# DEVELOPMENT OF A MENTAL HEALTH SCREENING WEBSITE AKUBAHAGIA.COM TO PREVENT ADOLESCENT MENTAL HEALTH DISORDERS

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**Abstract**: Mental health disorders among adolescents are on the rise, with many struggling to cope with everyday challenges, leading to depression, anxiety, and stress. This situation highlights the lack of optimal promotive and preventive mental health efforts. As a preventive initiative, this study aims to develop and validate a mental health screening website. The research employed the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model of development. The website was created using HTML, PHP, JavaScript, CSS, and MariaDB, and was tested through expert validation and field implementation. Media and content experts conducted validation tests, followed by a small-scale trial and a large-scale trial involving users aged 11–18. Results showed that the website received a feasibility rating of 71% from media experts and 91.7% from content experts. Field testing yielded an average user rating of 85%, with sub-aspect scores of 90% for effectiveness, 91% for practicality, 86% for attractiveness, and 83% for feasibility. These findings indicate that Akubahagia.com is highly suitable for use in early detection and prevention of mental health disorders among adolescents.
**Keywords:** effectiveness; early detection; mental health

**Abstrak**: Gangguan kesehatan mental di kalangan remaja semakin meningkat, dengan banyak di antara mereka yang kesulitan mengatasi tantangan sehari-hari, yang berujung pada depresi, kecemasan, dan stres. Situasi ini menyoroti kurangnya upaya promosi dan pencegahan kesehatan mental yang optimal. Sebagai inisiatif pencegahan, penelitian ini bertujuan untuk mengembangkan dan memvalidasi sebuah situs web skrining kesehatan mental. Penelitian ini menggunakan model pengembangan ADDIE (Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi). Situs web tersebut dibuat menggunakan HTML, PHP, JavaScript, CSS, dan MariaDB, serta diuji melalui validasi ahli dan implementasi lapangan. Para ahli media dan konten melakukan uji validasi, diikuti dengan uji coba skala kecil dan uji coba skala besar yang melibatkan pengguna berusia 11–18 tahun. Hasil menunjukkan bahwa situs web tersebut memperoleh penilaian kelayakan sebesar 71% dari para ahli media dan 91,7% dari para ahli konten. Pengujian lapangan menghasilkan penilaian rata-rata pengguna sebesar 85%, dengan skor sub-aspek sebesar 90% untuk efektivitas, 91% untuk kepraktisan, 86% untuk daya tarik, dan 83% untuk kelayakan. Temuan ini menunjukkan bahwa Akubahagia.com sangat cocok untuk digunakan dalam deteksi dini dan pencegahan gangguan kesehatan mental di kalangan remaja.

**Kata kunci**: efektivitas; deteksi dini; kesehatan mental

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## Introduction

Teenagers today tend to experience various unpleasant conditions such as depression, stress, and excessive anxiety on personal, social, academic and career problems. From 2022 to July 2024, the results of mental health screening using the SDQ instrument (Strengths and Difficulties Questionnaire) shows a total of 243,936 adolescents aged 15-18 years, as many as 12% are indicated to have mental health problems (Directorate of Health of the Ministry of Health of the Republic of Indonesia 2024). Excessive feelings of depression, stress and anxiety can affect their mental health (Valentine and Shipherd 2018), seeing this situation, educators and education staff, especially Guidance and Counseling teachers at SMAN 2 KS Cilegon, felt very deep concern. Various problems that arise are not a light thing for adolescents, because the lack of life skills to deal with these difficulties and pressures, can give rise to disturbed mental health indicators (Sherif et al. 2023).

Based on this phenomenon, promotive and preventive efforts for mental health are needed (Fusar-Poli et al., 2021). Mental health promotion efforts can be carried out through guidance to students in groups, classical or large classes (Sapthiang, Van Gordon, and Shonin 2019), while mental health prevention efforts can be carried out with early detection of mental health through several instruments that are already available (Grasdalsmoen et al. 2020). Now screening mental health can be carried out by health workers, Guidance and Counseling teachers and cadres who have participated in mental health training (Klassen et al. 2020). However, Guidance and Counseling teachers still do screening manually on paper or by Google Forms, so that it is less efficient in processing and interpreting the results screening. The impact is that students cannot be handled responsively, so that students lack awareness of the importance of maintaining mental health, because in essence every individual has a risk of mental health disorders (Parker et al. 2019).

Previous research shows that the people of Ponelo Village can identify mental health disorders through the use of Mental Health screening, namely out of 30 people who participated in the trial, 29 people (96.7%) showed that they did not have mental health problems, and one person (3.3%) showed that they had mental health problems. The mental health screening application used is by developing an android-based application (Tarisa Fitriani Hamenda et al. 2022). Furthermore, the results of previous research revealed the development of a website prototype that presents information about the level of mild mental disorders in the community, in

the form of mental health problems in the community, and functions as an information and educational medium. This study concludes that to improve people's access to mental health services, this prototype can be further developed by adding Online chat features and mapping of People With Mental Health Problems (ODMK) by region (Fitria Dewi Rahmawati 2019). The effectiveness of the results of the study which illustrates the use of smartphone application technology to prevent adolescents from committing suicide plans, this application has been proven to be effective in preventing and helping adolescents to stop the act of suicide plans (Rian Priambodo, Rizki Fitryasari 2024). Some previous research results illustrate that through the development of mental health screening applications or websites, it can be petrified to prevent mental health disorders in the community, especially adolescents.

Based on several previous studies, it is important to conduct an in-depth assessment of the development of the Akubahagia.com Mental Health Screening Website (Aku Beli Facing Mental Health Disorders). This website is expected to facilitate Guidance and Counseling teachers and the health center to conduct screening effectively and efficiently. This is the background for the need to develop a Akubahagia.com website to detect early and prevent mental health disorders.

## Material And Method

This study employs a Research and Development (R&D) design using the ADDIE model, which consists of five main phases: Analysis, Design, Development, Implementation, and Evaluation (Aydin, 2023). The ADDIE model was chosen for its systematic and iterative approach to developing educational and digital products. The research process follows a structured sequence, beginning with the identification of user needs and ending with the evaluation of the final product. A visual representation of the ADDIE model used in this study is presented in Figure 1 as a flowchart to illustrate the relationships between each stage.

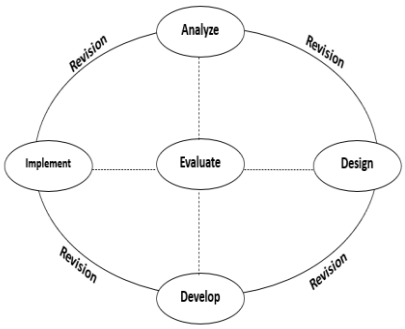



**Figure 1.** Visual representation of the ADDIE model

The analysis phase aims to identify the needs, characteristics, and circumstances of the target users as a foundation for developing a mental health screening website. The target users in this study are adolescents aged 11–18 years, specifically middle school students in the Cilegon area. User identification was conducted by analyzing adolescent developmental characteristics, digital literacy levels, and general understanding of mental health issues. Preliminary findings indicate that many adolescents struggle to recognize early symptoms of mental health disorders and face limited access to preventive mental health services. Additionally, during this phase, the instructional and functional objectives of the platform were established: to provide an easily accessible and user-friendly tool for early detection and self-screening. Some of the identified challenges include low mental health awareness, stigma surrounding psychological issues, and disparities in internet access.

The design phase focused on developing a blueprint or comprehensive design for the Akubahagia.com platform, covering its structure, content, features, and assessment mechanisms. The platform was designed using a user-centered approach, resulting in an interface that is simple, intuitive, and tailored to the characteristics of adolescents. The main components developed include the navigation menu (Dashboard, Master Data, Methods, Screening, Reports, and Logout), the screening questionnaire interface, the automatic scoring system, and the results page displaying feedback and recommendations. A visual representation of the platform design in the form of a UI/UX layout is presented in Figure 2, which illustrates the arrangement of the main interface elements and the user interaction flow.




**Figure 2.** UI/UX design blueprint og Akubahagia.com platform

The content structure is organized systematically to ensure clarity, simplicity, and alignment with the needs of adolescent users. Screening instruments were adapted into a digital questionnaire format based on standard guidelines for measuring psychological conditions such as stress, anxiety, and depression. Additionally, at this stage, evaluation methods were designed to assess user experience and system performance, covering aspects of effectiveness, practicality, appeal, and feasibility. This stage also identified the necessary resources and activities, such as the development of interactive features, engaging visual design, and ensuring system compatibility across various devices.

The research was carried out over a period of six months, from September 2024 to February 2025, in the Cilegon area. The Akubahagia.com website was developed utilizing HTML, PHP, JavaScript, CSS, and MariaDB as the primary system development tools. The development process involved several critical stages: system design, creation of evaluation instruments, validation testing, and subsequent product revisions.

The system design was developed to illustrate the workflow and user interactions in the implementation of the Akubahagia.com website-based mental health screening.

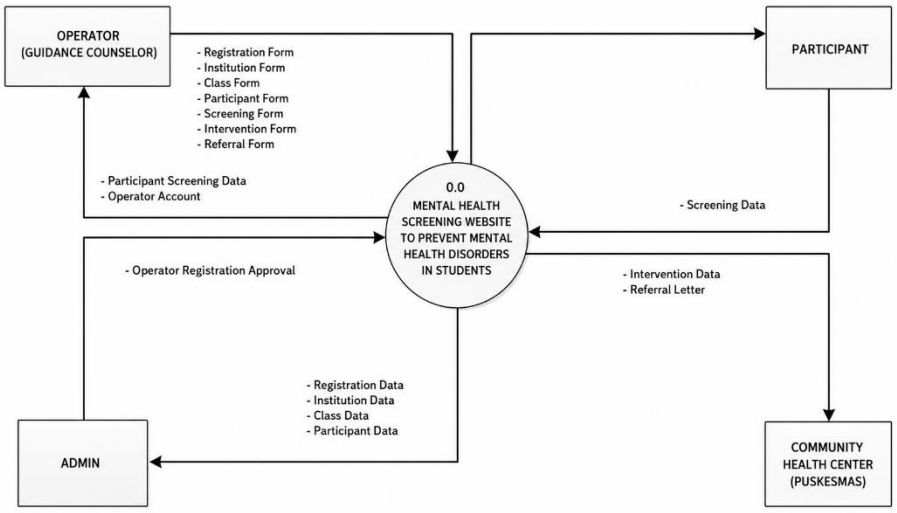



**Figure 3.** Context diagram

Figure 3 shows the interaction flow in the Akubahagia.com system, which involves four main users: Admin, Operator (School Counselor), Participant (Student), and Community Health Center. The diagram illustrates the integrated process of data management, mental health screening, intervention, and the issuance of referral letters. The Admin is responsible for managing data on institutions, classes, and participants, as well as approving operator registrations. The Operator (School Counselor) manages registration forms, screenings,

interventions, and referrals, and monitors students' screening results. Participants complete the screening questionnaire online through the system. Subsequently, screening results can be forwarded to the Community Health Center (Puskesmas) for follow-up interventions and the issuance of referral letters if necessary.

Validation was conducted by both media and content experts to ensure the platform's technical feasibility and content validity. Following the validation process, the platform was tested at two different scales. The initial trial phase involved 36 individual users to identify potential usability issues and to gather initial feedback on the website's interface and functionality. A subsequent large-scale trial involved 200 participants who engaged in mental health screening using the platform. Data collection methods included questionnaire distribution and interviews aimed at assessing aspects such as feasibility, effectiveness, practicality, attractiveness, and user satisfaction. Data analysis was conducted using both qualitative and quantitative approaches. Qualitative analysis was used to interpret interview findings, while quantitative analysis focused on processing the mental health screening results and responses from the distributed questionnaires. Expert evaluation applied a Likert-type scale, where scores were assigned as follows: 5 = very good, 4 = good, 3 = fair, 2 = poor, 1 = very poor (Sugiyono 2020). According to Satrio, Widagdo and Parmono (2021) Count Mean or as follows:

$$Mean = \frac{\sum X}{N} \text{.....(1)}$$

X = the number of respondents' scores on a given indicator
N = number of respondents

After obtaining the results of the overall data value, the researcher can interpret according to the interval quantity scale as shown in the following table:

**Table 1.** Score Rating Scale Criteria

| Score | Interval | Category |
|---|---|---|
| 5 | 81 % - 100 % | Very high/very suitable for use |
| 4 | 61 % - 80 % | High/fit to use |
| 3 | 41 % - 60 % | Adequate/Quite Worthy of Use |
| 2 | 21 % - 40 % | Less/less fit to use |
| 1 | 0 % - 20 % | Low/unfit for use |

Source: (Sugiyono 2017)

## Results

The results of the study based on the validity test of media experts describe the product developed, namely in the form of a mental health screening website, has a percentage of 72%, this value shows that the mental health screening website developed is included in the Likert scale category (61-80%) with the criterion of "High", so it can be interpreted that the website screening website Mental health

is feasible to use, while the advice and recommendations obtained from the results of media expert tests are suggesting that the product can be used by making a slight revision.

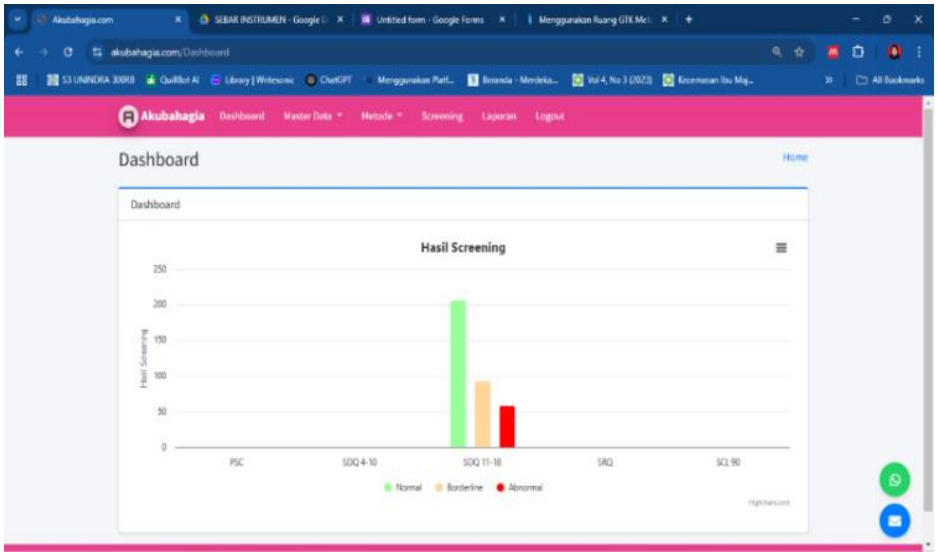



**Figure 4.** Display Before Repairing According to Media Expert Advice

The initial view of the Akubahagia.com website, as shown in Figure 4, displays the site's appearance before improvements were made based on recommendations from media experts. The image shows the main interface, a dashboard equipped with a navigation bar containing several menus such as Dashboard, Master Data, Methods, Screening, Reports, and Logout. The main section of the screen displays a bar chart titled "Screening Results," which visualizes user data into three categories: Normal (green), Borderline (yellow), and Abnormal (red). Although the dashboard presents key information regarding screening results, several limitations remain. One major shortcoming is the lack of customizable dark mode and light mode features to suit user needs. The absence of these features risks reducing user comfort, particularly when accessing the website at night, as the bright screen display can cause eye strain. Flexibility in display settings is important, given that the primary users are teenagers who are accustomed to using digital devices under various lighting conditions. Therefore, future development will focus on adding a dark mode to enhance visual comfort in low-light conditions, as well as a light mode for use during the day or in well-lit environments.

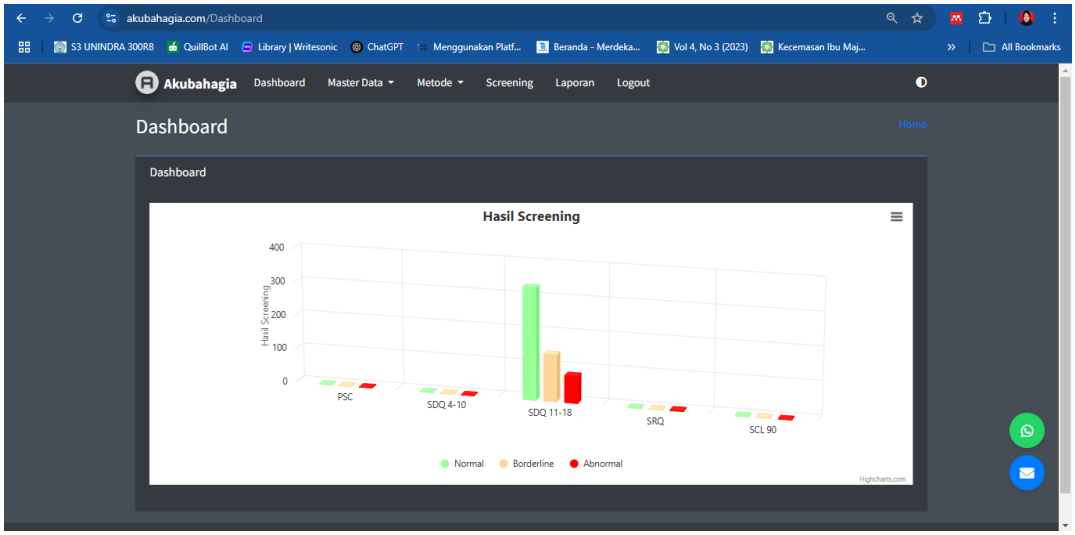



**Figure 5.** The display after being repaired according to the advice of media experts

Figure 5 shows the Akubahagia.com website after it was updated based on recommendations from media experts. In this version, the dashboard interface has been enhanced in terms of visual comfort and usability. One of the key changes is the implementation of dark mode, characterized by a predominantly dark background color across the entire system interface, including the navigation bar and main content area. The navigation bar at the top still contains the main menu items such as Dashboard, Master Data, Methods, Screening, Reports, and Logout, but with more contrasting colors to improve readability in low-light conditions. In the main section, the "Screening Results" graph remains the primary element, visualizing data in the categories Normal (green), Borderline (yellow), and Abnormal (red). The graph colors are retained to maintain consistency in data interpretation, but appear clearer due to the contrast with the dark background. These improvements demonstrate an enhancement in user experience (UX), particularly regarding visual comfort during nighttime use or in low-light conditions. Additionally, the system has been designed to support a light mode as an alternative display option that can be customized to users' preferences and needs.

The results of the validity test of the material expert describe the assessment of the material/content of the product developed, namely in the form of a mental health screening website has a percentage of 91.7%, this value shows that the material on the mental health screening website is included in the Likert scale category (81-100%) with the criterion of "Very high", so it can be interpreted that the material on the mental health screening website is very feasible to use, Meanwhile, the suggestions and recommendations obtained from the results of the material expert test are suggesting that the material on the product can be used with a slight revision.

Based on the results of the validity test of media experts and material experts, it can be illustrated in the following graph.

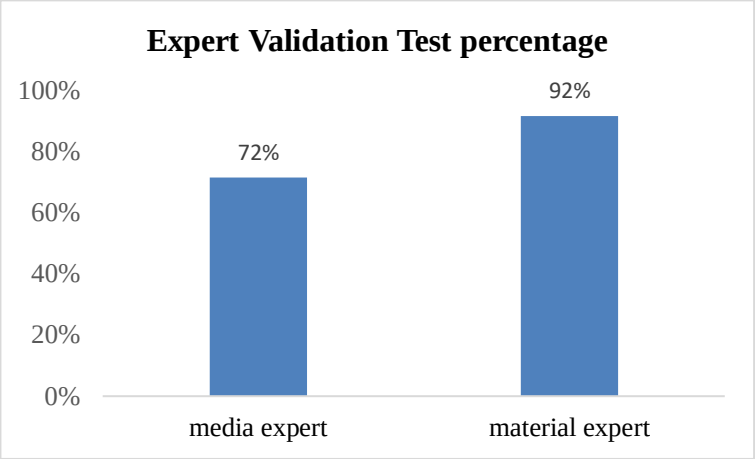



**Figure 6.** Percentage of Expert Validation Test
Source: (SMAN 2 KS Cilegon, 2025)

After the mental health screening website product akubhagia.com improved in accordance with the advice of media experts and material experts, the next is to conduct a small-scale trial involving 36 students who conducted mental health screening with the akubahagia.com website, a group trial was carried out on 36 students aged 11 to 18 years using the Strengths and Difficulties Questionnaire (SDQ) questionnaire instrument. The screening results are categorized into three categories, namely normal, borderline, and abnormal. This category describes the level of psychological well-being as well as the possibility of behavior or emotional disorders in students. The screening results are shown in the table below:

**Table 2.** Data on the Results of Mental Health Screening Small-Scale Tests using the akubahagia.com Website

| Category | Number of Students | % |
|---|---|---|
| Usual | 21 | 58% |
| *Borderline* | 7 | 20% |
| Abnormal | 8 | 22% |
| **Total** | **36** | **100%** |

Based on the results of mental health screening using the Akubahagia.com website with the Strengths and Difficulties Questionnaire (SDQ) instrument on 36 students, data was obtained as many as 21 students (58%) were in the normal category, which means they did not have significant emotional or behavioral problems. Meanwhile, 7 students (19%) are included in the borderline category, which shows a tendency towards psychological problems that need further

attention. Meanwhile, 8 students (22%) were included in the abnormal category, which indicates that there are symptoms of emotional or behavioral disorders that are quite obvious and require further intervention.

Based on interviews with students who have used akubahagia.com website, most stated that this website is very easy to use. They feel that this website provides a clear picture of their psychological condition, and provides an easy-to-understand interpretation of the screening results, in addition to recommendations related to what needs to be done after doing a mental health screening. The use of this website helps students realize the risk of mental health disorders, so they feel the need to maintain mental health. This website also provides guidance and instructions for use that suit their needs and increases their satisfaction in understanding and maintaining mental health.

**Table 3.** Data from Small-Scale Test Research Results

| | | Feasibility | Effectiveness | Practicality | Highlights | Satisfaction |
|---|---|---|---|---|---|---|
| **N** | **Valid** | **36** | **36** | **36** | **36** | **36** |
| | **Missing** | **0** | **0** | **0** | **0** | **0** |
| **Mean** | | 12.22 | 13.0278 | 13.42 | 12.69 | 12.53 |
| **Std. Deviation** | | 2.15 | 1.76 | 1.61 | 1.91 | 1.98 |
| **Minimum** | | 9.00 | 9.00 | 9 | 9 | 9 |
| **Maximum** | | 15 | 15 | 15 | 15 | 15 |
| **Sum** | | 440 | 469 | 483 | 457 | 451 |

Source: (SMAN 2 KS Cilegon, 2025)

The total score of each aspect shows the total number of scores collected from 36 respondents. The practicality aspect has the highest total score of 483 which reinforces that this website is considered the most superior in terms of ease of use. Meanwhile, the feasibility aspect has the lowest total score, which is 440, which shows that there is still room for improvement in terms of website viability. Overall, the results of this analysis show that websites akubahagia.com get positive reviews from users in various aspects, especially in practicality and effectiveness, but still have opportunities to improve feasibility and attractiveness to make the user experience more optimal. The following are the results of statistical test processing conducted on 36 small/group respondents. The table below shows the results of the feasibility test, effectiveness, practicality, attractiveness and satisfaction in small-scale respondents.

**Table 4**. Percentage Data of Small-Scale Test Research Results

| It | Aspects | Total Score | Max Score. | Percentage (%) | Criterion |
|---|---|---|---|---|---|
| 1 | Feasibility | 440 | 540 | 81% | Excellent |
| 2 | Effectiveness | 469 | 540 | 87% | Excellent |
| 3 | Practicality | 483 | 540 | 89% | Excellent |
| 4 | Highlights | 457 | 540 | 85% | Excellent |
| 5 | Satisfaction | 451 | 540 | 84% | Excellent |
| | | Average | | **85%** | **Excellent** |

(Source: SMAN 2 KS Cilegon)

In order to interpret this data more objectively, categorical intervals based on the Likert scale (1–5) are used (Qurbani, Sugiarsih, and Gunawan 2022). The following is a graph of the value of the presentation of feasibility, effectiveness, practicality, attractiveness and satisfaction obtained from small-scale trial research data.

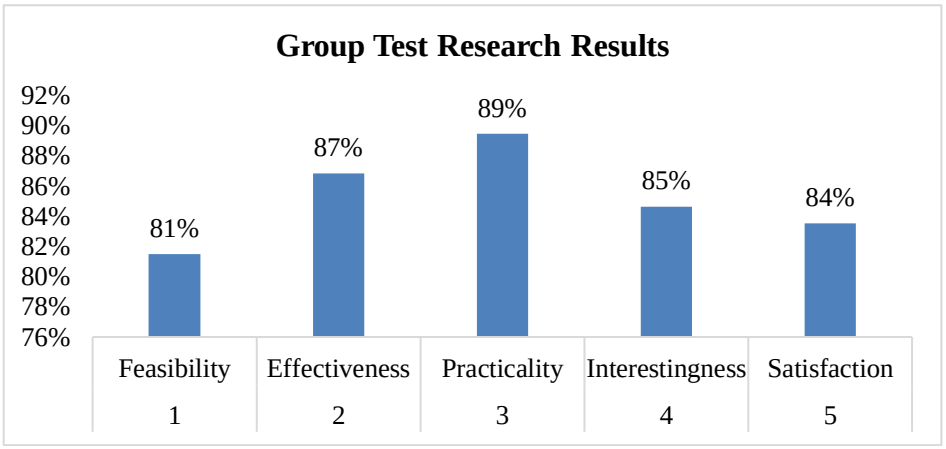



**Figure 7.** Results of Large-Scale Trial Research
Source: (SMAN 2 KS Cilegon, 2025)

The results of a small-scale test of the use of Akubahagia.com website show that overall this website receives very good ratings from students, with an average satisfaction percentage of 85%. Based on the table above, there are five aspects that are assessed, the practicality obtained the highest score of 89%, indicating that this website is considered very easy to use. The effectiveness gets a score of 87%, which means that the website's features and functions are quite effective in helping users. Attractiveness has a percentage of 85%, indicating that the design and appearance of the website are quite attractive to users. Satisfaction scored 84%, indicating that most students were satisfied with the experience of using this website. Feasibility has the lowest score of 81%, although it is still in the very good category, indicating that there is room for further improvement. The feasibility aspect received a lower score than practicality because the feasibility assessment covers the system's

overall readiness, such as system stability, infrastructure support, and user readiness to operate the website. Several challenges, such as reliance on an internet connection and the need for initial guidance, still influence users' perceptions of the system's feasibility. However, the 81% score still indicates that the Akubahagia.com website falls into the "very good" category and is suitable for use with some further development.

Field trials or large-scale trials were carried out on 200 students aged 11 to 18 years using the Strengths and Difficulties Questionnaire (SDQ) questionnaire instrument. The screening results are categorized into three categories: normal, borderline, and abnormal. This category describes the level of psychological well-being as well as the possibility of behavior or emotional disorders in students. The following table shows the results of mental health screening from 200 students.

**Table 5.** Data on Mental Health Screening Results of Large-Scale Trials using the akubahagia.com Website

| Category | Number of Students | % |
|---|---|---|
| Usual | 130 | 65% |
| *Borderline* | 49 | 25% |
| Abnormal | 21 | 10% |
| **Total** | **200** | **100%** |

(Source: SMAN 2 KS Cilegon)

The results of mental health screening using the Strengths and Difficulties Questionnaire (SDQ) on 200 students showed that most of the students were in the normal category. Based on the difficulty aspect, as many as 130 students (65%) were in the normal category, indicating that the majority of students did not experience significant emotional or behavioral problems. However, there were 49 learners (25%) in the borderline category, which means they showed symptoms that needed to be monitored further. Meanwhile, 21 students (11%) were in the abnormal category, which indicates that there are emotional or behavioral problems that are quite serious and require further attention. Overall, these results show that although most students have good mental health, there are still 35% of students who experience difficulties at borderline to abnormal levels. Therefore, there is a need for further monitoring and intervention for students who fall into the borderline and abnormal categories so that they can get appropriate support to improve their mental health.

**Table 6.** Data from Large-Scale Trial Research Results

| | | Feasibility | Effectiveness | Practicality | Highlights | Satisfaction |
|---|---|---|---|---|---|---|
| **N** | **Valid** | **200** | **200** | **200** | **200** | **200** |
| | **Missing** | **0** | **0** | **0** | **0** | **0** |
| **Mean** | | 12.46 | 13.44 | 13.62 | 12.92 | 12.71 |
| **Std. Deviation** | | 2.04 | 1.74 | 1.55 | 1.88 | 2.02 |
| **Minimum** | | 9 | 9 | 9 | 9 | 7 |
| **Maximum** | | 15 | 15 | 15 | 15 | 15 |
| **Sum** | | 2491 | 2687 | 2724 | 2584 | 2542 |

(Source: SMAN 2 KS Cilegon)

The results of statistical analysis of the assessment of the Akubahagia.com mental health screening website from 200 respondents showed that this website received a positive evaluation based on five aspects: feasibility, effectiveness, practicality, attractiveness, and satisfaction.

Based on the results of the field test with a total of 200 respondents, all data was declared valid. The mean score for each aspect showed that the feasibility of getting a score of 12.46, effectiveness 13.44, practicality 13.62, attractiveness 12.92, and satisfaction 12.71. This shows that in general, respondents give a fairly high rating of Akubahagia.com website.

The data distribution or standard deviation for each aspect ranged from 1.55 to 2.04, which means that respondents' answers were less varied and tended to be consistent. The range of scores given by respondents was within the minimum limit of 7-9 and a maximum of 15, indicating that most respondents gave high scores.

**Table 7**. Percentage Data of Large-Scale Trial Research Results

| It | Aspects | Total Score | Max Score. | Percentage (%) | Criterion |
|---|---|---|---|---|---|
| 1 | Feasibility | 2491 | 3000 | 83% | Excellent |
| 2 | Effectiveness | 2687 | 3000 | 90% | Excellent |
| 3 | Practicality | 2724 | 3000 | 91% | Excellent |
| 4 | Highlights | 2584 | 3000 | 86% | Excellent |
| 5 | Satisfaction | 2542 | 3000 | 85% | Excellent |
| | Average | | | **85%** | **Excellent** |

(Source: SMAN 2 KS Cilegon)

Based on the table, it illustrates that in terms of the feasibility of this website, it is feasible to help with mental health screening, with a score of 2491 out of 3000 (83%). However, this aspect received the lowest score compared to the other four aspects, so there is still room for further development, such as improving the appearance, navigation, or completeness of the screening feature.

The score obtained in the effectiveness test is 2687 out of a maximum score of 3000 which is 90%, which shows that this website helps users detect mental

health conditions early. This shows that the features provided have met expectations and can provide useful information for users according to expectations.

The practicality aspect received the highest score of 2724 out of 3000 with a percentage of 91%, which shows that the website akubahagia.com easy to use. The main factor that supports the high value in this aspect is when users use the website, it is able to provide ease of navigation and ease of access to every available feature.

As for the attractiveness aspect, it obtained a score of 2584 out of 3000, which is 86%, meaning that this website has a high attractiveness for users through the appearance and visual appeal that is designed according to user needs. Through an attractive display, it can improve user comfort and encourage them to complete the screening process. Although the value is already high, this aspect can still be improved with a more interactive visual design or the addition of a more attractive graphic design.

The use of mental health screening websites akubahagia.com get responses from users in terms of satisfaction, namely with a score of 2542 out of a maximum score of 3000, the score shows user satisfaction of 85%, meaning that most users are satisfied with their experience when using this website. User satisfaction can be attributed to ease of use, clarity of information, and the benefits of accessible mental health screening features.

Overall, the average of all aspects tested in the field was 87%, which shows that akubahagia.com website is very good at helping with mental health screening. While it meets all the requirements overall, there is still room for improvement, especially in terms of feasibility and appeal, so the website can help users better detect mental health disorders early.

The following is a presentation of data in the form of graphs from the results of the feasibility test, effectiveness, practicality, attractiveness and user satisfaction on the akubahagia.com screening website.

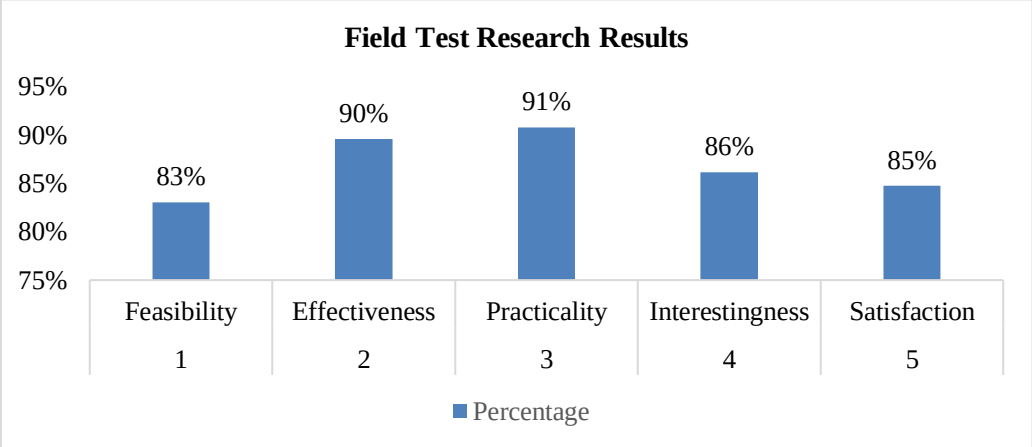



**Figure 8.** Graph of Large-Scale Trial Research Results
(Source: SMAN 2 KS Cilegon)

Based on the graph above, the highest percentage is in the practical aspect, meaning that the mental health screening website akubahagia.com able to provide convenience to users in carrying out mental health screening activities. As for the feasibility aspect, it shows quite low results, meaning that even though this website has a very good category of eligibility, there are still some things that need to be developed in order to obtain higher eligibility.

**Discussion**

Prior to the existence of the Akubahagia.com website, the implementation of mental health screening was still carried out manually, both through questionnaires on paper and Google Form. This method has several obstacles, such as the data recapitulation process which takes a long time, the risk of errors in data input, and limitations in presenting screening results quickly and systematically. In addition, the screening results obtained often require further manual processing by Guidance and Counseling teachers, thus hindering the effectiveness in following up on the condition of students who need more attention. In line with the results of the research (Putri et al. 2024) that there are obstacles to achieving the optimal mental health screening target, one of the causes is the lack of integration between E-Jiwa and SIMKESWA, thereby increasing the workload of health workers, which can slow down the early detection process. As for the results of the research (Astrabel et al. 2024) which revealed that the lack of effectiveness in achieving the mental health early detection target was due to the lack of awareness in the community about the importance of maintaining mental health, as well as the lack of understanding of early detection made people reluctant to carry out mental health screening.

The presence of the Akubahagia.com website is a more effective and efficient solution in supporting the mental health screening process. This website allows for digital questionnaire filling, automatic data processing, and faster and easier to understand presentation of results. Guidance and Counseling teachers can also access student data in real-time, making it easier to analyze and follow up as needed. In addition, the features available on this website help students get referral information and follow-up recommendations based on the results of the screening, so that students are more directed in understanding their mental health conditions.

Through this website, the screening process becomes more practical, accurate, and systematic, so that it provides greater benefits for both students and Guidance and Counseling teachers. The use of this website is expected to continue to be optimized so that more and more students get mental health services faster and on target. This assumption is reinforced by (Mutashim and Asriningtias 2023) which revealed that the mental health screening website can help accelerate early

detection and education with easy access, instant features, and efficient data management to achieve optimal screening targets.

The step of website development akubahagia.com using the ADDIE (Analysis, Design, Development, Implementation, Evaluation) approach. This model is commonly used in digital media development and interactive learning, as it allows for systematic design and continuous evaluation to ensure the effectiveness and practicality of the resulting product (Lia, Atikah, and Nulhakim 2023).

The development of the mental health screening website akubahagia.com began with an analysis stage carried out through direct observation by Guidance and Counseling teachers. This observation reveals that the screening methods that have been used, such as paper-based manual questionnaires or Google Forms, are still not effective in managing data and providing quick and targeted follow-up. In addition, the results of interviews with Guidance and Counseling teachers show that students often feel reluctant to disclose their mental health conditions honestly due to a lack of comfort with the methods used. Therefore, a technology-based system that is more efficient, secure, and accessible at any time is needed, so that Guidance and Counseling teachers can easily identify students who need further assistance.

The design stage is the activity of designing *a screening* instrument which includes the development of mental health questionnaires, automatic drainage techniques, and the selection of development tools used in building the website. The website is designed using HTML, PHP, CSS, and JavaScript programming language technology for its display and interactivity, while MariaDB is used as the main database to store the screening results in a secure and structured manner.

In addition, a data flow diagram (DFD) was created to illustrate the workflow of the system, starting from data input by students, processing of screening results, to the presentation of reports for Guidance and Counseling teachers. To improve the user experience, storyboards are also created that visualize the appearance of the website to make it more intuitive and attractive for students.

The development stage is carried out by implementing the design that has been designed into the form of a functional website. The website began to be coded and tested internally to ensure that key features, such as filling out questionnaires, an automatic tracking system, and the display of screening results, were running properly. After that, the website is tested for validity by media experts and material experts. Media experts evaluate aspects of display design, navigation, and ease of use of the website, while material experts assess whether the screening instruments used are in accordance with applicable psychological standards. The results of the evaluation from experts are the basis for improvement before the website is tested on users.

At the implementation stage, an initial trial was carried out on a small group of 36 participant to identify potential obstacles in using the website. After making

improvements based on feedback from the initial trial, the website is then tested on a wider scale to evaluate feasibility, effectiveness, practicality, attractiveness, and user satisfaction. Data from the results of the trial were collected through questionnaires and interviews, then analyzed to find out how Akubahagia.com website can help students understand their mental health conditions and provide convenience for Guidance and Counseling teachers in following up. This evaluation is the basis for further improvement so that the website can continue to be used optimally in supporting students' mental health.

The development process of the mental health screening website akubahagia.com inseparable from the systematics of the development model that has been established, namely the ADDIE development model. In line with the expression (Sugihartini and Yudiana 2018) ADDIE's systematic stages ensure that every step in product development is carried out in a structured manner, resulting in a product that is not only ready to use, but also meets the expected testing and quality standards.

The feasibility test of the website Akubahagia.com be carried out to ensure that this platform can be used as a valid and reliable mental health screening tool for students. The results of the feasibility test show that the website obtained an assessment percentage of 71% from media experts with a high feasibility category, and the assessment percentage obtained from material experts is 91.7% with a very high type of feasibility category, in addition to that it is also supported by empirical data from the results of a large-scale trial questionnaire that this website gets a feasibility percentage value of 83% which indicates that this website is in the category of feasibility for Used. This assessment covers various aspects, such as the accuracy of screening results, ease of navigation, information quality, and clarity of instructions. Based on the percentage of eligibility scores, this website is considered to meet the standards as a tool for early detection of mental health in schools, as well as making it easier for Guidance and Counseling teachers to identify students who need special attention.

The research findings indicate that the Akubahagia.com website is highly effective, with a score of 87%, suggesting that the system is capable of facilitating the mental health screening process in a simple and beneficial manner for students. These results align with international research by (Funnell et al. 2022), which states that digital mental health screening platforms receive positive feedback from users because they facilitate access, early detection, and monitoring of mental health. The study also emphasizes that system performance and ease of use are key factors in the effectiveness of digital mental health applications, which are also found on the Akubahagia.com website.

The importance of conducting a validation test on the feasibility of the media or website developed as revealed in the previous study that the expert system is

feasible to be used for screening for adolescent personality disorders, through the Certainty Factor method, the system can provide a reliable diagnosis even though the symptoms are not specific. Validation tests ensure features work as needed, supporting more accurate and efficient initial screening (Nissolekha and Nurhidayat 2022). Regarding feasibility, it is also strengthened by the theory of WebQual 4.0 which assesses how a website can optimally carry out its functions (Maulana and Prasetyo 2023).

The effectiveness of the website Akubahagia.com tested based on how well this platform helps early detection of students' mental health disorders. The results of the analysis show that the effectiveness aspect with a percentage value of 90% which means that this website is considered very effective in carrying out its functions. Guidance and Counseling students and teachers revealed that the use of this website is faster, more accurate, and easier to interpret the results than the previous method using paper or Google Form.

The effectiveness of the mental health screening website akubahagia.com, in order to prevent mental health disorders, can be described through the results of screening of 200 students, namely 65% in the normal category, 25% in the borderline category and the remaining 10% in the abnormal category. Through this data, it can be known early on related to students who are at risk of mental health disorders, and can provide further services to prevent ongoing mental health disorders. This is in line with the effectiveness of a website developed by Novianti, (Novianti, Tobing, and Wibisono 2020) that web-based early detection has proven to be effective in improving the cognitive and psychomotor abilities of cadres, allowing them to better understand the concept of mental health in depth as well as apply practical skills in the screening and intervention process.

Practicality is the main factor in the successful implementation of mental health screening websites. The results of the study show that the practicality aspect obtained a percentage value of 90% which means that this website is very practical to use. This website is designed to be easily accessible by students when conducting screenings and by Guidance and Counseling teachers. In addition, the features provided, such as automatically managing questionnaire filling, displaying quick analysis of results, and clear follow-up recommendations, make the screening process simpler and does not take long. In accordance with previous research, by utilizing an easy and practical mental health early detection application, it can accelerate the achievement of mental health early detection targets in the community with the help of trained cadres (Kusumawaty, Yunike, and Pastari 2020).

The use of a practical website is an effective solution in overcoming the constraints of the previous manual method, which tends to be time-consuming and has the risk of errors in data processing. As affirmed in the article (Nawindah,

Wulandari, and Mulyati 2024) Namely with the use of appropriate and easy-to-apply media, it can help make it easier to carry out early detection of mental health, as a target for mental health preventive efforts.

Based on the results of the feasibility test, effectiveness, practicality, attractiveness and satisfaction with the Akubahagia.com website, it can be concluded that this website is feasible, effective, practical, attractive and satisfying, and satisfying for users in supporting the prevention of mental health disorders. Statistically, the validation of media experts and material experts with a validity percentage value of 71% from media experts and 91.7% from material experts means that this website is feasible to use, while based on field tests from the results of interviews and questionnaires show a feasibility presentation of 83%, effectiveness of 90%, practicality of 91%, attractiveness of 86% and satisfaction of 85%, so it can be concluded that the website akubahagia.com considered very good for screening mental health in order to prevent mental health. This website has met the criteria as an optimal early detection tool. With this website, the mental health screening process becomes more systematic, fast, and accurate, and allows for better follow-up for students in need.

The use of mental health screening websites can akubahagia.com provide a new experience for users, so that screening activities can be carried out effectively and efficiently. In accordance with the theory that early detection of mental health should be carried out early to prevent the risk of mental health disorders in individuals, especially in adolescents with an age range of 11-18 years, in addition to providing opportunities for responsive intervention to someone who needs further treatment (Directorate of Prevention and Control of Mental Health and Drug Problems, 2017).

## Conclusion

The results of the study show that the development of the Akubahagia.com website is effective in supporting early detection and preventing mental health disorders. This website is feasible, effective, practical, attractive and satisfying, for users in supporting the prevention of mental health disorders, which is evidenced by statistical data, validation of media experts and material experts with a validity percentage value of 71% from media experts and 91.7% from material experts, meaning that this website is feasible to use, while based on field tests from the results of interviews and questionnaires showing a feasibility presentation of 83%, effectiveness of 90%, practicality of 91%, attractiveness of 86% and satisfaction of 85%, so it can be concluded that the akubahagia.com website is considered very good for conducting mental health screening in order to prevent mental health disorders.

Most participant also stated that the website is easy to use, provides clear information, and helps them understand their mental health conditions. With a simple interpretation of the screening results and recommendations given, students are more aware of the importance of maintaining mental health.

However, there are still some obstacles, especially in terms of appearance and ease of use, some students have difficulty navigating or understanding certain features, so there is still a need for improvement to ensure a better user experience.

To make Akubahagia.com more useful, it is necessary to simplify the display and navigation to make it easier to use. In addition, socialization about how to use this website also needs to be improved so that more students can make the most of it. The development of additional features such as chatbots or discussion forums can also be a solution to help students who need further support. Finally, periodic evaluations are needed to ensure that this website remains in line with the needs of users and continues to evolve along with changes in the mental health conditions of adolescents.

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**References**

Abdullah, K., Jannah, M., Aiman, U., Hasda, S., Fadilla, Z., Taqwin, T., Masita, M., Ardiawan, K, N., Eka Sari, M., (2022). Metodologi Penelitian Kuantitatif. Aceh, *IKAPI*, 69-78.

Anggun, J, P, K., & Soewondo, P. (2024). Analisis Tercapainya Target Skrining Program Kesehatan Jiwa Melalui E-Jiwa Di Puskesmas ‘ X ’ Dki Jakarta. *Jurnal Manajemen Pelayanan Kesehatan*, 27(04), 116–23, https://doi.org/10.22146/jmpk.v27i3.18285

Asih, L, K., Atikah, C., & Nulhakim, L. (2023). Pengembangan Media Pembelajaran Video Animasi Berbasis Animaker Untuk Meningkatkan Hasil Belajar Siswa SD. *Jurnal Ilmiah Pendidikan Citra Bakti*, 10(2), 386-400, 10.38048/jipcb.v10i2.1634

Astrabel, E., Hanafi, A., & Uvirda, U. (2024). Evaluasi Pelaksanaan Program Kesehatan Jiwa Di Puskesmas Pada Tahun 2022. *Jurnal Kesehatan Masyarakat dan Gizi*, 6(2), 268-276. https://doi.org/10.35451/jkg.v6i2.1990

Funnell, E, L., Spadaro, B., Martin-Key, N., Metcalfe, T., & Bahn, S. (2022). mHealth Solutions for Mental Health Screening and Diagnosis : A Review of App User Perspectives Using Sentiment and Thematic Analysis. *Journal*

*Frontiers*, 13(1), 1-17, 10.3389/fpsyt.2022.857304

Fusar-Poli, P., Correll, C. U., Arango, C., Berk, M., Patel, V., & Ioannidis, J, P, A. (2021). Preventive Psychiatry: A Blueprint for Improving the Mental Health of Young People. *Forum – Prevention Of Mental Disorders In Young People: Research Evidence And Future Directions*, 20(2), 200-221, https://doi.org/10.1002/wps.20869

Grasdalsmoen, M., Eriksen, H, R., Lonning, K, J., & Sivertsen, B. (2020). Physical Exercise, Mental Health Problems, and Suicide Attempts in University Students. *Journal BMC Psychiatry*, 20(1), 1-11, https://doi.org/10.1186/s12888-020-02583-3

Hamenda, T, F., Moo, S., Hunowu, R., Yuniar, Y., & Soeli, M. (2022). Pengembangan Deteksi Dini Gangguan Kesehatan Jiwa Dengan Mental Health Screening Aplikasi Android Untuk Masyarakat Pesisir Pantai Desa Ponelo. *Jambura Nursing Journal*, 4(1), 16–21, https://doi.org/10.35451/jkg.v6i2.1990

Klassen, R, M., Kim, L, E., Rushby, J, V., & Bardach, L. (2020). Can We Improve How We Screen Applicants for Initial Teacher Education?. *Teaching and Teacher Education*, 87(1), 0-11, https://doi.org/10.1016/j.tate.2019.102949

Kusumawaty, I., Yunike, Y., & Pastari, M. (2020). Penyegaran Kader Kesehatan Jiwa Mengenai Deteksi Dini Gangguan Jiwa Dan Cara Merawat Penderita Gangguan Jiwa. *Journal of Community Engagement in Health*, 3(1), 25-28, 10.30994/jceh.v3i1.27

Maulana, R., & Prasetyo, A. (2023). Website Quality Analysis Using Webqual 4.0 Method on Garudaku Website. *Journal of Information System, Informatics and Computing*, 7(2): 250-260, 10.52362/jisicom.v7i2.1242

Mutashim, M., Hilmi, H., & Asriningtias,Y. (2023). Rancang Bangun Aplikasi Skrining Kesehatan Mental Remaja Berbasis Web. *Journal Jutisi*, 12(1), 1830-1840, 10.35889/jutisi.v12i3.1662

Nawindah, W, R., & Mulyati, M. (2024). Socialization Of Early Detection Of Students 'Mental Health With The Smart Senyum'. *Jurnal Abadi Insani*, 11(2), 2323-2330, https://doi.org/10.29303/abdiinsani.v11i4.1986

Nissolekha, I., & Nurhidayat, A, I. (2022). Aplikasi Diagnosis Kesehatan Mental Menggunakan Metode Certainty Factor Pada Puskesmas Kecamatan Kedungadem. *Journal Unesa*, 1–13.

Novianti, E., Tobing, D, L., & Wibisono, B., (2020). Upaya Promotif Dan Preventif Kesehatan Jiwa Melalui Deteksi Dini Berbasis Web. *Jurnal Keperawatan Jiwa*, 8(1), 69-74, 10.26714/jkj.8.1.2020.69-74

Parker, E, M., Jacobson, J., Pullmann, M, D., Kerns, S, E, U., (2019). Identifying Psychosocial Problems Among Children and Youth in the Child Welfare System Using the PSC-17: Exploring Convergent and Discriminant Validity

with Multiple Informants. *Child Psychiatry and Human Development*, 50(1), 108–120, http://dx.doi.org/10.1007/s10578-018-0824-6.

Priambodo, R., Fitryasari, R., & Tristiana, R, D. (2024). Intervensi Pencegahan Perilaku Bunuh Diri Pada Remaja Berbasis Aplikasi Dalam Meningkatkan Efektivitas Penanganan Kesehatan Mental. *Journal of Telenursing*, 6(2): 37–48. https://doi.org/10.31539/joting.v6i2.10748

Qurbani, G., Sugiarsih, S., & Gunawan, I. (2022). Study on Students' Acceptance of Padlet as Online Discussion Medium. *Conference In 2022 8th International Conference on Education and Technology (ICET)*, 261-264, 10.1109/ICET56879.2022.9990727

Rahmawati, D, F. (2019). Pengembangan Situs Web Deteksi Dini. *Journal of Information System for Public Health*, 4(2), 1-8. ttps://doi.org/10.22146/jisph.12265

RI, D, K, K. (2024). Kebijakan Dan Program Kesehatan Jiwa Anak Dan Remaja. Jakarta. *Kementerian Kesehatan RI,* 1-33, https://link.kemkes.go.id/multi/Links/lists/Workshophasilanallisisdatasimkeswa.

Sapthiang, S., Gordon, W, V., & Shonin, E. (2019). Mindfulness in Schools: A Health Promotion Approach to Improving Adolescent Mental Health. *International Journal of Mental Health and Addiction*, 17(1), 112–19, :10.1007/s11469-018-0001-y

Satrio, K., A, W., & Parmono, V, R. (2021). Analisis Hunungan Pemahaman Lintas Budaya Dengan Efektivitas Kinerja Tim Kerja International Business Research. *Jurnal Transaksi*, 13(2), 53–65. https://doi.org/10.25170/transaksi.v13i2

Sherif, Y., Azman, A, Z, F., Awang, H., Mokhtar, S, A., Mohammadzadeh, M., & Alimuddin, A, S. (2023). Effectiveness of Life Skills Intervention on Depression, Anxiety and Stress among Children and Adolescents: A Systematic Review. *Malaysian Journal of Medical Sciences*, 30(3), 42–59. 10.21315/mjms2023.30.3.4

Sugihartini, N., & Yudiana, K. (2018). ADDIE Sebagai Model Pengembangan Media Instruksional Edukatif (Mie) Mata Kuliah Kurikulum dan Pengajaran. *Jurnal Pendidikan Teknologi dan Kejuruan*, 15(2), 277–86, https://doi.org/10.23887/jptk-undiksha.v15i2.14892

Sugiyono. (2017). Metode Penelitian Bisnis: Pendekatan Kuantitatif, Kualitatif, Kombinasi, Dan R&D. *Alfabeta: Bandung*, 225(87), 48–61.

Valentine, S, E., & Shipherd, J, C. (2018). A Systematic Review of Social Stress and Mental Health among Transgender and Gender Non-Conforming People in the United States. *Journal Clinical Psychology Review*, 66(2), 24–38, https://doi.org/10.1016/j.cpr.2018.03.003