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Penulis : **Nur Ulmy Mahmud**, Arni Rizqiani Rusydi, Sumiaty, Harpiana
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Article Title : Development of strategies to reduce mental health disorders for adolescents in Pinrang South Sulawesi, Indonesia: A qualitative Study

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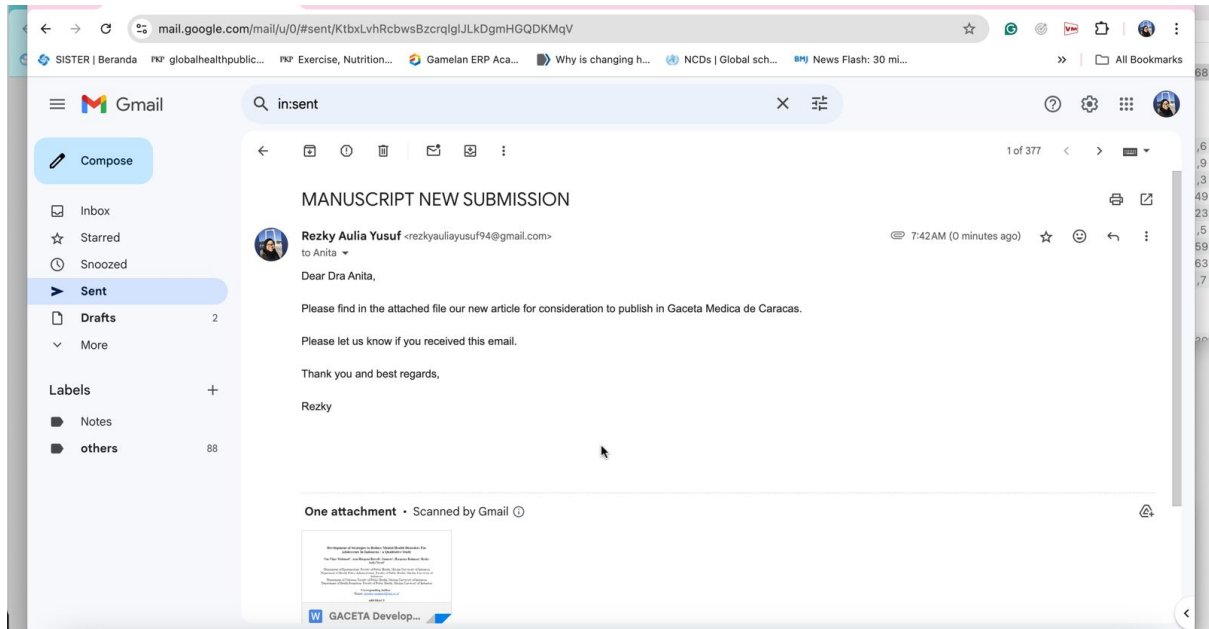
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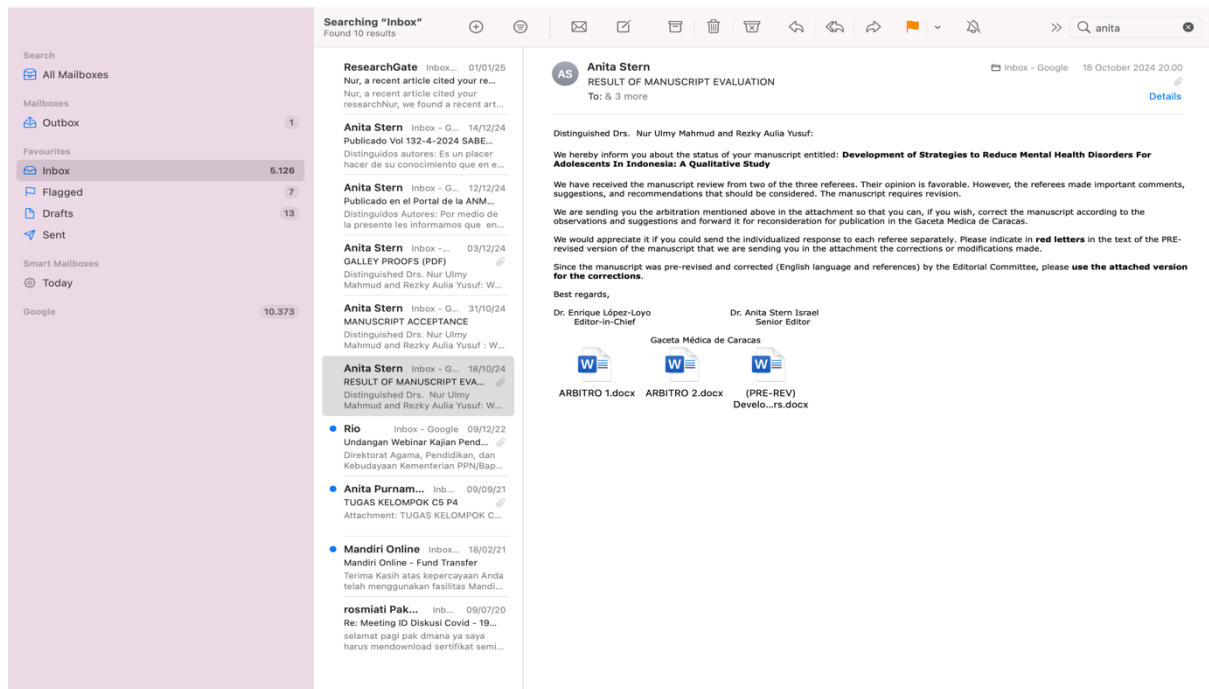
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LAMPIRAN ARTIKEL YANG PERTAMA KALI DI SUBMIT

Development of Strategies to Reduce Mental Health Disorders For Adolescents In Indonesia : A Qualitative Study

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ABSTRACT

Adolescents are susceptible to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people can overcome problems in their way. This means that the ability to survive will turn problems into challenges. This study aims to explore in depth the strategies that must be developed to overcome mental health disorders for teenagers. This qualitative research uses Focus group discussion (FGD) and in-depth interview techniques to collect the information. The informants involved in this study came from the health office, the education and culture office, school principals, teachers in the field of Counseling Guidance (BK), teachers in the arts, culture, and works (SBK), students and parents of students. The location of this research was carried out in 2 sub-districts in Pinrang Regency, namely at SMPN 8 Pinrang which is reflective of adolescents in the city and SMPN 4 Tiroang a reflexive of adolescents in the countryside. It is found that the role of parents and teachers is very important in reducing mental health disorders among teenagers. In conclusion, it is expected that active involvement and collaboration between teachers and parents are essential in providing holistic support for teenagers with mental health disorders. Thus, teenagers will find it easier to overcome their challenges and achieve better well-being. It is important to develop research related to mental health disorders in students by looking at family environmental factors and the environment in which the adolescent lives, as a development of the research that has been conducted.

Keywords: mental health, adolescents, qualitative study

BACKGROUND

Adolescents in the age range of 10-17 years in the transition period from Adolescence to adulthood involve changes in physical/physical development, emotions, interests, and roles in social groups, changes in interests and behavioral patterns have an empirical nature, demanding freedom but still doubting the ability to be responsible, this age is a period of change or transition of elementary school (SD) to junior high school (SMP) age [1][2][3][4]. Adolescents who experience problems or mental disorders will affect their productivity [5][6][7][8][9]. Globally, mental health is an important issue in various countries. Based on data from *IPSOS Global Health Service Monitor 2023* shows that out of 23,274 people from 31 countries in the world from July 2021 to August 2023, as many as 44% of respondents considered mental health to be a problem the most worried. In Sweden (67%) is the first place followed by Chile (66%) and Canada (61%), while Indonesia is in 22nd place with 38%. Most sufferers are adolescents and adults, the number of male sufferers experiencing mental health in Gen Z (38%), Millennials (40%), Gen X (39%), and seniors (32%) while for the female gender Gen Z (56%), Millennials (51%), Gen X (49%) and seniors (44%) [10]

Based on Basic Health Research, the prevalence of mental emotional disorders among adolescents over the age of 15 increased from 9.8%, in 2018 to 13% in 2020. According to the data *Indonesia National Adolescent Mental Health Survey In 2022*, as many as 15.5 million (34.9%) adolescents experienced mental problems, and 2.45 million (5.5%) adolescents experienced mental disorders. Of that number, only 2.6% get access to counseling services, both emotional and behavioral. According to WHO, as many as 50% of people experience mental health disorders starting from adolescence starting from the age of 14 years (at the age of junior high school), many cases are not handled so suicide due to depression is the highest cause of death in young people aged 15-29 years. Pinrang Regency data on junior high school students in 2021 shows that around 70.8% of students are 14 years old, while for gender as many as 68.2% are males and 66.7% females. For the grade level, it shows that the level of stress is very severe experienced in grade VIII

students, which is 38 (67.9%) experiencing very severe stress, The figure is relatively high [11][12]

Adolescents are prone to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people will be able to overcome problems in their own way. This means that the ability to survive will turn problems into challenges, failures into successes, and helplessness into strength. Therefore, adolescents/students must have the resilience to survive, bounce back, and adjust to difficult and stressful conditions in a variety of situations. The principles that should be applied in parent-adolescent relationships are to help students become *resilient*, confident, purposeful, and empathetic when facing life's challenges [4][13][14]

One way to reduce the rate of mental disorders in adolescents is to engage in artistic activities, either as artists or observers [15][16][17]. This is because participating in artistic activities has the potential to improve *Mood* and generate positive emotions. Artistic activities allow a person to show his or her creative expression, such as drawing, storytelling, dancing, and singing, the craft form of knots can aid in healing. The arts offer several therapeutic benefits, including improving our understanding of ourselves and others, improving our ability to reflect on ourselves, reducing symptoms of various diseases, and changing the way we think and behave [14][18][19]. One of the types of art that can be introduced is art *macrame* which is the SA piece of knot craft work made of cloth or rope, based on this data [20]. The purpose of this research is to develop a strategy to reduce mental health disorders through a macrame art-based approach in adolescents in Pinrang Regency

RESEARCH METHODS

This study is qualitative research using a literature review approach related to developing strategies to reduce mental health disorders in adolescents. In addition, FGD and in-depth interview techniques are also used. The informants involved in this study came from the Health Office, the Education and Culture Office, school principals,

teachers in the field of Counseling Guidance (BK), teachers in the field of Arts, Culture, and Works (SBK), parents of students and other informants relevant to the research objectives.

The location of this research was carried out in 2 sub-districts (Watang, Sawitto, and Tiroang) in Pinrang Regency, namely at SMP Negeri 8 Pinrang which is a reflective of adolescents in the city and SMP Negeri 4 Tiroang as a reflexive of adolescents in the countryside.

RESULT

The preparation of the development of strategies to reduce mental health disorders in adolescents began by measuring the stress level of all students in SMP Negeri 8 Pinrang and SMP Negeri 4 Tiroang using the DASS42 questionnaire and then analyzed using the SPSS application which can be seen in the following table:

Table 1. Distribution of students of SMP Negeri 4 Tiroang

Variable	Student gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	5	11,6	1	2,4	6	7,1
SD	10	23,3	17	40,5	27	31,8
JUNIOR	16	37,2	17	40,5	33	38,8
SMA	12	27,9	5	11,9	17	20,0
SI/Bachelor	0	0	2	4,8	2	2,4
Mother's Education Level						
Not in school	4	9,3	3	7,1	7	8,2
SD	10	23,3	18	42,9	28	32,9
JUNIOR	19	44,2	15	35,7	34	40,0
SMA	9	20,9	5	5,9	14	16,5
SI/Bachelor	1	2,3	1	2,4	2	2,4
Father's work						

Variable	Student gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Laborer	0	0	3	7,1	3	3,5
Farmer	33	76,7	32	76,2	65	76,5
Teacher	0	0	2	4,8	2	2,4
Civil servants	1	2,3	0	0	1	1,2
Self employed	9	20,9	5	11,9	14	16,5
Mother's work						
IRT	39	90,7	39	92,9	78	91,8
Farmer	1	2,3	1	2,4	2	2,4
Self employed	3	7,0	2	4,8	5	5,9
Pocket money in a day (Rp)						
< 10,000	16	37,2	14	33,3	30	35,3
≥ 10.000	27	62,8	28	66,7	55	64,7
Where teenagers live						
Parents	38	88,4	37	88,1	75	88,2
Grandparents	3	7,0	3	7,1	6	7,1
Uncle/aunt	1	2,3	2	4,8	3	3,5
Family	1	2,3	0	0	1	1,2
Stress levels						
Usual	24	55,8	17	40,5	41	48,2
Light	7	16,3	13	31,0	20	23,5
Keep	11	25,6	12	28,6	23	27,1
Severe	1	2,3	0	0	1	1,2

Based on table 1, it is known that the highest level of education for fathers is elementary school graduation and SPM graduation, which is 40.5%. Meanwhile, the highest maternal education is SPM completion, which is 44.2%. The highest father's occupation was as a farmer (76.7%), while the highest mother's occupation was as an IRT at 92.9%. Pocket money per day for students, the most in the range $\geq$ of 10,000, which is 66.7%, where they live more with their parents, which is 88.4% with the highest level of stress being those who fall into the normal category (55.8%).

Table 2. Distribution of students of SMP Negeri 8 Pinrang

Variable	Gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	4	4,9	1	1,0	5	2,7
SD	6	7,4	24	23,3	30	16,3
JUNIOR	11	13,6	30	29,1	41	22,3
SMA	44	54,3	36	35,0	80	43,5
SI/Bachelor	16	19,8	12	11,7	28	15,2
Mother's Education Level						
Not in school	0	0	4	3,9	4	2,2
SD	12	14,8	19	18,4	31	16,8
JUNIOR	11	13,6	32	31,1	43	23,4
SMA	41	50,6	36	35,0	77	41,8
SI/Bachelor	17	21,0	12	11,7	29	15,8
Father's work						
Teacher	2	2,5	4	3,9	6	3,3
TNI/Polri	4	4,9	0	0	4	2,2
Farmer	22	27,2	35	34,0	57	31,0
Laborer	12	14,8	17	16,5	29	15,8
Self employed	30	37,0	36	35,0	66	35,9
Civil servants	5	6,2	9	8,7	14	7,6
Sailor	2	2,5	0	0	2	1,1
Security	1	1,2	0	0	1	0,5
Not working	3	3,7	2	1,9	5	2,7
Mother's work						
Midwife	1	1,2	0	0	1	0,5
Nurse	0	0	1	1,0	1	0,5
Teacher	6	7,4	4	3,9	10	5,4
Self employed	13	16,0	9	8,7	22	12,0
IRT	48	59,3	80	77,7	128	69,6
Civil servants	5	6,2	2	1,9	7	3,8
Laborer	6	7,4	6	5,8	12	6,5
Farmer	0	0	1	1,0	1	0,5

TNI/Polwan	2	2,5	0	0	2	1,1
Pocket money in a day (Rp)						
< 10,000	21	25,9	30	29,1	51	27,7
≥ 10.000	60	32,6	73	54,9	133	72,3
Where teenagers live						
Parents	74	91,4	94	91,3	168	91,3
Grandparents	3	3,7	5	4,9	8	4,3
Uncle/aunt	3	3,7	3	2,9	6	3,3
Family	1	1,2	1	1,0	2	1,1
Stress levels						
Usual	49	60,5	42	40,8	91	49,5
Light	14	17,3	32	31,1	46	25,0
Keep	15	18,5	23	22,3	38	20,7
Severe	3	3,7	4	3,9	7	3,8
Very severe	0	0	2	1,9	2	1,1

Data source: Primary, Year 2024

Based on the results of the analysis, the preparation of the development of strategies to reduce mental health disorders in Pinrang Regency was perfected by the results of the *Focus Group Discussion* (FGD). The FGD was held once by presenting several *stakeholders* who were considered *qualified* in explaining the development of strategies to reduce mental health disorders in adolescents. The participants of FGD I are described in the following table:

Table 3. Participants of *Focus Group Discussion* (FGD) on the Development of Strategies to Reduce Mental Health Disorders in Adolescents

No	Initials	Age (years)	Work unit
1	NW	45	Head of the Pinrang Regency Health Office
2	MS	42	Head of the Pinrang Regency Education and Culture Office
3	SW	44	Head of the Mental Health Infectious Disease Prevention and Control Section
4	RM	38	Head of the Family Health and Community Nutrition Section
5	IS	52	Principal of SMP Negeri 8 Pinrang
6	BD	40	Principal of SMP Negeri 4 Tiroang
7	NH	50	Teacher of Counseling Guidance at SMP Negeri 8 Pinrang

No	Initials	Age (years)	Work unit
8	RN	30	Teacher of Counseling Guidance at SMP Negeri 4 Tiroang
9	JN	45	Teacher of Cultural Arts and Works at SMP Negeri 8 Pinrang
10	IN	30	Teacher of Cultural Arts and Works Studies at SMP Negeri 4 Tiroang
11	DR.	45	NGOs and Community Leaders
12	TT	41	Parents of Students

Source: primary data 2024

Based on table 3, it can be described that the participants of the FGD in this study are related to the field of research study, the head of the health office who oversees various fields including mental health and mental health disorders, and the education office about adolescents or school teenagers who are the target of the research, as well as other fields of science that are interrelated with the field of study, for example schools and counseling departments that are indeed tasked with carrying out detection/identification if there is a problem in the school teenagers. The involvement of NGOs, community leaders and parents in this study is to see mental health problems not only by schools and agencies but also by the community and the role of parents who are directly involved with adolescents at home. Related to age, being in the productive age range is very likely to be able to do tasks and responsibilities related to each of the FGD participants

Qualitative Analysis (FGD Results)

The implementation of the FGD was carried out at the Azka Hotel which was attended by representatives from the Pinrang Regency Health Office, the Pinrang Regency Education and Culture Office, the principals of SMP Negeri 4 and SMP Negeri 8 Pinrang Regency, counseling guidance teachers, NGOs, parents of students and

community leaders. Based on the hasl FGD, it is known that high stress in teenagers can also be influenced by several external factors outside the school environment, as stated by the following informant.

"... Teenagers who are stressed are not only a task, maybe from a cellphone....then the understanding of parents who lack... So we are very enthusiastic about how our friends from academics will help us so that this solution is how... If indeed this approach works... yes... please continue as well as possible..." RN 30

It is further explained as follows

"...then the management of the soul itself... So we hope this research... don't just be stressed. Incidentally, friends have not covered all the research on mental health because maybe the funds... budget... (SW, 44 years old)

On the other hand, the health office, especially those that deal with mental health, has conducted screening, as explained by the following informant.

"....so our activity is... Our target is two types in the Health Office... namely AAA....mental disorder screening for every teenager, namely 15-18 years old..." (NW, 45 years old)

In addition to the above, there are also explanations of respondents related to student confidence, as follows.

"One thing is very ordinary, but for a rare student, what shows confidence in public is already very extraordinary for them, so that's one of my suggestions, so there needs to be an increase in attention, recognition and affection for them..." (NH, 50 years old)

It is further explained as follows.

"Some students experience mental health disorders because they lack recognition, for example, those who are smart, sometimes we don't really care about them anymore because we think, Oh, they no longer need to be led because they can do it themselves because they are smart, even though they can do it themselves independently, a teacher should also pay attention to the smart students, especially those who are lacking..." (JN, 45 years old)

One of the teachers also explained about mental health strategies, as follows.

"... So related to how strategies to lower mental health disorders experience as a teacher... So before the beginning of the learning year, there was a name for a non-diagnostic assessment conducted by teachers about how their styles were..." (IS, 52 years old)

Furthermore, the BK teacher also explained how the role of a student is as follows.

"... Understand that this is our job. This is where the main problem is actually because if we want to bring all the teenagers one by one every day at the end of that time... So I think in this macrame art or maybe there are activities that make them work so that they forget the problem. Oh like this, they themselves know that this is hard to do. oh this is easy..." (RN, 30 years old)

Another BK teacher also explained this.

"... So actually our announcement can make the smart adolescent stressed. First, for example, a smart adolescent gets a score of 95..while a mediocre adolescent gets a score of 80, this smart person must feel that if I get a score of 95, he gets 80 without. maybe there is discrimination from the teacher why his grades are slightly different from his friends' grades, so actually we are the ones who make smart teenagers can be stressed." (NH, 50 years old)

Furthermore, the following is also explained

"... There are parents who tell me that their teenagers are difficult to give advice. When he gets home, his adolescent focuses on his cellphone, the reason is that his cellphone is on the charge even though he is playing cellphone, so his job is always that he forgets to work because he is busy with his cellphone. Even though I always tell my teenagers that the parents are not angry but they want their teenagers to be good people" (NH, 50 years old)

It is also further explained about the role of parents and their cooperation with the school, as follows.

"... We don't understand that actually the responsibility of their teenagers is in their hands, we are only entrusted with how many hours while those who are fully responsible Now there are complaints about piled up tasks because to be honest, we are also among those who actually have teenagers, sometimes our teenagers are at home, we don't ask today, there is homework, has been done or not." (TT, 41 years old)

The principal, as the coordinator of education implementation, also explained that the learning process at school is also greatly influenced by the role of the accompanying teacher.

"So I think thank God besides learning... Alhamdulillah, extracurricular activities are running and we are very flexible for them, the teachers are also welcome to do their activities... So there may be factors from teachers who also assist..."

"Alhamdulillah, thanks to this kind of research, we are very helpful... so today's presentation we listen that Alhamdulillah, in our school there are a small number of people who experience stress levels... so Alhamdulillah, maybe that I can read here during my stay in I teach... actually the student... Ee... we develop that out of interest..." (IS, 52 years old)

At the end of the FGD, one of the participants also explained about the output of macram art that can be made into a work, which is explained as follows.

What is the level of success, can he measure that this is the level of stress that usually produces a work, for example in the form of a Rummus or how am I... Somewhat How, after we saw this earlier, I saw that this is the average Parent's work, yes... Especially housewives... In fact, I thought, Why do we know that housewives must be very high in stress..." (NW, 45 years old)

As an effort to control the risk of mental health disorders in adolescents, public health movements for the prevention of mental disorders have been carried out at the level of the health office, the education office, schools, and at the parent level. Based on the FGD with the Pinrang Regency Health Office in 2023, mental health screening in adolescents using the PSS questionnaire in urban areas. However, in the FGD, the Health Office said that limited access made it difficult to carry out screening in remote areas. So the Health Office hopes that academics from universities can partner with the Health Office to reach mental health screening for adolescents in remote areas. This is expressed in the following expression:

"...Last year, we from the Health Office, especially in the health sector, have conducted mental health screening in adolescents in the city... such as in SMP 1 and SMP 5 using the PSS questionnaire but our team has not reached the villages such as in the Tuppu area and mountainous areas... I hope that later there will be cooperation with the campus to help us screen teenagers who are experiencing stress in villages..." (SW, 44 years old)

The movement to prevent mental health disorders is also carried out at the level of the Education Office. The Education and Culture Office of Pinrang Regency encourages the policy of implementing extracurricular arts in schools. Extracurriculars that have been implemented in schools with policy encouragement from the Education Office are the art of arranging flowers. Meanwhile, the art of macrame as an extracurricular has never been

applied in Pinrang. The Education Office revealed the opportunity to apply the art of macrame as a school extracurricular if it has a positive impact on the prevention of mental health disorders in adolescents in schools.

"... Later, after the team that came, they had conducted research by training teenagers, especially students. There is a change or decrease in the number of students who experience stress with this Macrame art class... So we can try to make this macrame art an extracurricular in addition to the art of flower arrangement that has been done in schools in the last few years." (MS, 42 years old)

At the school level, the mental health disorder prevention movement is carried out in several forms of activities such as collaborating with the health office to conduct assessments on students to capture and identify the risk of mental health disorders in students, conducting mental health education in counseling guidance, and holding outing classes. Outing class is a student learning activity outside the classroom that aims to increase student learning motivation. The school also revealed that there are restrictions on the use of smartphones for students as a form of reducing triggers for mental health disorders. This was revealed through an FGD with the school.

"... If we the school has conducted an assessment on students who are about to experience stress by conducting outing classes and prohibiting all our students from bringing their cellphones to school so that they can focus on school" (IS, 52 years old)

Identification of efforts to prevent mental health disorders also involves the role of parents. Through school coordination, parents monitor the condition and progress of students while outside school as the following expression

"... I as a parent, when at home I always ask my adolescent. Don't forget to do his homework after school so that his homework doesn't pile up, I also always invite my son to talk from the heart if there is a problem with his friends at school or there are other problems that he feels are at school" (TT, 41 years old)

Through school coordination, parents also play a role in building intense communication with students with the deep talk method. This method aims to enable parents and schools to dig deeply and understand the mental state of students at school when carrying out the learning process and when outside of school.

DISCUSSION

Mental health disorders in students in schools are an issue that is gaining increasing attention due to its significant impact on students' academic, social, and emotional development. Some of the common mental health disorders in students also based on the results of the FGD that have been described earlier, include depression characterized by prolonged feelings of sadness, loss of interest in daily activities, and decreased energy.

The results of the study showed that junior high school students in two schools in Pinrang Regency experienced mental health problems. It was found that 1.2% of junior high school 4 students experienced severe stress. Clinically stressed at a severe level where students experience shaking hands and bodies and have feelings of worthlessness. Meanwhile, there were 27.1% of students experiencing moderate levels of stress. Moderate stress is characterized by anxiety disorders in the form of intense feeling of hopelessness with excessive feelings of anger. As many as 23.5% were at a moderate stress level, while only 48.2% of SMP 4 students were at normal stress. The picture of mental health disorders in students also occurred in SMP 8 Pinrang students, namely 49.5 percent of junior high school students had normal stress levels, 25% of students were at mild stress levels, 20.7% of students experienced moderate stress, and as many as 3.8% of SMP 8 students experienced severe stress. The condition of mental health disorders found in junior high school students in SMP 4 and SMP 8 Pinrang describes adolescents as a group that is vulnerable to the risk of mental health disorders.

Research conducted by Komang et al, a study conducted in Ubung Kaja Village, Denpasar in 2023 related to mental health in adolescents, shows that there is an influence of characteristic factors on the occurrence of mental health disorders in adolescents [9]. Research conducted by Shaorn et al, in 2021 in America gave the conclusion that young people spend about 15,000 hours in school by the age of 18, so schools, de facto, are an important partner to the mental health system, which every day invests in developing each adolescent's social-emotional health and skills to cope with stress and adversity. Schools are an essential component of the mental health system to ensure that all adolescents in the United States have access to a comprehensive set of mental health supports and to address the many limitations of the existing mental health system that too many students cannot access. Federal, state, and local investments in school mental health recognize this potential, and the multitiered system of supports (MTSS) is now a regular part of the dialogue among educators. Systematic and efficient partnerships between schools and communities to support ongoing mental health support in schools can have a positive impact on mental health in schools, better mental health for all students as well as increased access to mental health services, early identification and intervention, and ultimately, better outcomes for students with mental health challenges. This approach includes natural support for students, including families and educators as team partners for teenagers and adolescents, and does not require a mental health system with a limited adolescent mental health workforce and limited resources [21]

Students who are depressed may have difficulty concentrating, their academic performance decreases, and they may become more withdrawn from society. **In addition, anxiety often occurs in** students with anxiety disorders who may feel excessively worried about various aspects of life, including academic performance, social relationships, or activities outside of school. This anxiety can lead to difficulty sleeping, fatigue, and physical strain. **However, based on the results of previous research, anxiety**

disorders can also cause eating disorders. Disorders such as anorexia or bulimia can appear in students, especially in adolescents. This disorder is often associated with a negative body image and can lead to serious health complications.

Based on the results of the FGD that has been carried out, there are several important things to be used as a strategy in reducing mental health disorders in teenagers. The role of teachers and parents has a significant influence on the development of teenagers's health. Teachers are in a strategic position to observe changes in students' behavior, emotions, and academic performance. They can recognize early signs of mental health disorders such as decreased performance, withdrawal behavior, or aggressive behavior. Teachers can create a safe and inclusive classroom environment, where students feel welcome and supported. Teachers can also offer time to talk to students who seem to be having problems, provide encouragement, and listen to their complaints. Teachers can teach students social-emotional skills, such as how to manage stress, develop confidence, and cope with problems. This education can be done through direct lessons or through an integrated approach in other subjects. Teachers need to work closely with school counselors, psychologists, or other mental health professionals to provide more in-depth support to students in need. They can also refer students to the service if needed. Teachers must communicate effectively with parents about the behaviors or changes they observe in teenagers at school. This allows parents to give greater attention to the home and seek professional help if needed.

The role of parents is no less important. Parents need to create a safe, stable, and loving home atmosphere. This includes providing quality time with teenagers, listening to them, and showing empathy for their feelings. Parents should be sensitive to changes in their adolescent's behavior, such as changes in sleep patterns, appetite, or changes in social relationships. Recognizing the early signs can help in faster treatment. Parents can support teenagers by giving them space to talk about their feelings without fear of being judged. This is important for building trust and openness in the family. If parents notice

signs of mental health disorders in their teenagers, they should immediately seek help from a professional such as a psychologist or counselor. Early intervention is very important in the management of mental health disorders. Parents need to work closely with teachers and school staff to ensure their adolescent receives consistent support at school and at home. This includes attending meetings with teachers, following the adolescent's progress at school, and providing important information about the adolescent's condition to the school. Parents need to continue to learn about mental health, especially related to teenagers and adolescents. This can help them understand what the adolescent may be going through and how best to help.

Teachers and parents need to align on the pace in their approach to teenagers's mental health. A consistent approach between home and school will help teenagers feel safe and supported in both environments. Open and honest communication between teachers and parents is essential. This allows for the effective exchange of information regarding the adolescent's condition and its treatment strategies.

CONCLUSION

Active involvement and collaboration between teachers and parents is essential in providing holistic support for teenagers with mental health disorders. Thus, teenagers will find it easier to overcome the challenges they face and achieve better well-being.

SUGGESTION

It is important to develop research related to mental health disorders in students by looking at factors in the family environment and the environment in which the adolescent lives, as a development of the research that has been carried out.

DECLARATIONS

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was conducted according to the guidelines in the Declaration of Helsinki. All procedures involved in this research study participants were approved by the Ethics Committee of Universitas Muslim Indonesia and YW-UMI Hospital with No. register; UMI012406351.. In addition, written informed consent was gained from all subjects.

CONSENT FOR PUBLICATION

Not applicable.

COMPETING INTERESTS

The authors declare no competing interests.

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**BUKTI KONFIMASI REVIEW DAN HASIL
REVISI (TANGGAL 18 OKTOBER 2024)**

1. Reviewer Pertama

INSTRUCTIONS FOR REFEREES GACETA MEDICA DE CARACAS

A	Referee's comments for authors (the author does not know who the referee is) - use the space you need or indicate if the corrections are in the manuscript
Development of Strategies to Reduce Mental Health Disorders For Adolescents In Indonesia: A Qualitative Study	
B	For each question, please use an X in the correspondent space:

1 MANUSCRIPT EVALUATION

a	Content originality	
	Totally new	
	Mainly Confirmatory	✓
b	Scientific importance	
	High	
	Above average	✓
	Below average	
c	Cited literature (Are the works cited appropriate?)	
	Yes	✓
	No	
d	Methodology	
	Appropriate	✓
	Not rigorous	
	Not justified	
e	Interpretation of the data	
	Justified	✓
	Partially Justified	
	Non justified	
f	Ethical considerations	
	Not necessary	✓
	Necessary	

2 PRESENTATION OF THE MANUSCRIPT

a	Quality of presentation	
	Satisfactory	
	Regular	✓
	Poor	
b	Style	
	No need revision	
	Requires some revision	✓
	Requires a big revision	
c	Length	
	Too long	
	Normal	✓
	Too short (but useful for short communication)	

3 REVIEW NEED

	No need revision	
	Requires minor revision	✓
	Requires a big revision	

4 PUBLICATION PRIORITY

(based on originality, interest, and impact)	
Must be published (high)	
Must be published	✓
Could be rejected (if there is similar material previously published)	

Rejected

☐

5 CONFLICTS OF INTEREST
(between you and the author)

Yes

☐

No

☒

C	Summarize the strengths and weaknesses of the article - use as much space as you need
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- | |
|---|
| <ul style="list-style-type: none">- The research title needs to be made more specific because it was only conducted in Pinrang Regency.- Please provide the results derived from the literature review method. |
|---|

2. Reviewer kedua

INSTRUCTIONS FOR REFEREES GACETA MEDICA DE CARACAS

A	Referee's comments for authors (the author does not know who the referee is) - use the space you need or indicate if the corrections are in the manuscript
Development of Strategies to Reduce Mental Health Disorders For Adolescents In Indonesia: A Qualitative Study The article presents several strengths, particularly in its innovative focus on using macrame art as a therapeutic tool to address mental health disorders among adolescents. This creative approach is commendable, as it offers a unique solution to a globally significant issue, especially within the specific cultural context of Pinrang Regency, Indonesia. Additionally, the use of focus group discussions (FGDs) involving a diverse range of informants—parents, teachers, and officials from both the health and education sectors—adds credibility to the findings and enhances the depth of the study. However, there are a few areas that could benefit from further development to strengthen the article. First, in the Introduction, while the issue of adolescent mental health is well presented, it would be beneficial to provide a deeper exploration of how art, particularly macrame, has been shown to impact mental health. Adding more literature that supports the therapeutic benefits of art will help establish a stronger theoretical foundation for the study. In the Methodology section, additional detail is needed to clarify certain aspects. For example, the data analysis process, particularly how the qualitative data from the FGD and in-depth interviews were analyzed, should be explained more thoroughly. Including details on any coding methods or thematic analysis techniques will help readers understand how conclusions were drawn. Moreover, offering more justification for why FGD and in-depth interviews were chosen as the primary methods would improve this section. Explaining why these methods are most suitable for achieving the study's objectives, as well as why the selected informants are representative, will make the methodology more robust. While the study locations are briefly mentioned, providing more context on the characteristics of the schools chosen for the research (e.g., rural versus urban dynamics) will also add valuable insights. The Results section could benefit from a clearer structure. While there is a wealth of data presented, such as tables showing students' stress levels and parental education, a more explicit interpretation of this data would enhance the reader's understanding. For example, explain how the findings from the tables link to the strategies being proposed. Additionally, the qualitative results from the FGD could be organized by key themes to present a more cohesive narrative. In the Discussion, more depth can be added by comparing the study's findings with similar research in Indonesia and other countries. Discussing how the proposed strategies align with or differ from those in other studies will place this research in a broader context. Furthermore, emphasizing the practical implications of the findings would be helpful. How can these strategies be implemented in other schools or regions? Are there any challenges in scaling up these interventions? Finally, the Conclusion effectively summarizes the importance of collaboration between teachers and parents, but you could provide more concrete recommendations. Suggesting specific steps that local governments or schools can take to incorporate macrame art into their mental health programs would offer practical takeaways for stakeholders. Additionally, the suggestion to conduct further research on the family environment's role in mental health could be expanded to include potential research directions or specific questions that future studies might address. In terms of ease of revisions, most of these suggestions involve clarifying existing content rather than adding entirely new sections. By expanding the methodology, organizing the results more clearly, and enhancing the discussion with comparisons to other research, the article will become more comprehensive	

while maintaining its original focus. Minor stylistic revisions can also improve the flow, making the study's insights easier to digest for readers.

B For each question, please use an X in the correspondent space:

1 MANUSCRIPT EVALUATION

a	Content originality	
	Totally new	☒
	Mainly Confirmatory	☐
b	Scientific importance	
	High	☐
	Above average	☒
	Below average	☐
c	Cited literature	
	(Are the works cited appropriate?)	
	Yes	☒
	No	☐
d	Methodology	
	Appropriate	☒
	Not rigorous	☐
	Not justified	☐
e	Interpretation of the data	
	Justified	☒
	Partially Justified	☐
	Non justified	☐
f	Ethical considerations	
	Not necessary	☐
	Necessary	☒

2 PRESENTATION OF THE MANUSCRIPT

a	Quality of presentation	
	Satisfactory	☐
	Regular	☒
	Poor	☐
b	Style	
	No need revision	☐
	Requires some revision	☒
	Requires a big revision	☐
c	Length	
	Too long	☐
	Normal	☒
	Too short (but useful for short communication)	☐

3 REVIEW NEED

No need revision	☐
Requires minor revision	☒
Requires a big revision	☐

4 PUBLICATION PRIORITY

(based on originality, interest, and impact)

Must be published (high)	☐
Must be published	☒
Could be rejected (if there is similar material previously published)	☐
Rejected	☐

5 CONFLICTS OF INTEREST

(between you and the author)

Yes	☐
No	☒

C	Summarize the strengths and weaknesses of the article - use as much space as you need
The article presents several strengths, particularly its innovative focus on macrame art as a therapeutic tool for reducing adolescent mental health disorders. This unique approach demonstrates creativity in addressing a globally significant issue, especially within the specific cultural context of Pinrang Regency, Indonesia. Additionally, the study's use of focus group discussions (FGDs) involving a diverse range of informants, including parents, teachers, and officials from the health and education sectors, adds depth and validity to the findings. However, there are areas where the article could be improved. The methodology section, while appropriate, would benefit from further elaboration, particularly regarding the analysis of the collected data. The results section could also be better organized to enhance clarity and understanding. Finally, certain sections of the manuscript would benefit from stylistic revisions to improve the flow and readability of the text.	

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3. Hasil Revisi

Development of Strategies to Reduce Mental Health Disorders For Adolescents In Pinrang South Sulawesi, Indonesia: A Qualitative Study

Desarrollo de estrategias para reducir los trastornos de salud mental en adolescentes en Indonesia: un estudio cualitativo

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ABSTRACT

Adolescents are susceptible to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people can overcome difficulties in their own way. This means that the ability to survive will turn problems into challenges. This study aims to explore in depth the strategies that must be developed to overcome mental health disorders for students in Pinrang Regency.

This study is qualitative research using a literature review approach related to developing strategies to reduce mental health disorders in adolescents. In addition, focus group discussion (FGD) and in-depth interview techniques were used. The informants involved in this study came from the health office, the education and culture office, school principals, teachers in the field of Counseling Guidance (BK), teachers in the field of arts, culture, and works (SBK), students and parents of students. The location of this research was carried out in 2 sub-districts (Watang, Sawitto, and Tiroang) in Pinrang Regency, namely at SMP Negeri 8 Pinrang, which is reflective of adolescents in the city and SMP Negeri 4 Tiroang, a reflexive of adolescents in the countryside. Based on the results of the FGD, it is known that the role of parents and teachers is very important in reducing mental health disorders among teenagers. In conclusion, it is expected that active involvement and collaboration between teachers and parents are essential in providing holistic support for teenagers with mental health disorders. Thus, teenagers will find it easier to overcome their challenges and achieve better well-being. It is important to develop research related to mental health disorders in students by looking at family environmental factors and the environment in which the adolescent lives, as a development of the research that has been conducted.

Keywords: mental health, adolescents, macrame art

RESUMEN

Los adolescentes son susceptibles a sufrir trastornos mentales debido a problemas familiares, problemas con los compañeros y estrés personal. Los problemas son inevitables, pero las personas fuertes pueden superar las dificultades a su manera. Esto significa que la capacidad de sobrevivir convertirá los problemas en desafíos. Este estudio tiene como objetivo explorar en profundidad las estrategias que deben desarrollarse para superar los trastornos de salud mental de los estudiantes de Pinrang Regency. Este estudio es una investigación cualitativa que utiliza un enfoque

de revisión de la literatura relacionada con el desarrollo de estrategias para reducir los trastornos de salud mental en adolescentes. Además, se utilizaron discusiones de grupos focales (DGF) y técnicas de entrevista en profundidad. Los informantes involucrados en este estudio provinieron de la secretaría de salud, la secretaría de educación y cultura, directores de escuelas, docentes del área de Orientación Orientación (BK), docentes del área de artes, cultura y obras (SBK), estudiantes y padres de familia. de estudiantes. La ubicación de esta investigación se llevó a cabo en 2 subdistritos (Watang, Sawitto y Tiroang) en Pinrang Regency, concretamente en SMP Negeri 8 Pinrang, que refleja a los adolescentes de la ciudad y SMP Negeri 4 Tiroang, un reflejo de los adolescentes. en el campo. A partir de los resultados del DGF, se sabe que el papel de padres y profesores es muy importante en la reducción de los trastornos de salud mental entre los adolescentes. En conclusión, se espera que la participación activa y la colaboración entre profesores y padres sean esenciales para brindar apoyo integral a los adolescentes con trastornos de salud mental. Así, a los adolescentes les resultará más fácil superar sus retos y alcanzar un mayor bienestar. Es importante desarrollar investigaciones relacionadas con los trastornos de salud mental en los estudiantes observando los factores ambientales familiares y el entorno en el que vive el adolescente, como un desarrollo de la investigación que se ha realizado.

Palabras clave: salud mental, adolescentes, arte macramé.

BACKGROUND

Adolescents in the age range of 10-17 years in the transition period from Adolescence to adulthood involve changes in physical/physical development, emotions, interests, and roles in social groups, changes in interests and behavioral patterns have an empirical nature, demanding freedom but still doubting the ability to be responsible, this age is a period of change or transition of elementary school (SD) to junior high school (SMP) age (1-4). Adolescents who experience problems or mental disorders will affect their productivity (5-9). Globally, mental health is an

important issue in various countries. Based on data from *IPSOS Global Health Service Monitor 2023* shows that out of 23,274 people from 31 countries in the world from July 2021 to August 2023, as many as 44% of respondents considered mental health to be a problem the most worried. In Sweden (67%) is the first place followed by Chile (66%) and Canada (61%), while Indonesia is in 22nd place with 38%. Most sufferers are adolescents and adults, the number of male sufferers experiencing mental health in Gen Z (38%), Millennials (40%), Gen X (39%), and seniors (32%) while for the female gender Gen Z (56%), Millennials (51%), Gen X (49%) and seniors (44%) (10)

Based on Basic Health Research, the prevalence of mental emotional disorders among adolescents over the age of 15 increased from 9.8%, in 2018 to 13% in 2020. According to the data *Indonesia National Adolescent Mental Health Survey In 2022*, as many as 15.5 million (34.9%) adolescents experienced mental problems, and 2.45 million (5.5%) adolescents experienced mental disorders. Of that number, only 2.6% get access to counseling services, both emotional and behavioral. According to WHO, as many as 50% of people experience mental health disorders starting from adolescence starting from the age of 14 years (at the age of junior high school), many cases are not handled so suicide due to depression is the highest cause of death in young people aged 15-29 years. Pinrang Regency data on junior high school students in 2021 shows that around 70.8% of students are 14 years old, while for gender as many as 68.2% are males and 66.7% females. For the grade level, it shows that the level of stress is very severe experienced in grade VIII students, which is 38 (67.9%) experiencing very severe stress, The figure is relatively high (11)(12)

Adolescents are prone to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people will be able to overcome problems in their own way. This means that the ability to survive will turn problems into challenges, failures into successes, and helplessness into strength. Therefore, adolescents/students must have the resilience to survive, bounce back, and adjust to difficult and stressful conditions in a variety of situations. The principles that should be applied in parent-adolescent relationships are to help students become *resilient*, confident, purposeful, and empathetic when facing life's challenges (4,13,14).

One way to reduce the rate of mental disorders in adolescents is to engage in artistic activities, either as artists or observers (15-17). This is because participating in artistic activities has the potential to improve *Mood* and generate positive emotions. Artistic activities allow a person to show his or her creative expression, such as drawing, storytelling, dancing, and singing, the craft form of knots can aid in healing. The arts offer several therapeutic benefits, including improving our understanding of ourselves and others, improving our ability to reflect on ourselves, reducing symptoms of various diseases, and changing the way we think and behave (14,18,19). One of the types of art that can be introduced is art *macrame* which is the SA piece of knot craft work made of cloth or rope, based on this data (20). **Integrating conditions of mental health disorders with the art of knotting crafts, which is an activity that is expected to be able to overcome mental health disorders because there is a focus on the activity and is expected to be able to minimize the impact of mental health.** The purpose of this research is to develop a strategy to reduce mental health disorders through a macrame art-based approach in adolescents in Pinrang Regency

METHODS

This research uses qualitative research methods with a phenomenological approach to explore strategies for reducing mental health disorders in adolescents in two different locations, namely SMP Negeri 8 Pinrang (urban) and SMP Negeri 4 Tiroang (rural). This approach was chosen to compare the mental health conditions of adolescents in urban and rural environments and the factors that influence them. A case study design was chosen because it allows for in-depth exploration of the specific context of two different schools. This helps researchers understand the differences and similarities in mental health conditions in urban and rural settings. Qualitative data was collected through Focus Group Discussions (FGD) and in-depth interviews with key informants, such as representatives of the Health Service, Education Service, school principals, guidance and counseling teachers (BK) and teachers in the field of Arts, Culture and Work (SBK), as well as students' parents. FGDs were used to explore collective perceptions, while in-depth interviews were used to understand direct experiences related to adolescent mental health. Data

were analyzed using thematic analysis to identify main themes related to adolescent mental health. A comparison between the two locations was carried out to understand the factors that influence stress levels in the two locations

RESULT

The preparation of the development of strategies to reduce mental health disorders in adolescents began by measuring the stress level of all students in SMP Negeri 8 Pinrang and SMP Negeri 4 Tiroang using the DASS42 questionnaire and then analyzed using the SPSS application which can be seen in the following table:

Table 1. Distribution of students of SMP Negeri 4 Tiroang

Variable	Student gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	5	11,6	1	2,4	6	7,1
SD	10	23,3	17	40,5	27	31,8
JUNIOR	16	37,2	17	40,5	33	38,8
SMA	12	27,9	5	11,9	17	20,0
SI/Bachelor	0	0	2	4,8	2	2,4
Mother's Education Level						
Not in school	4	9,3	3	7,1	7	8,2
SD	10	23,3	18	42,9	28	32,9
JUNIOR	19	44,2	15	35,7	34	40,0
SMA	9	20,9	5	5,9	14	16,5
SI/Bachelor	1	2,3	1	2,4	2	2,4
Father's work						
Laborer	0	0	3	7,1	3	3,5
Farmer	33	76,7	32	76,2	65	76,5

Variable	Student gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Teacher	0	0	2	4,8	2	2,4
Civil servants	1	2,3	0	0	1	1,2
Self employed	9	20,9	5	11,9	14	16,5
Mother's work						
IRT	39	90,7	39	92,9	78	91,8
Farmer	1	2,3	1	2,4	2	2,4
Self employed	3	7,0	2	4,8	5	5,9
Pocket money in a day (Rp)						
< 10,000	16	37,2	14	33,3	30	35,3
≥ 10.000	27	62,8	28	66,7	55	64,7
Where teenagers live						
Parents	38	88,4	37	88,1	75	88,2
Grandparents	3	7,0	3	7,1	6	7,1
Uncle/aunt	1	2,3	2	4,8	3	3,5
Family	1	2,3	0	0	1	1,2
Stress levels						
Usual	24	55,8	17	40,5	41	48,2
Light	7	16,3	13	31,0	20	23,5
Keep	11	25,6	12	28,6	23	27,1
Severe	1	2,3	0	0	1	1,2

Based on Table 1, it is known that the highest education level of parents (father and mother) is junior high school, namely 38.8 and 40%. The highest father's occupation is as a farmer (76.5%)The highest father's occupation was as a farmer (76.7%), while the highest mother's occupation was as an IRT at 91,8%. Pocket money per day for students, the most in the range $\geq$ of 10,000, which is 64.7%, where they

live more with their parents, which is 88.2% with the highest level of stress being those who fall into the normal category (48.2%).

Table 2. Distribution of students of SMP Negeri 8 Pinrang

Variable	Gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	4	4,9	1	1,0	5	2,7
SD	6	7,4	24	23,3	30	16,3
JUNIOR	11	13,6	30	29,1	41	22,3
SMA	44	54,3	36	35,0	80	43,5
SI/Bachelor	16	19,8	12	11,7	28	15,2
Mother's Education Level						
Not in school	0	0	4	3,9	4	2,2
SD	12	14,8	19	18,4	31	16,8
JUNIOR	11	13,6	32	31,1	43	23,4
SMA	41	50,6	36	35,0	77	41,8
SI/Bachelor	17	21,0	12	11,7	29	15,8
Father's work						
Teacher	2	2,5	4	3,9	6	3,3
TNI/Polri	4	4,9	0	0	4	2,2
Farmer	22	27,2	35	34,0	57	31,0
Laborer	12	14,8	17	16,5	29	15,8
Self employed	30	37,0	36	35,0	66	35,9
Civil servants	5	6,2	9	8,7	14	7,6
Sailor	2	2,5	0	0	2	1,1
Security	1	1,2	0	0	1	0,5
Not working	3	3,7	2	1,9	5	2,7

Mother's work						
Midwife	1	1,2	0	0	1	0,5
Nurse	0	0	1	1,0	1	0,5
Teacher	6	7,4	4	3,9	10	5,4
Self employed	13	16,0	9	8,7	22	12,0
IRT	48	59,3	80	77,7	128	69,6
Civil servants	5	6,2	2	1,9	7	3,8
Laborer	6	7,4	6	5,8	12	6,5
Farmer	0	0	1	1,0	1	0,5
TNI/Polwan	2	2,5	0	0	2	1,1
Pocket money in a day (Rp)						
< 10,000	21	25,9	30	29,1	51	27,7
≥ 10.000	60	32,6	73	54,9	133	72,3
Where teenagers live						
Parents	74	91,4	94	91,3	168	91,3
Grandparents	3	3,7	5	4,9	8	4,3
Uncle/aunt	3	3,7	3	2,9	6	3,3
Family	1	1,2	1	1,0	2	1,1
Stress levels						
Usual	49	60,5	42	40,8	91	49,5
Light	14	17,3	32	31,1	46	25,0
Keep	15	18,5	23	22,3	38	20,7
Severe	3	3,7	4	3,9	7	3,8
Very severe	0	0	2	1,9	2	1,1

Data source: Primary, Year 2024

Based on table 2, it is known that the father's highest education level is high school completion, namely 43.5%. Meanwhile, the highest maternal education was high school graduation, namely 41.8%. The father's highest job is as an entrepreneur at 35.9%, while the mother's highest job is as a housewife at 69.6%. The daily

allowance for students is mostly in the range of $\geq 10,000$, namely 72.3%, of which they mostly live with their parents, namely 91.3%, with the stress level being those in the moderate stress category, 27.1%

Based on the results of the analysis, the preparation of the development of strategies to reduce mental health disorders in Pinrang Regency was perfected by the results of the *Focus Group Discussion* (FGD). The FGD was held once by presenting several *stakeholders* who were considered *qualified* in explaining the development of strategies to reduce mental health disorders in adolescents. The participants of FGD I are described in the following table:

Table 3. Participants of Focus Group Discussion (FGD) on the Development of Strategies to Reduce Mental Health Disorders in Adolescents

No	Initials	Age (years)	Work unit
1	NW	45	Head of the Pinrang Regency Health Office
2	MS	42	Head of the Pinrang Regency Education and Culture Office
3	SW	44	Head of the Mental Health Infectious Disease Prevention and Control Section
4	RM	38	Head of the Family Health and Community Nutrition Section
5	IS	52	Principal of SMP Negeri 8 Pinrang
6	BD	40	Principal of SMP Negeri 4 Tiroang
7	NH	50	Teacher of Counseling Guidance at SMP Negeri 8 Pinrang
8	RN	30	Teacher of Counseling Guidance at SMP Negeri 4 Tiroang
9	JN	45	Teacher of Cultural Arts and Works at SMP Negeri 8 Pinrang
10	IN	30	Teacher of Cultural Arts and Works Studies at SMP Negeri 4 Tiroang
11	DR.	45	NGOs and Community Leaders

No	Initials	Age (years)	Work unit
12	TT	41	Parents of Students

Source: primary data 2024

Based on Table 3, it can be described that the participants of the FGD in this study are related to the field of research study, the head of the health office who oversees various fields including mental health and mental health disorders, and the education office about adolescents or school teenagers who are the target of the research, as well as other fields of science that are interrelated with the field of study, for example schools and counseling departments that are indeed tasked with carrying out detection/identification if there is a problem in the school teenagers. The involvement of NGOs, community leaders and parents in this study is to see mental health problems not only by schools and agencies but also by the community and the role of parents who are directly involved with adolescents at home. Related to age, being in the productive age range is very likely to be able to do tasks and responsibilities related to each of the FGD participants

Qualitative Analysis (FGD Results)

The implementation of the FGD was carried out at the Azka Hotel which was attended by representatives from the Pinrang Regency Health Office, the Pinrang Regency Education and Culture Office, the principals of SMP Negeri 4 and SPM Negeri and Pinrang Regency, counseling guidance teachers, NGOs, parents of students and community leaders. Based on the hasl FGD, it is known that high stress in teenagers can also be influenced by several external factors outside the school environment, as stated by the following informant.

"... Teenagers who are stressed are not only a task, maybe from a cellphone....then the understanding of parents who lack... So we are very enthusiastic about how our friends from academics will help us so that this solution is how... If indeed this approach works... yes... please continue as well as possible..." RN 30

It is further explained as follows

"...then the management of the soul itself.. So we hope this research... don't just be stressed. Incidentally, friends have not covered all the research on mental health because maybe the funds... budget... (SW, 44 years old)

On the other hand, the health office, especially those that deal with mental health, has conducted screening, as explained by the following informant.

"....so our activity is... Our target is two types in the Health Office... namely AAA....mental disorder screening for every teenager, namely 15-18 years old..." (NW, 45 years old)

In addition to the above, there are also explanations of respondents related to student confidence, as follows.

"One thing is very ordinary, but for a rare student, what shows confidence in public is already very extraordinary for them, so that's one of my suggestions, so there needs to be an increase in attention, recognition and affection for them..." (NH, 50 years old)

It is further explained as follows.

"Some students experience mental health disorders because they lack recognition, for example, those who are smart, sometimes we don't really care about them anymore because we think, Oh, they no longer need to be led because they can do it themselves because they are smart, even though they can do it themselves independently, a teacher should also pay attention to the smart students, especially those who are lacking..." (JN, 45 years old)

One of the teachers also explained about mental health strategies, as follows.

"... So related to how strategies to lower mental health disorders experience as a teacher... So before the beginning of the learning year, there was a name for a non-diagnostic assessment conducted by teachers about how their styles were..." (IS, 52 years old)

Furthermore, the BK teacher also explained how the role of a student is as follows.

"... Understand that this is our job. This is where the main problem is actually because if we want to bring all the teenagers one by one every day at the end of that time... So I think in this macrame art or maybe there are activities that make them work so that they forget the problem. Oh like this, they themselves know that this is hard to do. oh this is easy..." (RN, 30 years old)

Another BK teacher also explained this.

"... So actually our announcement can make the smart adolescent stressed. First, for example, a smart adolescent gets a score of 95..while a mediocre adolescent gets a score of 80, this smart person must feel that if I get a score of 95, he gets 80 without. maybe there is discrimination from the teacher why his grades are slightly different from his friends' grades, so actually we are the ones who make smart teenagers can be stressed." (NH, 50 years old)

Furthermore, the following is also explained

"... There are parents who tell me that their teenagers are difficult to give advice. When he gets home, his adolescent focuses on his cellphone, the reason is that his cellphone is on the charge even though he is playing cellphone, so his job is always that he forgets to work because he is busy with his cellphone. Even though I always tell my teenagers that the parents are not angry but they want their teenagers to be good people" (NH, 50 years old)

It is also further explained about the role of parents and their cooperation with the school, as follows.

"... We don't understand that actually the responsibility of their teenagers is in their hands, we are only entrusted with how many hours while those who are fully responsible Now

there are complaints about piled up tasks because to be honest, we are also among those who actually have teenagers, sometimes our teenagers are at home, we don't ask today, there is homework, has been done or not." (TT, 41 years old)

The principal, as the coordinator of education implementation, also explained that the learning process at school is also greatly influenced by the role of the accompanying teacher.

"So I think thank God besides learning... Alhamdulillah, extracurricular activities are running and we are very flexible for them, the teachers are also welcome to do their activities... So there may be factors from teachers who also assist..."

"Alhamdulillah, thanks to this kind of research, we are very helpful... so today's presentation we listen that Alhamdulillah, in our school there are a small number of people who experience stress levels... so Alhamdulillah, maybe that I can read here during my stay in I teach... actually the student... Ee... we develop that out of interest..." (IS, 52 years old)

At the end of the FGD, one of the participants also explained about the output of macram art that can be made into a work, which is explained as follows.

What is the level of success, can he measure that this is the level of stress that usually produces a work, for example in the form of a Rummus or how am I... Somewhat How, after we saw this earlier, I saw that this is the average Parent's work, yes... Especially housewives... In fact, I thought, Why do we know that housewives must be very high in stress..." (NW, 45 years old)

As an effort to control the risk of mental health disorders in adolescents, public health movements for the prevention of mental disorders have been carried out at the level of the health office, the education office, schools, and at the parent level. Based on the FGD with the Pinrang Regency Health Office in 2023, mental health screening in adolescents using the PSS questionnaire in urban areas. However, in the FGD, the Health Office said that limited access made it difficult to carry out screening in remote areas. So the Health Office hopes that academics from universities can partner with the Health Office to reach mental health screening for adolescents in remote areas. This is expressed in the following expression:

"...Last year, we from the Health Office, especially in the health sector, have conducted mental health screening in adolescents in the city... such as in SMP 1 and SMP 5 using the PSS questionnaire but our team has not reached the villages such as in the Tuppu area and mountainous areas... I hope that later there will be cooperation with the campus to help us screen teenagers who are experiencing stress in villages..."
(SW, 44 years old)

The movement to prevent mental health disorders is also carried out at the level of the Education Office. The Education and Culture Office of Pinrang Regency encourages the policy of implementing extracurricular arts in schools. Extracurriculars that have been implemented in schools with policy encouragement from the Education Office are the art of arranging flowers. Meanwhile, the art of macrame as an extracurricular has never been applied in Pinrang. The Education Office revealed the opportunity to apply the art of macrame as a school extracurricular if it has a positive impact on the prevention of mental health disorders in adolescents in schools.

"... Later, after the team that came, they had conducted research by training teenagers, especially students. There is a change or decrease in the number of students who experience stress with this Macrame art class... So we can try to make this macrame art an extracurricular in addition to the art of flower arrangement that has been done in schools in the last few years." (MS, 42 years old)

At the school level, the mental health disorder prevention movement is carried out in several forms of activities such as collaborating with the health office to conduct assessments on students to capture and identify the risk of mental health disorders in students, conducting mental health education in counseling guidance, and holding outing classes. Outing class is a student learning activity outside the classroom that aims to increase student learning motivation. The school also revealed that there are restrictions on the use of smartphones for students as a form of

reducing triggers for mental health disorders. This was revealed through an FGD with the school.

"... If we the school has conducted an assessment on students who are about to experience stress by conducting outing classes and prohibiting all our students from bringing their cellphones to school so that they can focus on school" (IS, 52 years old)

Identification of efforts to prevent mental health disorders also involves the role of parents. Through school coordination, parents monitor the condition and progress of students while outside school as the following expression

"... I as a parent, when at home I always ask my adolescent. Don't forget to do his homework after school so that his homework doesn't pile up, I also always invite my son to talk from the heart if there is a problem with his friends at school or there are other problems that he feels are at school" (TT, 41 years old)

Through school coordination, parents also play a role in building intense communication with students with the deep talk method. This method aims to enable parents and schools to dig deeply and understand the mental state of students at school when carrying out the learning process and when outside of school.

DISCUSSION

Mental health disorders in students in schools are an issue that is gaining increasing attention due to its significant impact on students' academic, social, and emotional development. Some of the common mental health disorders in students also based on the results of the FGD that have been described earlier, include depression characterized by prolonged feelings of sadness, loss of interest in daily activities, and decreased energy.

The results of the study showed that junior high school students in two schools in Pinrang Regency experienced mental health problems. It was found that 1.2% of junior high school 4 students experienced severe stress. Clinically stressed at a severe level where students experience shaking hands and bodies and have feelings of worthlessness. Meanwhile, there were 27.1% of students experiencing moderate levels of stress. Moderate stress is characterized by anxiety disorders in the form of intense feeling of hopelessness with excessive feelings of anger. As many as 23.5% were at a moderate stress level, while only 48.2% of SMP 4 students were at normal stress. The picture of mental health disorders in students also occurred in SMP 8 Pinrang students, namely 49.5 percent of junior high school students had normal stress levels, 25% of students were at mild stress levels, 20.7% of students experienced moderate stress, and as many as 3.8% of SMP 8 students experienced severe stress. The condition of mental health disorders found in junior high school students in SMP 4 and SMP 8 Pinrang describes adolescents as a group that is vulnerable to the risk of mental health disorders.

Research conducted by Komang et al, a study conducted in Ubung Kaja Village, Denpasar in 2023 related to mental health in adolescents, shows that there is an influence of characteristic factors on the occurrence of mental health disorders in adolescents (9). Research conducted by Shaorn et al, in 2021 in America gave the conclusion that young people spend about 15,000 hours in school by the age of 18, so schools, de facto, are an important partner to the mental health system, which every day invests in developing each adolescent's social-emotional health and skills to cope with stress and adversity. Schools are an essential component of the mental health system to ensure that all adolescents in the United States have access to a comprehensive set of mental health supports and to address the many limitations of the existing mental health system that too many students cannot access. Federal, state, and local investments in school mental health recognize this potential, and the multitiered system of supports (MTSS) is now a regular part of the dialogue among educators. Systematic and efficient partnerships between schools and communities to support ongoing mental health support in schools can have a positive impact on

mental health in schools, better mental health for all students as well as increased access to mental health services, early identification and intervention, and ultimately, better outcomes for students with mental health challenges. This approach includes natural support for students, including families and educators as team partners for teenagers and adolescents, and does not require a mental health system with a limited adolescent mental health workforce and limited resources (21)

Students who are depressed may have difficulty concentrating, their academic performance decreases, and they may become more withdrawn from society. **In addition, anxiety often occurs in** students with anxiety disorders who may feel excessively worried about various aspects of life, including academic performance, social relationships, or activities outside of school. This anxiety can lead to difficulty sleeping, fatigue, and physical strain. **However, based on the results of previous research, anxiety disorders can also cause eating disorders.** Disorders such as anorexia or bulimia can appear in students, especially in adolescents. This disorder is often associated with a negative body image and can lead to serious health complications.

Based on the results of the FGD that has been carried out, there are several important things to be used as a strategy in reducing mental health disorders in teenagers. The role of teachers and parents has a significant influence on the development of teenagers's health. Teachers are in a strategic position to observe changes in students' behavior, emotions, and academic performance. They can recognize early signs of mental health disorders such as decreased performance, withdrawal behavior, or aggressive behavior. Teachers can create a safe and inclusive classroom environment, where students feel welcome and supported. Teachers can also offer time to talk to students who seem to be having problems, provide encouragement, and listen to their complaints. Teachers can teach students social-emotional skills, such as how to manage stress, develop confidence, and cope with problems. This education can be done through direct lessons or through an integrated approach in other subjects. Teachers need to work closely with school counselors, psychologists, or other mental health professionals to provide more in-depth support

to students in need. They can also refer students to the service if needed. Teachers must communicate effectively with parents about the behaviors or changes they observe in teenagers at school. This allows parents to give greater attention to the home and seek professional help if needed.

The role of parents is no less important. Parents need to create a safe, stable, and loving home atmosphere. This includes providing quality time with teenagers, listening to them, and showing empathy for their feelings. Parents should be sensitive to changes in their adolescent's behavior, such as changes in sleep patterns, appetite, or changes in social relationships. Recognizing the early signs can help in faster treatment. Parents can support teenagers by giving them space to talk about their feelings without fear of being judged. This is important for building trust and openness in the family. If parents notice signs of mental health disorders in their teenagers, they should immediately seek help from a professional such as a psychologist or counselor. Early intervention is very important in the management of mental health disorders. Parents need to work closely with teachers and school staff to ensure their adolescent receives consistent support at school and at home. This includes attending meetings with teachers, following the adolescent's progress at school, and providing important information about the adolescent's condition to the school. Parents need to continue to learn about mental health, especially related to teenagers and adolescents. This can help them understand what the adolescent may be going through and how best to help.

Teachers and parents need to align on the pace in their approach to teenagers's mental health. A consistent approach between home and school will help teenagers feel safe and supported in both environments. Open and honest communication between teachers and parents is essential. This allows for the effective exchange of information regarding the adolescent's condition and its treatment strategies.

Apart from integration between teachers and parents, it is also necessary to introduce art activities such as macrame art activities, which combine knot art and creativity, providing an opportunity for students to focus and escape for a moment

from the external pressure they feel. In rural areas, students may not have many activities that provide room for creativity and relaxation, so these arts programs serve as an important outlet for self-expression. Macrame art not only provides a fun experience, but also helps students develop problem-solving skills and improve mental calm through a learning process that is repetitive and requires concentration (22). Research conducted by Liu C et al provides strong evidence that creating art has the potential to foster positive personal development and significantly reduce stress levels among students (23). These factors may also support students to respond better to arts-based interventions, which often help reduce stress levels through quiet processes of meditation and reflection. This shows how important it is to provide arts-based programs in urban and rural schools, which not only improve students' skills but also help reduce the mental stress they may feel.

CONCLUSION

Active involvement and collaboration between teachers and parents is very important in providing holistic support for children who experience mental health disorders as well as introducing macrame art class activities in schools as one of the programs in reducing mental health disorders experienced by teenagers, so that children will be more easier to overcome the challenges they face and achieve better prosperity.

SUGGESTION

It is important to develop research related to mental health disorders in students by looking at factors in the family environment and the environment in which the adolescent lives, as a development of the research that has been carried out.

DECLARATIONS

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was conducted according to the guidelines in the Declaration of Helsinki. All procedures involved in this research study participants were approved by the Ethics Committee of Universitas Muslim Indonesia and YW-UMI Hospital with No. register; UMI012406351. In addition, written informed consent was gained from all subjects.

CONSENT FOR PUBLICATION

Not applicable.

COMPETING INTERESTS

The authors declare no competing interests.

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Development of strategies to reduce mental health disorders for adolescents in Pinrang South Sulawesi, Indonesia: A qualitative Study

Desarrollo de estrategias para reducir los trastornos de salud mental en adolescentes en Pinrang South Sulawesi, Indonesia: un estudio cualitativo

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SUMMARY

Adolescents are susceptible to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people can overcome difficulties in their own way. This means that the ability to survive will turn problems into challenges. This study aims to explore in depth the strategies that must be developed to overcome mental health disorders for students in Pinrang Regency. This study is qualitative research using a literature review approach related to developing strategies to reduce mental health disorders in adolescents. In addition, focus group discussion (FGD) and in-depth interview techniques were used. The informants involved in this study came from the health office, the education

and culture office, school principals, teachers in the field of Counseling Guidance (BK), teachers in the field of arts, culture, and works (SBK), students and parents of students. The location of this research was carried out in 2 sub-districts (Watang, Sawitto, and Tiroang) in Pinrang Regency, namely at SMP Negeri 8 Pinrang, which is reflective of adolescents in the city and SMP Negeri 4 Tiroang, a reflexive of adolescents in the countryside. Based on the results of the FGD, it is known that the role of parents and teachers is very important in reducing mental health disorders among teenagers. In conclusion, it is expected that active involvement and collaboration between teachers and parents are essential in providing holistic support for teenagers with mental health disorders. Thus, teenagers will find overcoming challenges and achieving better well-being easier. It is important to develop research related to mental health disorders in students by looking at family environmental factors and the environment in which the adolescent lives as a development of the research that has been conducted.

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RESUMEN

Los adolescentes son susceptibles a sufrir trastornos mentales debido a problemas familiares, problemas con los compañeros y estrés personal. Los problemas son inevitables, pero las personas fuertes pueden superar las dificultades a su manera. Esto significa que la capacidad de sobrevivir convertirá los problemas en desafíos. Este estudio tiene como objetivo explorar en profundidad las estrategias que deben desarrollarse para superar los trastornos de salud mental de los estudiantes de Pinrang Regency. Este estudio es una investigación cualitativa que utiliza un enfoque de revisión de la literatura relacionada con el desarrollo de estrategias para reducir los trastornos de salud mental en adolescentes. Además, se utilizaron discusiones de grupos focales (DGF) y técnicas de entrevista en profundidad. Los informantes involucrados en este estudio provinieron de la secretaría de salud, la secretaría de educación y cultura, directores de escuelas, docentes del área de Orientación (BK), docentes del área de artes, cultura y obras (SBK), estudiantes y padres de familia de estudiantes. La ubicación de esta investigación se llevó a cabo en 2 subdistritos (Watang, Sawitto y Tiroang) en Pinrang Regency, concretamente en SMP Negeri 8 Pinrang, que refleja a los adolescentes de la ciudad y SMP Negeri 4 Tiroang, un reflejo de los adolescentes en el campo. A partir de los resultados del DGF, se sabe que el papel de padres y profesores es muy importante en la reducción de los trastornos de salud mental entre los adolescentes. En conclusión, se espera que la participación activa y la colaboración entre profesores y padres sean esenciales para brindar apoyo integral a los adolescentes con trastornos de salud mental. Así, a los adolescentes les resultará más fácil superar sus retos y alcanzar un mayor bienestar. Es importante desarrollar investigaciones relacionadas con los trastornos de salud mental en los estudiantes observando los factores ambientales familiares y el entorno en el que vive el adolescente, como un desarrollo de la investigación que se ha realizado.

Palabras clave: Salud mental, adolescentes, arte macramé.

INTRODUCTION

Adolescents in the age range of 10-17 years in the transition period from adolescence to adulthood involve changes in physical/physical development, emotions, interests, and roles in social groups; changes in interests and behavioral patterns have an empirical nature, demanding

freedom but still doubting the ability to be responsible, this age is a period of change or transition of elementary school (SD) to junior high school (SMP) age (1-4). Adolescents who experience problems or mental disorders will affect their productivity (5-9). Globally, mental health is an important issue in various countries. *IPSOS Global Health Service Monitor* 2023 shows that out of 23 274 people from 31 countries in the world from July 2021 to August 2023, as many as 44 % of respondents considered mental health to be the most worried problem, Sweden (67 %) is in first place, followed by Chile (66 %) and Canada (61 %), while Indonesia is in 22nd place with 38 %. Most sufferers are adolescents and adults; the number of male sufferers experiencing mental health in Gen Z (38 %), Millennials (40 %), Gen X (39 %), and seniors (32 %), while for the female gender Gen Z (56 %), Millennials (51 %), Gen X (49 %) and seniors (44 %) (10).

Based on Basic Health Research, the prevalence of mental-emotional disorders among adolescents over the age of 15 increased from 9.8 % in 2018 to 13 % in 2020. According to the data from the *Indonesia National Adolescent Mental Health Survey*, in 2022, as many as 15.5 million (34.9 %) adolescents experienced mental problems, and 2.45 million (5.5 %) adolescents experienced mental disorders. Of that number, only 2.6 % get access to emotional and behavioral counseling services. According to the World Health Organization (WHO), as many as 50 % of people experience mental health disorders starting from adolescence starting from the age of 14 years (at the age of junior high school); many cases are not handled, so suicide due to depression is the highest cause of death in young people aged 15-29 years. Pinrang Regency data on junior high school students in 2021 shows that around 70.8 % of students are 14 years old, while for gender, as many as 68.2 % are males and 66.7 % females. For the grade level, it shows that the level of stress is very severe in grade VIII students, with 38 (67.9 %) experiencing very severe stress; the figure is relatively high (11,12).

Adolescents are prone to mental disorders due to family problems, peer problems, and personal stress. Problems are inevitable, but strong people will be able to overcome problems in their own way. This means that the ability

to survive will turn problems into challenges, failures into successes, and helplessness into strength. Therefore, adolescents/students must be resilient to survive, bounce back, and adjust to difficult and stressful conditions in various situations. The principles that should be applied in parent-adolescent relationships are to help students become *resilient*, confident, purposeful, and empathetic when facing life's challenges (4,13,14).

One way to reduce the rate of mental disorders in adolescents is to engage in artistic activities, either as artists or observers (15-17). This is because participating in artistic activities has the potential to improve *Mood* and generate positive emotions. Artistic activities allow a person to show their creative expression, such as drawing, storytelling, dancing, and singing; the craft form of knots can aid in healing. The arts offer several therapeutic benefits, including improving our understanding of ourselves and others, improving our ability to reflect on ourselves, reducing symptoms of various diseases, and changing the way we think and behave (14,18,19). One of the types of art that can be introduced is art *macrame*, which is a piece of knot craftwork made of cloth or rope; based on this data (20). Integrating conditions of mental health disorders with the art of knotting crafts, which is an activity that is expected to be able to overcome mental health disorders because there is a focus on the activity. The purpose of this research is to develop a strategy to reduce mental health disorders through a macrame art-based approach in adolescents in Pinrang Regency

METHODS

This research uses qualitative research methods with a phenomenological approach to explore strategies for reducing mental health disorders in adolescents in two different locations, namely SMP Negeri 8 Pinrang (urban) and SMP Negeri 4 Tiroang (rural). This approach was chosen to compare the mental health conditions of adolescents in urban and rural environments and the factors that influence them. A case study design was chosen because it allows for in-depth exploration of the specific context of two different schools. This helps researchers understand the

differences and similarities in mental health conditions in urban and rural settings. Qualitative data was collected through Focus Group Discussions (FGD) and in-depth interviews with key informants, such as representatives of the Health Service, Education Service, school principals, guidance and counseling teachers (BK), and teachers in the field of Arts, Culture, and Work (SBK), as well as students' parents. FGDs were used to explore collective perceptions, while in-depth interviews were used to understand direct experiences related to adolescent mental health. Data was analyzed using thematic analysis to identify themes related to adolescent mental health. A comparison between the two locations was carried out to understand the factors that influence stress levels in the two locations

RESULT

The preparation of the development of strategies to reduce mental health disorders in adolescents began by measuring the stress level of all students in SMP Negeri 8 Pinrang and SMP Negeri 4 Tiroang using the DASS42 questionnaire. Then, it was analyzed using the SPSS application (Table 1).

Table 1 shows that the highest education level of parents (father and mother) is junior high school, namely 38.8 and 40 %. The highest father's occupation was as a farmer (76.7 %), while the highest mother's occupation was an IRT at 91.8 %. Pocket money per day for students, the most in the range of 10,000, which is 64.7 %, where they live more with their parents, 88.2 %, with the highest stress level being those who fall into the normal category (48.2 %).

Based on Table 2, it is known that the father's highest education level is high school completion, namely 43.5 %. Meanwhile, the highest maternal education was high school graduation, namely 41.8 %. The father's highest job is as an entrepreneur at 35.9 %, while the mother's highest job is as a housewife at 69.6 %. The daily allowance for students is mostly in the range of $\geq 10\,000$, namely 72.3 %, of which mostly live with their parents, namely 91.3 %, with the stress level being those in the moderate stress category, 27.1 %.

Table 1. Distribution of students of SMP Negeri 4 Tiroang

Variable	Student Gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	5	11.6	1	2.4	6	7.1
SD	10	23.3	17	40.5	27	31.8
JUNIOR	16	37.2	17	40.5	33	38.8
SMA	12	27.9	5	11.9	17	20.0
SI/Bachelor	0	0	2	4.8	2	2.4
Mother's Education Level						
Not in school	4	9.3	3	7.1	7	8.2
SD	10	23.3	18	42.9	28	32.9
JUNIOR	19	44.2	15	35.7	34	40.0
SMA	9	20.9	5	5.9	14	16.5
SI/Bachelor	1	2.3	1	2.4	2	2.4
Father's work						
Laborer	0	0	3	7.1	3	3.5
Farmer	33	76.7	32	76.2	65	76.5
Teacher	0	0	2	4.8	2	2.4
Civil servants	1	2.3	0	0	1	1.2
Self-employed	9	20.9	5	11.9	14	16.5
Mother's work						
IRT	39	90.7	39	92.9	78	91.8
Farmer	1	2.3	1	2.4	2	2.4
Self-employed	3	7.0	2	4.8	5	5.9
Pocket money in a day (Rp)						
< 10 000	16	37.2	14	33.3	30	35.3
≥ 10 000	27	62.8	28	66.7	55	64.7
Where teenagers live						
Parents	38	88.4	37	88.1	75	88.2
Grandparents	3	7.0	3	7.1	6	7.1
Uncle/aunt	1	2.3	2	4.8	3	3.5
Family	1	2.3	0	0	1	1.2
Stress levels						
Usual	24	55.8	17	40.5	41	48.2
Light	7	16.3	13	31.0	20	23.5
Keep	11	25.6	12	28.6	23	27.1
Severe	1	2.3	0	0	1	1.2

Based on the analysis results, strategies to reduce mental health disorders in Pinrang Regency were perfected based on the Focus *Group Discussion* (FGD) results. The FGD was held once by presenting several *stakeholders* who were *qualified* to explain the development of strategies to reduce mental health disorders in adolescents. The participants of FGD I are described in Table 3.

Table 3 shows that the participants of the FGD in this study are related to the field of research study, the head of the health office who

oversees various fields, including mental health and mental health disorders, and the education office about adolescents or school teenagers who are the target of the research, as well as other fields of science that are interrelated with the field of study, for example, schools and counseling departments that are indeed tasked with carrying out detection/identification if there is a problem in the school teenagers. The involvement of non-government organizations (NGOs), community leaders, and parents in this study is to see mental health problems not only by

Table 2. Distribution of students of SMP Negeri 8 Pinrang

Variable	Gender				Total	
	Man		Woman			
	n	%	n	%	n	%
Father's Education Level						
No School	4	4.9	1	1.0	5	2.7
SD	6	7.4	24	23.3	30	16.3
JUNIOR	11	13.6	30	29.1	41	22.3
SMA	44	54.3	36	35.0	80	43.5
SI/Bachelor	16	19.8	12	11.7	28	15.2
Mother's Education Level						
Not in school	0	0	4	3.9	4	2.2
SD	12	14.8	19	18.4	31	16.8
JUNIOR	11	13.6	32	31.1	43	23.4
SMA	41	50.6	36	35.0	77	41.8
SI/Bachelor	17	21.0	12	11.7	29	15.8
Father's work						
Teacher	2	2.5	4	3.9	6	3.3
TNI/Polri	4	4.9	0	0	4	2.2
Farmer	22	27.2	35	34.0	57	31.0
Laborer	12	14.8	17	16.5	29	15.8
Self-employed	30	37.0	36	35.0	66	35.9
Civil servants	5	6.2	9	8.7	14	7.6
Sailor	2	2.5	0	0	2	1.1
Security	1	1.2	0	0	1	0.5
Not working	3	3.7	2	1.9	5	2.7
Mother's work						
Midwife	1	1.2	0	0	1	0.5
Nurse	0	0	1	1.0	1	0.5
Teacher	6	7.4	4	3.9	10	5.4
Self-employed	13	16.0	9	8.7	22	12.0
IRT	48	59.3	80	77.7	128	69.6
Civil servants	5	6.2	2	1.9	7	3.8
Laborer	6	7.4	6	5.8	12	6.5
Farmer	0	0	1	1.0	1	0.5
TNI/Polwan	2	2.5	0	0	2	1.1
Pocket money in a day (Rp)						
< 10 000	21	25.9	30	29.1	51	27.7
≥ 10 000	60	32.6	73	54.9	133	72.3
Where teenagers live						
Parents	74	91.4	94	91.3	168	91.3
Grandparents	3	3.7	5	4.9	8	4.3
Uncle/aunt	3	3.7	3	2.9	6	3.3
Family	1	1.2	1	1.0	2	1.1
Stress levels						
Usual	49	60.5	42	40.8	91	49.5
Light	14	17.3	32	31.1	46	25.0
Keep	15	18.5	23	22.3	38	20.7
Severe	3	3.7	4	3.9	7	3.8
Very severe	0	0	2	1.9	2	1.1

Data source: Primary, Year 2024

Table 3. Participants of Focus Group Discussion (FGD) on the Development of Strategies to Reduce Mental Health Disorders in Adolescents

No	Initials (years)	Age	Work unit
1	NW	45	Head of the Pinrang Regency Health Office
2	MS	42	Head of the Pinrang Regency Education and Culture Office
3	SW	44	Head of the Mental Health Infectious Disease Prevention and Control Section
4	RM	38	Head of the Family Health and Community Nutrition Section
5	IS	52	Principal of SMP Negeri 8 Pinrang
6	BD	40	Principal of SMP Negeri 4 Tiroang
7	NH	50	Teacher of Counseling Guidance at SMP Negeri 8 Pinrang
8	RN	30	Teacher of Counseling Guidance at SMP Negeri 4 Tiroang
9	JN	45	Teacher of Cultural Arts and Works at SMP Negeri 8 Tiroang
10	IN	30	Teacher of Cultural Arts and Works Studies at SMP Negeri 4 Tiroang
11	DR.	45	NGOs and Community Leaders
12	TT	41	Parents of Students

Source: primary data 2024

schools and agencies but also by the community and the role of parents directly involved with adolescents at home. Related to age, being in the productive age range is very likely to be able to do tasks and responsibilities related to each of the FGD participants

Qualitative Analysis (FGD Results)

The implementation of the FGD was carried out at the Azka Hotel, which was attended by representatives from the Pinrang Regency Health Office, the Pinrang Regency Education and Culture Office, the principals of SMP Negeri 4 and SPM Negeri and Pinrang Regency, counseling guidance teachers, NGOs, parents of students and community leaders. Based on the FGD, it is known that high stress in teenagers can also be influenced by several external factors outside the school environment, as stated by the following informant.

“... Teenagers who are stressed are not only a task, maybe from a cellphone....then the understanding of parents who lack... So we are very enthusiastic about how our friends from academics will help us, so this solution is how... If indeed this approach works... yes... please continue as well as possible...” RN 30

It is further explained as follows

“...then the management of the soul itself... So we hope this research... don't just be stressed. Incidentally, friends have not covered all the research on mental health because maybe the funds... budget... (SW, 44 years old)

On the other hand, the health offices, especially those dealing with mental health, have conducted screening, as explained by the following information.

“....so our activity is... Our target is two types in the Health Office... namely AAA....mental disorder screening for every teenager, namely 15-18 years old...” (NW, 45 years old)

In addition to the above, there are also explanations of respondents related to student confidence.

“One thing is very ordinary, but for a rare student, what shows confidence in public is already very extraordinary for them, so that's one of my suggestions, so there needs to be an increase in attention, recognition and affection for them...” (NH, 50 years old)

It is further explained as follows.

“Some students experience mental health disorders because they lack recognition; for example, those who are smart, sometimes we don’t really care about them anymore because we think, Oh, they no longer need to be led because they can do it themselves because they are smart, even though they can do it themselves independently, a teacher should also pay attention to the smart students, especially those who are lacking...” (JN, 45 years old)

One of the teachers also explained mental health strategies as follows.

“... So related to how strategies to lower mental health disorders experience as a teacher... So before the beginning of the learning year, there was a name for a non-diagnostic assessment conducted by teachers about how their styles were...” (IS, 52 years old)

Furthermore, the BK teacher explained the role of a student as follows:

“... Understand that this is our job. This is where the main problem is actually because if we want to bring all the teenagers one by one every day at the end of that time... So I think this macrame art or maybe some activities make them work so that they forget the problem. Oh like this, they themselves know that this is hard to do. oh this is easy...” (RN, 30 years old)

Another BK teacher also explained this.

“... So actually, our announcement can make the smart adolescent stressed. First, for example, a smart adolescent gets a score of 95..while a mediocre adolescent gets a score of 80, this smart person must feel that if I get a score of 95, he gets 80 without. Maybe there is discrimination from the teacher why his grades are slightly different from his friends’ grades, so actually we are the ones who make smart teenagers can be stressed.” (NH, 50 years old)

Furthermore, the following is also explained

“... There are parents who tell me that their teenagers are difficult to give advice. When he gets home, his adolescent focuses on his cell phone; the reason is that his cellphone is on charge even though he is playing on the phone, so his job is always that he forgets to work because he is busy with his cell phone. Even though I always tell my teenagers that the parents are not angry but they want their teenagers to be good people” (NH, 50 years old)

It also further explains the parents’ role and cooperation with the school.

“... We don’t understand that actually the responsibility of their teenagers is in their hands, we are only entrusted with how many hours while those who are fully responsible. Now there are complaints about piled up tasks because, to be honest, we are also among those who actually have teenagers, sometimes our teenagers are at home, we don’t ask today, there is homework, has been done or not.” (TT, 41 years old)

The principal, as the coordinator of education implementation, also explained that the learning process at school is also greatly influenced by the role of the accompanying teacher.

“So I think thank God besides learning... Alhamdulillah, extracurricular activities are running, and we are very flexible for them; the teachers are also welcome to do their activities... So there may be factors from teachers who also assist...”

“Thanks to this kind of research, we are very helpful... so today’s presentation, in our school there are a small number of people who experience stress levels... so, maybe I can read here during my stay in I teach... actually the student... Ee... we develop that out of interest...” (IS, 52 years old)

At the end of the FGD, one participant also explained the output of *macrame* art that can be made into a work, which is described as follows.

What is the level of success, can he measure that this is the level of stress that usually produces a work, for example in the form of a Rummus or how am I... Somewhat How, after we saw this earlier, I saw that this is the average Parent's work, yes... Especially housewives... In fact, I thought, why do we know that housewives must be very stressed..." (NW, 45 years old)

As an effort to control the risk of mental health disorders in adolescents, public health movements for the prevention of mental disorders have been carried out at the level of the health office, the education office, schools, and at the parent level. Based on the FGD with the Pinrang Regency Health Office in 2023, mental health screening in adolescents using the PSS questionnaire in urban areas. However, in the FGD, the Health Office said that limited access made it difficult to carry out screening in remote areas. So, the Health Office hopes that academics from universities can partner with the Health Office to reach mental health screening for adolescents in remote areas. This is expressed in the following expression:

"...Last year, we from the Health Office, especially in the health sector, have conducted mental health screening in adolescents in the city... such as in SMP 1 and SMP 5 using the PSS questionnaire, but our team has not reached the villages such as in the Tuppu area and mountainous areas... I hope that later, there will be cooperation with the campus to help us screen teenagers experiencing stress in villages..." (SW, 44 years old)

The movement to prevent mental health disorders is also carried out at the level of the Education Office. The Education and Culture Office of Pinrang Regency encourages the policy of implementing extracurricular arts in schools. Extracurriculars implemented in schools with policy encouragement from the Education Office are the art of arranging flowers. Meanwhile, the art of macrame as an extracurricular has never been applied in Pinrang. The Education Office revealed the opportunity to apply the art of macrame as a school extracurricular if it positively impacts the prevention of mental health disorders in school adolescents.

"... Later, after the team that came, they had conducted research by training teenagers,

especially students. There has been a change or decrease in the number of students who experience stress in this macrame art class. So, we can try to make this macrame art an extracurricular activity in addition to the flower arrangement art that has been done in schools in the last few years." (MS, 42 years old)

At the school level, the mental health disorder prevention movement is carried out in several forms of activities, such as collaborating with the health office to conduct assessments on students to capture and identify the risk of mental health disorders in students, conducting mental health education in counseling guidance, and holding outing classes. Outing class is a student learning activity outside the classroom that aims to increase student learning motivation. The school also revealed that there are restrictions on the use of smartphones for students as a form of reducing triggers for mental health disorders. This was revealed through an FGD with the school.

"... If we, the school, have conducted an assessment on students who are about to experience stress by conducting outing classes and prohibiting all our students from bringing their cellphones to school so they can focus on school" (IS, 52 years old).

Identification of efforts to prevent mental health disorders also involves the role of parents. Through school coordination, parents monitor the condition and progress of students while outside school as the following expression.

"... I, as a parent, always ask my adolescent when I am at home. Don't forget to do his homework after school so that his homework doesn't pile up; I also always invite my son to talk from the heart if there is a problem with his friends at school or there are other problems that he feels are at school" (TT, 41 years old)

Parents also build intense communication with students through school coordination with the deep talk method. This method aims to enable parents and schools to dig deeply and understand the mental state of students at school when carrying out the learning process and when outside of school.

DISCUSSION

Mental health disorders in students in schools are an issue that is gaining increasing attention due to its significant impact on students' academic, social, and emotional development. Some of the common mental health disorders in students, also based on the results of the FGD that have been described earlier, include depression characterized by prolonged feelings of sadness, loss of interest in daily activities, and decreased energy.

The results of the study showed that junior high school students in two schools in Pinrang Regency experienced mental health problems. It was found that 1.2 % of junior high school four students experienced severe stress. Clinically stressed at a severe level, students experience shaking hands and bodies and feeling worthless. Meanwhile, 27.1 % of students experienced moderate levels of stress. Moderate stress is characterized by anxiety disorders in the form of intense feelings of hopelessness with excessive feelings of anger. As many as 23.5 % were at a moderate stress level, while only 48.2 % of SMP 4 students were at normal stress. The picture of mental health disorders in students also occurred in SMP 8 Pinrang students, namely 49.5 percent of junior high school students had normal stress levels, 25 % of students were at mild stress levels, 20.7 % of students experienced moderate stress, and as many as 3.8 % of SMP 8 students experienced severe stress. The condition of mental health disorders found in junior high school students in SMP 4 and SMP 8 Pinrang describes adolescents as a group that is vulnerable to the risk of mental health disorders.

Gintari et al., in a study conducted in Ubung Kaja Village, Denpasar, in 2023 related to mental health in adolescents, shows that there is an influence of characteristic factors on the occurrence of mental health disorders in adolescents (9). In America, Hoover and Bostic (21) concluded that young people spend about 15 000 hours in school by age 18. Hence, schools, *de facto*, are an important partner to the mental health system, which every day invests in developing each adolescent's social-emotional health and skills to cope with stress and adversity. Schools are an essential component of the mental

health system to ensure that all adolescents in the United States have access to a comprehensive set of mental health supports and to address the many limitations of the existing mental health system that too many students cannot access. Federal, state, and local investments in school mental health recognize this potential, and the multitiered system of support (MTSS) is now a regular part of the dialogue among educators. Systematic and efficient partnerships between schools and communities to support ongoing mental health support in schools can have a positive impact on mental health in schools, better mental health for all students as well as increased access to mental health services, early identification and intervention, and ultimately, better outcomes for students with mental health challenges. This approach includes natural support for students, including families and educators as team partners for teenagers and adolescents. It does not require a mental health system with a limited adolescent mental health workforce and limited resources (21).

Students who are depressed may have difficulty concentrating, their academic performance decreases, and they may become more withdrawn from society. In addition, anxiety often occurs in students with anxiety disorders who may feel excessively worried about various aspects of life, including academic performance, social relationships, or activities outside of school. This anxiety can lead to difficulty sleeping, fatigue, and physical strain. However, previous evidence indicates that anxiety disorders can also cause eating disorders. Disorders such as anorexia or bulimia can appear in students, especially in adolescents. This disorder is often associated with a negative body image and can lead to serious health complications.

Based on the results of the FGD that has been carried out, there are several important things to be used as a strategy in reducing mental health disorders in teenagers. The role of teachers and parents significantly influences the development of teenagers' health. Teachers are strategically positioned to observe student behavior, emotions, and academic performance changes. They can recognize early signs of mental health disorders such as decreased performance, withdrawal behavior, or aggressive behavior. Teachers can create a safe and inclusive classroom environment

where students feel welcome and supported. Teachers can also offer time to talk to students with problems and encourage and listen to their complaints. Teachers can teach students social-emotional skills, such as managing stress, developing confidence, and coping with problems. This education can be done through direct lessons or an integrated approach to other subjects. Teachers must work closely with school counselors, psychologists, or other mental health professionals to provide more in-depth support to needy students. They can also refer students to the service if needed. Teachers must communicate effectively with parents about the behaviors or changes they observe in teenagers at school. This allows parents to pay further attention to the home and seek professional help if needed.

The role of parents is no less important. Parents need to create a safe, stable, and loving home atmosphere. This includes providing quality time with teenagers, listening to them, and showing empathy for their feelings. Parents should be sensitive to changes in their adolescent's behavior, such as changes in sleep patterns, appetite, or changes in social relationships. Recognizing the early signs can help with faster treatment. Parents can support teenagers by allowing them to talk about their feelings without fear of being judged. This is important for building trust and openness in the family. If parents notice signs of mental health disorders in their teenagers, they should immediately seek help from a professional such as a psychologist or counselor. Early intervention is very important in the management of mental health disorders. Parents must work closely with teachers and staff to ensure their adolescents receive consistent support at school and home. This includes attending meetings with teachers, following the adolescent's progress at school, and providing important information about the adolescent's condition to the school. Parents need to continue to learn about mental health, especially related to teenagers and adolescents. This can help them understand what the adolescents may be going through and how best to help.

Teachers and parents need to align on the pace in their approach to teenagers's mental health. A consistent approach between home and school will help teenagers feel safe and supported in both environments. Open and honest communication between teachers and parents is

essential. This allows for effectively exchanging information regarding the adolescent's condition and treatment strategies.

Apart from integration between teachers and parents, it is also necessary to introduce art activities such as macrame art activities, which combine knot art and creativity, providing an opportunity for students to focus and escape for a moment from the external pressure they feel. In rural areas, students may not have many activities that provide room for creativity and relaxation, so these arts programs serve as an important outlet for self-expression. Macrame art not only provides a fun experience but also helps students develop problem-solving skills and improve mental calm through a learning process that is repetitive and requires concentration (22). Liu et al. (23) provide strong evidence that creating art has the potential to foster positive personal development and significantly reduce stress levels among students. These factors may also help students respond better to arts-based interventions, which often help reduce stress levels through quiet processes of meditation and reflection. This shows how important it is to provide arts-based programs in urban and rural schools, which not only improve students' skills but also help reduce the mental stress they may feel.

CONCLUSION

Active involvement and collaboration between teachers and parents are also very important in providing holistic support for children who experience mental health disorders. Introducing macrame art class activities in schools is one program to reduce mental health disorders experienced by teenagers so that children will be more likely to overcome the challenges they face and achieve better prosperity.

SUGGESTION

It is important to develop research related to mental health disorders in students by looking at factors in the family environment and the environment in which the adolescents live, as a development of the research that has been carried out.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was conducted according to the guidelines in the Declaration of Helsinki. All procedures involved in this research study participants were approved by the Ethics Committee of Universitas Muslim Indonesia and YW-UMI Hospital with No. register; UMI012406351. In addition, written informed consent was gained from all subjects.

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