

Integrating Artificial Intelligence to Enhance Secondary Teachers' Mental Health Literacy and Student Support Capacity

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Abstract

Traditional, manual school-based mental health (SBMH) screening remains inadequate, necessitating the integration of Information and Communication Technology (ICT) and Artificial Intelligence (AI) systems to support educators. This study evaluated the baseline mental health literacy and self-efficacy of secondary teachers to establish the functional requirements for an AI-enhanced SBMH information system. Data from public school educators were gathered using the Mental Health Literacy Scale, a modified Teachers' Sense of Efficacy Scale, and a vignette-based diagnostic assessment. Quantitative and thematic analyses revealed moderately high self-efficacy in interpersonal communications, but exposed significant vulnerabilities in clinical recognition. Notably, while depression and anxiety were identified as the most prevalent student disorders, some educators misinterpreted severe clinical symptoms as typical adolescent behavior. These diagnostic inconsistencies and fragmented referral awareness highlight the critical limitations of ad-hoc human observation. The study concludes that standardizing SBMH requires the deployment of centralized, cloud-based referral networks and automated digital screening tools. Furthermore, institutions must implement comprehensive capacity-building programs targeting both mental health and digital literacy to successfully integrate predictive early warning architectures into modern educational environments....

Keywords artificial intelligence, digital screening, mental health literacy, information systems, teacher self-efficacy

INTRODUCTION

Despite the escalating prevalence of student psychological distress, traditional, manual approaches to school-based mental health (SBMH) remain fundamentally inadequate, presenting a critical research gap that necessitates the immediate integration of Information and Communication Technology (ICT) and Artificial Intelligence (AI) systems to augment educators' early detection and intervention capabilities. Historically, the implementation of robust SBMH services has been severely impeded by fragmented policies, insufficient funding, and a deficit of professionally trained personnel, leaving a void in comprehensive care (Patalay et al., 2016). Post-pandemic realities have further exposed how manual systems fall short; teachers frequently act as frontline responders but lack the formal training in digital counseling protocols required for modern online and hybrid learning ecosystems (Choompunuch et al., 2026). To remedy these scalable training deficiencies without triggering massive structural overhauls, digital interventions provide highly cost-effective and accessible solutions (Costardi et al., 2023). Within the Philippines, these operational barriers are exacerbated by severe geographic and logistical constraints. The national government identifies youths as a highly vulnerable demographic, mandating sustained investments in their emotional resilience and broader access to socio-medical frameworks (DOH, 2021). The urgency of this mandate is underscored by the 2015 Global School-based Student Health Survey (GSHS), which revealed that 16.8% of Filipino adolescents aged 13 to 17 had attempted suicide at least once within a single year (PSA, 2018). Addressing such alarming statistics manually is nearly impossible given the uneven distribution of mental health professionals, who are largely concentrated in urban centers, leaving rural schools without adequate support

(WHO, 2021). To bridge this divide, the Department of Education (DepEd) has championed SBMH programs, reinforced by the Basic Education Mental Health and Well-Being Promotion Act (Republic Act No. 12080), which legally requires schools to deploy standardized awareness and referral mechanisms (Republic of the Philippines, 2024). Nevertheless, teachers continue to express low confidence and acknowledge deficits in their knowledge when navigating students' psychological crises (DepEd, 2022).

The necessity for tech-enabled monitoring is further justified by the complex stressors inherent to adolescent development. This transitional phase is marked by intense academic pressures—such as high-stakes examinations—which significantly elevate stress and anxiety levels among high school learners (Jagiello et al., 2025). Furthermore, interpersonal challenges, particularly bullying and peer victimization, drastically increase the risk of depression, social isolation, and academic decline (Juvonen & Graham, 2014). In Philippine schools, victims of bullying frequently exhibit profound social withdrawal and diminished self-worth, leading to enduring psychological trauma (De Guzman & Tan, 2007; Sanapo, 2017).

Because students spend the majority of their structured time in educational settings, teachers are uniquely positioned to notice these behavioral deviations. However, effective intervention relies heavily on a teacher's Mental Health Literacy (MHL)—their ability to accurately recognize disorders and understand treatment pathways (Jorm et al., 1997; Loades & Mastroyannopoulou, 2010). Existing research underscores the importance of MHL for both pre-service and active educators in facilitating early youth interventions (Whitley & Gooderham, 2016), as well as the necessity of understanding adolescents' own MHL and help-seeking behaviors (Burns & Rapee, 2006).

Alongside MHL, a teacher's self-efficacy—their foundational belief in their capacity to execute behaviors necessary to produce specific performance attainments—dictates their willingness to engage with distressed students (Bandura, 1997). High perceived efficacy directly influences a teacher's classroom management and instructional resilience (Tschannen-Moran & Hoy, 2001). Unfortunately, existing teacher MHL interventions exhibit highly mixed pre-intervention competencies and suffer from a lack of standardized evaluative measures (Prabhu et al., 2024). Furthermore, without targeted capacity-building, even willing educators may hesitate to disclose or manage mental disorders effectively (Reavley & Jorm, 2014).

Integrating digital literacy with MHL is critical to addressing these gaps, as digital competence directly correlates with better mental health outcomes, acting as a crucial interface between adolescents' digital lives and their psychological well-being (Mega et al., 2024). Modern SBMH infrastructures require comprehensive systems training that encapsulates digital ethics, secure technology platforms, and adaptive online counseling techniques (Choompunuch et al., 2026). The deployment of web-based programs has been proven to provide accessible, stigma-free support channels for high school students (Anttila et al., 2019), while equipping teachers with robust ICT tools and training significantly mitigates their own emotional exhaustion and burnout (Chen et al., 2024; Pozo-Rico et al., 2020).

Ultimately, the future of SBMH lies in integrating AI-supported architectures, such as automated digital screening and early warning systems, which mandate that educators cultivate AI self-efficacy in tandem with their mental health expertise (Peter & Cheriya, 2026). By assessing the current MHL and self-efficacy of public secondary school teachers, this study lays the critical groundwork for developing and deploying a specialized ICT and AI-integrated information system tailored to optimize student mental health support.

METHODS

Research Design

This study employed a quantitative descriptive research design to systematically evaluate teachers' mental health literacy and their capacity to support students' psychological well-being. This design was selected to establish the critical empirical baseline data required for the future architectural design, algorithm training, and integration of an AI-enhanced school-based mental health (SBMH) information system. By quantitatively mapping existing educator competencies, the research design effectively identifies the systemic operational gaps that digital interventions and automated screening tools must address.

Population and Sampling



The study cohort consisted of 40 full-time public secondary school teachers selected from Cantilan National High School and Canico Iriberi National High School, located in Cantilan, Surigao del Sur, Philippines. To ensure the data accurately reflected the target end-users of the proposed digital framework, specific inclusion criteria were established: participants were required to be aged 22–60 years and possess a minimum of one year of active teaching experience. Educators who were employed on a part-time basis or assigned to non-secondary educational levels were strictly excluded from the dataset. Profiling this specific user demographic is essential for modeling the user interface and functional requirements of future capacity-building technology platforms.

Instrument

Data acquisition was executed through a comprehensive, self-administered questionnaire packet. The instrument was divided into four primary modules to capture a holistic view of the educators' profiles and competencies:

Demographic Information: A self-report section capturing foundational user data, including age, gender, year level, course specialization, school name, school address, residential address, and socioeconomic position.

Mental Health Literacy Scale (MHLS): A 35-item standardized metric utilized to quantify the respondents' conceptual understanding, preparation, and experiential knowledge regarding mental health. The scale employs a dual-tiered scoring algorithm: items 1–15 are evaluated on a 1–4 scale (with items 10, 12, and 15 undergoing reverse scoring), while items 16–35 are evaluated on a 1–5 scale (with items 20–28 reverse scored). The aggregate literacy score is generated by summing all item values, yielding a maximum possible score of 160 and a minimum of 35.

Level of Self-Efficacy: The Teachers' Sense of Efficacy Scale – Short Form (TSES-12), originally developed by Tschannen-Moran and Hoy (2001) to measure efficacy across Student Engagement, Instructional Strategies, and Classroom Management, was structurally adapted. For this study, the instrument's parameters were specifically modified to measure teachers' perceived self-efficacy in managing and responding to student mental health issues.

Vignette-Based Assessment: To evaluate practical application and diagnostic recognition, the instrument included a case scenario featuring a student ("Vanessa") exhibiting symptoms of depression. Adapted from Whitley & Gooderham (2016) and Burns & Rapee (2006), the vignette prompted participants with open-ended questions designed to extract data on problem recognition, perceived severity, causal beliefs, preferred help-seeking pathways, and suggested interventions.

Data Gathering Procedure

The deployment of the survey instrument utilized a hybrid distribution model, engaging participants through both traditional printed forms and secure digital platforms (Google Forms). Prior to data collection, informed consent was obtained from all participants, ensuring voluntary engagement. Strict data privacy protocols were maintained throughout the procedure, guaranteeing respondent confidentiality and anonymity—a foundational requirement for information governance in modern ICT systems.

Data Analysis

The extracted data underwent rigorous statistical and thematic processing to ensure accurate capability mapping. Quantitative variables derived from the demographic profile, MHLS, and TSES-12 were analyzed utilizing descriptive statistics, specifically frequency counts, percentages, and weighted means. For the qualitative component, the open-ended responses from the vignette—focusing on a purposively selected subset of five participants—were subjected to thematic analysis to identify recurring patterns in problem recognition and intervention strategies. These combined analytical methods provided the structured data modeling necessary to identify systemic training deficiencies and define the operational parameters for integrating AI-supported mental health screening tools in secondary education settings.

RESULTS

This section details the empirical data gathered from the respondents, structurally organized to objectively present the teachers' baseline mental health literacy, perceived self-efficacy, and observations regarding student psychological issues.

Table 1: Demographic Profile of the Respondents

Demographic Profile / Variable	Frequency	Percentage
Sex		
Male	13	32.50%
Female	27	67.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Age		
20 – 29	18	45.00%
30 – 39	10	25.00%
40 – 49	12	30.00%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Civil Status		
Single	23	57.50%
Married	17	42.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Highest Educational Attainment (HEA)		
Bachelor's Degree	22	55.00%
With Masters' units	10	25.00%
Masters' Degree	8	20.00%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Major of Specialization		
Science	16	40.00%
Mathematics	13	32.50%
English	2	5.00%
Filipino	2	5.00%
Social Studies	1	2.50%

Demographic Profile / Variable	Frequency	Percentage
TLE	2	5.00%
HELE	3	7.50%
Values Education	1	2.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Years of Teaching Experience		
1 – 5 years	22	55.00%
6 – 10 years	7	17.50%
11 – 15 years	6	15.00%
More than 15 years	5	12.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Grade Level(s) Currently Teaching		
Junior High School	30	75.00%
Senior High School	6	15.00%
Both	4	10.00%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Subjects Currently Teaching		
Science	15	37.50%
Math	11	27.50%
English	2	5.00%
Filipino	2	5.00%
TLE	4	10.00%
Aral Pan	4	10.00%
Values / Guidance	1	2.50%
Philosophy	1	2.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>

Demographic Profile / Variable	Frequency	Percentage
Attended Training		
Yes	11	27.50%
No	29	72.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
School Has Designated Guidance Counselor		
Yes	33	82.50%
No	7	17.50%
<i>Total</i>	<i>40</i>	<i>100.00%</i>
Adequately Supported by School (Mental Health)		
Yes	26	65.00%
Somewhat	10	25.00%
No	4	10.00%
<i>Total</i>	<i>40</i>	<i>100.00%</i>

The demographic breakdown indicates a predominantly female teaching staff (67.5%), with males comprising the remaining 32.5%. A substantial segment of the educators are relatively young, with 45.0% falling into the 20–29 age bracket, and the majority (57.5%) are single. Academically, 55.0% hold a Bachelor's degree, whereas 25.0% have earned Master's units and 20.0% possess a full Master's degree. Specializations are heavily concentrated in STEM disciplines, primarily Science (40.0%) and Mathematics (32.5%). Consequently, 55.0% of respondents report having only 1 to 5 years of professional teaching experience, and a significant majority (75.0%) are assigned strictly to Junior High School classes. Crucially, 72.5% of the surveyed educators report never having attended targeted mental health training. Although 82.5% state their schools employ a designated guidance counselor, only 65.0% feel adequately supported by their institution in handling psychological concerns, with 25.0% feeling only somewhat supported and 10.0% feeling unsupported entirely.

Table 2: Level of Mental Health Literacy of Respondents

Respondent	Score	Category	Respondent	Score	Category
1	116	Moderate	21	122	Moderate
2	104	Low	22	101	Low
3	101	Low	23	138	High
4	120	Moderate	24	115	Moderate
5	123	Moderate	25	125	Moderate

Respondent	Score	Category	Respondent	Score	Category
6	125	Moderate	26	128	High
7	111	Low	27	118	Moderate
8	111	Low	28	128	High
9	122	Moderate	29	118	Moderate
10	101	Low	30	111	Low
11	138	High	31	122	Moderate
12	115	Moderate	32	115	Moderate
13	127	High	33	125	Moderate
14	128	High	34	128	High
15	118	Moderate	35	125	Moderate
16	108	Low	36	128	High
17	122	Moderate	37	118	Moderate
18	127	High	38	108	Low
19	116	Moderate	39	111	Low
20	111	Low	40	122	Moderate

The individual scores highlight a wide variation in mental health literacy levels across the respondents. While a selection of teachers achieved high scores, demonstrating a strong grasp of mental health concepts, others fell into the low category, reflecting significant gaps in their knowledge. However, the vast majority of the educators clustered in the moderate range, signifying a foundational, though incomplete, understanding of student mental health issues.

Table 3: Teachers' Level of Self-Efficacy in Addressing Students' Mental Health Concerns

Indicator	Weighted Mean	Verbal Description
1. How much can you do to manage students who show signs of emotional or behavioral distress in the classroom?	4.68	Moderate
2. How much can you do to support and motivate students who seem disengaged due to possible mental health issues?	4.91	Moderate
3. How much can you do to help students believe in their ability to succeed despite emotional or psychological challenges?	5.42	Moderate High

Indicator	Weighted Mean	Verbal Description
4. How much can you do to help students develop positive attitudes toward learning and self-worth?	6.91	Fairly High
5. To what extent can you ask sensitive and appropriate questions when students show signs of mental distress?	6.95	Fairly High
6. How much can you do to promote respectful and emotionally safe behavior among students?	6.92	Fairly High
7. How much can you do to de-escalate situations involving students experiencing emotional outbursts or anxiety?	6.78	Fairly High
8. How well can you establish a classroom environment that supports students' emotional and mental well-being?	5.41	Moderate
9. How much can you use assessment tools or strategies to identify students with possible mental health concerns?	6.05	Moderate High
10. To what extent can you explain or suggest coping strategies to students dealing with stress or emotional difficulties?	5.96	Moderate High
11. How much can you assist families in understanding and supporting their children's mental health?	5.11	Moderate
12. How well can you implement classroom strategies that promote student resilience and mental health?	6.18	Moderate High
Overall Weighted Mean	5.94	Moderate High

Educators reported a collective "Moderate High" self-efficacy in addressing student psychological issues, evidenced by an overall weighted mean of 5.94. The respondents felt most competent in their interpersonal communications, rating their ability to ask sensitive questions to distressed students highest (6.95). This was closely followed by high ratings in promoting respectful behavior (6.92), developing positive student attitudes toward self-worth (6.91), and de-escalating emotional outbursts (6.78). Conversely, their confidence dipped considerably when assessing their ability to actively manage classroom behavioral distress (4.68), motivate disengaged learners (4.91), and assist families in supporting their children (5.11).

Table 4: Common Mental Health Concerns faced by the Respondents

Common Mental Health Concerns	f	%
Emotional and Psychological Disorders	40	48.2%
- Depression	15	
- Anxiety	15	
- Stress (e.g., exams, academics)	6	
- Low self-esteem/self-worth issues	3	
- Personality disorder (minimal)	1	
Behavioral and Emotional Regulation Issues	18	21.7%

Common Mental Health Concerns	f	%
- Anger/burst out	5	
- Emotional skill deficits	4	
- Behavioral problems	2	
- ADHD	7	
Social and Interpersonal Concerns	14	
- Bullying/trauma	4	
- Social skills deficits	2	16.9%
- Introversion	2	
- Social isolation/withdrawal	6	
Risk behaviors and safety concerns	10	
- Self-harm/physical harm	4	
- Substance abuse	3	12.0%
- Avoidance of school	3	
Lifestyle and well-being	1	
- Lack of sleep and healthy lifestyle	1	1.2%
TOTAL	83	100%
*multiple responses		

The data identifies emotional and psychological disorders—specifically depression (15 instances) and anxiety (15 instances)—as the most prevalent mental health concerns observed among the students. Teachers also heavily cited behavioral and emotional regulation issues (18 total responses), which include ADHD (7), anger outbursts (5), and emotional skill deficits (4). Social and interpersonal concerns accounted for 14 responses, with educators identifying social withdrawal (6) and bullying (4) as significant factors. Furthermore, alarming safety concerns such as self-harm (4) and substance abuse (3) were documented by the respondents.

Table 5: Awareness of the respondents of their school's mental health referral system and protocol

Awareness	f	%
YES	31	77.5
NO	6	15.0
NOT Really sure	3	7.5
TOTAL	40	100.0

A significant majority of the participants (31 respondents, or 77.5%) indicated that they were aware of their respective school's mental health referral protocols. Nevertheless, 6 teachers explicitly stated they were unaware of such systems, and an additional 3 expressed uncertainty regarding the procedures.

Table 6: Strategies used by the Respondents in dealing with Mental Health Issues

Strategies used by the respondents	F	%
Building Positive Relationships	7	17.5
Promoting inclusivity and respect	6	15.0
Establishing a safe and supportive environment	10	25.0
Encouraging open communication	11	27.5
Supporting student well-being	6	15.0
TOTAL	40	100.0

To address psychological concerns within their classrooms, the most widely utilized strategy among the teachers is encouraging open communication (11 mentions). This is followed by efforts to establish a safe and supportive environment (10 mentions) and actively building positive relationships with their students (7 mentions). Promoting inclusivity and general support for student well-being were each utilized by 6 respondents.

Table 7: Suggested trainings or programs by the respondents

Training or Programs suggested	F	%
Mental Health Awareness & Literacy Programs	13	30.2
Counseling, Communication, & Crisis Management	7	16.3
Mental Health First Aid & Early Intervention	6	14.0
Classroom Management with Mental Health Lens	5	11.6
Stress Management & Wellness Programs	5	11.6
Trauma-Informed & Inclusive Approaches	3	7.0
Parent-Teacher Collaboration Programs	1	2.3
None	3	7.0
TOTAL	43	100.0
*multiple responses		

When queried about necessary professional development, the respondents predominantly suggested Mental Health Awareness and Literacy Programs (13 responses). There was also a strong demand for skills-based training, specifically Counseling, Communication, and Crisis Management (7 responses) and Mental Health First Aid (6 responses). Other recommended programs included classroom management filtered through a mental health lens (5 responses) and wellness/stress management initiatives (5 responses). Three educators felt they required no additional training.

Table 8: Responses to the Vignette

Participant	Recognition of Problem	Seriousness (1 - 5)	Help-seeking likelihood (1-5)	Preferred Help Source	Causal Belief	Suggested Intervention
1	Depression	5	5	Counselor	Stress	Refer to counselor
2	Stress	4	5	Friends & teacher	School Pressure	Talk to teacher and parents and counselor
3	Nothing wrong	1	2	Family	Maybe not interested	Talk to family
4	Just sad; or part of being adolescent	2	2	Family and Friends/Classmates	"just a phase"	Just inform the family
5	Depression	5	4	Doctor/mental health professionals	Mental health concern	Mental health professionals and parent support

The vignette assessment revealed stark differences in problem recognition and practical diagnostic application among the subset of five teachers. Participants 1 and 5 displayed high mental health literacy by correctly identifying the presented symptoms as depression, rating the severity as extremely high (5), and immediately suggesting the intervention of a professional counselor or doctor. Participant 2 exhibited moderate recognition, categorizing the issue as severe stress driven by academic pressure, and suggested a combination of peer and professional help. In contrast, Participants 3 and 4 demonstrated exceptionally low mental health literacy. They failed to recognize any clinical concern, dismissing the symptoms as either typical teenage sadness or general disinterest, rated the severity low (1 and 2), and primarily suggested limiting intervention to simply speaking with the student's family.

DISCUSSION

The empirical data gathered in this study provides a critical, foundational blueprint for the design and integration of an Artificial Intelligence (AI) supported School-Based Mental Health (SBMH) Information System. While traditional educational research often views teacher capabilities in a vacuum, the novelty of this study lies in its translation of subjective, human pedagogical data into concrete functional requirements for machine learning models and digital interventions. By mapping the operational strengths and systemic vulnerabilities of human educators, this research directly contributes to the rapidly evolving field of educational technology, defining the parameters required to automate, standardize, and scale mental health support.

The findings reveal a severe limitation inherent in manual, human-dependent psychological screening. The distributed Mental Health Literacy (MHL) scores, heavily clustered in the moderate range, indicate a workforce that is well-intentioned but fundamentally inconsistent in its diagnostic awareness. This vulnerability was starkly highlighted by the vignette assessment, wherein certain educators misidentified critical symptoms of clinical depression as a mere "adolescent phase" or simple disinterest, recommending no professional intervention. This subjective misinterpretation delays vital care and empirically justifies the urgent need for AI-supported infrastructures (Peter & Cheriya, 2026). Standardized technological support, such as automated digital screening tools, is required to bypass human diagnostic bias and resolve the training disparities currently plaguing manual interventions (Prabhu et al., 2024).

The data established that depression and anxiety are the most dominant mental health threats among the student population, exacerbated by behavioral regulation deficits and academic stressors. Within an ICT context, these specific, high-prevalence issues serve as the necessary training data parameters for predictive early warning systems. Because these academic pressures naturally escalate during the high school transition (Jagiello et al., 2025), relying on ad-hoc observation is untenable. Continuous, algorithmically driven digital monitoring can track behavioral deviations at scale, offering highly accessible and cost-effective pathways for early detection without requiring massive structural overhauls (Costardi et al., 2023). Furthermore, web-based platforms designed around these specific data points can provide the stigma-free support channels necessary to address the social isolation and bullying reported by the respondents (Anttila et al., 2019; Juvonen & Graham, 2014).

The educators reported a "Moderate High" self-efficacy, showing high confidence in interpersonal communications and de-escalation, but significant weakness in actively managing behavioral distress or facilitating family collaboration. For systems developers, this dictates the necessary user interface (UI) and user experience (UX) features of a proposed SBMH platform. The system does not need to replace the teacher's empathetic communication; rather, it must automate the areas where teachers feel least capable. Future ICT platforms must feature automated family notification modules, secure parent-teacher communication portals, and integrated databases of coping strategies to support the educator in real-time. Providing teachers with these robust digital tools not only enhances student care but acts as a proven mediator in reducing educator burnout and emotional exhaustion (Chen et al., 2024; Pozo-Rico et al., 2020).

A critical operational failure identified in the study is that nearly a quarter of the teaching staff are either unaware of or uncertain about the school's mental health referral protocols. This local data mirrors broader national and global barriers where SBMH deployment is historically hindered by fragmented policies (Patalay et al., 2016). To ensure compliance with recent national mandates demanding standardized referral mechanisms (Republic of the Philippines, 2024; DepEd, 2022), schools must abandon siloed, paper-based reporting. This study demonstrates the absolute necessity of a centralized, cloud-based information system. Such an architecture would streamline data governance, ensuring that when high-risk behaviors—such as the self-harm and substance abuse noted by the respondents—are observed, the referral is instantaneously routed to the appropriate mental health professional, effectively bypassing the geographic constraints of medical practitioner shortages (WHO, 2021).

Finally, the overwhelming demand from respondents for Mental Health Awareness, Crisis Management, and First Aid training highlights an immediate use-case for dynamic e-learning environments and virtual simulations. However, modern SBMH frameworks require more than just psychological knowledge; they demand dual-competency training. Because digital literacy is a fundamental bridge connecting adolescents to positive psychological outcomes (Mega et al., 2024), teachers must be trained in digital ethics, secure platform utilization, and online counseling protocols (Choompunuch et al., 2026). By utilizing the empirical gaps identified in this study to build targeted, tech-driven capacity-building programs, educational institutions can foster a highly responsive, digitally fluent, and AI-empowered teaching workforce.

CONCLUSION

The uneven mental health literacy and moderate self-efficacy among educators firmly mandate the transition from manual psychological screening to a standardized Artificial Intelligence-supported Information System. Relying solely on ad-hoc human observation proves insufficient for modern educational environments and necessitates the deployment of automated digital screening tools and predictive early warning architectures to eliminate subjective diagnostic bias and streamline early interventions.

To achieve this technological shift educational institutions must prioritize the development and integration of centralized cloud-based referral networks to resolve current fragmented communication channels. Schools are strongly urged to implement comprehensive dual-competency capacity-building programs that equip teachers with both foundational mental health awareness and the advanced digital literacy required to navigate secure technology platforms and automated assessment dashboards.

Future research should focus on the algorithmic training and pilot testing of these proposed digital early warning systems within diverse secondary school ecosystems. Researchers are encouraged to evaluate the user interface efficacy of AI-driven educational dashboards designed specifically for pedagogical staff with varying levels of technological competence. Additional studies must also measure the longitudinal impact of integrated digital mental health platforms on reducing educator emotional exhaustion and improving the precision of student psychological care...

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