

Mental health literacy and mental well-being among senior high school students in Samut Songkhram Province, Thailand

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ABSTRACT

Senior high school students aged 15–19 are adolescents in the transitional phase from childhood to independent adulthood, during which stress can quickly arise. Developing Mental Health Literacy (MHL) can play a crucial role in preventing severe mental illnesses. This study aimed to explore the MHL and mental well-being of senior high school students in Samut Songkhram Province, Thailand. This descriptive-analytical cross-sectional study was conducted on 510 senior high school students in Samut Songkhram, Thailand, using stratified random sampling. Data were collected using the MHL and mental well-being questionnaire. The Pearson correlation coefficient and linear regression were used for analysis at a significance level of 0.05. This study included 510 senior high school students, the majority of whom were female (57.8%), aged 16 years (30.6%), and in Grade 11 (37.6%). Most students were enrolled in the Science and Mathematics program (57.5%). Regarding academic performance, most of them had grades of 3.01 or higher (53.5%). Most students' families had incomes between 10,001 and 30,000 THB (49.6%). MHL was at a moderate level, while mental well-being levels were low. A positive relationship was observed between overall MHL scores and mental well-being scores ($r = 0.103$, $p = 0.034$). After adjusting for the study program, the overall MHL score was found to be significantly associated with mental well-being scores (Beta = 0.118). However, the overall MHL score showed a significant negative association with mental well-being scores (Beta = -0.137) when adjusted for the school-record program. The study revealed that senior high school students exhibited a moderate level of MHL and a low level of mental well-being. Therefore, extracurricular activities should be implemented to enhance MHL and improve the mental well-being of senior high school students in the future, alongside developing comprehensive strategies to address and prevent mental health issues faced by this group.

Keywords:

mental health; mental health literacy; well-being; mental well-being; senior high school students

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INTRODUCTION

In recent years, adolescent mental health has become a pressing issue in global public health, raising widespread concern among both the public and experts. A substantial body of evidence indicates a steady decline in adolescent mental health, with increases in anxiety, depression, psychological stress, and suicide.¹ The key components of mental health include personal characteristics and behaviors, social and economic factors, and environmental influences.² These factors contribute to an individual's overall mental well-being and stress levels. Therefore, it is crucial to study the mechanisms influencing adolescents' psychological distress, as this will help identify effective ways to intervene and alleviate their mental suffering.³ The World Health Organization (WHO) has reported that 10–20% of adolescents worldwide experience mental health problems, yet many remain undiagnosed and untreated. Moreover, the prevalence of these issues is rising, as evidenced by the growing demand for counseling services.² Studies indicate that approximately 1 in 7 Thai adolescents aged 15–19 experience neuropsychiatric and emotional disorders. Suicide is the third-leading cause of death among this age group. According to the 2021 Global School-based Student Health Survey conducted in Thailand, 17.6% of adolescents aged 13–19 reported having suicidal thoughts.⁴ Mental health issues among children and adolescents are a critical concern. One contributing factor is that these individuals grow up in a society that does not nurture their aspirations or support self-expression. For instance, they encounter barriers to freely expressing their gender identity as well as pursuing their desired career paths due to societal norms and systemic pressures that prioritize survival over individuality. Inadequate infrastructure, low quality of life, and unequal access to education further

compound the problem. Moreover, economic hardships often prevent children from pursuing and achieving their ambitions.⁵

Mental health literacy (MHL) is a concept first introduced by Jorm et al. It refers to an individual's knowledge and beliefs about mental health issues, facilitating awareness, prevention, and appropriate self-management of mental health problems.⁶ MHL also encompasses the specific knowledge and attitudes that enable individuals to recognize, manage, and prevent mental health problems. It includes several key components, such as the ability to identify mental health disorders, seek and evaluate mental health information, understand the risk factors and causes of mental health problems, practice self-care when facing mental health challenges, and seek appropriate professional help and support. Adolescents who can effectively manage their mental well-being demonstrate a high level of mental health literacy.⁷ Adolescents with good mental well-being and psychological happiness are aware of their internal abilities to manage mental stress. This awareness enables them to achieve positive outcomes and be ready to contribute to as well as connect with society. Mental well-being represents a balance between positive and negative mental states, with individuals feeling satisfied with their competencies and experiencing good health and mental happiness, regardless of external circumstances.⁸ Those with high levels of mental well-being report good to excellent health at a rate of 77.11%, while those with low mental well-being report poor to feeble health at a rate of 58.02%. Thus, mental well-being is a balance between happiness and the ability to manage negative emotions. It is also linked to mental health issues, such as stress and the availability of social support. Individuals with good mental well-being are more likely to seek social support from friends or mental health professionals as a source of guidance on

mental health disorders.⁹ In many countries across Asia, North America, and Europe, significant attention has been given to assessing adolescent mental health literacy. Empirical evidence suggests that psychiatric disorders often emerge during adolescence and may go untreated. If adolescents have adequate mental health literacy, they can recognize early signs of mental health issues and seek appropriate support. A study by Jiali Pan et al. found a positive correlation between mental health literacy and psychological well-being among students in China.¹⁰ Similarly, research by Hanne N. Bjørnsen et al. indicated that positive mental health literacy was associated with psychological well-being among upper secondary school students in central Norway.¹¹ In Thailand, research on mental health literacy and psychological well-being among adolescents remains limited. However, a study conducted by Natthaphansan Sriwichai and colleagues examined the relationship between mental health literacy, loneliness, and psychological well-being in students. The study found a significant positive correlation between mental health literacy and psychological well-being at the 0.01 level.¹²

Adolescents in Samut Songkhram Province, Thailand, primarily comprise students in grades 10-12, and it has been observed that the level of educational competition has increased compared to the past. Historically, most students' families in Samut Songkhram Province were engaged in agriculture and fishing. However, it is now a province focused on tourism, and its proximity to the capital has increased the number of visitors from various regions. As a result, high school students in Samut Songkhram have encountered changes in society and technology. They are exposed to multiple educational perspectives that influence their future career paths. Consequently, they strive to push

themselves to compete for the opportunity to pursue higher education, which can lead to stress due to competition with peers from other regions.¹³ Furthermore, a study by Sujitra Uratthanamane et al. found that the stress levels of high school seniors in Samut Songkhram preparing for university entrance exams are generally high. This stress is attributed to personal expectations, inadequate preparation, and academic performance, as well as competition amongst themselves and their peers, and expectations from parents, society, and teachers.¹⁴ Mental health issues often arise during adolescence, a period that coincides with the transition to university life. High school students, at an age marked by physical, psychological, and social changes, also face the responsibility of balancing their academic duties, extracurricular activities, and the pressure of intense competition. These factors necessitate adaptation to a constantly changing environment, which can lead to increased stress and emotional challenges. Thus, mental health plays a significant role in the lives of high school students.¹⁵

Based on the information above, the researcher recognizes the importance of mental health care for high school students as an urgent issue. It should be addressed early to prevent more severe mental health problems from developing later and to provide timely support for students at risk, ensuring that they are not lost during their education. The researcher aims to study MHL and the mental well-being of senior high school students as well as the relationship between these two factors. The findings of this study will contribute to the development of teaching strategies, mental health service systems, and future planning to address students' mental health issues.

METHODS

Study Design and Population

This descriptive cross-sectional study examined MHL and the mental well-being of senior high school students in Samut Songkhram Province, Thailand. Data were collected via an online questionnaire given from July to September 2024.

The study's population consisted of senior high school students in Samut Songkhram Province, Thailand, selected from five schools within the province. To determine the sample size, a G*Power analysis was conducted at a significance level of 0.05 with a medium effect size¹², which resulted in a total of 510 students.

Stratified random sampling was used to choose the study participants. Each school was considered a stratum. The number of participants for each stratum was determined proportionately by the number of students in each school. Then, simple random sampling was performed in each stratum using a random number table. Inclusion Criteria comprised 1) adolescents currently enrolled in high school in Samut Songkhram Province, 2) those given parental consent to participate in the research, and 3) those who expressed willingness and cooperation with the researcher. Exclusion Criteria included 1) adolescents with a chronic illness requiring ongoing medication prescribed by a doctor and 2) those with a history of schizophrenia or other psychotic disorders.

The research instrument was a questionnaire divided into 3 parts as follows:

Part 1: General information about the sample group, including six items: gender, age, grade level, study program, school record, and family income.

Part 2: The Mental Health Literacy Questionnaire. The researcher used the questionnaire developed by Natthaphansan Sriwichai, Waraporn Boonchieng, and

Pimchanok Krueasukon.¹² It consists of 33 items related to mental health literacy, divided into four subcategories: knowledge of mental health problems, misconceptions about mental health problems, knowledge and behaviors in seeking initial help, and self-help strategies. The questionnaire uses a five-point Likert scale: strongly disagree, disagree, neutral, agree, and strongly agree. The total scores ranged from 33 to 165 in 3 score categories, with 33-115 points indicating low mental health literacy, 116-128 points indicating moderate mental health literacy, and 129-165 points indicating high mental health literacy. The original questionnaire has a reliability coefficient of 0.84.

Part 3: The Mental Well-Being Questionnaire. The researcher used the questionnaire developed by Natthaphansan Sriwichai, Waraporn Boonchieng, and Pimchanok Krueasukon¹². This questionnaire assesses individuals' mental well-being by evaluating their feelings and thoughts over the previous two weeks. All questions are framed positively and consist of 14 items. Respondents can choose from five levels for each item: "Not at all" means that, during the previous two weeks, the individual never felt this way or encountered such an event. "Rarely" means that the individual felt this way during the previous two weeks or experienced such an event infrequently or only occasionally. "Sometimes" means that the individual felt this way during the previous two weeks or encountered such an event about half the time. "Often" means that the individual felt this way during the previous two weeks or encountered such an event frequently, but not always. "Almost always" means that, during the previous two weeks, the individual felt this way or experienced such an event consistently or all the time. The total scores range from 14 to 70, with the following score categories: An average score of 1.00-2.33 indicates a low level of mental well-being, while an average score of 2.34-3.66 indicates a moderate level and

an average score of 3.67-5.00 indicates a high level, with the original questionnaire having a reliability coefficient of 0.89.

Statistical analysis

Statistical analyses were conducted using SPSS (SPSS Inc., Chicago, IL, USA) software for Windows. Descriptive statistics were used to analyze the general information of the sample: frequency, percentage, median, arithmetic mean (M), and standard deviation (S.D.). Using the Pearson correlation coefficient (r), the relationship between variables was determined. Linear regression was used to analyze the relationships between MHL and mental well-being among senior high

school students. For statistical tests, the significance level was set at 0.05.

RESULTS

The sample consisted of 510 senior high school students residing in Samut Songkhram Province. The majority were female (57.8%), with most being 16 years old (30.6%) and in Grade 11 (37.6%). The majority followed the Science and Mathematics program (57.5%). Regarding academic performance, most students had grades of 3.01 or higher (53.5%). Family incomes ranged between 10,001 and 30,000 THB (49.6%) (Table 1).

Table 1. Demographic variables of the participants. (n=510)

Demographic Variables	n(%)
1. Gender	
Male	215(42.2)
Female	295(57.8)
2. Age (years)	
15	118(23.1)
16	156(30.6)
17	127(24.9)
18	109(21.4)
3. Grade Level	
Grade 10	160(31.4)
Grade 11	192(37.6)
Grade 12	158(31.0)
4. Study Program	
Science-Mathematics	293(57.5)
Arts-Languages	110(21.6)
Arts-Mathematics	107(21.0)
5. School-record	
Below 2.50	69(13.5)
Between 2.51 to 3.00	168(32.9)
From 3.01 and above	273(53.5)
6. Family income (Thai baht) *	
Below 10,000 THB	123(24.1)
Between 10,001 to 30,000 THB	253(49.6)
From 30,001 and above THB	134(26.3)

*10,000 Thai baht = 293.39 US dollar

The mental health literacy of a sample group of 510 individuals was mainly at a moderate level overall (M=118.72, SD = 17.53). When specific aspects were considered, the findings revealed that perception and help-seeking behavior for accessing primary care

resources were moderate (M= 34.70, SD = 5.24). Knowledge and attitudes regarding mental health issues were also at a moderate level (M= 64.43, SD = 9.64). Strategies for appropriate self-help were similarly found to be at a moderate level (M= 19.59, SD = 4.21) (Table 2).

Table 2. Mean and standard deviation of MHL (n=510).

Variable	Mean	SD	Level
MHL			
Perception and help-seeking behavior for accessing primary care resources	34.70	5.24	Moderate
Knowledge and attitudes regarding mental health issues	64.43	9.64	Moderate
Strategies for appropriate self-help	19.59	4.21	Moderate
Overall MHL	118.72	17.53	Moderate

The mental well-being of a sample group of 510 individuals was found to be at

a generally low level (M= 46.71, SD = 11.43) (Table 3).

Table 3. Level of mental well-being in senior high school students (n=510).

Variable	Mean	SD	Level
Overall Mental well-being	46.71	11.43	Low

The Pearson correlation coefficient revealed a positive relationship between overall MHL scores and mental well-being scores ($r = 0.103$, $p = 0.034$). After adjusting for the study program, the overall MHL score was found to be significantly associated with mental well-being scores (Beta = 0.118). However, the overall MHL score showed a significant negative

association with mental well-being scores (Beta = -0.137) when adjusted for the school-record program, as presented in Table 4. Each one-point increase in the overall MHL score corresponded to an increase of 1.977 points or a decrease of 1.991 points in mental well-being scores, depending on the program.

Table 4. Relationship between MHL and mental well-being in senior high school students using linear regression.

Model	Factor	Unstandardized coefficients		Standardized coefficients	95% CI for B	P-value
		B	SE			
Unadjusted	Overall MHL (scores)	0.546	0.075	0.356	(0.398)- (0.694)	0.000**
Adjusted*	Overall MHL (scores)	1.977	0.874	0.118	(0.258) -(0.697)	0.024**
Adjusted*	Overall MHL (scores)	-1.991	0.757	-0.137	(-3.497) -(-0.503)	0.009**

*Adjusted for study program and school record, **Significant at the 0.05 level (2-tailed)

DISCUSSION

This study examined senior high school students' mental health literacy and mental well-being. The findings revealed that senior high school students generally exhibited a moderate level of mental health literacy. This may be attributed to the transition from lower secondary to upper secondary school, which is often challenging. Students encounter new academic demands, increasingly complex course content, shifting social dynamics, and greater responsibilities.¹⁶ They also face pressure to excel academically, build social connections with peers, and make critical decisions about their future, including pursuing higher education. These factors can contribute to heightened levels of stress, anxiety, and even depression. Furthermore, classmates' behavior can significantly influence their mental health. Parents also play a vital role by maintaining open lines of communication with their children, offering guidance, and providing encouragement during this transitional phase.¹⁷ This is consistent with the research conducted by Mahfouz et al. (2016), which found that most adolescents (90.3%) exhibited moderate mental health literacy. The study indicated that adolescents believed and held attitudes regarding the causes of mental health issues, attributing them to genetics (45.8%) and poor quality of life (65.0%).¹⁸ However, these findings conflict with those of Rithairat Chidmongkol et al. (2020), who reported that adolescents demonstrated a high level of mental health literacy.¹⁹ Furthermore, they contradict the results of Nusara Namdaet et al. (2018), who studied the mental health literacy of high school students in Saraburi Province, Thailand, and found that these students exhibited a high level of mental health literacy.²⁰ This may be because students in different areas have varying levels of adaptation and

coping mechanisms in different situations, leading to differences in their mental health literacy.

The study results on the mental well-being of senior high school students revealed that their well-being was at a low level. This may be attributed to their difficulty adapting to challenging situations, making it hard to maintain emotional balance. For instance, students often struggle to adjust to social changes. They are exposed to diverse perspectives concerning their educational options, which significantly impact their future progress.²¹ As a result, many students push themselves to compete in higher-education entrance exams, leading to stress caused by the highly competitive nature of these exams. These circumstances often subject senior high school students to emotional instability, irritability, and increased susceptibility to stress. Such factors undermine their confidence in managing their psychological tension.²² This is consistent with the study by Phamornpun Yurayat (2011), which examined the education and development of mental well-being among university students. The study found that the overall mental well-being of university students had an average score of 3.884.²³ This finding contrasts with the study by Natthaphansan Sriwichai et al. (2020), which explored the relationship between mental health literacy, mental well-being, and loneliness among students at Chiang Mai University, Thailand. The results of this study indicated that the mental well-being of Chiang Mai University students was at a moderate level ($M = 45.53$, $SD = 10.95$).¹² Previous studies used university students as their sample, leading to differences in their findings compared to this study, which focused on high school students. High school students face social transitions, increased responsibilities, academic pressure, and the challenge of building social relationships

with peers. These factors can influence their level of mental well-being.

The study on the relationship between mental health literacy and mental well-being found a significant positive correlation at the 0.05 level. This suggests that students with moderate to high levels of mental health literacy can better manage their emotions and seek sources of support, helping them balance positive and negative feelings, thus leading to improved mental well-being. Furthermore, they can recognize personal mental health issues as well as those of people close to them and actively seek appropriate resources for information and initial assistance. This enables them to manage mental health disorders in themselves and those around them, reduce stress and enhance their mental well-being.^{24,25} The findings of this study are consistent with that of Hanne N. Bjørnsen et al. (2017), who examined the relationship between positive mental health literacy and Mental Well-Being among Adolescents, with implications for School Health Services. Their study found that positive mental health literacy among Norwegian adolescents was significantly and positively associated with mental well-being ($P < 0.001$).¹¹ This highlights the relationship between MHL and mental well-being. Individuals with higher MHL can identify their mental health issues as well as those of the people close to them. They possess MHL conditions, seek appropriate sources of information and access initial support services. As a result, they are better equipped to manage psychological distress for themselves and those around them, reducing stress and enhancing their mental well-being.¹² Conversely, senior high school students with moderate MHL may struggle to find solutions to mental health problems, leading to increased anxiety, diminished happiness, and reduced life satisfaction and quality of life. These factors contribute to lower mental well-being.²⁶

RECOMMENDATIONS

This study found that MHL was at a moderate level, mental well-being was low, and there was a correlation between MHL and mental well-being. Therefore, supplementary activities should be organized to promote MHL, particularly in areas such as recognizing and understanding mental health issues, identifying the causes of mental health problems, providing basic care and support, and understanding the contributing factors to mental health issues. Such activities should aim to increase awareness and facilitate the early recognition of mental health problems, as well as to develop strategies for promoting and preventing mental health issues. This approach will help students achieve better overall mental well-being and mental health in the future.

AUTHOR CONTRIBUTIONS

N.S., K.K., P.H.: Conceptualization. N.H., P.S., R.R.: Methodology, Data Curation, and Formal Analysis. N.S., W.M.K., S.S., P.W.: Writing – Original Draft Preparation and Writing – Review & Editing.

ETHICAL CONSIDERATION

This study received ethical approval from the Research and Development Institute, Suan Sunandha Rajabhat University, Thailand, on April 7, 2024 (Certificate Number: COA.1-034/2024).

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CONFLICTS OF INTEREST

The authors declare that they have no conflict of interest.

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