The implementation of adolescent mental health services: opportunities and challenges

Khoiriyah Isni¹, Mellyana Fitri¹, Septian Emma Dwi Jatmika^{1,2}, Jardene Marie Gensaya De Leon², Riris Diana Rachmayanti³, Nurul Qomariyah⁴, Sulistyawati Sulistyawati¹

¹Public Health Department, Faculty of Public Health, Universitas Ahmad Dahlan, Yogyakarta, Indonesia
²International Health Program, National Yang-Ming Chiao Tung University, Taipei, Taiwan
³Division of Health Promotion and Behavioral Sciences, Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia
⁴Faculty of Medicine, Universitas Ahmad Dahlan, Yogyakarta, Indonesia

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ABSTRACT

Insufficient knowledge and information about mental health hinders the optimal use of adolescent mental health services. This qualitative case study aims to describe the utilization of adolescent mental health services (MHS) from the perspective of healthcare providers in primary health care (PHC). The primary informants were psychologists and youth care health services (YCHS) coordinators, while the triangulated informants comprised adolescents; they were selected using the purposive sampling technique. This research employs primary data collected through focus group discussions with the primary informants and in-depth interviews with the triangulated informants. The study results reported that there is no PHC providing MHS specifically designed for adolescents. Further, as low mental health literacy and stigma from parents were identified as challenges, peer support was detected to be the reinforcing factors for adolescents to access MHS. Hence, mental health literacy must be integrated into the school curriculum so that adolescent self-diagnosis does not occur.

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Corresponding Author:

Khoiriyah Isni Public Health Department, Public Health Faculty, Universitas Ahmad Dahlan Prof. Dr. Soepomo, SH street, Warungboto, Umbulharjo, Yogyakarta, Indonesia Email: khoiriyah.isni@ikm.uad.ac.id

1. INTRODUCTION

People with mental disorders worldwide are estimated to reach around 450 million; the number includes those who suffer from schizophrenia. The country with the highest number of depression cases in the world is India (56,675,969 patients or 4.5% of its total population, while the one with the lowest number is Maldives (12,739 cases or 3.7% of the population). In Indonesia, the 9,162,886 cases of depression represent 3.7% of its total population) [1]. In 2019, *the National Institute of Mental Health* (NIMH) stated that the age of 17-18 years is the group with the highest mental health problem prevalence. The report also mentions that the United States had 220 suicide cases per 100,000 people, mostly committed by people between 15-24 years [2]. The 20% of Indonesians of all ages have the potential to experience mental health problems. As many as 1,800 people have committed suicide, with a rate of five people per day. Then, 47.7% of the victims belong to the adolescent and productive age groups, namely the age range of 10-39 years [3]. In 2018, the national prevalence of depression cases within the age group of 15 years was 706,689 (6.1%), and 706,688 cases (9.8%) of which were mental-emotional disorders [4]. Meanwhile, the prevalence of depression in the population aged 15 years in the Special Region of Yogyakarta (DIY) was 10,811 cases (5.5%), and most of them (10,810 cases or 10.1%) were mental-emotional disorders. In 2021, it was reported

that various types of mental health problems appeared among teenagers of 10-19 years old in the region; they are phobic anxiety disorder (123 cases), mixed anxiety and depression (433 cases), recurrent depression (261 patients), drug use disorder (34 patients), insomnia (317 cases), suicide attempts (32 cases) and mental disorders with personality and behaviour (231 cases) [4]. The problem of adolescent mental health disorders is getting severe in the province, and Sleman is not an exception. The 2018 Basic Health Research results showed that depression in the regency's population aged 15 years was 3.48%, and the prevalence of mentalemotional disorders was 5.83%. The next year the number of mental health centre visitors was 68,641; consisting of 35,744 men and 33,017 women [5]. In 2021, the types of mental health problems experienced by adolescents were phobic anxiety disorder (five cases), mixed anxiety and depression disorder (100 cases), (recurrent) depression (three cases), drug use disorder (six cases), insomnia (209 cases), and a trial. There were fifteen cases of suicide and 231 cases of personality and behaviour disorders reported. Further, reports show that only 9% of patients with depression receive treatment and that 48.9% of schizophrenic patients receive regular treatment [3]. A supporting study also described a similar statement on adolescent behaviour in accessing mental health services (MHS); as many as 31 out of 55 teenagers admitted that they did not have access to services. Adolescents feel that they are not really vulnerable to mental health disorders (49.1%), that mental health disorders are not a severe problem (50.99%), and that MHS are not that useful for them (65.5%). The preliminary study found that the number of mental health professionals in the mental health sector was not proportional to the number of cases and service users who come to the primary health care (PHC). The complexity of the school referral system, the high cost of consultation, and the limitations of educational programs to the community are the causes for the significant gaps in the provision of adolescent MHS.

The factors that trigger the gap in adolescent MHS include limited services, the scarcity of human resources, namely mental health professionals, and the prevailing stigma on mental health issues. In addition, the lack of cross-sectoral coordination and poorly coordinated management systems were also suspected as the other triggers [6]–[10]. Mental health providers have to face the challenges in providing help for students or youth due to the lack of information accessibility and the complicated professional code of ethics [11]. Furthermore, the gap is also caused by factors from the psychological service providers, such as the characteristics of the service, the counsellors, and the psychologists, the high service fee, and the location of the services. Those factors make the prospective adolescent service users feel that treatment is not feasible [12], [13]. Then, they also said that there are more things that keep them away from accessing MHS (54.5%). Low mental health literacy, stigma and socio-cultural factors, and financial limitations to access MHS were also reported as the causes of such inequality [10]. Previous literature states that the MHS, especially for adolescents, is closely related to adolescents' lack of initiative and determination to seek available help. Adolescents' dissatisfaction with available MHS causes them to feel hesitant to access the facilities [14], [15]. The subjective element is the embarrassment of talking about their problems. They feel they can overcome their difficulties in life. A strategy is needed to improve MHS by way of considering various factors experienced by both adolescents or the service users and mental health providers. This study aims to evaluate the MHS for adolescents and to identify support received and challenges faced by PHC in Sleman. This study can be used by healthcare providers as a reference in providing youth-friendly MHS. Furthermore, providing excellent adolescent MHS will increase the service's target coverage, which is adolescents who need professional help, as well as will reduce mental health disorder rate among adolescents.

2. METHOD

2.1. Study design and participants

This study uses qualitative case study approach with primary data, which was collected from August to October 2022. Twelve informants were involved; they are six adolescent health service providers and six adolescents who accessed MHS at three PHCs located in Sleman. The informants from the PHC are those who work as psychologists and coordinators of adolescent health programs, while the other group of informants are unmarried individuals with the age of between 18 and 24 years old who have accessed or are currently accessing or receiving treatment from adolescent MHS within the past year. Those adolescents can communicate well and are willing to become research informants. The sampling technique used in this study is purposive sampling.

2.2. Procedure

This research uses primary data which was collected through two methods, namely the focus group discussion (FGD) and in-depth interviews. The discussion was conducted with six adolescent health service providers to acquire description about the organization of adolescent MHS, and the interviews were conducted with six adolescents to confirm the findings of the discussion. The interview was selected as one of the methods since it assures the confidentiality and security of adolescents that have accessed the MHS.

The FGD and the in-depth interview guidelines were developed based on Andersen's theory. Therefore, the research instrument was divided into several parts or variables; they are i) The utilisation of adolescent MHS, ii) The predisposing factors consisting of the informant's socio-demographic characteristics and knowledge of adolescent mental health issues, iii) The supporting factors consisting of service facilities and infrastructure (health facilities and personnel, waiting time for services, and accessibility) and family support (income, knowledge, and health insurance), iv) The factor of needs consisting of the subject's perception of mental health disorders in adolescents and evaluation of mental health status in adolescents.

The data validation was conducted using triangulation methods, including source and technical triangulation. The source triangulation was carried out by validating data obtained from different sources, namely adolescents as users of the MHS. The technical triangulation was done by validating data using indepth interview techniques.

The data analysis was carried out in three stages. First, the data was reduced by summarizing, selecting, and sorting important concepts and searching for themes and topics from it. Second, the data was presented through text or narration, from which organization and arrangement were made in a pattern of relationships for easier understanding and conclusion drawing. Third, conclusions were drawn using thematic analysis and verifications were made. The researchers checked and verified the veracity of information or data through strong and valid evidence to ensure the credibility of the results. The process of obtaining such evidence is referred to as data verification.

2.3. Ethical clearance

The Research Ethics Committee of Universitas Ahmad Dahlan approved this protocol (012207090) on July 26, 2022. A hearing about the study design and the participants' consent was carried out before the examination. This study was an anonymous survey, and the participation was voluntary. All participant data is kept confidential.

3. RESULTS AND DISCUSSION

3.1. Results

3.1.1. Access for adolescents to MHS

There is no MHS among PHC in Sleman specifically assigned for adolescents. However, many youths have accessed these services to consult with mental health professionals or adolescent health workers. They access the service when they think that their problem is too big and that they have a strong desire to hurt themselves. This self-injuring behaviour might be in form of scratching or slashing own hands, slitting own neck, hitting oneself, banging oneself against hard objects, deliberately swallowing something dangerous, and so on. Adolescents who access MHS are mostly those in the age range of 18-24 years, and they mostly come alone.

"In that particular case, there is nothing, ma'am, so it is more like whenever they feel the need (of help), they would come just like that." (RTH, Psychologist A)

"Then if the service is not available in the individual health unit (IHU) of the clinic, they usually come upon either a referral from the general polyclinic or their own initiative. Teenagers mostly come alone." (RHM, Psychologist B)

"We do not have a special program for teenagers yet. That is, those who visit the clinic are, normally, have problems or mental disorders at 18-24. It is quite a lot, so maybe their target is this place already, right? Are the teenagers in their late teens or college age?" (STK, Psychologist C)

"As those who are still in the age junior high school are still shy, those who study in high school are generally very open." (SMR, PKPR B)

3.1.2. Mental health literacy

Adolescents often carry out independent diagnoses based on what they read from the internet without validating them to professionals. As a result, they tend to think they have an unsupportive environment and always have negative thoughts. Further, they interpret mental health disorders as things that can interfere with their daily activities.

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own neck, hitting oneself, banging oneself against hard objects, deliberately swallowing something dangerous, and so on.

"They do not yet fully understand the condition that they are facing because of insufficient knowledge. They also sometimes prefer to get to know about what happen by themselves rather than coming to health service centres to get the correct information." (RNA, PKPR A)

"Moderate mental health issues are warmly discussed, but maybe the teenagers' habit of reading and acquiring skills are still low, so their knowledge is not good enough. For example, teenagers with problems who come to mental health services blame their parents' way of fostering them, which impacts their life and academic achievement at school. Hence, they feel that they live in a toxic environment." (RHM, Psychologist B)

"Nevertheless, by doing this, they tend to label their environment, but they fail to acknowledge the environmental processes. For example, they said that they were overthinking, even though thinking normally would not go into overthinking." (STK, Psychologist C)

"Annoying thing disrupts teenagers' activity leading to their decreasing productivity." (BD, 18 years)

3.1.3. Opportunity factors

a. Social supports

Some teenage informants said that they did not have the courage to be open with their parents and share about their problems. They feared that they would get unpleasant responses, and this situation leads to low emotional closeness with their parents. Hence, they become embarrassed and feel disconnected in terms of communication with their parents. In addition, they will be easier to access MHS if they get support from peers who have had similar experiences.

"One of the possible motivations for them is when their friends had been to a psychologist and did well. Then, at the first meeting, they would ask their friend to accompany them." (RTH, Psychologist A)

"(He said) "Oh, last night I had a powerful desire to commit suicide," then he went to Primary Healthcare Centre." (STK, Psychologist C)

However, the support provided by peers is not directly proportional to the support provided by the family, especially parents as they tend to give negative labels to mental health problems. Parents assume that individuals who access MHS are people with mental disorders. In addition, teenagers are considered to be rebellious when facing problems and require professional help. According to mental health professionals, it is parenting that needs to be improved. Parents' parenting style is influential. Based on the data of this study, parenting is suspected to be the root of mental health problems that occur in most adolescents. The study revealed that parents tend to be not provide sufficient space for their teenage children. For example, they demand full compliance from their teenager children because they feel that it is them who pay for all their needs. In addition, one-way communication is also one of the mistakes in parenting as it can trigger mental health problems among adolescents. The adolescent informants agreed to this statement.

"Most parents are also unsupportive. They keep asking why do their children need to go to a psychologist. They asked them whether they are crazy and told them that they would not have to go to a psychologist if they pray correctly." (RHM, Psychologist B)

"People feel that a person has a mental disorder when he or she is crazy. That is why until now no one has dared to explain (what has come to his mind)." (VE, 21 years)

"One of the solutions to the problem is to improve the parenting skill of the parents. This applies to all aspects of their children's life." (STK, Psychologist C)

"There are not many stories shared with their parents. Maybe their parents are the type of family that does not communicate with each other." (DWI, PKPR C)

"My mother does not know. I rarely communicate with my mother." (LF, 22 years old)

b. Financial supports and facilities

The ease of access to PHC, in terms of distance and cost, is a supporting factor in utilising adolescent MHS. This study finds that the adolescents do not have any problem with the distance they have to travel from their homes to the MHS and that four out of the six teenagers do not have health insurance. However, they consider that the costs of accessing MHS are pretty affordable.

"... When it comes to distance, I just enjoy my trip." (FIS, 23 years old)

"The psychological services cost 15 thousand rupiahs, as regulated by the local government regulation." (STK, Psychologist C)

"I used it once for a referral to a psychiatrist." (VE, 21 years)

"No, we have to pay for every consultation session." (RF, 19 years old)

"It is the same but depending on the queue length. It is 45 minutes at the maximum." (RHM, Psychologist B)

Regarding the availability of facilities and infrastructure, both providers and service users agree that the supporting facilities such as rooms and other infrastructure should be improved in terms of completeness and adequateness. They suggest the availability of separate and more private counselling rooms.

"As for the room, ahem, I wish there were more enclosed or more private room for the psychologist and ahem... and the patient." (FI, 23 years)

"Well, it happened when I am having a consultation session, it has been a while actually, someone else suddenly opened the door, and it bothers me." (BD, 18 years old)

3.1.4. Challenges

The utilisation of adolescent MHS is also influenced by the needs from the service provider's point of view. The focus of the professional mental health workers is on individual counselling, the IHU, and the community health unit (CHU). However, their operations are optimal, especially those in the CHU.

"In terms of CHU, it is quite difficult to build such youth Posyandu (integrated service centre)." (RHM, Psychologist B)

"We do not have a special program for teenagers yet. It believes that there is one for youth Posyandu, but I do not know what kind of activity they are running because it is not us that monitor it." (STK, Psychologist C)

This study finds that, despite the absence of targets and mandatory coverage for MHS, the psychologists acknowledge that the human resource is insufficient. They added that the required personnels are not only those with psychological education background but also those from the community or schools, such as health cadres. They hope that collaboration with other parties will be held in the future so that MHS can also be carried out in the community.

"This program for youths can be more optimal if, for example, we can meet the cadres from each school more frequently, but we have no more time if I follow this idea up. There is no more resource of that, even though these teenagers will get more benefits if they have closer relationships with the program holder from the primary health care." (RTH, Psychologist A)

"Ideally, every hamlet or village must have youth cadres and other youth counsellors. Then, the obstacle is that the requirement of fixed facilities and the human resources, which fulfilment can make us able to share our tasks." (RHM, Psychologist B)

"The activities of the primary health care, for example, can be held jointly with community service centres from campuses. They can be included, you know. For example, if the resources from the campuses can join us, working together will be very easy, right?" (STK, Psychologist C)

3.2. Discussion

This study evaluates the organization of adolescent MHS at PHC in Sleman using Andersen's theory. This theory suggests that the three main factors influencing the use of MHS for adolescents are predisposing characteristics, supporting elements, and factors od needs. This study's predisposing factor includes the adolescents' knowledge and skills concerning mental health disorders. The data suggest that the adolescents' knowledge about mental health is still low, which can deteriorate their mental health problems. One of the measures that they frequently take is seeking information about mental health problems on the Internet [16], [17]. The internet has provided access to information that helps adolescents who prefer independence in seeking informal help sources. Still, the ability of adolescents to access reliable and valuable information is affected by their lack of mental health literacy and a lack of knowledge regarding which resources to look for [18]. Mental health literacy recognizes mental health problems and adolescents' knowledge about the causes, risks, symptoms, effective treatment and expertise in seeking information on MHS with professional health workers [19], [20]. Adolescents think they can rely on themselves when facing mental health disorders [21]. For this reason, there is a need for education related to mental health problems to reduce the number of suicide cases by preparing them to face feelings of sadness, disappointment, anxiety, depression and ideas of hurting themselves and committing suicide [22]. Mental health can react to teens' emotional problems after going through tough times, frightening experiences, and painful memories of a traumatic event. After experiencing a traumatic event, adolescents often feel uncomfortable, afraid, sad, angry and insecure, even injuring themselves [23], in order to reduce serious thoughts or feelings of sadness and divert from perceived negative emotions [24].

There is no MHS specifically established for adolescents an all PHC in Sleman as the services are designed for the general public. However, many youths access these services to consult with adolescent mental health professionals or health workers. Most adolescents who have accessed the MHS are those with the age range of 18-24 years. Adolescents between 18-21- and 22-24-years old experience a transition from late adolescence to early adulthood. They face pressure from both daily academic and non-academic life and problems from home, school, and peers. Adolescents begin to consider future careers, build relationships with the opposite sex, commit and carry out family obligations, and play societal roles [25], [26].

Almost all adolescents who live with their parents experience considerable pressure from their demanding parents [26], [27]. Some teenagers said they did not dare to open up with their parents to share stories about their problems. They fear of getting an unpleasant response, leading to a lack of emotional closeness with their parents. Adolescents become embarrassed and feel disconnected from their parents, who are supposed to be the best role model for them in life skills procurement. Parents can model essential life skills, such as dealing with emotions and stress, solving problems, and involving adolescents in their decision-making [28]. The adolescents' relationships, both positive and negative, with families can significantly affect their mental health [29]. Adolescents with mental health problems may face stigma and discrimination from those around them, including their parents [30]. Parents assume that individuals who access MHS are people with mental disorders. In addition, teenagers who face problems and require professional help are considered disobedient people. They may face a double challenge from both negative perception of their mental state and stigma of accessing MHS [31], [32]. However, adolescents are more comfortable telling stories to their peers. Peers are an essential aspect for adolescents because they can provide sources of information outside the family [33], [34] since support from them helps relieve their burden of keeping secrets and their mental health problems [35].

Another factor found in the organization of adolescent mental health services is ease of PHC access in terms of distance and cost, which is expressed as a supporting factor for adolescent MHS utilisation. The distance from a teen users' house to their selected MHS will affect their adherence to treatment for mental health disorders [7], [36]. This study finds that the adolescents do not have any problem of traveling a long distance from their homes to the MHS. Further, although four out of the six teenagers do not have health insurance, they deemed that the costs of accessing MHS are pretty affordable. In Sleman, the cost for accessing MHS is already stipulated by the Regent Regulation number 32 of 2020 concerning the change of Regent Regulation number 29.1 of 2019 regarding the fee for using health services at PHC, which states that the fee for a psychologist consultation without assessment is IDR 15,000, while such consultation with assessment costs IDR 26,000. Health insurance is considered useful for requiring tertiary-level MHS. People with health insurance make more use of the health services because the costs for the service are not expensive and are already covered by the health insurance that they have [37]. This study finds other supporting factors for the service usage, namely the waiting time and counselling duration. It should be understood that the consultation takes a long time because the teenager needs to tell the problem. Then, at the end of the talk, the psychologist will provide the consultation results, which contain conclusions, solutions, and further actions that the teenager must do. The results of this consultation can be taken by the teenagers into their consideration in making the best decisions to solve their problems [36], [37]. However, the health workers also need to consider patient waiting time without compromising the quality of the service because long waiting time is a barrier and contributes to the adolescent's dissatisfaction in accessing MHS [38]. Thus, the quality of the service can provide satisfaction to the expectations of adolescents as the users of the health services [36].

Facilities are one of the challenges in the provision of mental health services at PHC. The health workers admit that the facilities are inadequate and uncomfortable. Comfort is an important thing that needs to be considered in providing MHS for adolescents. Interruptions by non-related people during the counselling process have been recorded by the teenagers as one of the things that must be improved. For this reason, in the consultation room, it is necessary to create a comfortable, intimate, and non-formal atmosphere by placing comfortable seats, ensuring good air circulation, providing good lighting for relaxing sessions. When the consulting adolescents feel comfortable and relaxed, they can easily express their frustrations, feelings, emotions, and sadness that they have been kept secret. This will not be achieved if their consultation session is seen and heard by other people. Therefore, the consultation room should provide privacy and security and assurance that other people cannot hear the conversation [36], [39]. When someone is having a consultation session, the room should be marked in such a way so that other people do not enter it.

The provider of the adolescent MHS also faces their own challenge in the running the service. The focus of the professional mental health workers is individual counselling, the Individual Health Unit (IHU), and the CHU. The branching focus has caused sub-optimal operation, especially in the community health unit CHU; for example, the Youth Posyandu program does not run optimally. In contrast, the establishment of a Youth Posyandu is expected to facilitate adolescents with understanding about their health problems and to expand the reach of health services, especially for adolescents who have limited access to health services [40]. If the Youth Posyandu is appropriately developed, it will become a venue to provide better access to MHS for adolescents in the community. Youth Posyandu also assists the family and community in shaping the adolescents' mental behaviour to live cleanly and healthy and to have good social skills so that they can grow and develop harmoniously and optimally and become quality human resources [41], [42].

The health workers stated that one of the challenges in implementing mental health services was limited human resources. Such scarcity in MHS is caused by the numerous tasks and responsibilities assigned to both IHU and CHU services, despite that there is only one psychologist [43]. They want health cadres in the community to be empowered the as extensions of their hands so that mental health disorder prevention can be completed at the community or school level before treatment health service centres. The health cadres are greatly helpful for the mental health workers in reaching people who need help with mental health disorders. School-based and community-based adolescent mental health programs can be implemented well if they get support from related parties, such as PHC. Until now mental health workers from PHC are used for individual services or counselling [44], [45]. Community empowerment efforts focusing on adolescent mental health can be developed by involving various parties, such as educational institutions and youth groups. Collaboration between academic institutions and MHS is crucial for adolescents [41], [46]. It allows adolescents to receive mapping, assessment, and mental health interventions so that they do not have to travel long distances to get treatments, not to mention the time and costs. PHC also needs to work with youth cadres and community leaders to reach young people to take advantage from and to participate in activities at Posyandu for adolescents [40]. Health workers should also offer different ways for adolescents to access MHS, i.e. by using social media, so that they can facilitate adolescents who need helps related to MHS [21]. This effort can bring the community-based MHS for adolescents closer to those in need.

4. CONCLUSION

The services provided by MHS have been well utilized by adolescents, but it has only focused on individual health units, yet public health units also need to be developed. Peer support is one of the factors in accessing MHS aside from costs and distance affordability. The barriers for the adolescents with metal problems from using MHS include human resources, funding sources, and infrastructure. Empowerment efforts using the support of the right resources, including networking and partnerships with related parties such as educational institutions and health cadres, are needed to bring the community-based MHS closer to the needy youths.

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REFERENCES

- World Health Organization, "Depression and other common mental disorders Global health estimates," World Health Organization, 2017. https://www.who.int/mental_health/management/depression/prevalence_global_health_estimates/en/ (accessed Jun. 25, 2020).
- [2] J. Ivey, "Mental Health Screening for Children and Adolescents," *Pediatric Nursing*, vol. 46, no. 1, 2020.
- [3] Ministry of Health Republic of Indonesia, "The national report of health basic survey 2018," Agency of Health Research and Development, Jakarta, 2018. doi: 10.12688/f1000research.46544.1.
- [4] The National Basic Health Survey, "The report of national basic health survey in Special Region of Yogyakarta 2018," Agency of Health Research and Development, Jakarta, 2018.
- [5] Sleman Regency Health Office, "Health profile of Sleman regency 2020," Yogyakarta, 2020.
- [6] A. M. Geraldina, M. W. Suen, and P. Suanrueang, "Online mental health services during COVID-19 pandemic in Indonesia: Challenges from psychologist perspective," *PloS one*, vol. 18, no. 6, p. e0285490, 2023, doi: 10.1371/journal.pone.0285490.
- [7] L. Munira, P. Liamputtong, and P. Viwattanakulvanid, "Barriers and facilitators to access mental health services among people with mental disorders in Indonesia: A qualitative study," *Belitung Nursing Journal*, vol. 9, no. 2, pp. 110–117, 2023, doi: 10.33546/bnj.2521.
- N. F. Praharso, H. Pols, and N. Tiliopoulos, "Mental health literacy of Indonesian health practitioners and implications for mental [8] development," health system Asian Journal of Psychiatry, vol. 54, no. 102168. 2020 doi: https://doi.org/10.1016/j.ajp.2020.102168.
- [9] World Health Organization, "Mental Health ATLAS 2017 Member State Profile: Bangladesh," World Health Organization, 2019.
- [10] G. B. Babatunde, A. J. Van Rensburg, A. Bhana, and I. Petersen, "Stakeholders' perceptions of child and adolescent mental health services in a South African district: A qualitative study," *International Journal of Mental Health Systems*, vol. 14, no. 1, pp. 1–12, 2020, doi: 10.1186/s13033-020-00406-2.
- [11] A. K. Putri, A. N. F. Yahya, and A. R. Saputra, "Indonesian faculty barriers in providing help to college students in distress," *Journal of College Student Retention: Research, Theory & Practice*, vol. 23, no. 4, pp. 929–944, 2022, doi: 10.1177/1521025119880821.
- [12] M. Ramdass, R. Birbal, G. Joseph-Alleyne, and C. Harripaul, "Students' attitudes towards psychological help-seeking," *Journal of Education and Development*, vol. 4, no. 3, p. 11, 2020, doi: 10.20849/jed.v4i3.818.
- [13] I. Sagar-Ouriaghli, J. S. L. Brown, V. Tailor, and E. Godfrey, "Engaging male students with mental health support: A qualitative focus group study," *BMC Public Health*, vol. 20, no. 1, pp. 1–14, 2020, doi: 10.1186/s12889-020-09269-1.
- [14] Juncheng Lyu, Y. Wang, H. Shi, and J. Zhang, "Early warnings for suicide attempt among Chinese rural population," J Affect Disord, vol. 1, no. 238, pp. 353–358, 2018, doi: 10.1016/j.jad.2018.06.009.
- [15] A. K. Putri et al., "Exploring the perceived challenges and support needs of Indonesian mental health stakeholders: a qualitative study," *International Journal of Mental Health Systems*, vol. 15, no. 1, pp. 1–9, 2021, doi: 10.1186/s13033-021-00504-9.
- [16] C. Pretorius and D. Coyle, "Young people's use of digital tools to support their mental health during covid-19 restrictions," *Frontiers in Digital Health*, vol. 3, no. December, pp. 1–10, 2021, doi: 10.3389/fdgth.2021.763876.
- [17] L. Raftree, Designing Safe Digital Mental Health and Psycho-Social Support (MHPSS) for Displaced and Stateless Adolescents. United States: UNHCR Innovation Services - Digital Innovation Programme, 2023.
- [18] C. Pretorius, D. Chambers, and D. Coyle, "Young people's online help-seeking and mental health difficulties: systematic narrative review," *Journal of Medical Internet Research*, vol. 21, no. 11, 2019, doi: 10.2196/13873.
- [19] S. Asyanti and U. Karyani, "Mental Health Literacy Among Youth in Surakarta," Advances in Social Science, Education and Humanities Research, vol. 133, no. 3, pp. 12–16, 2018, doi: 10.2991/acpch-17.2018.24.
- [20] L. Renwick et al., "Mental health literacy in children and adolescents in low- and middle-income countries: a mixed studies systematic review and narrative synthesis," European Child and Adolescent Psychiatry, no. 0123456789, 2022, doi: 10.1007/s00787-022-01997-6.
- [21] J. Radez, T. Reardon, C. Creswell, P. J. Lawrence, G. Evdoka-Burton, and P. Waite, "Why do children and adolescents (not) seek and access professional help for their mental health problems? A systematic review of quantitative and qualitative studies," *European Child and Adolescent Psychiatry*, vol. 30, no. 2, pp. 183–211, 2021, doi: 10.1007/s00787-019-01469-4.
- [22] L. Sher and R. S. Kahn, "Suicide in schizophrenia: An educational overview," *Medicina (Lithuania)*, vol. 55, no. 7, pp. 1–11, 2019, doi: 10.3390/medicina55070361.
- [23] C. Ionio, G. Ciuffo, F. Villa, M. Landoni, M. Sacchi, and D. Rizzi, "Adolescents in the covid net: what impact on their mental health?," *Journal of Child and Adolescent Trauma*, no. 0123456789, 2022, doi: 10.1007/s40653-022-00497-8.
- [24] S. Clarke, L. A. Allerhand, and M. S. Berk, "Recent advances in understanding and managing self-harm in adolescents.," *F1000Research*, vol. 8, no. 1794, pp. 1–12, 2019, doi: 10.12688/f1000research.19868.1.
- [25] A. A. Mirza et al., "Academic and non-academic life stressors and their impact on psychological wellbeing of medical students," AIMS Public Health, vol. 8, no. 4, pp. 563–580, 2021, doi: 10.3934/publichealth.2021046.
- [26] Y. Deng et al., "Family and academic stress and their impact on students' depression level and academic performance," Frontiers in Psychiatry, vol. 13, no. June, pp. 1–13, 2022, doi: 10.3389/fpsyt.2022.869337.
- [27] H. S. Ong, P. A. Fernandez, and H. K. Lim, "Family engagement as part of managing patients with mental illness in primary care," *Singapore Medical Journal*, vol. 62, no. 5, pp. 213–219, 2021, doi: 10.11622/smedj.2021057.
- [28] S. Singh, D. Roy, K. Sinha, S. Parveen, G. Sharma, and G. Joshi, "Impact of COVID-19 and lockdown on mental health of children and adolescents: A narrative review with recommendations," *Psychiatry Research*, vol. 293, p. 113429, Nov. 2020, doi: 10.1016/j.psychres.2020.113429.
- [29] M. Alegría, A. NeMoyer, I. Falgàs Bagué, Y. Wang, and K. Alvarez, "Social determinants of mental health: where we are and where we need to go," *Current Psychiatry Reports*, vol. 20, no. 11, pp. 1–20, 2018, doi: 10.1007/s11920-018-0969-9.
- [30] A. Aguirre Velasco, I. S. S. Cruz, J. Billings, M. Jimenez, and S. Rowe, "What are the barriers, facilitators and interventions targeting help-seeking behaviours for common mental health problems in adolescents? A systematic review," *BMC Psychiatry*, vol. 20, no. 1, 2020, doi: 10.1186/s12888-020-02659-0.
- [31] A. Bamijoko-Okungbaye, "The lived experience of anxiety disorder patients: narrative inquiry," *Journal of Health Education*, vol. 5, no. 2, pp. 55–60, 2020, doi: 10.15294/jhe.v5i2.38348.
- [32] M. Quinlan-Davidson, K. J. Roberts, D. Devakumar, S. M. Sawyer, R. Cortez, and L. Kiss, "Evaluating quality in adolescent mental health services: a systematic review," *BMJ Open*, vol. 11, no. 5, pp. 1–16, 2021, doi: 10.1136/bmjopen-2020-044929.
- [33] S. Gillard, "Peer support in mental health services: where is the research taking us, and do we want to go there?," *Journal of Mental Health*, vol. 28, no. 4, pp. 341–344, 2019, doi: 10.1080/09638237.2019.1608935.
- [34] S. White et al., "The effectiveness of one-to-one peer support in mental health services: a systematic review and meta-analysis,"

BMC Psychiatry, vol. 20, no. 1, pp. 1–20, 2020, doi: 10.1186/s12888-020-02923-3.

- [35] S. Soklaridis, M. McCann, J. Waller-Vintar, A. Johnson, and D. Wiljer, "Where Is the family voice? examining the relational dimensions of the family-healthcare professional and its perceived impact on patient care outcomes in mental health and addictions," *PLOS ONE*, vol. 14, no. 4, pp. 1–17, 2019, doi: 10.1371/journal.pone.0215071.
- [36] F. Kaligis et al., "Mental health problems and needs among transitional-age youth in Indonesia," International Journal Of Environmental Research and Public Health, vol. 18, no. 8, p. 4046, 2021, doi: 10.3390/ijerph18084046.
- [37] D. R. Adams, "Availability and Accessibility of mental health services for youth: a descriptive survey of safety-net health centers during the COVID-19 pandemic," *Community Mental Health Journal*, 2023, doi: 10.1007/s10597-023-01127-9.
- [38] J. Edbrooke-Childs and J. Deighton, "Problem severity and waiting times for young people accessing mental health services," BJPsych Open, vol. 6, no. e118, pp. 1–7, 2020, doi: 10.1192/bjo.2020.103.
- [39] A. Setareh Forouzan, M. Ghazinour, M. Dejman, H. Rafeiey, M. Baradaran Eftekhari, and M. San Sebastian, "Service users and providers expectations of mental health care in Iran: A qualitative study," *Iranian Journal of Public Health*, vol. 42, no. 10, pp. 1106–1116, 2013.
- [40] R. Y. S. Subardjo, "The influence of ministry of health care for teens program with peer counselors teens and proposed posyandu," Proceedings of the 1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019), 2020, vol. 436, pp. 980–982, 2020, doi: 10.2991/assehr.k.200529.205.
- [41] A. Sutrimo and L. H. Kusumawardani, "Current community-based mental health promotion strategies among children and adolescents: a literature review of evidence and feasibility in Indonesia," *Journal of Indonesian Health Policy and Administration*, vol. 6, no. 1, pp. 122–126, 2021, doi: 10.7454/ihpa.v6i1.3429.
- [42] W. S, F. Djamiloes, and Juariah, "Empowerment of teenager posyandu to improve teenager reproductive health in bogor city," International Conference on Interprofessional Health Collaboration and Community Empowerment, vol. 3, no. 1, pp. 362–365, 2021.
- [43] R. Kakuma et al., "Human resources for mental health care: current situation and strategies for action," Lancet (London, England), vol. 378, no. 9803, pp. 1654–63, 2011, doi: 10.1016/S0140-6736(11)61093-3.
- [44] A. Richter, M. Sjunnestrand, M. R. Strandh, and H. Hasson, "Implementing school-based mental health services: a scoping review of the literature summarizing the factors that affect implementation," *International Journal of Environmental Research* and Public Health, vol. 19, no. 6, 2022, doi: 10.3390/ijerph19063489.
- [45] K. Y. C. Lai, S. F. Hung, H. W. S. Lee, and P. W. L. Leung, "School-based mental health initiative: potentials and challenges for child and adolescent mental health," *Frontiers in Psychiatry*, vol. 13, no. June, 2022, doi: 10.3389/fpsyt.2022.866323.
- [46] J. Larrieta *et al.*, "Supporting community-based mental health initiatives: insights from a multi-country programme and recommendations for funders," *BMJ Global Health*, vol. 7, no. 5, p. e008906, 2022, doi: 10.1136/bmjgh-2022-008906.

BIOGRAPHIES OF AUTHORS



Khoiriyah Isni (D) S (S) is an Associate Professor of the Faculty of Public Health in Health Promotion and behavioural science, Yogyakarta, Indonesia. She has worked at Ahmad Dahlan University since 2015 with much experience. She has published many scientific articles on adolescent health, the Social Health of adolescents, and many others. She is interested in topics related to mental health. She can be contacted by email: khoiriyah.isni@ikm.uad.ac.id.



Mellyana Fitri D S S is a Health Promotion and Behavioral Science student at the Public Health Department, Public Health Faculty, Universitas Ahmad Dahlan, Yogyakarta, Indonesia. She is interested in health promotion topics related to mental and adolescent health. She can be contacted at email: mellyana1800029016@webmail.uad.ac.id.



Septian Emma Dwi Jatmika ம 🔀 🖾 🗘 is a Faculty of Public Health lecturer majoring in health promotion and behavioural science at Universitas Ahmad Dahlan, Yogyakarta, Indonesia. She is now a doctoral student at the International Health Program, National Yang-Ming Chiao Tung University, Taiwan. Her topic interests are tobacco control and prevention, health promotion, media development, and public health in general. She can be contacted at email: septianemma@ikm.uad.ac.id.

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Jardene Marie Gensaya De Leon D K S S is a master student at International Health Program, National Yang Ming Chiao Tung University, Taiwan. She is also licensed pharmacist with a background in hospital management and international health care accreditation. Her topics interest are Healthcare policy and public health. She can be contacted at email: jademariegdeleon@gmail.com.



Riris Diana Rachmayanti D S S is a Lecturer at Division of Health Promotion and Behavioral Science, Faculty of Public Health, Universitas Airlangga. She is also scientist working on the adolescent's mental health, health prmotion, and adolescents' health. She can be contacted at email: riris.diana@fkm.unair.ac.id.



Nurul Qomariyah (D) **S S C** is a Lecturer at the Faculty of Medicine, Universitas Ahmad Dahlan in Yogyakarta, Indonesia. She is interested in the topics of health and physical activity in youth, health education curricula, and community medicine. She can be contacted at email: nurul.gomariyah@med.uad.ac.id.



Sulistyawati D S S S cate professor of Public Health and Epidemiology at Universitas Ahmad Dahlan, Yogyakarta, Indonesia. She working on the health system research, implementation research focusing on infectious disease and health program evaluation. She has published many peers reviewed article in reputable journal such as BMC and Iranian Journal of Public Health. She can be contacted at email: sulistyawati.suyanto@ikm.uad.ac.id.