



## Mental Health Literacy, Resilience, and Positive Mental Health in Adolescents

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### Abstract

Positive mental health constitutes an essential foundation for adolescents' development and represents a growing priority within public health promotion. This study aimed to examine the roles of mental health literacy and resilience in predicting positive mental health among adolescents in Semarang, Indonesia. A quantitative cross-sectional correlational design was employed involving high school students aged 12–18 years. Standardized instruments were used to assess mental health literacy, resilience, and positive mental health. Data were analyzed using Pearson correlation and multiple regression analyses. The findings indicated that resilience emerged as a significant and consistent predictor of positive mental health, whereas mental health literacy did not demonstrate a stable direct association with positive mental health. Gender-based analyses further revealed that resilience significantly predicted positive mental health among both male and female adolescents, with a stronger effect observed among females. In contrast, the contribution of mental health literacy varied and remained comparatively weak. These results suggest that adaptive psychological capacities, particularly resilience, play a more central role in supporting adolescents' well-being than cognitive knowledge alone. Mental health promotion efforts in school settings should therefore integrate resilience-building strategies alongside mental health literacy education to foster sustainable positive mental health among adolescents.

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## Introduction

Mental health and well-being have gained increasing attention within global public health research and sustainable development frameworks. The integration of mental health into the Sustainable Development Goals underscores growing recognition that psychological well-being is fundamental to educational attainment, social functioning, and long-term productivity (World Health Organization [WHO], 2021). Despite these efforts, adolescents remain a population at heightened risk for mental health challenges, particularly in low- and middle-income countries where preventive and promotive services are often limited (Maramis et al., 2020; Putri et al., 2022).

Adolescence represents a transitional developmental stage marked by accelerated biological maturation alongside psychological and social adjustments. During this period, individuals face increasing academic demands, identity exploration, and changing social relationships, which may simultaneously provide opportunities for growth and increase vulnerability to psychological distress (Patalay & Fitzsimons,



2018; Eriksson et al., 2019). In response, contemporary research has increasingly shifted toward a positive mental health perspective that emphasizes strengths, well-being, and adaptive functioning rather than focusing exclusively on mental disorders (Sequeira et al., 2024). Previous research suggests that mental health literacy may influence adolescents' psychological outcomes indirectly through resilience, indicating that cognitive understanding alone is insufficient without adaptive psychological capacities (Zhank, et al., 2025).

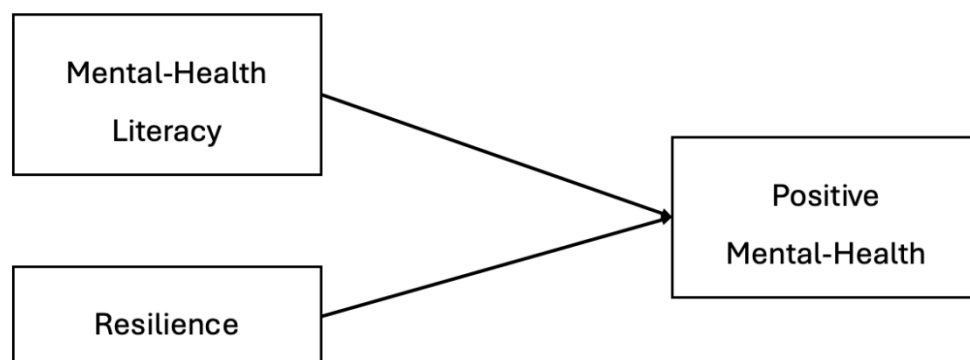
Positive mental health is commonly conceptualized as a multidimensional construct encompassing emotional well-being, psychological functioning, and social well-being. Adolescents with higher levels of positive mental health tend to demonstrate better emotional regulation, healthier interpersonal relationships, and more effective coping strategies in daily life (Eriksson et al., 2019; Sequeira et al., 2024). Conversely, lower levels of positive mental health have been associated with emotional difficulties, behavioral problems, and impaired social functioning (Patalay & Fitzsimons, 2018). Evidence from cross-national studies further indicates that adolescents in low- and middle-income countries often report lower levels of well-being, highlighting the importance of culturally responsive mental health promotion strategies (WHO, 2021).

Within adolescent mental health promotion, mental health literacy and resilience have been widely identified as important protective factors. Mental health literacy refers to a set of knowledge, beliefs, and skills that enable individuals to recognize mental health problems, reduce stigma, and seek appropriate help (Bjørnsen et al., 2019; Campos et al., 2022). Previous studies suggest that higher levels of mental health literacy are associated with improved recognition of mental health problems and more favorable attitudes toward help-seeking (Wei et al., 2018). However, empirical findings regarding the direct contribution of mental health literacy to positive mental health outcomes remain inconsistent, indicating that knowledge alone may be insufficient to promote flourishing (Campos et al., 2022).

Resilience is generally understood as a dynamic capacity that enables individuals to adapt positively to stress and adversity. During adolescence, resilience plays a critical role in buffering the negative effects of academic pressure, peer conflict, and social stressors (Fritz et al., 2018). Meta-analytic and systematic review evidence consistently demonstrates that resilience is positively associated with well-being and life satisfaction and negatively associated with psychological distress among adolescents (Liu et al., 2020; Pinto et al., 2021). Importantly, resilience is considered a modifiable psychological resource that can be strengthened through school-based interventions.

Although mental health literacy and resilience have been examined extensively as independent predictors of adolescent mental health, research investigating their combined contribution to positive mental health remains limited, particularly within Southeast Asian contexts. Many existing studies prioritize mental health problems or help-seeking behaviors rather than strengths-based outcomes such as positive mental health (Campos et al., 2022). Empirical evidence from Indonesia is especially scarce, underscoring the need for contextually grounded research.

Accordingly, this study aimed to examine the roles of mental health literacy and resilience in predicting positive mental health among adolescents in Semarang, Indonesia. By adopting a strengths-based public mental health perspective, the study seeks to contribute empirical evidence from a low- and middle-income country context and inform the development of integrated school-based mental health promotion strategies.



**Figure 1. Research Framework**

Based on this theoretical framework, the present study examines the roles of mental health literacy and resilience in predicting positive mental health among adolescents in Semarang.

#### Research Hypotheses

H1: Mental Health Literacy has a positive and significant effect on Positive Mental Health among adolescents.

H2: Resilience has a positive and significant effect on Positive Mental Health among adolescents.

H3: Mental Health Literacy and Resilience jointly predict Positive Mental Health among adolescents.

## Methods

### Participants

Participants were high school students aged 12–18 years enrolled in secondary schools in Semarang, Indonesia. Based on descriptive analysis, 52.3% of participants were female and 47.7% were male. The age distribution indicated that most participants were in mid-to-late adolescence, with 29.5% aged 16 years, 28.9% aged 17 years, and 28.5% aged 18 years. In terms of grade level, 38.6% of participants were in Grade 12, 31.2% in Grade 10, and 30.2% in Grade 11, reflecting typical urban high school demographics in Indonesia. Participants were recruited using a convenience sampling technique based on accessibility and willingness to participate.

### Mental Health Literacy

Mental health literacy was measured using the Mental Health Literacy Questionnaire – Short Version (MHLq-SV). This instrument assesses adolescents' knowledge and beliefs related to mental health, including understanding of mental health problems, reduction of erroneous beliefs and stereotypes, mental health first-aid skills, help-seeking behaviors, and self-help strategies. Higher scores indicate higher levels of mental health literacy. The MHLq-SV has been widely used in adolescent populations and has demonstrated acceptable psychometric properties in previous studies.

### Resilience

Resilience was assessed using the Brief Resilience Scale (BRS), which measures individuals' ability to recover from stress and adversity. The BRS conceptualizes resilience as the capacity to “bounce back” following challenging life experiences. Higher scores reflect greater levels of resilience. The scale has been validated across diverse adolescent populations.

### Positive Mental Health

Positive mental health was measured using the Positive Mental Health Scale, which evaluates multiple dimensions of psychological well-being, including personal satisfaction, prosocial attitude, self-control, autonomy, problem-solving, and self-actualization, and interpersonal relationship skills. This multidimensional conceptualization aligns with contemporary models of adolescent positive mental health.

### Procedure

Data collection was conducted in collaboration with a private school in Semarang. Following institutional approval, students were informed about the purpose and procedures of the study and assured of confidentiality and anonymity. Questionnaires were administered in online format using Google Forms during school hours under the supervision of the research team. Participation was voluntary, and students were informed that they could withdraw at any time without negative consequences.

### Ethical Considerations

The research procedures adhered to the ethical principles outlined in the Declaration of Helsinki and were approved by the Ethical Commission of Soegijapranata Catholic University (ethical clearance number: 0559-f/B.7.2/FP/XI/2024). Participation was voluntary, and all responses were collected anonymously.

### Data Analysis

Statistical analyses were conducted through statistical software. Preliminary analyses included descriptive statistics and assumption testing for normality, linearity, and multicollinearity. Pearson's product-moment correlation analysis was conducted to examine bivariate relationships among mental health literacy, resilience, and positive mental health. Regression analyses were conducted separately for male and female participants to explore potential gender differences. Statistical significance was set at  $p < 0.05$ .

## Results

### Descriptive Statistics

Descriptive analyses indicated a relatively balanced gender distribution, with 52.3% female and 47.7% male participants. Most participants were in mid-to-late adolescence, with 29.5% aged 16 years, 28.9% aged 17 years, and 28.5% aged 18 years. Regarding grade level, 38.6% of participants were in Grade 12, 31.2% in Grade 10, and 30.2% in Grade 11, reflecting typical high school demographics in urban Indonesian settings.



**Correlation Analysis**

Pearson’s product–moment correlation analysis revealed a moderate, positive, and statistically significant relationship between resilience and positive mental health ( $r = 0.505, p < 0.001$ ). This finding indicates that adolescents with higher levels of resilience tend to report higher levels of positive mental health.

In contrast, mental health literacy was not significantly correlated with positive mental health ( $r = 0.063, p = 0.277$ ). In addition, the correlation between mental health literacy and resilience was weak and not statistically significant ( $r = -0.112, p = 0.053$ ), suggesting that these two constructs operate relatively independently within this sample.

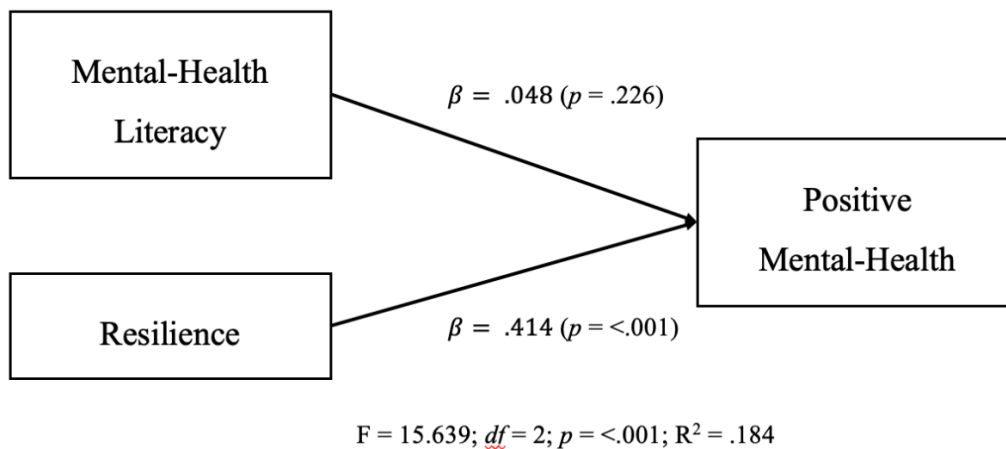
**Table 1. Correlation Analysis**

	Mental Health Literacy	Resilience	Positive Mental Health
Mental Health Literacy		0.112 ( $p=0.053$ )	0.063 ( $p=0.277$ )
Resilience	--	--	0.505 ** ( $p<0.001$ )
Positive Mental Health	--	--	

**Multiple Regression Analysis**

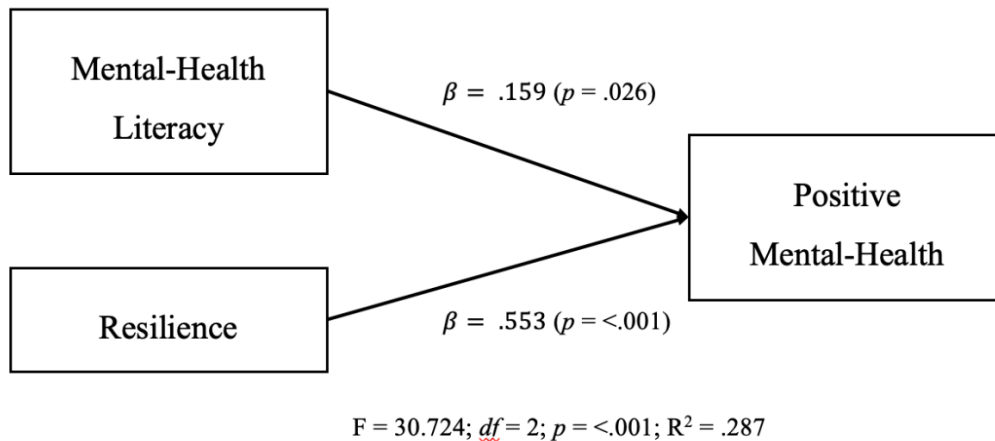
Multiple regression analysis was conducted to examine the combined effects of mental health literacy and resilience on positive mental health. Highlighting potential gender differences, regression analyses were conducted separately for male and female participants.

Among male adolescents, the regression model was statistically significant ( $F = 15.639, df = 2, p < 0.001$ ), explaining 18.4% of the variance in positive mental health ( $R^2 = 0.184$ ). Resilience was a significant predictor ( $\beta = 0.414, p < 0.001$ ), whereas mental health literacy was not ( $\beta = 0.048, p = 0.226$ ).



**Figure 2. Multiple Regression (Male)**

Among female adolescents, the regression model was also statistically significant ( $F = 30.724, df = 2, p < 0.001$ ), accounting for 28.7% of the variance in positive mental health ( $R^2 = 0.287$ ). Resilience remained a significant predictor ( $\beta = 0.553, p < 0.001$ ), while mental health literacy showed a weaker but statistically significant contribution ( $\beta = 0.159, p = 0.026$ ).



**Figure 3. Multiple Regression (Female)**

Overall, these findings indicate that resilience consistently predicts positive mental health across genders, with a stronger effect observed among female adolescents. Mental health literacy did not demonstrate a consistent direct association with positive mental health, suggesting that its influence may be indirect or context-dependent.

## Discussion

The present study examined the roles of mental health literacy and resilience in predicting positive mental health among adolescents in Semarang, Indonesia. The findings indicate that resilience is a consistent and significant predictor of positive mental health, whereas mental health literacy does not demonstrate a stable direct association with positive mental health. These findings align with a growing body of evidence highlighting resilience as a central psychological resource that supports adolescents' emotional regulation, adaptive coping, and overall well-being (Liu et al., 2020; Pinto et al., 2021). The present findings are consistent with emerging evidence indicating that resilience may function as a mediating mechanism linking mental health literacy and mental health outcomes among adolescents (Sun et al., 2025)

The strong relationship between resilience and positive mental health is consistent with prior research demonstrating that resilient adolescents are better able to manage academic stress, navigate peer relationships, and recover from everyday challenges (Fritz et al., 2018; Liu et al., 2020). From a positive mental health perspective, resilience may function as a proximal determinant of well-being, directly influencing emotional stability, autonomy, and interpersonal competence (Sequeira et al., 2024). The present findings further support calls for prioritizing resilience development within adolescent mental health promotion frameworks.

In contrast, mental health literacy did not show a significant direct association with positive mental health in the overall sample. This result is consistent with previous studies suggesting that increased mental health knowledge does not necessarily translate into improved subjective well-being (Wei et al., 2018; Campos et al., 2022). While mental health literacy plays a crucial role in reducing stigma and facilitating help-seeking behavior, it may operate primarily as an enabling or preventive factor rather than a direct contributor to flourishing (Bjørnsen et al., 2019; Campos et al., 2022). Without opportunities to apply knowledge in supportive environments, adolescents may struggle to convert cognitive understanding into lived psychological well-being.

The gender-based analyses provide additional insight into these relationships. Resilience emerged as a significant predictor of positive mental health among both male and female adolescents, with a stronger effect observed among females. This pattern is consistent with prior research indicating gender differences in emotional processing, coping strategies, and social support utilization during adolescence (Patalay & Fitzsimons, 2018). Mental health literacy showed a weaker and less consistent association with positive mental health across genders, further reinforcing the interpretation that its effects may be indirect or context-dependent. The stronger predictive effect of resilience on positive mental health among female adolescents may also be understood in light of gender differences in emotional processing and self-evaluative processes. Previous research has shown that emotional health and self-esteem are closely linked to well-being among adolescents, particularly among females, who tend to rely more on internal emotional resources and relational coping strategies (Moksnes & Espnes, 2017). This pattern may partially explain

why resilience demonstrates a more pronounced association with positive mental health in female adolescents.

From a contextual perspective, adolescents in Indonesia face multiple stressors, including academic demands, rapid digitalization, and sociocultural expectations related to achievement and family roles (Maramis et al., 2020; Putri et al., 2022). In such environments, resilience may represent a more immediately functional resource for maintaining well-being than cognitive knowledge alone. These findings suggest that school-based mental health programs focusing exclusively on psychoeducation may be insufficient unless complemented by interventions that actively build adaptive coping skills, emotional regulation, and problem-solving capacities.

The present study contributes to the adolescent mental health literature by extending evidence on positive mental health from a low- and middle-income country context. The findings support integrative mental health promotion models that combine mental health literacy education with resilience-building strategies to foster sustainable well-being (Pinto et al., 2021; Sequeira et al., 2024). Such approaches are particularly relevant for school settings, where adolescents spend substantial time and where preventive interventions can reach broad populations.

Empirical evidence further suggests that resilience-focused and social-emotional learning interventions can effectively enhance adolescents' coping skills, emotional regulation, and overall well-being when delivered systematically within school contexts

Several limitations should be acknowledged. The cross-sectional design limits causal inference, and reliance on self-report measures may introduce response bias. Future research should employ longitudinal and intervention-based designs to examine causal pathways and explore potential mediators or moderators, such as school climate, family support, and peer relationships (Campos et al., 2022). Additionally, qualitative approaches may provide deeper insight into how adolescents apply mental health literacy in daily life.

## Conclusion

This study demonstrates that resilience is a key psychological resource in predicting positive mental health among adolescents, whereas mental health literacy does not exert a consistent direct effect. These findings highlight the importance of integrating resilience-building strategies within school-based mental health promotion programs. While mental health literacy remains essential for awareness and help-seeking, strengthening adolescents' adaptive coping capacities is crucial for fostering sustainable well-being.

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## Conflicts of Interest:

All authors declare that there are no conflicts of interest.

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