



Impact of the COVID-19 Pandemic Era on Adolescent Mental Health

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Abstract

The COVID-19 pandemic, driven by the spread of the SARS-CoV-2 virus, has brought about substantial global lifestyle changes. Governments worldwide have responded with various strategies, including the implementation of social distancing, which necessitates maintaining physical distance and limiting social interactions to curb virus transmission. This study seeks to assess the pandemic's effects on adolescent mental health and identify potential strategies for fostering positive mental well-being during these trying times. Utilizing systematic review and literature methods, data were collected from research journals conducted by experts and sourced from two databases, Google Scholar and PubMed. The findings indicate a notable impact of the COVID-19 pandemic on adolescent mental health, with disruptions in daily routines, especially due to distance learning resulting from social distancing measures, contributing to increased mental health issues such as depression, anxiety, and trauma among adolescents. In conclusion, this analysis, based on a review of 12 pertinent articles, underscores the significant influence of the COVID-19 pandemic on adolescent mental health. Effective efforts aimed at promoting positive mental well-being during this crisis require further attention to mitigate the resultant negative consequences. Further research and tailored preventive measures are crucial for assisting adolescents in navigating the mental health challenges posed by this ongoing pandemic.

Keywords: COVID-19, Pandemic, Mental Health, Adolescent

Introduction

The pandemic is an epidemic that has hit various regions. The COVID-19 pandemic occurred due to the spread of the SARS-CoV-2 virus. This virus first appeared in Wuhan on December 12, 2019 which began with a group of patients who experienced symptoms of atypical pneumonia-like disease. Initially, the etiology of this disease was unknown until on January 10, 2020 the virus was identified as 2019 Novel Coronavirus (2019-nCoV). On February 11, 2020, the World Health Organization formalized the name COVID-19 as the disease that caused the 2019-nCoV outbreak. (Mehta, Bhandari, Raut, Kacimi, & Huy, 2021) The World Health Organization declared COVID-19 a pandemic on March 11, 2020. COVID-19 has been designated as a pandemic in Indonesia on March 31, 2021 through Presidential Decree Number 11 of 2020 concerning the Determination of the 2019 Corona Virus Disease Public Health Emergency in Indonesia. (Scheetz & Wilson, 2023) Until March 2020, several countries imposed *lockdowns* in an effort to control and handle COVID-19. Other efforts such as the use of masks, administering vaccines, to *social distancing* are also carried out. (Adhikari et al., 2020)

The era of the COVID-19 pandemic has not only brought physical changes in global society, but also raises complex challenges involving mental health aspects, especially in adolescent groups. Adolescents, as a group undergoing a dynamic phase of development, find themselves in the midst of a profound shift in the paradigm of everyday life. Unpredictable social, economic and health dynamics become an integral part of the reality they face, creating a profound impact on their mental health. (Chu et al., 2020) The adolescent phase itself is a period in which individuals undergo cognitive, emotional, and social transformations. However, the pandemic has forced teenagers to adapt to situations that are far from normal. Social distancing, concerns for the health of themselves and those closest to them, and uncertainty about the future are heavy burdens on the shoulders of today's teenagers. (Melina & Herbawani, 2022)

Drastic changes in daily routines include reduced in-person social interactions, especially in the school environment and with peers. This condition not only creates a social vacuum but also increases levels of loneliness and isolation, potentially having a long-term impact on adolescent social and emotional development. (Araújo, Veloso, Souza, Azevedo, & Tarro, 2021) In addition, the educational aspect is also significantly affected. The transition to online learning raises technological challenges and changes the way adolescents interact with education. These restrictions may have an impact on learning motivation, participation in extracurricular activities, and the formation of healthy relationships with teachers and peers. (Daniel, 2020)

In the context of mental health, increased stress levels seem inevitable. Bad news, erratic health statistics, and changes in daily living habits can all trigger symptoms of anxiety, depression, or even more serious mental health disorders. Therefore, this study will discuss in detail the impact that occurred on adolescent mental health during the era of the COVID-19 pandemic. Through a deep understanding of the social, economic and health changes adolescents are experiencing, we can detail effective solutions and supports to help them overcome the challenges that arise during this difficult time. As such, this study aims to

contribute to a global understanding of adolescent mental health dynamics in the context of the ongoing pandemic. (Safira & Candrasari, 2021)

Literature Review

The implementation of online learning systems in the pandemic era can be one of the factors that affect the adolescent development process. Emotions that are still unstable accompanied by restrictions in interacting will certainly increase mental health problems in adolescents. The Indonesian Association of Mental Medicine Specialists (PDSKJI) conducted a survey on mental health through self-examination conducted online through the PDSKJI website, namely <http://pdskji.org/home>. The results of a self-examination conducted by 4,010 respondents (71% women and 29% men) for five months (April-August 2020) showed that 64.8% of respondents experienced psychological problems with a proportion of 64.8% experiencing anxiety, 61.5% experiencing depression, and 74.8% experiencing trauma. (Daniel, 2020; Mardiana, Mas'ud, Sibulo, Nofrianti, & Irawati, 2022)

Research Method

Search strategy and data sources

This study uses systematic review and literature methods by collecting data that has been reviewed previously and also using qualitative descriptive methods where this method describes and explains by telling an analyst based on survey results and using analytical observational methods in a cross sectional way.

Data search strategy using PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-analysis) method. The literature search will be conducted in November 2023 through 2 databases: PubMed and Google Scholar. The keywords used: (1) COVID-19, (2) Pandemic era, (3) Mental Health (4) Adolescents

Study selection and data extraction

The inclusion criteria of the articles studied are: 1) The target group of adolescents.; 2) The scope discussed is not only in Indonesia, but broadly; 3) Articles in English and Indonesian. Exclusion criteria are journals that do not match the topic of the title but can be related to the topic of discussion.

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Figure 1. Search results selection flowchart

Result/Findings

NO	Title	Author	Years of publish	Method and data collection	Result
1	The impact of COVID- 19 lockdown on child and adolescent mental health: systematic review (Panchal et al., 2023)	Panchal, Urvashi Salazar, Gonzalo Franco, Macarena Moreno, Carmen Parellada, Mara Arango, Celso Fusar, Paolo	2023	The format of the methods and results is based on the Preferred Reporting Items for Systematic Review and Meta-Analyses guidelines. (PRISMA)	The COVID-19 lockdown has resulted in psychological stress, particularly highlighting individuals with pre-existing mental health disorders, such as excessive anxiety about the future and elevated levels of stress.
2	The potential impact of the COVID-19 pandemic on child growth and development: a systematic review	Frederico, Cássio Marcos, João Azevedo, Coelho De Tarro, Giulio	2021	The Preferred Reporting Items for Systematic Review and Meta-Analyses guidelines are used to conduct a scientific literature review	The COVID-19 pandemic has resulted in a high mortality rate in the global population, and the risk factors for children's

	(Araújo et al., 2021)			on the impacts on the general health, development, and mental health of children and adolescents as a result of previous epidemics and/or the COVID-19 pandemic.	exposure to stress are very high due to witnessing numerous changes in their environment during the COVID-19 pandemic.
3	The Influence of Online Learning in the COVID-19 Era on the Mental Health of Students (Mardiana et al., 2022)	Mardiana Diana Mardiana, Alfian Mas'ud, Megawati Sibulo, A. Sri Ulfi Nofrianti, Irawati Irawati	2022	Literatur review	The Impact of Online Learning in the COVID-19 Era on the Mental Health of Adolescents: The transition from in-person learning to online or remote learning has required adolescents to adapt to a new pattern and system of education.
4	The Impact of the COVID-19 Pandemic on the Mental Health of Children and Adolescents (Sonartra, 2021)	Era Neltia Sonartra	2021	Literatur review	The impact of the COVID-19 pandemic on the mental health of children and adolescents includes anxiety, depression, and the emergence of social distancing-related social isolation due to the implementation of social distancing measures to reduce the risk of COVID-19 transmission.

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5	The status of adolescent health during the COVID-19 pandemic (Alamolhoda, Zare, & Nasiri, 2022)	Alamolhoda, Seideh Hanieh Zare, Elham Nasiri, Mliheh	2022	This study employs a cross-sectional design and recruits 1,300 male adolescents (aged 13-19 years) who are enrolled in high schools from January to May 2021.	In this study, all aspects of adolescent health are affected by COVID-19, not only impacting their physical health but also influencing their mental health. Addressing mental health issues is crucial as there is a close connection between physical and mental health. Even if one recovers physically, if there are lingering mental health disturbances, it can lead to a relapse of physical illness.
6	Mental Health of Children and Adolescents Amidst COVID-19 and Past Pandemics: A Rapid Systematic Review (Meherali et al., 2021)	Meherali, Salima Punjani, Neelam Louie-poon, Samantha Rahim, Komal Abdul Das, Jai K Salam, Rehana A Lassi, Zohra S	2021	Literatur review	The research findings indicate that although the transmission rate of COVID-19 among young children and adolescents is relatively low, the stress they experience makes them highly susceptible to contracting the COVID-19 virus. This is due to a compromised immune system and a decrease in its ability to defend the body against invading bacteria and viruses.

7.	<p>Psychological First AID Training Untuk Meningkatkan Mental Health Awareness Pada Remaja di Era Pandemi Covid-19 (Edmawati, Susanto, Maulana, & Kumalasari, 2022)</p>	<p>Mahmuddah Dewi Edmawati , Bambang Susanto , Muhammad Arief Maulana, Rita Kumalasari</p>	2022	<p>This study utilizes a direct observation method involving research subjects, namely, four high school students from SMA Karang Taruna Amukti Kalikatir, Desa Nambangan, Kecamatan Selogiri, Kabupaten Wonogiri, who did not pass the SNMPTN (National Selection for State Universities) examination. The research focuses on examining the mental health issues they face as a result of experiencing failure.</p>	<p>From this study, it was found that students who failed the SNMPTN examination experienced excessive stress leading to mental health disorders. This conclusion is based on the Wilcoxon psychological test results, which obtained a score of 65.75 before receiving psychological first aid training and an improved score of 88.00 after the training. This increase in scores indicates that psychological first aid training is effective as a first intervention to reduce mild mental health disorders.</p> <p>In this research, Generation Z adolescents aged 15 to 25 years were used as the study participants. Data collection was carried out through questionnaire submissions using Google Forms, and the results showed a 100% understanding among Generation Z adolescents regarding the importance of mental health in</p>
8.	<p>Pengetahuan Generasi Z Tentang Literasi Kesehatan Dan Kesadaran Mental Di Masa Pandemi (Rudianto, 2022)</p>	<p>Zalfa Nuraeni Rudianto</p>	2022	<p>This study employs a qualitative descriptive method, which involves describing and explaining by narrating a phenomenon based on survey results through analysis.</p>	<p>In this research, Generation Z adolescents aged 15 to 25 years were used as the study participants. Data collection was carried out through questionnaire submissions using Google Forms, and the results showed a 100% understanding among Generation Z adolescents regarding the importance of mental health in</p>

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9.	Factors Influencing the Mental Health of Adolescents During the COVID-19 Pandemic (Melina & Herbawani, 2022)	Shela Ayu Melina dan Cahya Kharin Herbawani	2022	Literatur Review	navigating all aspects of life effectively. Based on the research results, several factors that influence the mental health of adolescents during the COVID-19 pandemic include the transition to online learning, increased screen time spent on smartphones, consumption of news from social media, and misuse of social media due to lack of parental supervision, as well as social isolation.
10.	The Influence of Family Function and Family Income on the Anxiety Levels of Adolescents in the COVID-19 Pandemic Era (Safira & Candrasari, 2021)	Aulia Mega Safira , Anika Candrasari	2021	The method used in this research is an analytical observational approach with a cross-sectional design. The research subjects are adolescents aged 17 to 24 years from various cities in Indonesia.	From this research, the analysis was conducted using a questionnaire answered by adolescents, and statistical tests such as chi-square, Fisher's test, and logistic regression were used. The results revealed a significant increase in anxiety due to the influence of family dysfunction, while there was no significant impact on mental health related to the family's financial or income condition. This is because the family plays a crucial role in supporting a

					child's emotional development and other fundamental aspects.
					Additionally, the study found that an excessive academic workload is a primary factor causing stress among students. Not only that, other academic burdens such as a monotonous environment, noise, high expectations, missed opportunities, conflicting demands, understanding of the material, and tight assignment deadlines also contribute to stress.
11.	The Impact of the COVID-19 Pandemic on the Mental Health of Students Globally (Silvia & others, n.d.)	Syfa Silvia	2021	Literatur Review	The research findings indicate that an excessive academic workload is the primary factor causing stress among students. Additionally, other academic burdens such as a monotonous environment, noise, high expectations, missed opportunities, conflicting demands, understanding of the material, and tight assignment deadlines also contribute to stress.

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12.	The Role of Adolescent Mental Health in Online Learning During the Pandemic (Fernanda & Fidini, 2021)	Mutiara Septia Fernanda , Ahsanti Fidninki	2021	The method used is a combination of literature review and quantitative analysis.	From the research findings, it was observed that 80 percent of the surveyed students reported experiencing increased stress during the pandemic. They encountered various obstacles in their online learning experience, including network issues that made it difficult to comprehend the lessons, a lack of guidance from teachers, and eye strain due to prolonged screen time on their mobile devices.
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Discussion

COVID-19 has impact on public health and mental well-being is crucial in understanding the challenges posed by this global pandemic. COVID-19, caused by the coronavirus SARS-CoV-2, emerged as a significant threat in late 2019 and quickly escalated into a pandemic that affected almost every corner of the world. This pandemic has not only tested the resilience of healthcare systems but has also had profound effects on daily life and mental health. The virus's genetic relationship to other coronaviruses like SARS and common flu variants highlights the potential severity of COVID-19 and the far-reaching consequences it can have on public health. The virus's origin in Wuhan, China, in December 2019, marked the beginning of a global crisis, prompting governments worldwide to implement various measures to curb its spread. Lockdowns, social distancing, and other preventive actions became the norm, significantly altering people's routines and interactions. (Ciotti et al., 2020; Scheetz & Wilson, 2023)

COVID-19 presents a wide range of symptoms, from mild to severe, with respiratory issues being a common manifestation. However, it is important to note that some individuals can be asymptomatic carriers, making it challenging to detect and control the virus's spread. The presentation of symptoms may include fever, dry cough, shortness of breath, loss of sense

of smell or taste, sore throat, dizziness, fatigue, muscle pain, body aches, chills, nausea, vomiting, and diarrhea.(Mehta et al., 2021)

While the physical health impact of COVID-19 is evident, the pandemic has also taken a toll on mental health. Mental health is often overlooked or underestimated, but it is a critical aspect of overall well-being. It encompasses emotional balance, resilience, social interactions, problem-solving abilities, self-understanding, creativity, emotional stability, fulfillment of basic needs, sleep quality, and, at times, professional support. Neglecting mental health can lead to various mental health disorders, which can have long-lasting effects. The COVID-19 pandemic has brought about numerous challenges that have had significant consequences on mental health. Lockdowns and social distancing measures have resulted in social isolation and restricted interactions, leading to feelings of loneliness and isolation. Loneliness is a serious concern as it can negatively impact emotional well-being. Increased stress and anxiety levels have also become prevalent due to the uncertainty surrounding the pandemic, health concerns, and economic instability. Such stress can lead to a range of mental health issues, including depression, sleep disorders, and increased substance use as individuals seek coping mechanisms.(Panchal et al., 2023; Talevi et al., 2020)

Furthermore, the pandemic has disrupted daily routines, leading to imbalances in lifestyle. Reduced physical activity, changes in sleep patterns, and altered diets can exacerbate mental health problems. Access to mental health services has become challenging for some, exacerbating mental health issues further. For adolescents, the impact of the pandemic has been particularly pronounced. Adolescence is a critical period for social interaction and development, and the restrictions imposed have disrupted their social lives. Adolescents rely heavily on peer interactions for growth, self-identity development, and social skills. Social distancing measures have limited these interactions, leading to feelings of isolation and loneliness. The transition to online learning, while necessary for safety, has brought its own set of challenges. Difficulty adapting to technology, lack of support from teachers, and limited participation in extracurricular activities can affect learning motivation and emotional well-being.(Daniel, 2020; Meherali et al., 2021)

The uncertain future brought about by the pandemic has added to adolescents' stress levels. Concerns about their parents' jobs, educational continuity, and future prospects have led to increased mental stress. Changes in daily habits and lifestyles have led to imbalances, with many adolescents experiencing fatigue, lack of motivation, and mood swings. Increased screen time and social media use, while a means of staying connected, can lead to additional stress and feelings of inadequacy due to social comparisons. Moreover, the pandemic has highlighted the importance of mental health services and support. Addressing mental health challenges during and after the pandemic is crucial to mitigate the long-term consequences on individuals' well-being. Creating an environment that supports positive adolescent development, providing education and social support, and ensuring access to mental health services are essential steps in promoting mental health resilience in the face of future challenges.(Fernanda & Fidiniki, 2021; Melina & Herbawani, 2022)

Conclusion

In conclusion, mental health is critical for individuals to manage the impact of the pandemic and take care of their mental health. Especially from research journals that we have found, it is stated that the biggest impact is adolescents because the pandemic era made a lot of significant changes to various things that made adolescents have to adapt to these changes, such as in the learning process imposed by the online system due to the implementation of social distancing and lockdowns to break the chain of spread of the covid-19 virus.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in this work.

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