also experience anxiety disorders (Berlian, 2019). The high duration of using social media was since most respondents cannot control the use of social media. They consider social media to be an important thing in their life. This phenomenon took place to adolescents since they are at a transitional age which remain requires supervision from their parents (Berlian, 2019).

Based on the results of a survey by the Center for Disease Control of Prevention, it is stated that adolescents aged 15-18 years spend an average of 7-8 hours per day playing social media such as online games, accessing videos, surfing the web and looking for other entertainment (CDC, 2018). Research on adolescents in Lamdom Village, Lueng Batu District, Banda Aceh showed that on average teenagers spend around 5-7 hours or 300-420 minutes a day playing gadgets (Fitriana et al., 2021). According to (Puspita Sari, 2016), the use of gadgets with a duration of 30-75 minutes with more than 3 uses a day can lead to addiction using gadgets, one of which is the use of social media.

Addiction to social media or smartphone addiction was experienced by numerous young women. This was since male adolescents spend a lot of their time accessing online games, while teenage girls
spend their time playing smartphones for chatting, updating personal blogs and looking for information (Wook, C.S., 2015).

In addition, female adolescents tend to interest into follow the trends. This is in line with the research conducted by (Nurlina et al., 2022), adolescents will be easily attracted to following trends on social media, so that it can increase the duration of playing social media among young people. Besides that, adolescents with low self-confidence tend to follow a lifestyle that is currently viral on social media. Based on the research by (Berlian, 2019), adolescents feel worried if they are judged negatively by others when they don’t follow trends. This is what causes adolescents to feel anxious when they don’t follow trends on social media.

Other studies that have been reviewed show that there is a significant relationship between anxiety disorders and the duration of social media use at Universitas Muhammadiyah students in East Kalimantan (UMKT). College students who are addicted to social media have a higher chance of experiencing anxiety. Some of the factors that cause students to become addicted to social media include students feeling something is missing when they do not access social media and students spend more time taking breaks to play social media (Trikandini & Kurniasari, 2021). This is inseparable from the various interesting features available on social media. In addition, students tend to be interested in discussing and telling stories through social media compared to socializing directly with their friends (Subekti, 2019). Besides that, students who frequently update their lives on social media have a higher potential to experience anxiety symptoms (Trikandini & Kurniasari, 2021).

This is in accordance with the research conducted by (Nadila et al., 2022) which stated that students who use social media for a long duration tend to experience high anxiety compared to students with low levels of social media use. When adolescents spend a lot of time playing social media, indirectly these adolescents will compare themselves with the lives or achievements of other people. This phenomenon is usually known as compare and despair which indirectly can cause social anxiety (Hughes S, 2018).

The existence of social anxiety can affect someone using social media. Students with high levels of anxiety tend to use social media excessively and prefer to communicate online because they feel safe when using social media to interact. Vice versa, the potential for anxiety disorders will be low if students do not overuse social media. This happens because they have good social support and interaction in the real world (Azka et al., 2018).

One of the reasons for the high use of social media is the COVID-19 pandemic. During the COVID-19 pandemic all activities were carried out without face-to-face contact. So that all activities are carried out online including the process of teaching and learning and communicating. Social media is often used as a means of communication. Besides being effective and efficient, using social media can also provide up-to-date information and entertainment. This is a driving factor for the increasing use of social media among adolescents. Similar research also stated that during the COVID-19 pandemic there was an increase in internet use in Indonesia, which was around 30-40%. This condition causes many students to experience mild to severe anxiety because they spend their time accessing social media and watching movies (Arenliua, 2020).

One of the effects of anxiety resulting from the use of social media is Fear of Missing Out (FOMO). The term FOMO is often associated with someone who doesn’t want to miss an interesting event or content.
within a certain time. This is what makes adolescents want to constantly monitor social media, both on their own pages and on other people's pages, so that for a certain period of time it can lead to social anxiety (Elhai et al., 2016).

Meanwhile, research conducted on final students showed that some students often experience anxiety when they see their friends' graduation posts on social media. This condition causes feelings of anxiety, restlessness, unfocused and feeling unable to complete the thesis (Nurlina, Anggraini dan Meriyandah, 2022). This condition is inversely proportional to students of the Faculty of Medicine, Islamic University of North Sumatra. This study stated that there were no students who experienced severe anxiety. This is because students already have knowledge about anxiety and how to prevent it (Sutriani, 2023).

The increasing use of social media and the incidence of anxiety in adolescents requires control efforts to be made. There needs to be a duration limit in using social media. It aims to avoid social media addiction, stress, and anxiety disorders. Besides that, adolescents are also expected to be able to use social media wisely.

Of the six articles that have been reviewed, there are differences in the questionnaire used to measure anxiety disorders and use of social media among adolescents. Differences in gender, environmental conditions, and level of education also affect the strength and weakness of the relationship between social media use and social anxiety in adolescents. This research also has limitations because it only uses the Google Scholar database and national-level articles as sources for articles to be reviewed. The study design used was cross-sectional where the risk factors in the study could not be measured accurately, thus affecting the results of the study.

Based on the results of the literature review that has been carried out, it shows that the uncontrolled use of social media can cause social anxiety for adolescents. The implication that can be used from this research is that it can be used as a reference for readers regarding the relationship between social media use and social anxiety in adolescents in Indonesia. Research results and research weaknesses can be used as a reference to produce research with a better level.

CONCLUSION AND SUGGESTION

The duration of social media use has a significant relationship with the incidence of anxiety experienced by adolescents in Indonesia. The higher the duration of playing social media, the higher the potential for anxiety experienced. Several factors have contributed to the high use of social media, including the many interesting features and online games, the condition of the COVID-19 pandemic and the feeling of not wanting to be left behind by trends among adolescents. Forms of social anxiety experienced by adolescents include stress, anxiety, and restlessness.

Based on the results of the literature study, the advice that can be given is to limit the use of smartphones by carrying out activities including reading books, doing sports or physical activities outdoors, and limiting incoming information. For future researchers, it is hoped that they can expand the research variables and focus on the types of social media used by research subjects.

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AUTHOR CONTRIBUTION
Indah Ayu Afsari contributed to secondary data collection and article writing. Syifaul Lailiyah and Mohammad Zainal Fatah are responsible for writing the articles.

CONFLICT OF INTEREST
The author has no conflict of interest.

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Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. Computers in Human Behavior, 63, pp. 509–516. doi: 10.1016/j.chb.2016.05.079


