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Mental Health Awareness and Impact of Training Program Among School Teachers: Quasi-Experimental Design

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Abstract

The present quasi-experimental paper aimed to assess the impact of the developed, structured mental health literacy training program on Teachers'. It was delivered for the eight weekly sessions and was designed to improve the teachers' knowledge regarding MHIs, risk factors, and supportive strategies. The sample comprised forty-eight educators from government and private schools, split and matched equally between the control and the experimental groups. Knowledge and attitude concerning mental health and mental health illness among the participants was assessed before and after the intervention. The results revealed significant improvement in the knowledge level of the experimental group related to mental health based on Mental Health Literacy Scale (MHLS) and reduction in the stigma level based on the Beliefs Towards Mental Illness Scale (BMI). The control group showed less improvement in their knowledge of mental health illness, risk factors, and seeking professional help than the intervention group. The study found an overall increase in attitudes promoting seeking help, which has shown that the training reduced perceptions that contributed to stigma and developed a positive culture for mental health in teachers.

Keywords

Quasi-experimental, Mental health literacy Scale, Belief towards mental health illness

Introduction

Mental health issues are a growing public health concern worldwide, affecting individuals across all age groups and regions (Nguyen Thai & Nguyen, 2018). According to the World Health Organization (WHO), mental health refers to a state of well-being where individuals can realize their potential, manage the stresses of daily life, work productively, and contribute to their communities (WHO, 2014). However, psychological disorders, including depression and anxiety, are prevalent globally, with the estimated prevalence of mental illness ranging from 18.1% to 36.1% (Kessler et al., 2009). In particular, children and adolescents are highly vulnerable to mental health challenges that, if untreated, can have long-term consequences, such as substance abuse or even suicide (O'Neil et al., 2011). This underscores the importance of early identification, prevention, and intervention, especially in school environments where teachers play a crucial role in observing and addressing these issues (Reinke et al., 2011).

In Asia, and especially in low- and middle-income countries, with the shortage of mental health resources and stigma associated with psychological disorders, school-based interventions are very important for promoting knowledge about mental health. Schools are one of the current important settings that are highly recognized as promoting mental health awareness and/or early intervention, and are commonly welcomed (Fazel et al., 2014). Teachers are usually among the first professionals to observe behavior changes in students and their state of mind, and that puts them in a very important position concerning early problem identification (McVey et al., 2008). In spite of their central position in this respect, however, many teachers in these countries are poorly trained to recognize and cope with current mental health problems (Vranda, 2015). This represents a gap in mental health literacy, the knowledge and beliefs that aid in the identification, management, or prevention of mental health disorders impeding early intervention efforts which could minimize the long-term effects of such issues (Jorm et al., 1997).

With one of the largest populations of youth in the WHO's Eastern Mediterranean region, Pakistan faces significant challenges in providing mental health care within school settings (Hassan, 2010). In addition, approximately 17% of children aged 5 to 11 years have emotional and/or behavioral problems; anxiety and mood disorders increase throughout adolescence (Cross & Hickie, 2017). Despite the dire need for mental health intervention, the educational system of

Pakistan does not prepare teachers for this task with the required skills and knowledge (Syed & Hussein, 2010). Mostly, the teachers are not prepared on how to identify symptoms of anxiety or depression so as to intervene appropriately and early enough. This is particularly disturbing in a context where unrecovered mental health problems during adolescence could lead to severe long-standing issues (O'Neil et al., 2011).

Due to the lack of appropriate training in this area concerning children's development and behavioral issues, mental health literacy among teachers in Pakistan is very low. As a result, many teachers remain ill-prepared to invest early intervention strategies or provide support in students with emerging problems in mental health (Froese-Germain & Riel, 2012). However, certain promising works are being carried out on the issue of increasing mental health through school-based programs. For example, one rural school mental health intervention in Rawalpindi had encouraging findings demonstrating improvement with the inclusion of mental health literacy into routine school work over 4 to 6 months among students and teachers (Rahman et al., 1998). This therefore suggests that teacher training programs may offer chances for improving mental health care in schools, particularly in infrastructurally constrained and resource-poor countries like Pakistan.

Teacher involvement in mental health literacy programs is needed to decrease stigma, encourage early intervention, and refer students to relevant mental health resources. In fact, Werner-Seidler et al. (2017) note that such programs are necessary. Research from other low-income countries, such as Haiti and Tanzania, indicates that teacher training in mental health can be a successful task-sharing approach to improving access to care when professional resources are lacking (Eustache et al., 2017; Kutcher et al., 2016). This could bear great significance for a developing country like Pakistan, still developing its mental health system. Training teachers in mental health literacy is a potential approach to narrow unmet mental health needs among children and adolescents.

Despite global evidence of the effectiveness of school-based mental health initiatives, Pakistan has made limited progress in this area. Teachers' limited mental health knowledge and the lack of structured programs in schools continue to hinder effective early intervention. This study seeks to address this gap by evaluating the impact of mental health literacy training among school teachers in Pakistan. By equipping teachers with the knowledge and skills to recognize

and address mental health issues, this research aims to improve early identification and referral processes, reduce stigma, and foster a supportive environment for students.

Theoretical Framework

This study's theoretical framework can be explained through several key models, though the most relevant is the concept of mental health literacy (MHL), which underscores the significance of recognizing mental health disorders, understanding risk factors, and promoting appropriate help-seeking behaviors (Jorm et al., 1997). Stigma reduction theory complements this by suggesting that increased awareness and education reduce stigmatizing attitudes (Corrigan & Watson, 2002). Additionally, Ajzen's Theory of Planned Behavior (TPB) and Bandura's Social Cognitive Theory (SCT) offer insight into how improved attitudes and self-efficacy can lead to behavior change, particularly in fostering supportive mental health practices (Ajzen, 1985; Bandura, 1986). However, MHL remains central, as it directly addresses the knowledge and attitudinal shifts the study seeks to measure.

Objectives

- To assess the impact of a structured mental health literacy training program on teachers' ability to recognize mental health disorders, knowledge of risk factors, self-treatment, professional help, and where to seek information.
- To evaluate the effect of the training program on teachers' attitudes toward mental illness, specifically regarding the reduction of stigmatizing beliefs about dangerousness, poor social and interpersonal skills, and the incurability of mental illness.
- To compare the mental health literacy and attitudes of teachers in the training program with those in the control group, particularly in promoting recognition and help-seeking behavior.

Hypotheses

- Teachers who participate in the mental health literacy training program will show a significant improvement in their ability to recognize mental health disorders and knowledge of risk factors, self-treatment, professional help, and where to seek information, as measured by the Mental Health Literacy Scale (MHLS), compared to the control group.

- Teachers in the experimental group will exhibit a significant reduction in stigmatizing beliefs, particularly regarding the dangerousness, poor social and interpersonal skills, and incurability of mental illness, as measured by the Beliefs Towards Mental Illness Scale (BMI), compared to the control group.
- Teachers who complete the training will show a significant improvement in attitudes that promote recognition of mental health disorders and appropriate help-seeking behavior, compared to those in the control group.

Methodology

Study Design

The experimental research design quasi-type was used, according to (John W. Best, 1998) the nature of this study is as follows.

The pre-test -post-test nonequivalent group

O1 X O2

O1 O3 Pre-test

O3 C O4

O2 O4 Post-test

O1: Pre-test for the experimental group before given the treatment.

O2: Post-test for the experimental group after being given the treatment.

O3: Pre-test for the control group

O4: Post-test for the control group

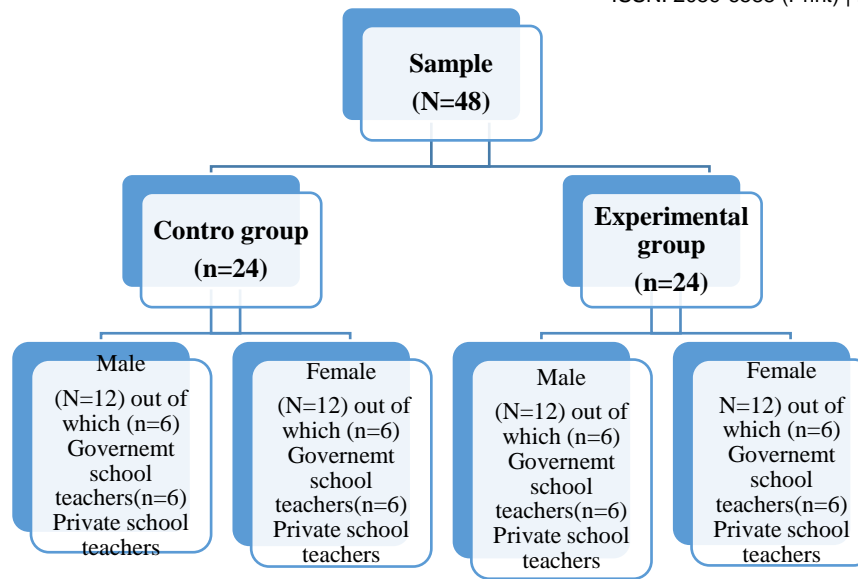
X: Treatment for the experimental group

C: control (no treatment/intervention)

The pre-post-test were compared to evaluate the impact of a training program for mental health awareness among school teachers

Population and Sampling

To study the impact of the training program total sample size for both control and experimental groups was (n=24) respectively, in which (n=12) male teachers, and (n=12) female teachers were selected with equal no. of teachers from government and private schools. The sample was calculated through table suggested by (Krejcie & Morgan, 1970).



Inclusion and exclusion criteria

School teachers (age 24 to 45) with at least one year of teaching experience at the elementary level that is up to Grades 8-9 in government and private schools of districts Swabi and Peshawar were included in the sample while School teachers with less than one year of teaching experience, other than district Swabi and Peshawar, or having medical or psychiatry problems, and teachers with an academic psychology background were included in the sample.

Instruments

Demographic information sheets contain data about subjects' gender, age, socioeconomic status, education, job experience, job nature, teachers' training, etc.

The Mental Health Literacy Scale (O'Connor et al., 2014)

This scale was created by O'Connor et al. in 2014. Comprises 35 items and 6 subscales. are mentioned below with good reliability (Cronbach Alpha 0.873) and content Validity (IOC=.67-1.0). Urdu version of this scale was used with 0.7 Cronbach alpha (Akhtar et al., 2020).

Beliefs Toward Mental Illness Scale (Hirai & Clum, 2000)

The BMI has 24 items assessed using a 6-point Likert scale, from total disagreement (0) to total agreement (5). High scores reflect more negative attitudes of mental illness. It measures stereotype belief towards mental illness with Cronbach alpha 0.91.

Procedure

Approval from the school principal of the concerned school was taken before data collection; after that, teachers were approached. Then their demographic information was collected, and they were instructed to complete the questionnaires.

The study was allocated to the control and experimental groups. The entire sample size will consist of 48 participants, including 24 in the experimental group and 24 in the control group. The experimental group will be provided training program to develop knowledge related to different disorders in group sessions by using different materials (DSM checklist criteria of disorders, i.e., social phobia, generalized anxiety disorders, Major depressive disorders, persistent depressive disorders, Agoraphobia, bipolar disorder, and drug dependency and mental health modules developed by (Kutcher et al., 2013) for a teachers training program on mental health literacy these modules are:

Module:1 Introduction and historical context

Module 2: Mental illness stigma

Module 3: The evolution of the human brain development

Module: 4 Understanding mental illness, mental health, and related difficulties in children and adolescence

Module 5: What is mental health disorders treatment? How can we know what will likely work?

In modules 6 and 7, we discussed asking for and offering support and caring for our fellow students. These modules were conducted in 8 sessions in the form of a workshop, one per week in a group setting.

After conducting the modules, we administered the mental health literacy scale and belief towards mental health illness on both control and experiment groups to get post-test scores.

Ultimately, the teachers were thanked for their cooperation in the study.

Results

This study evaluated the impact of a specialized training program designed to enhance mental health awareness. The goal was to understand the current state of teacher preparedness in addressing mental health issues among students and to determine the effectiveness of targeted training interventions.

Table 1 Demographic Characteristics of Study Participants (n=48)

Variables	Categories	f	%
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Groups	Control	24	50.0
	Experimental	24	50.0
Age	24-28	27	56.3
	29-33	8	16.7
	34-38	12	25.0
	39-43	1	2.1
	Gender	Male	25
	Female	23	47.9
Marital Status	Single	23	47.9
	Married	25	52.1
District	Swabi	24	50.0
	Peshawar	24	50.0
Employees	Private	24	50.0
	Government	24	50.0

Note: f= Frequency

The study sample consisted of 48 participants, evenly divided between control and experimental groups shown in Table 1. Most participants (56.3%) were aged 24-28, with a near-even gender distribution (52.1% male, 47.9% female). The majority were married (52.1%), and there was an equal representation from both Swabi and Peshawar districts.

Table 2 Descriptive statistics of Teachers’ qualification and teaching experience (n=48)

Variables	Categories	f	%
Qualification	BS	28	58.3
	MS	8	16.7
	BSC	5	10.4
	MA	7	14.6
Teaching Experience	6 months- 1 year	2	4.2
	2-3 years	30	62.5
	4-5 years	15	31.3
	5-6 years	1	2.1
Level of Teaching	Primary School	22	45.8
	Middle School	26	54.2

Note: f= Frequency

The majority of teachers in the study held a BS degree (58.3%) and had 2-3 years of teaching experience (62.5%). Most participants taught at the middle school level (54.2%), while 45.8% taught at the primary school level.

Table 3 Mean Comparison between Control and Experimental group of government and private teachers on study variables (n=48)

Variable	Control (24)	Experimental (24)	t(46)	p
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	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Belief towards Mental Illness	53.71	15.07	41.96	9.56	3.23	0.006
Dangerousness	12.21	4.87	10.00	3.35	1.83	0.014
Poor social & Interpersonal skills	26.79	6.35	19.79	3.60	4.70	0.004
Incurable Life	14.71	5.44	12.17	3.21	1.97	0.000
Mental Health Literacy Scale	75.50	8.65	103.46	15.99	-7.54	0.004
Ability to Recognize Disorders	17.83	4.26	18.83	5.34	-0.72	0.164
Knowledge of Risk Factors	4.04	1.12	5.38	2.22	-2.62	0.000
Knowledge of Self-Treatment	4.04	1.33	5.75	2.07	-3.40	0.046
Knowledge of Professional Help	6.08	1.69	8.71	2.61	-4.13	0.013
Knowledge where to Seek Information	8.04	1.94	12.46	2.93	-6.15	0.112
AttitudePRHSB	35.46	3.98	52.33	10.97	-7.09	0.002

Note: M= Mean, SD= Standard Deviation, AttitudePRHSB= Attitude that promote recognition or appropriate help seeking behavior

Table 3 shows that the experimental group outperformed the control group on most study variables. Significant differences were found in beliefs toward mental illness ($t(46) = 3.23, p = 0.006$), dangerousness ($t(46) = 1.83, p = 0.014$), and social skills ($t(46) = 4.70, p = 0.004$). The experimental group also scored higher on the Mental Health Literacy Scale ($t(46) = -7.54, p = 0.004$) and knowledge of self-treatment ($t(46) = -3.40, p = 0.046$). However, no significant differences were found in the ability to recognize disorders ($t(46) = -0.72, p = 0.164$) or knowledge of where to seek information ($t(46) = -6.15, p = 0.112$).

Table 4 Mean Comparison of BMI and its subscales and MHLS along with subscales Before and After Intervention (n=24)

Variable	<i>before</i>		<i>After</i>		<i>t</i> (23)	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Belief towards Mental Illness	77.88	10.81	53.71	15.07	5.64	0.000
Dangerousness	19.17	2.60	12.21	4.87	5.42	0.000
Poor social & Interpersonal skills	37.50	5.34	26.79	6.35	6.20	0.000
Incurable Life	21.21	4.86	14.71	5.44	3.65	0.001
Mental Health Literacy Scale	103.46	15.99	131.08	8.64	-9.29	0.000
Ability to Recognize Disorders	19.04	7.48	30.08	4.70	-5.14	0.000
Knowledge of Risk Factors	5.38	2.22	7.54	0.78	-3.96	0.001
Knowledge of Self-Treatment	5.75	2.07	7.08	1.89	-2.28	0.032
Knowledge of Professional Help	8.71	2.61	10.71	1.97	-3.58	0.002
Knowledge where to Seek Information	12.46	2.93	16.25	2.25	-5.85	0.000
AttitudePRHSB	52.33	10.97	60.29	4.55	-3.72	0.001

Note: M= Mean, SD= Standard Deviation, AttitudePRHSB= Attitude that promote recognition or appropriate help seeking behavior

Table 4 shows significant improvements in most study variables after the intervention. Participants' beliefs towards mental illness ($t(23) = 5.64, p = 0.000$), dangerousness ($t(23) = 5.42, p = 0.000$), and social skills ($t(23) = 6.20, p = 0.000$).

$p = 0.000$), and social skills ($t(23) = 6.20, p = 0.000$) significantly improved post-intervention. The Mental Health Literacy Scale scores also increased ($t(23) = -9.29, p = 0.000$), as did the ability to recognize disorders ($t(23) = -5.14, p = 0.000$) and knowledge of risk factors ($t(23) = -3.96, p = 0.001$). Attitudes promoting help-seeking behavior showed notable improvement as well ($t(23) = -3.72, p = 0.001$)

Discussion

The current study aimed to evaluate the effectiveness of a mental health literacy training program for teachers, focusing on its ability to improve mental health knowledge, reduce stigmatizing beliefs, and promote positive help-seeking attitudes. The findings provide strong support for the intervention, particularly in enhancing overall mental health literacy, reducing stigma, and fostering more supportive attitudes toward seeking help. However, some areas, such as the ability to recognize specific mental health disorders and knowledge of where to seek information, showed less significant improvement, indicating potential gaps in the training's coverage. These results are discussed in relation to contemporary literature and theoretical frameworks, highlighting both the successes and challenges of mental health education programs in professional settings. Understanding these findings in context can guide future interventions aimed at empowering educators with the skills to support student mental health effectively.

Hypothesis 1: Improvement in Mental Health Literacy

The hypothesis that teachers in the mental health literacy training program would show significant improvement in recognizing mental health disorders and understanding risk factors, self-treatment, professional help, and where to seek information was partially supported. While there were significant improvements in overall mental health literacy, $t(46) = -7.54, p = 0.004$, and self-treatment knowledge, $t(46) = -3.40, p = 0.046$, there were no significant improvements in recognizing disorders, $t(46) = -0.72, p = 0.164$, and knowing where to find information, $t(46) = -6.15, p = 0.112$. These findings indicate specific gaps in recognition, despite the general gains in literacy (O'Connor et al. in 2014).

Recent studies, such as Furnham & Swami (2018), consider that training in mental health literacy could enhance general knowledge but might be less effective in improving diagnostic accuracy or specific recognition of mental health conditions, at least in subjects without healthcare experience. In fact, Maughan et al. (2022) commented that the enhanced mental health

literacy would not necessarily translate to good diagnostic recognition, as symptoms are so complex that differentiating amongst disorders often requires experiential learning or clinical exposure.

Additional possible explanations for these findings may, therefore, come from theoretical perspectives, such as the dual-process theory (Evans & Stanovich, 2013). While the training likely improved participants' knowledge at the basic 'System 1' level, the ability to recognize disorders requires more analytic thinking that corresponds to 'System 2' processing. It follows that the recognition of mental health disorders is cognitively complex and may not, therefore, be adequately covered by short-term training programs, which necessarily focus on more superficial levels of information. For deeper levels of understanding in the recognition of disorders, longer-term and more interactive modes of training may be required, including case-based learning.

Hypothesis 2: Reduction in Stigmatizing Beliefs

We hypothesized that there would be significant reduction in stigmatizing beliefs regarding dangerousness, poor social skills, and the incurability of mental illness. Hence, our hypothesis was strongly supported by the findings. Significant reductions in beliefs about dangerousness ($t(46) = 1.83, p = 0.014$) and poor social skills ($t(46) = 4.70, p = 0.004$) were observed. Post-intervention, even stronger reductions in stigmatizing beliefs were seen (dangerousness: $t(23) = 5.42, p = 0.000$; social skills: $t(23) = 6.20, p = 0.000$). Such findings were consistent with the previous studies i.e., these studies found the effectiveness of structured training and education, which reduced stigmatization attitudes (Pescosolido, 2013; Henderson et al., 2020).

Recent literature indicates that stigma reduction programs are effective in particular when combined with a strategy of humanizing mental illness (Patty et al., 2014; Thornicroft et al., 2016). In fact, one of the most effective approaches to attitude change cited involves the use of personal stories and direct contact with individuals who have lived with mental health issues. Training in the present study probably achieved some of these effects through the use of factual information and emphasizing empathetic understanding, which reduces reliance on outdated stereotypes like dangerousness or lack of social skills.

A more contemporary explanation of these findings comes from the Social Identity Theory by Tajfel & Turner (1979). Normalization of struggles with one's own mental health through this training reduces 'in-group' versus 'out-group' distinctions between both those with and without mental illness, which in turn decreases stigmatizing beliefs. Finally, recent studies that have adapted the Contact Hypothesis suggest that even indirect contact, such as case-based learning or exposure to narratives of people with mental illness, significantly reduced stigma (Knaak et al., 2019). These theories contend that the framing of mental illness should be such that it does not make people afraid—but rather, helps in understanding it better, which seems like something this training did quite successfully.

Hypothesis 3: Improvement in Help-Seeking Attitudes

The third hypothesis was that teachers would show improved help-seeking attitudes after training; in fact, the current study confirmed this hypothesis by yielding positive post-intervention help-seeking attitudes ($t(23)=-3.72$, $p=0.001$). However, the comparison before intervention did not indicate a significant difference between experimental and control, suggesting that the effect of training may be time-limited to fully show its impact on the improvement of help-seeking attitude in teachers.

Recent studies confirm such findings. For example, the meta-analysis by Rüsçh et al. (2005) showed that mental health literacy interventions can result in improved attitudes towards help-seeking, but such changes often emerge over time as participants digest the information and relate it to experience. Another important thing abstracted from the research conducted by Gulliver et al. (2012) is that while such literacy programs increase knowledge and reduce stigma, the leap to actual help-seeking behavior often requires additional components, such as ongoing support or reinforcement over time.

Theoretically, the results can be better understood through Self-Determination Theory. According to Deci & Ryan, (2000), improved help-seeking attitudes are most fundamentally grounded in an increased sense of autonomy and competence following the training. Individuals who feel more knowledgeable and competent at identifying mental health problems feel capable of using that knowledge through some relevant help-seeking action. Moreover, Theory of Planned Behavior remains valid since the help-seeking attitudes are closely related to perceived behavioral control (Ajzen, 1991). The training most likely heightened participants' confidence in

symptom recognition and knowing treatment options, thus fostering more positive help-seeking attitudes.

Conclusion

An experimental research design was used in this study to determine the effectiveness of a systematic intervention program for enhancing mental health literacy among school teachers. The intervention included evidence-based modules and interactive group sessions intended to update the necessary knowledge of teachers regarding various mental health disorders, risk factors, and strategies of support and intervention. The goals of the intervention were to enable teachers with the ability to identify early signs of distress among students and, further, to promote good mental health practices in schools. Outcomes of the intervention were measured through post-test assessments that compared mental health literacy and attitudes about mental illness between participants in experimental and control conditions. Fortunately, the results indicated a significant improvement in mental health literacy for the teachers who underwent the intervention. More specifically, participants showed increased knowledge regarding mental health disorders and risk factors and more positive attitudes toward seeking professional help for mental health problems.

Limitation and Recommendations for Further studies

Although this study has some unique contributions, some of the limitations are as follows: the duration of intervention, which was 8 sessions over 8 weeks, may not lead to insight into the long-term effects of mental health training. Behavioral changes and sustained improvement in mental health literacy require longer follow-up times. Future studies should involve seamless periods of intervention or long-term follow-up periods in order to appraise the durability and effectiveness of mental health training among teachers.

The study excludes teachers with a psychology background or those with medical or psychiatric issues. This exclusion may limit the diversity of perspectives within the study sample and overlook valuable insights from teachers with relevant professional backgrounds. Future research could explore including a more diverse participant pool to enrich the study's findings and ensure broader representation. Therefore, develop interventions specifically tailored to address the unique needs and challenges teachers face in promoting mental health awareness and

support in school settings. Tailored interventions maximize relevance and effectiveness, fostering sustainable improvements in mental health literacy.

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