

# ปัจจัยทำนายความเชื่อมั่นในการเลี้ยงดูบุตรของมารดาัยรุ่น Predicting Factors of Maternal Parenting Self-Efficacy Among Adolescent Mothers

## นิพนธ์ต้นฉบับ

## Original Article

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## บทคัดย่อ

**วัตถุประสงค์:** เพื่อทำนายปัจจัยที่มีอิทธิพลต่อความเชื่อมั่นในการเลี้ยงดูบุตรของมารดาัยรุ่น วิธีการศึกษา: กลุ่มตัวอย่างประจำเดือนของมารดาัยรุ่นหลังคลอดที่คัดเลือกจากโรงพยาบาลในภาคตะวันออกของประเทศไทยข้อมูลถูกรวบรวมโดยใช้แบบสอบถามแบบปริบัติ วิเคราะห์โดยพหุคุณ (multiple regression analysis) ดำเนินการโดยใช้โปรแกรม SPSS เพื่อตรวจสอบผลทำนายของตัวแปรต่าง ๆ ผลการศึกษา: การวิเคราะห์ที่ดัดถอยพหุคุณให้เพื่อตรวจสอบว่า การบรรลุบทบาทมารดา (Maternal Role Attainment: MRA), เป้าหมายชีวิตวัยรุ่น (Adolescent Life Goals: ALGs), การสนับสนุนทางสังคม (Social Support: SS) และอายุของมารดาัยรุ่น (Adolescent Mother Age: AMA) สามารถทำนายความเชื่อมั่นในการเลี้ยงดูบุตรของมารดา (Maternal Parenting Self-Efficacy: MPSE) ผลการวิเคราะห์ที่ดัดถอยโดยรวมมีอัตราส่วนตัวค่าทางสถิติ ( $F(4, 195) = 44.753, p < .001$ ) โดยตัวแปรทำนายทั้งหมดสามารถอธิบายความแปรปรวนของ MPSE ได้ร้อยละ 47.9 ( $R^2 = .479$ , Adjusted  $R^2 = .468$ , Durbin-Watson = 1.852) ผลการวิเคราะห์ระบุว่าตัวแปรทำนายทั้งหมดมีอิทธิพลต่อ MPSE อย่างมีนัยสำคัญ โดยเฉพาะตัวแปร MRA ( $\beta = .513, p < .001$ ), SS ( $\beta = .188, p = .001$ ), ALGI ( $\beta = .183, p = .001$ ) และอายุของมารดา ( $\beta = .117, p = .027$ ) ซึ่ง MRA เป็นตัวแปรที่มีอิทธิพลมากที่สุด แสดงถึงบทบาทสำคัญในการส่งผลต่อความเชื่อมั่นในการเลี้ยงดูบุตรของมารดาัยรุ่น สรุป: ระดับ MRA, ALGs, SS ที่สูงขึ้น และอายุของมารดาัยรุ่นที่มากขึ้นสัมพันธ์กับความเชื่อมั่นในการเลี้ยงดูบุตรที่สูงขึ้น เมื่อพิจารณาตัวแปรทำนายพบว่า MRA เป็นตัวแปรที่มีอิทธิพลมากที่สุด การแทรกแซงที่มุ่งเน้นการเสริมสร้างบทบาทมารดา การตั้งเป้าหมายชีวิตชิ้งบาง และการเพิ่มการสนับสนุนทางสังคมอาจช่วยพัฒนาความเชื่อมั่นในการเลี้ยงดูบุตรของมารดาัยรุ่นได้อย่างมีประสิทธิภาพ

**คำสำคัญ:** วัยรุ่น; มารดา; ความเชื่อมั่นในการเลี้ยงดูบุตรของมารดา; ความเชื่อมั่นในตัวเอง; การเลี้ยงดูบุตร

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## Abstract

**Objective:** To predict factors of maternal parenting self-efficacy among adolescent mothers. **Methods:** A sample of postpartum adolescent mothers was recruited from the hospitals in the eastern arena, Thailand. Data were collected using self-administrative questionnaires. SPSS software was used to perform multiple regression analysis to test the predictive effects of the variables. **Results:** The multiple regression analysis was conducted to examine whether Maternal Role Attainment (MRA), Adolescent Life Goals (ALGs), Social Support (SS), and Adolescent Mother Age (AMA) could predict Maternal Parenting Self-Efficacy (MPSE). The overall regression model was statistically significant,  $F(4, 195) = 44.753, p < .001$ , indicating that the four predictors collectively explained 47.9% of the variance in MPSE ( $R^2 = .479$ , Adjusted  $R^2 = .468$ , Durbin-Watson = 1.852). This suggests that the model met the assumption of independence of residuals. All four predictors significantly contributed to MPSE. Specifically, MRA ( $\beta = .513, p < .001$ ), SS ( $\beta = .188, p = .001$ ), ALGI ( $\beta = .183, p = .001$ ), and age of mother ( $\beta = .117, p = .027$ ) were significant predictors of MPSE. Among these, MRA was the strongest predictor, indicating its critical role in influencing maternal parenting self-efficacy among adolescent mothers. **Conclusion:** Higher levels of MRA, ALGs, SS, and older adolescent mothers' age were associated with greater MPSE. Among these predictors, MRA was the most influential factor. Interventions that focus on enhancing maternal role attainment, setting positive life goals, and strengthening social support may effectively improve parenting self-efficacy among adolescent mothers.

**Keywords:** adolescent; mothers; maternal parenting self-efficacy; self-efficacy; parenting

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## Introduction

Adolescence is defined as the period between childhood and adulthood, typically ranging from ages 10 to 19, and represents a unique stage of human development as well as a critical window for establishing the foundations of lifelong health.<sup>1</sup> In Thailand, adolescent pregnancy remains a significant public health concern, with adolescent mothers aged 15–19 accounting for 8.1% of all live births nationwide.<sup>2</sup> These figures highlight the urgent need for focused

interventions and comprehensive support systems to protect and promote the health of adolescent mothers. Becoming a mother during adolescence presents considerable challenges that may disrupt a young woman's life balance, as adolescent mothers must assume parental responsibilities while simultaneously undergoing ongoing physical, emotional, and social development.<sup>3,4,5,6</sup> During this transitional stage, adolescents are actively forming personal goals, interests, and

social relationships, while striving for academic success and broader life achievements.<sup>7,8,9</sup> Maintaining life balance during adolescence is therefore essential, as it is closely linked to positive developmental outcomes and the successful attainment of both educational and personal goals.<sup>7</sup>

During the transition to parenthood, adolescent mothers face unique challenges, including limited knowledge of newborn care, insufficient social support, and heightened emotional stress.<sup>10</sup> In this context, maternal parenting self-efficacy (MPSE) plays a crucial role in shaping the quality of care provided to infants. MPSE is defined as a mother's belief in her ability to effectively care for and nurture her infant, encompassing confidence in overcoming parenting challenges and in promoting children's development and positive adaptation.<sup>11,12</sup> High MPSE has been associated with positive mother–infant interactions, improved maternal mental health, and enhanced infant growth and development.<sup>13,14</sup> In contrast, low MPSE has been linked to difficulties in early mother–infant bonding and poorer child developmental outcomes.<sup>15</sup> For adolescent mothers, who often have limited prior experience in infant care, MPSE is particularly critical, as it influences resilience, decision-making, and adaptability when responding to parenting demands.<sup>16,17</sup>

Several factors, including maternal role attainment (MRA), adolescent life goals (ALGs), social support (SS), and age at motherhood (AMA), are expected to influence maternal parenting self-efficacy (MPSE) by enhancing mothers' confidence, competence, and ability to manage parenting challenges. Self-efficacy refers to an individual's belief in their capability to organize and execute actions required to achieve specific goals, influencing behavior through cognitive, motivational, affective, and selective processes.<sup>18</sup> Within the parenting context, MPSE reflects mothers' confidence in performing newborn care tasks such as feeding, soothing, and nurturing, and is associated with improved maternal mental health, infant psychological development, and the quality of mother–infant interactions.<sup>11,13,14,16,19,20</sup> MRA is a multidimensional, adaptive developmental process through which a woman acquires competence in the maternal role and integrates maternal behaviors into her identity as a mother.<sup>21,22,23</sup> The transition to motherhood involves physical challenges, emotional stress, role changes, and psychosocial adaptation, all of which contribute to maternal development.<sup>21,24,25</sup> Empirical evidence indicates a strong

association between MRA and maternal self-confidence ( $r = 0.652$ ,  $p < .001$ ). Successful MRA provides adolescent mothers with mastery experiences and role competence, strengthening confidence, improving mother–infant interactions, and ultimately enhancing MPSE.<sup>21,22,24</sup> ALGs represent a key developmental process in which adolescents evaluate and construct goals that guide behavior and decision-making over time.<sup>26</sup> Life goals reflect identity formation, future aspirations, and purpose, while perceptions of goal importance and attainability influence motivation, resilience, and life satisfaction.<sup>7,27,28</sup> For adolescent mothers, ALGs shape adaptation to motherhood by facilitating life balance, time management, and the integration of parental responsibilities with personal aspirations, social relationships, societal roles, and spiritual practices, thereby directly influencing MPSE.<sup>27,29,30</sup> SS refers to both perceived and actual support received from individuals within a social network and includes informational, instrumental, appraisal, and emotional support.<sup>31</sup> Support from family members, partners, peers, and the community enhances maternal competence, reduces psychological distress, and improves mother–infant interactions among adolescent mothers.<sup>16,32,33</sup> Consistent with this, previous research has shown that higher social support is associated with stronger mother–infant bonding, while psychological distress and older maternal age negatively predict bonding outcomes.<sup>10</sup> SS also promotes co-parenting and positive family dynamics, indirectly strengthening MPSE. Despite extensive research on MPSE, limited studies have examined the combined effects of MRA, ALGs, SS, and AMA on MPSE among adolescent mothers. Most existing evidence is derived from adult populations, restricting understanding of the unique developmental, social, and environmental influences affecting younger mothers. Addressing this gap is essential for informing interventions aimed at enhancing adolescent mothers' confidence, parenting skills, and capacity to respond sensitively to infant needs. Therefore, MRA, ALGs, SS, and AMA are hypothesized to collectively influence MPSE among adolescent mothers.

In terms of geographic distribution, Chonburi, Rayong, and Chachoengsao Provinces reported adolescent mothers aged 15–19 years in Thailand, accounting for 6.1%, 8.9%, and 9.5%, respectively. These three provinces are located in the Eastern Economic Corridor (EEC), a special economic

development zone characterized by rapid industrialization, labor migration, and urban expansion.<sup>34</sup> Such contextual factors may increase adolescents' vulnerability to early pregnancy and limit access to consistent social and family support. This region was considered an appropriate setting for investigating factors associated with maternal parenting self-efficacy among adolescent mothers. Therefore, this study aims to examine MPSE among adolescent mothers and identify **key** predictors, including MRA, ALGs, SS, and AMA, to inform the development of evidence-based programs supporting adolescent mothers and promoting optimal child development.

### Research Questions

1. What is the level of maternal parenting self-efficacy (MPSE) among adolescent mothers in the Eastern Economic Corridor (EEC) of Thailand?
2. What are the relationships between maternal role attainment (MRA), adolescent life goals (ALGs), social support (SS), and adolescent mothers' age (AMA) and maternal parenting self-efficacy among adolescent mothers?
3. To what extent do maternal role attainment, adolescent life goals, social support, and adolescent mothers' age predict maternal parenting self-efficacy among adolescent mothers in the EEC region?

## Methods

This study employed a predictive design to test the predictive relationships between MPSE among adolescent mothers.

A sample of postpartum adolescent mothers was recruited from the hospitals in the Eastern Economic Corridor (EEC) of Thailand.

The sample size was determined using a rule-of-thumb approach, requiring a minimum of 30 participants per independent variable. With four independent variables, the minimum required sample size was 120; however, a total of 200 adolescent mothers were recruited to enhance statistical power, account for an expected 20% dropout, and ensure no outliers in the dataset.<sup>35</sup>

The inclusion criteria were age 15–19 years, 1–2 months after childbirth, no complications during delivery and postpartum periods, no postpartum psychiatric disorders, having healthy full-term infants aged 1–2 months, taking any

part in raising their child, living with her husband, ability to communicate, read, and write fluently in Thai and having access to a functional mobile phone. The exclusion criteria were unable to complete participation in the study, development of maternal or infant complications during the study, withdrawal of consent during the study, occurrence of severe stressful events during data collection, and incomplete or unanalyzable data. A simple random sampling technique was employed to recruit participants, resulting in a total of 200 adolescent mothers. The target population comprised Thai postpartum adolescent mothers aged 15–19 years who had delivered their infants 1–2 months prior (2023–2024) and resided in the Eastern Economic Corridor (EEC) of Thailand. The sample included adolescent mothers attending postpartum health check-up services at four hospitals (Buddhasothorn, Chonburi, Rayong, and Banglamung) across three provinces (Chachoengsao, Chonburi, and Rayong). Hospital selection included three regional hospitals (Chonburi, Rayong, and Chachoengsao) and one general hospital (Banglamung), chosen based on their capacity to provide maternal health services and serve adolescent mothers. This selection ensured representation of both regional and general hospitals, providing a comprehensive perspective of maternal healthcare across facility types in the EEC. A simple random sampling technique was used for participant selection. Eligible adolescent mothers were assigned sequential numbers upon receiving services, which were then placed in a container and randomly drawn to obtain the study sample. Participation was voluntary, based on consent and willingness to share information with the researcher.

### Research instruments

**A demographic record form** was used to collect data on adolescent mother age, religion, education, occupation, income, family characteristics, past experience of caring newborns, and persons help take care of newborn.

**Maternal role attainment** refers to adolescent mothers' confidence and behaviors in caring for their infants, the establishment of a mother-infant relationship, and satisfaction in the maternal role. It was measured using the Maternal Role Attainment Scale (MRAS-Form B)<sup>36</sup>, based on Rubin's (1967) and Mercer's (1995) frameworks. The 23-item scale includes three subscales: maternal-infant attachment (6 items), maternal role competence (8 items), and maternal role satisfaction (9 items). Responses are rated on a 5-point Likert

scale (1 = strongly disagree, 5 = strongly agree), with total scores ranging from 23 to 115. Higher scores indicate better maternal role attainment, while lower scores indicate poor attainment. The instrument's validity ranges from .74 to .87<sup>37</sup>, and it has good reliability (Cronbach's  $\alpha$  = .87).

**Adolescent life goals** refers to adolescent mothers' perceptions of the importance and attainability of their life goals, which guide their motivation and future-directed behaviors. It were measured using the Adolescent Life Goal Profile Scale (ALGPS).<sup>27</sup> The 32-item scale assesses the perceived importance and attainability of four life goals: relationships, generativity, religion, and achievements. Each goal is rated on a 5-point Likert scale (1 = not important/attainable, 5 = very important/attainable). The scale provides eight independent variables (perceived important each goal). Higher scores indicate stronger determination of life goals. The scale has good validity (0.95, 0.90, 0.797, 0.844) and reliability, with Cronbach's alpha of 0.74 for relationships, 0.80 for generativity, 0.47 for religion, and 0.80 for achievements.<sup>38</sup> Although the religion domain demonstrated low internal consistency, expert review supported the linguistic validity and cultural appropriateness of the translated instrument and a Cronbach's  $\alpha$  of 0.80.

**Social support** refers to adolescent mothers' perceived support from husbands, family, and friends. It was measured using the Social Support Questionnaire (SSQ)<sup>37</sup>, based on House's four types of support (1981). The Thai version includes 10 items across four subscales: emotional support (3 items), informational support (2 items), instrumental support (3 items), and appraisal support (2 items). Responses are rated on a 5-point scale (1 = strongly disagree, 5 = strongly agree). The construct validity of the scale was supported by factor loadings ranging from 0.43 to 0.92. Convergent validity was further supported by composite reliability values ranging from 0.77 to 0.89. The instrument demonstrated good internal consistency, with corrected item-total correlations ranging from 0.42 to 0.74 and a Cronbach's  $\alpha$  of 0.89.<sup>37</sup>

**Maternal parenting self-efficacy** refers to an adolescent mother's belief in her ability to provide effective care for her infant. It was measured using the Perceived Maternal Parenting Self-Efficacy (PMP S-E) tool.<sup>39</sup> The 20-item tool includes four components: caretaking procedures, evoking behavior, reading behavior, and situational beliefs, scored on a four-point Likert scale (1 = strongly disagree, 4 = strongly

agree). Total scores range from 20 to 80, with higher scores indicating higher self-efficacy. The tool has high validity (0.91) and reliability (Cronbach's  $\alpha$  = .95).<sup>39</sup>

### **Ethical considerations**

Ethical approval was obtained from the Institutional Review Board (IRB) of Burapha University (IRB3-095/2024) and the Committee of Rights for Human Research of Chonburi Hospital (CBH 41/66/O/h3), Buddhasothorn Hospital (BHS 032/2567), Rayong Hospital (RYHE021/2566). For participants under 18 years of age, both parental consent and participant assent were obtained. All participants were informed about voluntary participation and withdrawal rights. Written consent forms were obtained, and data confidentiality and anonymity were through password-protected storage.

### **Data collection**

The researcher identified participants from patient records and during postpartum check-up visits, screening each individual for eligibility based on predefined inclusion criteria. Data collection was conducted concurrently across the four participating hospitals, with a total of 200 participants recruited. Following the health check-up, participants received structured questionnaires and were asked to complete them at the postpartum health check-up services in a quiet and private room to ensure comfort and confidentiality.

Written informed consent was obtained from each participant prior to data collection. The process took approximately 10–15 minutes in a private room.

### **Data Analysis**

Data were analyzed using IBM® SPSS® software version 27 (No.62003458). Prior to analysis, all data were checked for accuracy, missing values, and outliers. Assumptions for multiple linear regression, including normality, linearity, homoscedasticity, and multicollinearity, were assessed and met. Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used to summarize demographic characteristics. Multiple linear regression was conducted to examine the effects of maternal role attainment, adolescent life goals, and social support (independent variables) on maternal parenting self-efficacy (dependent variable). All independent variables were entered simultaneously using the enter method. Statistical significance was set at  $p < .05$ , and standardized regression coefficients ( $\beta$ ) with 95% confidence intervals were reported to interpret the strength and direction of the relationships.

## Results

The adolescent mothers' ages ranged from 15 to 19 years, with a mean age of 17.82 ( $SD = 1.17$ ). The majority were Buddhist (95.50%), secondary school (61.00%), and housewives (73.00%). More than half (54.50%) reported having no personal income, highlighting a high level of financial dependence. Regarding family structure, most participants lived in extended families, particularly on the maternal side (42.50%). The main caregivers assisting with newborn care were maternal grandparents (39.50%), suggesting that intergenerational family support plays a significant role in caring for newborns among adolescent mothers (Table 1).

MPSE was significantly and positively correlated with SS ( $r = .35, p < .01$ ), MRA ( $r = .61, p < .01$ ), and ALGs ( $r = .39, p < .01$ ). MRA was also positively correlated with SS ( $r = .22, p < .01$ ) and ALGs ( $r = .27, p < .01$ ). AMA had a small but significant positive correlation with MPSE ( $r = .22, p < .01$ ) and MRA ( $r = .16, p < .05$ ), while its correlation with other variables was nonsignificant (Table 2).

Among the predictors, MRA had the strongest positive effect on MPSE ( $\beta = .513, p < .001$ ), suggesting that adolescent mothers who perceive a stronger sense of MRA tend to feel more confident in their parenting abilities. SS and ALGs were also significant positive predictors (SS:  $\beta = .188, p = .001$ ; ALG:  $\beta = .183, p = .001$ ), indicating that both external resources and personal goal-setting contribute to higher MPSE. AMA had a smaller but significant positive effect ( $\beta = .117, p = .027$ ), suggesting that slightly older adolescent mothers may feel slightly more competent in parenting. The model was statistically significant and accounted for 47.9% of the variance in MPSE (Adjusted  $R^2 = .468$ ), indicating a moderate to strong predictive ability. No multicollinearity was detected among the independent variables, as indicated by tolerance values greater than 0.10 and VIF values below 10 (Table 3).

**Table 1** The demographic characteristics of adolescent mothers ( $n = 200$ )

Demographic characteristics	n	%
Adolescent mother age: Mean = 17.82, $SD = 1.17$ , Range = 15-19		

Demographic characteristics	n	%
15	10	5.00
16	20	10.00
17	39	19.50
18	59	29.50
19	72	36.00
Religion		
Buddhism	191	95.50
Islam	6	3.00
Christianity	3	1.50
Education		
Primary school	31	15.50
Secondary school	122	61.00
Diploma	47	23.50
Occupation		
Housewife	146	73.00
Government worker	1	.50
Self-employed	19	9.50
Employee	34	17.00
Income (Thai baht)		
No income	109	54.50
< 9,000	50	25.00
9,001-12,000	17	8.50
12,001-15,000	15	7.50
15,001-18,000	6	3.00
> 18,000	3	1.50
Family characteristics		
Nuclear family	32	16.00
Extend family with mother's side	85	42.50
Extend family with father's side	83	41.50
Past experience of caring newborns (birth - 1 year old)		
No experience	92	46.00
Had experience		
< 3 months	94	47.00
4-6 months	10	5.00
7-9 months	0	0.00
10-12 months	4	2.00
Persons help take care of newborn		
Husband	59	29.50
Maternal grandparents	79	39.50
Paternal grandparents	62	31.00

**Table 2** Mean (M), standard deviation (SD), and correlation coefficients of the study variables and Maternal parenting self-efficacy ( $n = 200$ )

Variable	M±SD	AMA	MRA	ALGs	SS	MPSE
AMA	3.82±1.17	1.00				
MRA	4.49±.34	.16*	1.00			
ALGs	2.88±.65	.08	.27**	1.00		
SS	3.70±.72	-.01	.22**	.28**	1.00	
MPSE	3.28±.39	.22**	.61**	.39**	.35**	1.00

\* $p < .05$  \*\* $p < .01$ .

Note. AMA = Adolescent Mother Age, Maternal Role Attainment = MRA, Adolescent Life Goals = ALGs, Social support = SS, Maternal Parenting Self-Efficacy=MPSE

**Table 3** Results of Multiple Regression Analysis Predicting Factors of Maternal Parenting Self-Efficacy Among Adolescent Mothers ( $n = 200$ )

Factors	B	SE	Beta	t	p-value	Tolerance	VIF
AMA	.039	.017	.117	2.226	.027	.971	1.030
MRA	.595	.064	.513	9.336	.000	.884	1.131
ALG	.109	.033	.183	3.310	.001	.876	1.142
SS	.101	.029	.188	3.435	.001	.899	1.112

$R=.692, R^2=.479$ , Adjusted  $R^2=.468$ ,  $SE_{est} = 28438$ ,  $df=4, 195$ ,  $F$  sig. = .000, DW=1.852

## Discussions and Conclusion

The findings of this study indicate that MPSE among adolescent mothers is influenced by both internal developmental factors and external support. MRA appears to be the most important predictor of MPSE, followed by social support, adolescent life goals, and maternal age. These results highlight the multifaceted determinants of MPSE and emphasize the importance of addressing both developmental and contextual factors.

Maternal Role Attainment (MRA) involves developing competence in the maternal role and integrating maternal behaviors into one's identity.<sup>21,22,24</sup> In the context of adolescent mothers, MRA emerged as the most influential factor for maternal parenting self-efficacy (MPSE). This strong influence highlights the importance of developing maternal competence and incorporating maternal behaviors into daily practices, consistent with Mercer's theoretical framework of Becoming a Mother (BAM) and Maternal Role Attainment. According to Mercer, becoming a mother is a developmental process in which women learn and internalize maternal behaviors, while MRA reflects the successful achievement of these behaviors, resulting in confidence and mastery in parenting roles.<sup>21,24</sup>

Adolescent mothers face unique challenges in achieving MRA due to their ongoing developmental stage. At an average age of 17.82 years, participants are navigating physical, cognitive, and emotional growth while assuming new maternal responsibilities.<sup>40,41</sup> Limited prior parenting experience and lack of caregiving training can hinder confidence, making MRA-focused support essential. In line with Mercer's theory, successful MRA provides mastery experiences and psychosocial adaptation, which directly enhance MPSE.

These findings align with recent studies demonstrating the influence of MRA on parenting self-efficacy. Samantarath et al. (2024) reported that perceived maternal competence significantly predicted MRA outcomes among adolescent mothers, explaining 33% of the variance in maternal role attainment.<sup>42</sup> Sariati et al. (2025) emphasized that identity integration and emotional bonding are critical components of MRA, particularly in socially and culturally complex contexts.<sup>43</sup> Moreover, Park & Kwak (2025) found that structured interventions providing guidance and mentoring enhanced adolescent mothers' mastery of maternal behaviors, thereby increasing their parenting self-efficacy.<sup>44</sup> Together, these studies support the notion that fostering MRA through skill development, experiential learning, and psychosocial

adaptation is essential for improving MPSE in adolescent mothers.

Adolescent life goals (ALGs) play a crucial role in shaping maternal parenting self-efficacy (MPSE) among adolescent mothers. ALGs reflect adolescents' perceptions of self-importance, future aspirations, and goal-directed behaviors, which contribute positively to parenting confidence. Adolescents develop their skills and self-efficacy through goal selection, strategic planning, and evaluation of outcomes, enabling them to manage challenges and make informed decisions regarding childcare.<sup>30,45</sup>

Moreover, adolescents with clear life goals are more likely to seek and utilize social support and to feel better prepared for motherhood.<sup>27-46</sup> This illustrates the mechanism by which ALGs enhance parenting self-efficacy: by strengthening motivation, providing a sense of purpose, and fostering resilience, ALGs facilitate effective adaptation to motherhood while supporting ongoing personal growth. These findings are consistent with previous literature indicating that goal-setting during adolescence supports identity formation and self-regulation, which in turn contribute to higher parenting self-efficacy.<sup>29,47</sup>

Social support (SS) emerged as a significant predictor of maternal parenting self-efficacy (MPSE), highlighting the essential role of families and communities in enhancing adolescent mothers' confidence.<sup>48,49</sup> This support encompasses four main types: emotional, informational, instrumental, and appraisal assistance. Emotional support, such as encouragement from family members particularly maternal grandparents, who were involved in 42.5% of cases helps adolescent mothers feel valued and confident in their parenting role. Informational support provides practical knowledge and guidance for childcare, enabling mothers to make informed decisions. Instrumental support offers hands-on assistance with childcare tasks, reducing stress and workload, while appraisal support, delivered through feedback and advice from family, peers, and parenting groups, allows mothers to evaluate and improve their parenting skills. Together, these forms of support help mitigate challenges associated with limited parenting experience, reinforce essential parenting skills, and are consistent with prior studies reporting higher self-efficacy among adolescent mothers with strong social support networks.<sup>37,48,49</sup>

Although the effect of AMA on MPSE was smaller than other predictors, it was statistically significant. Older adolescent mothers displayed slightly higher parenting confidence, which may reflect incremental life experience, emotional maturity, or enhanced readiness to manage maternal responsibilities. In this study, the finding aligns with Panthumas et al. (2019) reported that adolescent mothers with slightly greater age within the 15–19-year range tended to have better preparedness and confidence in caregiving. While the effect size is modest ( $B = 0.039$ ,  $\beta = 0.117$ ), it highlights the importance of considering developmental maturity and age differences in interventions targeting adolescent mothers.<sup>37</sup>

Previous studies have established that maternal parenting self-efficacy (MPSE) is a crucial determinant of parenting behaviors, maternal well-being, and child development, particularly among adolescent mothers. Adolescent mothers often report lower parenting self-efficacy than adult mothers due to limited life experience, ongoing developmental transitions, and reduced preparedness for the maternal role. Existing evidence indicates that maternal role attainment, social support, and psychological adaptation are key factors influencing MPSE. Maternal role attainment, which involves developing competence and confidence in the maternal role, has been consistently associated with higher parenting self-efficacy. Adolescent mothers who successfully adapt to maternal responsibilities tend to demonstrate greater confidence in infant care and decision-making. In addition, social support from family members, partners, peers, and healthcare providers has been shown to enhance parenting self-efficacy by providing emotional reassurance, practical assistance, and parenting-related information. Supportive environments help adolescent mothers cope with parenting stress and compensate for limited prior caregiving experience. Psychological factors, including emotional well-being and stress management, also play an important role in shaping parenting self-efficacy during the postpartum period.

This study extends existing knowledge by integrating developmental and contextual factors into a predictive model of MPSE among adolescent mothers in the Thai context. The findings demonstrate that maternal role attainment (MRA) is the strongest predictor of MPSE, followed by social support and adolescent life goals (ALGs), highlighting the central role of maternal competence development and future-oriented motivation in enhancing parenting self-efficacy. Furthermore,

this study provides empirical evidence that ALGs significantly contribute to MPSE, an area that has received limited attention in previous research on adolescent motherhood. Although maternal age showed a smaller effect, its significance underscores the importance of considering developmental readiness when designing interventions. Overall, this study offers a more comprehensive understanding of how internal developmental processes and external support systems jointly shape MPSE, providing practical implications for tailored nursing and psychosocial interventions for adolescent mothers.

### Conclusions

This study provides new insight into the factors influencing MPSE among adolescent mothers. Findings highlight that MRA, ALGs, SS, and AMA collectively play a significant role in enhancing maternal confidence and competence in caregiving. Adolescent mothers with higher MRA, stronger life goal orientation, and robust SS are more likely to feel capable in their maternal role. These results emphasize the importance of tailored educational interventions, family involvement, and developmental considerations in supporting adolescent mothers. While adolescent mothers face challenges associated with limited experience and ongoing personal development, targeted support can effectively enhance MPSE, ultimately promoting better maternal outcomes.

### Implications for Practice

This study provides practical guidance for nurses and healthcare professionals working with adolescent mothers to enhance MPSE. Effective interventions include providing age-appropriate health and parenting education to strengthen MRA and boost confidence in performing maternal tasks. Supporting adolescent mothers in setting and pursuing ALGs through guidance, counseling, and future planning can further motivate them to adapt successfully to their new maternal role. Establishing strong social support networks, including assistance from family, extended family particularly maternal grandparents spouses, and the community, can reduce stress and reinforce maternal confidence. Considering AMA when designing interventions allows healthcare providers to tailor support according to developmental readiness and life experience. Additionally, the findings can be applied to identify adolescent mothers at risk of lower MPSE and to implement individualized interventions, such as hands on training,

counseling, and structured family support, to promote optimal maternal outcomes.

### Recommendation for future research

1. Future studies should examine how maternal role attainment (MRA), social support, and adolescent life goals (ALGs) influence maternal parenting self-efficacy (MPSE) among adolescent mothers in various contexts.

2. Longitudinal studies or studies with extended data collection periods are recommended to provide a more comprehensive understanding of how adolescent mothers develop MPSE over time.

3. Cross-cultural studies are suggested to investigate whether the relationships between MRA, social support, ALGs, and MPSE are consistent across different social, cultural, and economic settings.

4. Intervention studies should focus on enhancing MPSE by targeting the three predictors: MRA, social support, and ALGs. Interventions may include age-appropriate health and parenting education, guidance and counseling to pursue ALGs, and strategies to strengthen family and community support. Tailoring interventions to the developmental readiness associated with AMA and to the cultural context is recommended to meet the unique needs of adolescent mothers.

### Limitations

The regression model explained 47.9% of the variance in MPSE, suggesting that other unexamined factors may influence maternal self-efficacy. The cross-sectional design limits the ability to observe changes in MPSE over time or to capture the ongoing adaptation to motherhood. The study sample was drawn from adolescent mothers attending only four hospitals, which may restrict the generalizability of the findings to other populations or settings. Furthermore, key variables, including MRA, ALGs, and SS, were measured via self-reported questionnaires, which may introduce bias and affect data accuracy.

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