



Analysis of the Impact of Learning with Online Media During the Covid-19 Pandemic on the Mental Health of Adolescent Through Literature Module

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Article Information:

Received June 10, 2023

Revised June 19, 2023

Accepted June 25, 2023

ABSTRACT

Online learning and working from home for educators are changes that must be made by lecturers to continue teaching students. Distance education has the aim of improving the quality of education and the relevance of education as well as increasing equitable access and expansion of education. Distance education that is held with good quality assurance and in accordance with the needs of stakeholders is one of the mechanisms for expanding access to higher education. Subjects and Methods: Systematic review using the database : Google Scholar. The search results that meet the criteria are then analyzed for articles. Results: Online learning has several impacts on students, namely (1) online learning still confuses students to become passive, less creative, and productive, (3) accumulation of information/concepts on students is less useful, (4) students experience stress, (5) increased students' language literacy skills. Conclusion: Online learning has several impacts on students. This can be prevented, one of them is by socializing literacy about the impact of using social media on mental health and academic performance through literacy modules with the aim that learning can be sought to be well received by students without reducing the essence of education itself.

Keywords: Covid-19, Online, Students, COVID-19

Journal Homepage <https://journal.ypidathu.or.id/index.php/jnhl>

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How to cite: Zani, N. B., Sholihat, S. (2023). Analysis of the Impact of Learning with Online Media During the Covid-19 Pandemic on the Mental Health of Adolescent Through Literature Module. *Journal of World Future Medicine, Health and Nursing*, 1(3), 191-205. <https://doi.org/10.55849/health.v1i3.514>

Published by: Yayasan Pendidikan Islam Daarut Thufulah

INTRODUCTION

Circular Letter of the Minister of Education and Culture Number 36962/MPK.A/HK/2020 states that all teaching and learning activities both in schools and college campuses use online or online methods as an effort to prevent the development and spread of Coronavirus disease (Covid-19) (Egan dkk., 2019). Online

learning was implemented in various ways by educators amid school closures to anticipate the coronavirus (Groopman dkk., 2019). However, the implementation is considered not optimal and shows that there is still unpreparedness among educators to adapt to the digital climate (Charismiadiji, 2020). Many schools have implemented online assignment methods for students. The assignments are made through various available social media, especially WhatsApp groups. In emergency conditions due to the coronavirus as it is now, this form of assignment is considered effective in distance learning (Lippi dkk., 2020). Consequently, the introduction of concepts about a lesson as applied in face-to-face learning cannot go well. In face-to-face learning, there will be a presentation of the learning concept and its objectives first. Then the learning continues until understanding and development (Chandrasekar dkk., 2020). These stages are considered not to run well in emergency situations like now (Slivnick & Lampert, 2019).

The stuttering of educators, the confusion of parents who accompany their children to study at home, and students who are confused about online learning methods accompanied by piles of assignments have caused widespread anxiety, especially during the Covid-19 pandemic. Research conducted by livana PH et al (2020) shows that learning tasks are the main factor causing student stress during the Covid-19 pandemic (Piva dkk., 2020). Anxiety can be a feeling of worry, feeling bad, uncertainty or feeling very afraid as a result of a threat or threatening feeling where the real source of the anxiety is not known with certainty (Huang dkk., 2020). Anxiety affects student learning outcomes, because anxiety tends to produce confusion and distortion of perception. These distortions can interfere with learning by reducing the ability to focus attention, reducing memory, interfering with the ability to connect one thing with another (Jung dkk., 2020). The results of research by Cao, Fang, Hou, Han, Xu, Dong, & Zheng, (2020) on 7,143 students showed that 0.9% of students experienced severe anxiety, 2.7% experienced moderate anxiety, and 21.3% experienced mild anxiety. Prolonged and continuous anxiety can cause stress that interferes with daily activities. The responsibilities and demands of academic life on students can be part of the stress experienced by students (Carr & Rowe, 2020). Stress is one of the human psychological reactions or responses when faced with things that are felt to have exceeded limits or are considered difficult to deal with (Guan dkk., 2020).

Every human being has experience with stress even before birth. Academic stress is mental and emotional pressure, or tension, that occurs due to the demands of campus life. Sources of academic stress include: monotonous situations, noise, too many tasks, exaggerated expectations, vagueness (Adams & Walls, 2020), lack of control, dangerous and critical situations, not appreciated, ignored, lost opportunities, confusing rules, conflicting demands, and coursework deadlines (Yao dkk., 2020). Moderate to severe levels of stress can hinder learning. An increase in the amount of academic stress will reduce academic ability which affects student achievement index (Brouwer dkk., 2020). The problems experienced by students, if not addressed immediately, can lead to more serious psychological problems such as depression (Ren dkk., 2020). Depression

can cause psychomotor manifestations in the form of a state of passion, enthusiasm, activity and work productivity that tends to decrease, concentration and thinking power slows down. These psychomotor manifestations can have an influence on learning achievement if the sufferer is a student who is active in the teaching and learning process (Alatab dkk., 2020).

The results of research by Maia, Berta Rodrigues, Paulo César (2020) show that students evaluated during the pandemic period showed significantly higher levels of anxiety (Kumar dkk., 2019), depression and stress, compared to students during normal times. The results show that the pandemic has a negative psychological effect on students (Korfiatis dkk., 2019). The results of a preliminary study conducted on 7 students who underwent an online learning process during the covid19 pandemic showed that students experienced fear, irritability, anxiety and felt sad (Baabdullah dkk., 2019). Based on the results of the preliminary study, it is necessary to conduct research that aims to determine the psychological picture of students in the learning process during the covid-19 pandemic through quantitative research.

LITERATURE REVIEW

The COVID 19 pandemic in Indonesia began in March 2020 (Bojanic & Warnick, 2020), starting with a positive victim in the city of Depok. After that, the increase in cases occurred throughout the Jabodetabek area, making it a red zone area. The National Disaster Management Agency (BNPB) issued decree number 13 A regarding the establishment of an emergency period due to the coronavirus. Based on this determination, the Ministry of Education and Culture (Kemendikbud) issued a Circular Letter from the Minister of Education and Culture Number: 36962/MPK.A/HK/2020 dated March 17, 2020 concerning Online Learning and Working from Home in the context of Preventing the Spread of Corona Virus Disease (COVID-19)[1] [2] [3][4] (Alola dkk., 2019) . Learning is the core of the education process. The quality of education reflects the quality of learning. Improving the quality of education can be done through improving the quality of learning (Al-Ansi dkk., 2019). Online learning and working from home for educators are changes that must be made by lecturers to continue teaching students (Saha dkk., 2020). Distance education has the aim of improving the quality and relevance of education and increasing equitable access and expansion of education (Li dkk., 2021). Distance education organized with good quality assurance and in accordance with the needs of stakeholders is one of the mechanisms for expanding access to higher education (6). The Distance Learning Program (PBJJ) is an alternative that is currently used by every university to carry out the teaching and learning process even though it is not face-to-face.

Changing the learning process from face-to-face to distance learning is a decision that must be made by the university so that educational objectives can be carried out effectively and efficiently. University is a modern organization that must adapt to environmental changes (Hult dkk., 2019). Universities in the midst of the COVID-19

pandemic must continue to carry out the teaching and learning process by changing it to PBJJ. PBJJ is a challenge for every university to continue to carry out educational goals. The COVID-19 pandemic has caused a university to carry out an adaptive culture. The three dimensions and indicators are change creation, consumer/customer focus, and organizational learning. Change creation will be seen from (1) the way the university does everything in a flexible and easy way in dealing with changes, and (2) the university's ability to respond to other changes in the environment. Customer (student) focus will be seen from (1) student comments and suggestions that can cause change, (2) all members (university) have a deep understanding of student wants and needs. Organizational learning is seen from: (1) the university innovates and takes risks and (2) the university continues to learn in response to changes in the external environment.

RESEARCH METHODOLOGY

Research with an analytical descriptive approach with a sample size of 190 respondents with total sampling technique was conducted in May 2020 on students who underwent the online learning process during the Covid-19 pandemic. The research was conducted on university students. Data were collected using questionnaires related to respondent characteristics and levels of anxiety, stress and depression using the DASS-21 instrument. The data from the study were analyzed multivariately and presented in a frequency distribution.

Inclusion criteria for articles used: 1) articles that describe online learning in college students; 2) articles written in Indonesian; 3) articles published have complete sections; 4) published during 2020. Article exclusion criteria include: 1) not using Indonesian. 2) incomplete article structure.

RESULT AND DISCUSSION

Table 1 shows the average age of respondents is 19.75 years old. Table 2 shows that the majority of respondents are female, students prefer face-to-face learning and the most experienced obstacles during online learning are difficulty concentrating and understanding the material provided.

Table 1 Age of Respondents (n=190)

Mean	SD	Min	Max
19,75	0,948	18	24

Table 2. Characteristics of Respondents (n=190)

Characteristics	f	%
Gender		
Female	146	76,84
Male	44	23,16
Preferred type of learning method		
Face-to-face	8	16
Online	1	2

The most common obstacles experienced in the online learning process

online learning process	59	31,05
Internet network (signal)	64	33,69
Difficulty concentrating and understanding the material	57	30
Internet quota requirement	10	5,26

Table 3. Anxiety Level of Respondents (n=190)

Anxiety Level	f	%
Normal Anxiety	79	41,58
Mild Anxiety	79	41,58
Moderate Anxiety	32	16,84
Severe Anxiety	-	-
Severe Anxiety	-	-

Table 4. Respondents' Stress Level (n=190)

Stress Level	f	%
Normal Stress	167	87,89
Mild Stress	23	12,11
Moderate Stress	-	-
Severe Stress	-	-
Very Severe Stress	-	-

Table 5. Depression Level of Respondents (n=190)

Level of Depression	f	%
Normal Depression	183	96,32
Mild Depression	7	3,68
Moderate Depression	-	-
Severe Depression	-	-
Severe Depression	-	-

Table 3 shows that most students experience mild anxiety. Table 4 shows that only some students experience mild stress. Table 5 shows that few students experience mild depression.

Search results using the keywords "the impact of COVID 19 on students' online learning" using the Google Scholar electronic database. The search results using these three keywords resulted in 263 articles (Pierce dkk., 2020). Then filtering articles with inclusion and exclusion criteria obtained 127 articles (Pierce dkk., 2020). Further selection of articles by eliminating duplication of articles with the results of 16 articles. Furthermore, article elimination was carried out based on a complete arrangement of 8 articles.

Table of Article Extraction Results			
Author	Year	Number of Subjects	Results
Dian Sari	2020	Research	Based on the research results, 3 universities have carried out adaptive roles as universities that must provide PBJJ in the midst of this pandemic. However, the difference lies in the adaptive role of university organizations. The adaptive role of the university is seen
		6 lecturers and 90 students who participated in PBJJ from three universities	and from creating change, focusing on
Melani Kartika Sari	2020	which the	became customers, and corporate organizational learning. Universities as educational organizations must be dynamic and adaptive to change in order to control change and educational goals can still be achieved to the fullest, are universities that are pioneers in the field of education.
Suhartono	2020	object research. X	of being a pioneer
Dian Ayu Khasanah Hascaryo Pramudibyan to, Barokah Widuroyekti	Ratu Uswatun0	202 70 respondents	It was found that most students experienced moderate stress (38.57%), some experienced severe stress (28.57%), and mild stress (32.86%). The stressors that cause the most stress are difficulty
Nariza Wulan Ika Purnamasari, Fahrullah	Wanti2020 Sari1,	6th semester PAI student B IAI	understanding the material online and the fear of contracting COVID-19.

Roida Pakpahan, Yuni Fitriani	2020	Prince Diponegoro Nganjuk.	The results showed that 1) the mean score after using online learning was better than the score before using online learning, (2) the sample relationship had a fairly close relationship, and (3) the significance value obtained was 0.000 which means $0.000 < 0.05$, so that the test results before and after using the online learning model had a significant change and the online learning model had a significant effect on student literacy skills.
Wahyu Rahardjo, Nurul Qomariyah, Indah Mulyani & Inge Andriani	2020	The population was taken from 100 UT Semarang students, Batang Regency pokjar from various semesters.	
Eko Yulianto, Putri Dwi Cahyani, Sofia Silvianita	2020	various semesters.	The results of the study showed 82% of students supported and were more enthusiastic in preparing technology for the new mode of learning using tuweb. Student suggestions and input also make evaluations in providing better service to UT and the world of education.

The results of this study show that the highest level of student anxiety is mild anxiety with 79 students (41.58%) and moderate anxiety as many as 32 students (16.84%) with online learning. The results of research in the United Arab Emirates show that the anxiety level of non-characteristic students increases with online learning (Saddik, Basema et. Al. 2020). Anxiety is a form of response to certain unwanted stimuli that can occur anywhere and which is difficult to observe directly but can be identified through changes in behavior Nursalam.

Students' academic pressure, exposure to patients in clinical practice, financial constraints and lack of sleep are factors that may have contributed to psychological problems associated with stress and anxiety (Al Saadi T, et. Al. 2017; Trivate T, Dennis AA, Sholl S, Wilkinson T., 2019). In addition, during the pandemic, medical students are considered to be at higher risk of infection due to their clinical practice, and therefore increase the risk of exposure to the virus (Kim S, Kim S., 2018; Al Ghobain M. et al., 2017), furthermore students are anxious about transmitting the virus when returning to their families and loved ones.

The results of research related to stress levels show that there are some students who experience mild stress, namely 23 students (12.11%) due to online learning. Each individual's stress response is different. Various factors such as personality factors,

stressor characteristics and adaptability to stress or coping strategies for the stress faced can be the cause of stress. Personality factors greatly influence how a person processes stressors, resulting in different stress impacts. The adaptability and coping strategies of students also play a role in the body's response to stress, someone who is not good at adapting, stress cannot be overcome, causing a negative impact. The negative impact of stress on students can be in the form of decreased concentration and concentration during lectures, decreased interest, self-motivation and can even cause bad behavior such as deliberately arriving late for lectures, drinking alcohol, smoking and so on.

Stress can occur due to the amount of subject matter that must be learned, the lack of feedback given by lecturers, the quality of lecturers who teach, and the number of assignments given by lecturers Al-Dabal's research in Saudi Arabia states that teaching methods and learning environment are one of the causes of stress for both medical and non-medical students. Similar research results state that the way lecturers teach has a significant influence on student stress levels (Agustin, Hidayatullah, Aminoto, & Tau, 2018). The results of another study found that 55.8% felt stressed during the Covid-19 pandemic due to the online learning process that was getting boring (Livana PH. et al., 2020). The demand to master knowledge and skills in a limited time can cause stress for students (Oktaria, D., Sari, M. I., Azmy, N. A., 2019).

The problems experienced by students, if not addressed immediately, can lead to more serious psychological problems such as depression. The results showed that a total of 7 (3.68%) students experienced mild depression. The results of research by Maia, Berta Rodrigues, Paulo César (2020) show that students evaluated during the pandemic period showed significantly higher levels of anxiety, depression, and stress, compared to students during normal times. The results show that the pandemic has a negative psychological effect on students.

Many cases of depression were not identified. This is due to the fact that no depression-related measurements were taken with the students. According to Fleming, the consequences of not identifying students with depression are fatal. It is possible that the student leaves the university, uses drugs, becomes an alcoholic, and even commits suicide. Based on research by DeRoma, Leach, and Leverett, there is a significant negative relationship between depression and academic performance. By screening for symptoms of depression in students, the decline in student academic grades is expected to be anticipated early.

Learning transformation and synergy between higher education are believed to be one of the keys for universities to get out of the prolonged COVID19 pandemic crisis. The use of virtual learning in the distance learning process is believed to provide ease of learning, making it a means to be able to communicate directly via cyberspace, and avoid physical contact in order to prevent transmission of COVID-19. Direct interaction provides a meaningful touch between educators and students, which can stimulate the thoughts, feelings and willingness of students. Through direct interaction, educators are able to create a learning atmosphere and learning process in accordance with the character and needs of students and the achievement of educational goals. More deeply,

direct interaction between educators and students can lead to feelings of mutual need, respect, affection, to feelings of longing when students graduate from the course taught by the lecturer. In order to reduce the spread of the COVID-19 virus, the government has made a policy, namely physical distancing, which includes a special policy for students starting from kindergarten, elementary school, junior high school, high school to university learning from home. Educators / teachers, lecturers, students, students and parents, interact through technology. This policy is something that certainly makes educators to aggressively train and familiarize themselves with the changes that will occur. The rapid spread of this virus and the increasing number of positive victims made President Joko Widodo declare the Corona COVID-19 virus outbreak a national disaster. Several rules and policies continue to be implemented to suppress the spread and break the chain of this virus. One of them is the implementation of a social distancing policy so that people maintain physical distance to protect themselves from the spread of the virus. In line with this, work from home, study from home, worship from home and maintain distance and personal health are enforced. Schools and universities, as formal educational institutions, must respond and take an appropriate attitude to this situation. Learning activities in schools and universities throughout Indonesia are stopped, as stated in the Circular Letter of the Minister of Education and Culture Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period of the Spread of Corona Virus Disease (COVID-19). The physical and mental health of students, educators and all school residents is the main consideration for the suspension of educational activities in schools and universities. When activities at school are "closed", it does not mean that learning activities are not carried out. The Minister of Education and Culture firmly states that the learning activity space is moved from school to home so that the learning process continues as usual. One of the ways in which distance learning is carried out is by implementing online learning. The utilization of technology in the era of globalization can be maximized in this situation. Project-based online learning system provides many opportunities to access teaching materials by the learners. Many online platforms and media can be accessed through the internet network by teachers and learners. Some of the obstacles in the implementation of online learning include limited internet quota and the unfamiliarity of educators and learners in applying it. Online learning is learning "in the network" as a translation of the term online which means connected to a computer network online learning (online) as a learning strategy that is fun for learners (students) because they can listen to it through smartphones, laptops, or computers instead of just listening to books. Online learning has several benefits, including (1) increasing the level of learning interaction between students and lecturers, (2) allowing learning interactions to occur anywhere and anytime, (3) reaching a wide range of students, and (4) facilitating the improvement and storage of learning materials. Student learning activities with online learning can make students not feel bored, more interested, and active in participating in learning, (5) the meaningfulness of learning, ease of access, and improved learning outcomes. Gradually, many organizations are adopting online

learning as the main delivery method for training employees. Although the use of online learning system is expensive in terms of data plan usage, there is a huge benefit of this strategy for both learners and educators. The high cost of online learning is also still affordable in lieu of transportation costs when coming to class.

Online learning still confuses students

One of the concerns in online learning is the implementation of learning. Recently, many students have complained that there are many assignments without enough materials so they are a bit overwhelmed in following the learning process. Even Whatsapp, e-learning, and Zoom applications are still confusing for students. Online lectures do require adaptation and effort to run smoothly. In addition, it takes effort to understand the material that is usually delivered orally into writing and video or live streaming. However, in line with that, there are several complaints felt by students and students where they are starting to feel bored due to the monotony of the learning method. Although the paradigm shift of 21st century education is information, computing, automation, and communication which are four important components as stated by the Ministry of Education and Culture as the characteristics of 21st century education, the choice of applications in online learning is still needed even educators can use more than one application or combine their use to make it easier for students to follow the learning.

Students become passive, less creative and productive

The next thing to consider in online learning is the learning model used by educators. Although online learning using various applications is carried out, teachers and lecturers must still pay attention to how the learning model and scenario of learning will be implemented because learning without a careful plan will make it difficult for educators and students to achieve learning objectives. In reality, there are still many educators who have the understanding that learning is the transmission of knowledge to students. This causes students to be passive, less creative and productive in developing their potential. Based on this, a new understanding is needed that learning is a space to develop all the potential of students and they are given the freedom to develop it themselves.

Accumulation of information/concepts in students is less useful

It cannot be denied that concepts are very important, but it does not lie in the concept itself, but in how the concept is understood by students. The importance of understanding concepts in the teaching-learning process greatly influences attitudes, decisions, and ways of solving problems, for that the most important thing is the process of meaningful learning and thinking processes for students. In general, those who get learning at school are often difficult to apply the knowledge gained with problems that occur in the real world, so that the knowledge gained seems to be useless in everyday life. This is a challenge faced by educators to improve their competence, especially in online learning. This is because online learning is not just about giving assignments but how to make the learning meaningful so that it can lead students to become reliable human beings in solving problems in life. Along with academic information that is often

shared through social media, news about COVID-19 also travels massively and uncontrollably on various social media and has the potential to cause social media fatigue in students. Information overload has been shown to cause social media fatigue because it burdens individual cognition. Social media fatigue is a subjective feeling of social media users who feel tired, annoyed, angry, disappointed, loss of interest, or reduced motivation related to interactions in various aspects of social media use due to the large amount of content found on social media. Social media fatigue causes individuals to lose concentration and focus on what needs to be done. This triggers another negative consequence, namely a decrease in learning performance. This means that students who study at home during the COVID-19 outbreak are suspected to be unable to perform optimally and experience a decline in achievement.

Students experience stress

The stress experienced by students due to the COVID-19 outbreak is influenced by the fear of contracting COVID-19, worries about going out, boredom when doing social distancing, and difficulty understanding material during online lectures. The limitation to do activities outside and the anxiety of contracting the COVID-19 virus shown illustrates that this outbreak creates its own stress for students. The implementation of physical distancing certainly requires adaptation for various parties. Especially for students who have to conduct online lectures since the outbreak of the corona virus. Difficulties arise not only in terms of skills in using technology, but also related to the large workload considering that there are many courses that must be faced during the COVID-19 pandemic. This happens because students are used to regular face-to-face learning, while distance learning was previously only done incidentally. So that this change in learning patterns provides its own problems for students. the emergence of pressure and stress on students who do distance learning. At this point, the pressure certainly becomes heavier, so students do a lot of stress coping where one of them is involved with the use of social media. So at this point, social media should be one way out of boredom or stress from studying at home. However, things are different during the COVID-19 pandemic. Information overload has been shown to cause social media fatigue as it overloads individual cognition.

Improving students' language literacy skills

Online learning has a significant influence on students' language literacy skills, where online learning has many advantages for students, including being able to create a learning community, efficient learning time and costs, and learning materials can be accessed at any time with the sophistication of technology Online learning is closely related to students' language literacy skills. Students can be considered to have literacy, if they have basic language skills, namely reading and writing. For reading and writing resources in the current era cannot be separated from the internet network through smartphones, laptops, computers, and so on. Online use can improve reading ability, generate positive perceptions of reading, encourage class discussions, and develop reading and critical thinking skills. Since there are more and more internet users, it encourages people to upload their work including in the form of written works. People's

penchant for searching for readings on the internet and uploading writings, automatically increases reading and writing literacy. Therefore, literacy really needs to be nurtured so that generations love to read and write. Especially in this digital era, everything requires literacy skills including language literacy. The COVID-19 Phenomenon provides its own challenges for the world of education, which demands to be ready to teach and learn online / online to make lectures full of competence, precise, careful and fast. On the other hand, competencies, systems, and technicalities have not fully supported it. Because so far the learning has been carried out by teachers and lecturers accustomed to the old pattern with teacher centered, online learning has only arrived at the discourse as a technical device, has not yet led to the media changing the way of thinking and acting, as a student center-based learning paradigma, to make students creative, innovative who produce work, insight into the formation of students into lifelong learners.

CONCLUSION

The most common psychological problem experienced by students due to online learning is anxiety. It is important to continue exploring the implications of the pandemic on students' mental health, so that its impact can be prevented, or at least mitigated. It is expected that screening of students' mental health is conducted regularly to identify students who experience psychological problems.

Online learning has several impacts on students, namely online learning is still confusing for students; students become passive, less creative and productive; the accumulation of information / concepts on students is less useful; students experience stress; and increase students' language literacy skills. This can be an evaluation so that online learning can be well received by students without reducing the essence of education itself.

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