# The Influence of an Authoritarian Parenting Style on Depressive Symptoms and Social Support Among Thai Undergraduates: The Mediating Role of Self-Esteem

Benjamaporn Rungsang<sup>1,\*</sup>, Sutinun Juntorn<sup>2</sup> & Thitiya Wangkawan<sup>2</sup>

<sup>1</sup>General Education, Faculty of Liberal Arts, Mahidol University, Nakhon Pathom, Thailand

<sup>2</sup>Division of Occupational Therapy, Faculty of Physical Therapy, Mahidol University, Nakhon Pathom, Thailand

\*Correspondence: General Education, Faculty of Liberal Arts, Mahidol University, Nakhon Pathom, Thailand. E-mail: nokkben.nok@gmail.com

Received: December 18, 2025	Accepted: January 20, 2025	Online Published: March 10, 2025
doi:10.5430/wje.v15n1p15	URL: https://doi.org/10.5430/wje.v15n1p15	

## Abstract

The purpose of the research was to investigate the mediating influence of self-esteem on the link between authoritarian parenting style, and social support, and depressive symptoms among Thai undergraduates. A cross-sectional study to employ a multi-stage random sampling approach, 439 students were selected from a university in central Thailand. Self-report questionnaires, including the Thai version of the patient health questionnaire for adolescents, the parenting style questionnaire, and Rosenberg's self-esteem scale, were utilized as research instruments. Descriptive statistics and structural equation modeling were used to explore the magnitude of direct and indirect effects on the depressive symptoms among the sample. The findings demonstrated that the modified model exhibited an acceptable fit with the data, revealing that a lower level of depressive symptoms is directly associated with lower levels authoritarian parenting style and higher levels of perceive social support and indirectly associated with these two variables through the mediating effect of self-esteem. The model accounted for 31% of the overall variance in prediction of depressive symptoms among undergraduate students. The findings highlighted the value of promoting self-esteem and social support in interventions targeted at preventing or addressing depressive symptoms in university students.

Keywords: authoritarian parenting style, depressive symptoms, self-esteem, social support, undergraduate students

## 1. Introduction

Depression is acknowledged as a public health issue, serving as the primary contributor to mental illness and disability on a global scale. According to reports from the World Health Organization (2024), a staggering 280 million individuals across all age groups are affected by depression worldwide (WHO, 2023). Young adults face a significant challenge, with 31.46 percent of those aged 20-24 years experiencing depressive symptoms globally (Institute of Health Metrics and Evaluation: IHME, 2021). University students are not exempt from this issue, as studies reveal a significant number of this demographic experience depression symptoms. In the United States, a report on adults showed that depressive symptoms were more prevalent among young adults aged 18 to 25, with slightly over 17 percent affected (Lee et al., 2023). Similarly, in Thailand, a considerable 23 percent of university students aged 18 to 26 reported depressive symptoms (Rochanahastin and Angkapanichkit, 2021), and 40 percent reported experiencing depressive symptoms (Calderon et al., 2021). This high prevalence of depressive symptoms is concerning, especially when considering its association with suicide rates. Studies indicate depressive symptoms increase risk of suicidal behaviors (Babore et al., 2016; Chang et al., 2018). According to the WHO, depression ranks as a primary risk factor for suicide (IHME, 2021; WHO, 2023), and suicide stands as the fourth most common cause of death among individuals aged 15-29 (IHME, 2021). Furthermore, Hongsrisuwang (2016) indicates that individuals with depression have a 15 times higher risk of engaging in suicidal behaviors than those without depression. The escalating prevalence of depressive symptoms in Thailand poses a growing problem, with significant implications for suicide rates. To address this issue, it is imperative to identify the risks and protective parameters

related to depression symptoms among students. Such insights can inform the development of interventions aimed at preventing or reducing the risk of depression symptoms among Thai university students.

# 1.1 Conceptual Framework and Literature Review

The conceptual framework employed in this work incorporates cognitive vulnerability to depression (Beck, 1973), parenting styles (Baumrind, 1971), as well as a comprehensive review of relevant studies. This framework aims to elucidate the intricate association between various factors contributing to depressive symptoms among university students, including authoritarian parenting styles, self-esteem, and social support.

# 1.2 Authoritarian Parenting Style and Depressive Symptoms

Depression, rooted in Beck's (1973) cognitive model, is characterized by the adverse cognitive triad, perceiving adverse perspectives of oneself, the world, and the future. The adverse cognitive triad increases vulnerability to depressive symptoms. The model posits that certain individuals are more prone to developing depressive symptoms due to harboring negative feelings, such as low self-esteem (Beck, 1973; Dawood et al., 2017). According to Baumrind (1971) parenting styles are defined as the typical ways parents approach child-rearing, which include two critical elements: parental responsiveness and parental demandingness. The parenting styles consist of authoritarian, permissive, authoritative, and neglect. Each style reflects variations in naturally occurring patterns of parental values, practices, and behaviors. Specifically, authoritarian parents are keen to mold, regulate, and assess their kids' conduct according to a rigid set of rules (Baumrind, 1971). Evidence shows that the effect of parenting style on depressive symptoms can be explained using family theory. Some previous studies indicate that family functioning has a significant negative predictive effect on adolescent depressive symptoms (Huang et al., 2022; Kang et al., 2024). Notably, the authoritarian parenting style has a significant relationship with depression among high school students (Besharatypoor and Khalidinia, 2018). Similarly, an authoritarian parenting style influences depressive symptoms, with adolescents raised in such an environment reporting higher levels of depressive symptoms compared to those exposed to other parenting styles (Inja et al., 2024).

## 1.3 Self-esteem and Depressive Symptoms

According to the cognitive model (Beck, 1973), self-esteem is defined as cognitive vulnerability to depressive symptoms (Huang et al., 2022; Kang et al., 2024). Numerous studies have conclusively demonstrated that adolescents who experience poor self-worth are more prone to exhibit depressive symptoms when it comes to their self-esteem (Babore et al., 2016; Besharatypoor and Khalidinia, 2018; Huang et al., 2022; Jannah et al., 2022; Wang et al., 2023). For instance, Babore et al. (2016) reported that depression symptoms in adolescence were significantly predicted by self-esteem. Similarly, self-esteem is a psychological risk factor and is negatively associated with depressive symptoms among undergraduate international students (Zeng et al., 2021).

# 1.4 Social Support and Depressive Symptoms

Social support refers to the perception of assistance as well as encouragement from relatives, close companions, and lovers. Studies indicate that parents, teachers, and friends consistently emerge as sources of support that play a protective role against depression in children and adolescents (Liu et al., 2021; Qi et al., 2020; Safwa et al., 2022). Social support will likely prevent the emergence of depressive symptoms (Gariépy et al., 2016; Liu et al., 2021). For instance, Liu et al. (2021) indicated that a greater frequency of social support was correlated with a lower degree of depressive symptoms. Meanwhile, Chang et al. (2018) and Jørgensen et al. (2023) found that teenagers who received less assistance were more likely to experience depressive symptoms. In particular, Gariépy et al. (2016) discovered that the only factor that significantly predicted depressive symptoms in college students was support from friends and family.

# 1.5 The Mediating Role of Self-Esteem

Several studies not only confirm the relationships and factors influencing depressive symptoms but also highlight the connection between self-esteem and depressive symptoms among adolescents (Besharatypoor and Khalidinia, 2018; Huang et al., 2022; Zeng et al., 2021). Additionally, other studies suggest a link between negative parenting styles and depression symptoms in adolescents, with self-esteem serving as a mediating factor in this relationship (Huang et al., 2022; Kang et al., 2024; Wang et al., 2023). For instance, a style of over-involved parenting, such as control and restriction on children (Wang et al., 2023) , impacts depressive symptoms among college students through self-esteem. Furthermore, Jannah et al. (2022) underscored that negative parenting styles are identified as causative factors for depression symptoms which also exert an impact on adolescent self-esteem. The findings also indicate that self-esteem has a mediating role between the indirect impact of authoritarian parenting styles and depressive symptoms.

Additionally, self-esteem is identified as a mediator between social support and depression symptoms. In a path analysis, perceived social support was found to have a considerable indirect impact on depressive symptoms through self-esteem (Chang et al., 2018; García et al., 2018; Jørgensen et al., 2023). This raises the question of whether depression symptoms in undergraduates are similarly mediated by self-esteem as they are by an authoritarian parenting style. Similarly, does the relationship between depression symptoms and perceived social support among undergraduates have a mediating role in self-esteem? Importantly, it remains unclear whether the findings of such a study apply to undergraduates. Therefore, this study hypothesizes that self-esteem serves as a mediator in the link between an authoritarian parenting style and depressive symptoms, as well as the link between social support and depressive symptoms among undergraduates. Figure 1 illustrates the proposed model.



Figure 1. The Hypothesized Model of Depressive Symptoms Among Undergraduate Students

# 1.6 Study Hypotheses

This work aims to evaluate the hypotheses as follows:

- 1) Authoritarian parenting style, self-esteem, and social support, all have a direct effect on depressive symptoms, and
- 2) Authoritarian parenting style and social support influence depressive symptoms through self-esteem.

# 2. Materials and methods

# 2.1 Setting and Sample

With respect to the hypothesis and purpose of the research methodology of this study, it was predictive correlation. The study aimed to examine the intricate association between various factors contributing to depressive symptoms in university students, including authoritarian parenting styles, self-esteem, and social support. The sample size determination followed the recommendation of Hair and colleague (2010), suggesting a ratio of 10 respondents per parameter estimate for structural equation modeling (SEM) (Hair et al., 2010). Consequently, a sample of 290 participants, considering 29 parameter estimates, was selected for this study. The participants consisted of undergraduate students aged between 18-23 years, proficient in reading and writing in Thai.

A multi-stage, random sampling approach was utilized to select the sample. Inclusion criteria required participants to be undergraduate students in the second semester of the academic year 2020, aged between 18-23 years, capable of reading and writing in Thai, as well as willing to enroll and participate in the research. The multi-stage random cluster sampling method was implemented, starting with the random selection of six out of 16 faculties. Subsequently, students from each chosen faculty were invited as well as participated voluntarily.

# 2.2 Ethical Considerations

Prior to the administration of questionnaires, the study obtained approval from the Mahidol University Central Institutional Review Board (MU-CIRB) under the reference number MU-CIRB 2019/319.0912. Participants were required to sign a consent form after being provided with detailed research information. They were made fully aware that their involvement in the research was entirely voluntary, and they could leave at any time without incurring any penalties. Every adolescent who was chosen was invited to take part and given a thorough explanation of every facet of the research. Moreover, they were made aware of the potential risks associated with discomfort because of the sensitive nature of certain questions. Moreover, participants experiencing distress while completing the questionnaire were

provided with information about local mental health support resources.

## 2.3 Research Instruments

Data collection was conducted utilizing five self-report questionnaires as follows:

A demographic Questionnaire: Developed by the principal investigator (PI), this questionnaire gathered participants' demographic data including age, sex, religion, faculty, academic degree, parental status, marital status, and living arrangements.

*Thai version of the Patient Health Questionnaire for Adolescents (PHQ-A)*: Adapted as well as translated into Thai by Panyawong and colleague (Panyawong et al., 2020), this questionnaire comprised nine items assessing the severity of depressive symptoms experienced over the past two weeks. Responses ranged from 0 (not at all) to 3 (almost every), with scores spanning between 0 and 27. Greater scores indicated more severe depressive symptoms, with scoring categories indicating minimal, mild, moderate, and severe symptoms. The Thai version's reliability, as measured by Cronbach's alpha, was .85.

*Authoritarian Parenting Style*: Modified and translated into Thai by Jarern-Jun (Jarern-jun, 2017), this questionnaire consisted of 22 items assessing various parenting styles, including authoritative, authoritarian, permissive, and neglectful styles. For this study, six items were selected to specifically identify authoritarian parenting style, with responses rated on a Likert scale spanning between 1 and 5. The reliability of each parenting style, as indicated by Cronbach's alpha, was .69.

*The Rosenberg's Self-Esteem Scale (RSE-Thai version)*: Translated into Thai by Wongpakaran and Wongpakaran (Wongpakaran and Wongpakaran, 2011), this scale assessed individuals' self-esteem through 10 statements, split evenly between positive (e.g., "sense that I possess several excellent characteristics") and negative (like "I surely sense worthless at moments) affirmations. Each aspect was scored from 0 to 5, with total scores spanning between 0 and 40. Fewer scores suggested lower self-esteem. The scale's reliability, measured by Cronbach's alpha, was .72.

*The Multi-dimensional Scale of Perceived Social* Support *(the revised MSPSS-Thai version)*: Translated into Thai by Nahathai and Tinakon (2012), this scale comprised 12 aspects rated on a Likert scale spanning between 1 and 7. It measured individuals' perceptions of the social support they received from lovers, family, as well as friends. Total scores spanned between 1 and 84, with greater scores indicating higher perceived social support. The scale indicated high reliability, with a Cronbach's alpha coefficient of .92.

## 2.4 Data Collection

Following approval from the Institutional Review Board (IRB), participants accessed the survey by scanning a QR code and were required to review an information sheet before providing informed consent. Assistance was available for participants, and they were provided with help-seeking information in case of distress. Additionally, contact information for mental health consulting services was provided to survey respondents who indicated depression. Data collection within each faculty setting took approximately one hour.

## 2.5 Data Analysis

The demographic traits of the sample were identified using descriptive statistics. The assumptions necessary for structural equation modeling (SEM), such as testing for outliers, normality, linearity, and multicollinearity, were assessed. Subsequently, the hypothesized model was evaluated using SEM via the AMOS program. The strength of relationships among study variables was estimated using the maximum likelihood method.

## 3. Results

There were 439 undergraduate participants in this study, and 83% of them were female. The age range of the participants was 18–25 years old, with a mean age of 19.97 (SD = 1.31). The majority of participants identified as Buddhist. About half of them were first-year students. Over half (53.30%) resided with their families, and 76.10% reported that their parents were married.

The descriptive statistics for the study variables, including depressive symptoms, authoritarian parenting styles, self-esteem, and social support, are presented in Table 1. Prior to subsequent analyses, the data from the 439 undergraduate students were examined for outliers, normality, multicollinearity, and heteroscedasticity.

Variable	Interval range		Mean	SD
	Possible	Actual		
Depressive symptoms	0 - 27	0 - 25	6.51	4.27
Authoritarian parenting style	1 - 30	6 - 30	25.06	4.58
Self-esteem	0 - 40	20 - 30	24.61	1.49
Social support	1 - 84	12 - 84	62.92	4.58

## **Table 1.** Descriptive Statistics of Study Variables (n = 439)

Structural equation modeling (SEM) was applied to simultaneously analyze the potential relationships between variables. Table 2 shows that, based on the goodness of indicators, the postulated model's fit was not satisfactory, resulting in increased residue error adjustment. Finally, the result indicates the goodness of fit of the modified model, in which all path coefficients in the modified model were statistically significant. In addition, an authoritarian parenting style, self-esteem, and social support accounted for 31 percent of the variance in depressive symptoms among undergraduates (see Figure 2). Furthermore, an authoritarian parenting style, self-esteem, and social support demonstrated statistically significant direct effects on depressive symptoms. Self-esteem emerged as a mediator between authoritarian parenting style and social support as well as depressive symptoms. Notably, there was total support for the idea. Table 3 provides specifics on the direct, indirect, and total effects of depressive symptoms on undergraduates.

**Table 2** Statistics of Model Fit Index between the Hypothesized and the Modified Model of Depressive Symptoms among Thai Undergraduate Students (n = 439)

Model fit criterion	Acceptable score	Hypothesized model	Modified model
CMIN	p > .05	$x^2 = 153.68$	$x^2 = 70.29$
		p = .00 (df = 60)	p = .10 (df = 56)
CMIN/df	< 2	2.56	1.26
GFI	.90 - 1.00	.95	.98
AGFI	.90 - 1.00	.95	.99
RMSEA	< .05	.06	.02

<u>Note</u> CMIN= minimum Chi-square, GFI = goodness of Fit Index, AGFI = adjusted goodness of fit index, and RMSEA = root square error of approximation

Table 3. Direct, indirect, and total effects of the modified model of depressive symptoms among Thai undergraduate
students $(n = 439)$

Causal variable	Self-esteem			Depressive Symptoms		
	DE	IE	TE	DE	IE	TE
Authoritarian parenting style	20*	-	20*	.23**	04**	.27**
Self-esteem	-	-	-	21**	-	21**
Social support	.17**	-	.17**	30**	.02**	32**
	$R^2 = .10$			$R^2 = .31$		

\* *p* < .05, \*\* *p* < .01

**Note:** DE = Direct effect, IE = Indirect effect, TE = Total effect



Figure 2. The Modified Model of Depressive Symptoms among Undergraduate Students

## 4. Discussion

The results of the present study support the hypothesized model of depressive symptoms among Thai university students, highlighting significant direct predictors such as authoritarian parenting style, self-esteem, and social support.

This study revealed a direct positive effect of an authoritarian parenting style on depressive symptoms, suggesting that undergraduate students raised with this parenting style are more susceptible to experiencing depressive symptoms. This aligns with Baumrind's (1971) characterization of authoritarian parents who exhibit high expectations but poor acceptance, potentially leading to increased vulnerability to depressive symptoms. Consistently, prior research in Nigeria (Inja et al., 2024), Indonesia (Jannah et al., 2022), and China (Huang et al., 2022) demonstrate higher levels of depressive symptoms among adolescents subjected to an authoritarian parenting style.

Additionally, this study found that self-esteem had a direct negative effect on depressive symptoms. According to the cognitive vulnerability model of depression, individuals with low self-esteem may exhibit mental and behavioral traits that predispose them to depressive symptoms (Huang et al., 2022). This finding corresponds with a previous study (Baboreet et al., 2016), indicating that self-esteem serves as a significant predictor of depressive symptoms during adolescence. Similarly, Jafari et al. (2021) suggests that self-esteem acts as a psychological risk factor for foreign undergraduate students, leading to poor self-evaluations and an increased likelihood of experiencing depressive symptoms

Social support showed a significant direct negative effect on depressive symptoms. The pathway from social support to depressive symptoms was found to be significant in the hypothesized model and it fitted the sample. This indicates that social support has a significant role in influencing depressive symptoms among undergraduate students. Perceiving a high level of support from family, friends, and significant others fostered feelings of love, acceptance, and encouragement, thereby cultivating positive relationships and reducing the likelihood of developing emotional distress and depressive symptoms (Huang et al., 2022). This aligns with findings from a cross-sectional study conducted among adolescents in China (Liu et al., 2021), which revealed that a greater frequency of social support was related to lower levels of depressive symptoms. Conversely, Qi et al. (2020) also demonstrated that low levels of support are linked to a higher prevalence of depressive symptoms among adolescents in China. Moreover, Gariépy et al. (2016) conducted a study in the United Kingdom and found that perceived support from friends and family was found to be a significant protective factor against depressive symptoms among university students. These results highlight the significance of social support in reducing undergraduates' likelihood of experiencing depressive

symptoms, underscoring the need for interventions aimed at enhancing support networks within academic communities.

A significant discovery of this research is the indirect influence of authoritarian parenting style on depressive symptoms among undergraduate students, mediated by self-esteem. The study also reveals a similar indirect impact of authoritarian parenting style on depressive symptoms, with self-esteem serving as the mediator (Gariépy et al., 2016). The pathway from authoritarian parenting styles to depressive symptoms through self-esteem was deemed significant in the hypothesized model and also aligned well with the sample data. This indicates that high levels of authoritarian parenting styles are related to decreased self-esteem, which in turn may exacerbate depressive symptoms. Thus, a diminished sense of self-worth could result in the worsening of depressive symptoms among undergraduate students. These findings highlight the mediating role of self-esteem in the correlation between authoritarian parenting styles and symptoms of depression among undergraduates. This outcome corresponds to prior works which also suggest that self-esteem acts as a plausible mediator between authoritarian parenting styles and depressive symptoms (Huang et al., 2022; Jannah et al., 2022; Kang et al., 2024; Wang et al., 2023). Overall, the findings of the present study underscore the importance of considering the indirect pathways through which parenting styles influence mental health outcomes among undergraduate students.

Higher levels of perceived social support was directly associated with lower depressive symptoms through self-esteem. This indicates that for the undergraduates, a high level of perceived support from parents, friends, and other significant persons was directly associated with lower depressive symptoms through self-esteem. The findings confirm results of several studies which show that self-esteem is a variable that mediates social support and depressive symptoms (Chang et al., 2018; García et al., 2018; Jørgensen et al., 2023).

# 5. Conclusions

The developed model for depressive symptoms among Thai undergraduate students demonstrated a good fit with the data, with it accounting for 31 percent of the total variance in predicting depressive symptoms among Thai undergraduate students. This model reveals that a lower level of depressive symptoms is directly associated with lower levels of authoritarian parenting styles and higher levels of perceive social support, while there is an indirect association with these two variables through the mediating effect of self-esteem in this context. It is recommended that universities develop programs that can promote self-esteem and social support targeted at preventing or addressing depressive symptoms in university students. Thus, future research should add other factors such as personality and coping styles in the model for further testing. Including these factors may provide a great level of specificity.

# References

- Alsubaie, M. M., Stain, H. J., Webster, L. A. D., & Wadman, R. (2019). The role of sources of social support on depression and quality of life for university students. *International Journal of Adolescence and Youth*, 24(4), 484-496. https://doi.org/10.1080/02673843.2019.1568887
- Babore, A., Trumello, C., Candelori, C., Paciello, M., & Cerniglia, L. (2016). Depressive Symptoms, Self-Esteem and Perceived Parent-Child Relationship in Early Adolescence. *Frontiers in Psychology*, 7. https://doi.org/10.3389/fpsyg.2016.00982.
- Baumrind, D. (1971). Current patterns of parental authority. *Developmental Psychology*, 4(1, Pt.2), 1-103. https://doi.org/10.1037/h0030372.
- Beck, A. T. (1973). *The Diagonsis and Managent of Depression*. Philadelpgia: New York: University of Pensilvania Press.
- Besharatypoor, M., & Khalidinia, A. (2018). Presenting a Causal Model for Depression in Adolescents Based on the Relationship Between Parenting Styles Through the Mediating Role of Parent-Adolescence Conflict. Avicenna Journal of Neuropsychophysiology, 5(3), 131-138. https://doi.org/10.32598/ajnpp.5.3.131
- Calderon, R., Jr, Pupanead, S., Prachakul, W., & Kim, G. (2021). Happiness, perceived stress, psychological well-being, and health behaviors of Thai university students: preliminary results from a multinational study on well-being. *Journal of American college health: J of ACH*, 69(2), 176-184. https://doi.org/10.1080/07448481.2019.1657871

- Chang, C.-W., Yuan, R., & Chen, J.-K. (2018). Social support and depression among Chinese adolescents: The mediating roles of self-esteem and self-efficacy. *Children and Youth Services Review*, 88, 128-134. https://doi.org/10.1016/j.childyouth.2018.03.001
- Dawood, E., Mits, R., Ghadeer, H.A., & Alrabodh, F. (2017). Assessment of Depression and Its Contributing Factors among Undergraduate Nursing Students. *International Journal of Nursing*, 4.
- García, O. F., Serra, E., Zacarés, J. J., & García, F. (2018). Parenting styles and short- and long-term socialization outcomes: A study among Spanish adolescents and older adults. *Psychosocial Intervention*, 27, 153-161. https://doi.org/10.5093/pi2018a21
- Gariépy, G., Honkaniemi, H., & Quesnel-Vallée, A. (2016). Social support and protection from depression: systematic review of current findings in Western countries. *The British journal of psychiatry: the journal of mental science*, 209(4), 284-293. https://doi.org/10.1192/bjp.bp.115.169094
- Hair, J. L., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (5th ed.). New York: Pearson.
- Hongsrisuwang, N. (2016). Depression. Huachiew Chalermprakiet University journal, 19, 105-18. (in Thai).
- Huang, X., Hu, N., Yao, Z., & Peng, B. (2022). Family functioning and adolescent depression: A moderated mediation model of self-esteem and peer relationships. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.962147
- Inja, J. K., Abikoye, G. E., & Effiong, B. A. (2024). Influence of Perceived Parenting Styles, Self-Esteem and Academic Achievement on Depressive Symptoms among Adolescents in Uyo, Akwa Ibom State. *The International Journal of Indian Psychology*, 11, 36-50. https://doi.org/index.php/nacp/article/view/12
- Institute of Health Metrics and Evaluation. (2021). *Global Health Data Exchange (GHDx)*. Retrieved May 3, 2024 from https://vizhub.healthdata.org/gbd-results/
- Jafari, M., Salimi, M., Fattahi, H., Rezaei, M., & Ashtarian, H. (2021). The Correlation of Self-esteem and Depression in the Students of Kermanshah University of Medical Sciences, Iran. *Journal of Health Reports and Technology*, 7(4), e116689. https://doi.org/10.5812/ijhls.116689
- Jannah, K., Hastuti, D., & Riany, Y. E. (2022). Parenting style and depression among students: The mediating role of self-esteem. *Psikohumaniora: Jurnal Penelitian Psikologi*, 7(1), 39-50. https://doi.org/10.21580/pjpp.v7i1.9885
- Jarern-jun, T. (2017). Health belief, self-efficacy, parenting styles and self-care behavior of the high school students at Satri Nonthaburi in Nonthaburi Province. *Journal of Social Sciences and Humanities Kasetsart University*, 40(1), 69-84. Retrieved from https://so04.tci-thaijo.org/index.php/socku/article/view/79753
- Jørgensen, M., Smith, O. R. F., Wold, B., Bøe, T., & Haug, E. (2023). Tracking of depressed mood from adolescence into adulthood and the role of peer and parental support: A partial test of the Adolescent Pathway Model. SSM Population Health, 23, 101440. https://doi.org/10.1016/j.ssmph.2023.101440
- Kang, B., Li, Y., Zhao, X., Cui, X., Qin, X., Fang, S., Chen, J., & Liu, X. (2024). Negative parenting style and depression in adolescents: A moderated mediation of self-esteem and perceived social support. *Journal of* affective disorders, 345, 149-156. https://doi.org/10.1016/j.jad.2023.10.132
- Lee, B., Wang, Y., Carlson, S. A., Greenlund, K. J., Lu, H., Liu, Y., Croft, J. B., Eke, P. I., Town, M., & Thomas, C. W. (2023). National, State-Level, and County-Level Prevalence Estimates of Adults Aged ≥18 Years Self-Reporting a Lifetime Diagnosis of Depression United States, 2020. MMWR. Morbidity and mortality weekly report, 72(24), 644-650. https://doi.org/10.15585/mmwr.mm7224a1
- Liu, L., Liu, C., Ke, X., & Li, N. (2020). Mediating effect of social support on the association between life events and depression: A cross-sectional study of adolescents in Chongqing China. *Medicine (Baltimore), 99*(51), e22627. https://doi.org/10.1097/md.00000000022627
- Panyawong, W., Pavasuthipaisit, C., & Santitadakul, R. (2020). Validation of the Thai Version of the Patient Health Questionnaire for Adolescents (PHQ-A) in adolescent psychiatric patients. *International Journal of Child Development & Mental Health*, 8(1), 30-40.
- Qi, M., Zhou, S. J., Guo, Z. C., Zhang, L. G., Min, H. J., Li, X. M., & Chen, J. X. (2020). The Effect of Social Support on Mental Health in Chinese Adolescents During the Outbreak of COVID-19. *The Journal of* adolescent health: official publication of the Society for Adolescent Medicine, 67(4), 514-518.

https://doi.org/10.1016/j.jadohealth.2020.07.001

- Rochanahastin A., & Angkapanichkit J. (2021). Depression Situation for Thai University Students. Suranaree Journal of Social Science, 15(1), 61-86. https://doi.org/10.55766/CWUS3563.
- Safwa K., & Shari B. (2022). Relationship with parents, Perceived social support and Self-esteem among Young adults. *International Journal of Indian Psychology*, 10(2), 1358-1379. https://doi.org/10.25215/1002.136
- Wang, C., Shi, H., & Li, G. (2024). Helicopter parenting and college student depression: the mediating effect of physical self-esteem. *Frontiers in psychiatry*, 14, 1329248. https://doi.org/10.3389/fpsyt.2023.1329248
- Wongpakaran, N., & Wongpakaran, T. (2012). A revised Thai Multi-Dimensional Scale of Perceived Social Support. *The Spanish journal of psychology*, 15(3), 1503-1509. https://doi.org/10.5209/rev\_sjop.2012.v15.n3.39434
- Wongpakaran, T., & Wongpakaran, N. (2011). Confirmatory factor analysis of Rosenberg Self-Esteem Scale: A study of Thai student sample. *Journal of the Psychiatrist Association of Thailand*, 56(1), 59-70. (in Thai).
- World Health Organization. (2023). Depression: Fact Sheet. Retrieved May 3, 2024, from https://www.who.int/news-room/fact-sheet/detail/ depression.
- Zeng, F., Brunsting, N., Brocato, N., Kiang, L., Jayawickreme, E., & Kathuria, S. (2021). Biopsychosocial Factors Associated with Depression Among U.S. Undergraduate International Students. (2021). Journal of International Students, 12(1), 101-122. https://doi.org/10.32674/jis.v12i1.2914

#### Acknowledgments

We would like to extend our gratitude to Mahidol University for providing partial funding to support this project. We are also grateful to all the participants who generously contributed their time and insights to this study.

#### Authors contributions

Dr. Rungsang and Asst. Prof. Dr. Juntorn were responsible for study design and revising. Dr. Wangkawan was responsible for data collection. Dr. Rungsang drafted the manuscript. Asst. Prof. Dr. Juntorn and Dr. Wangkawan revised it. All authors read and approved the final manuscript.

#### Funding

This project is supported by Mahidol University [project number A36/2563].

#### **Competing interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### **Informed consent**

Obtained.

#### Ethics approval

The Publication Ethics Committee of the Sciedu Press.

The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

#### Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

### Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

#### Data sharing statement

No additional data are available.

#### **Open access**

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (http://creativecommons.org/licenses/by/4.0/).

# Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.