

## **MATERNAL SELF-EFFICACY IN INFANT CARE AMONG FIRST-TIME MOTHERS IN MANSALAY, ORIENTAL MINDORO**

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### **ABSTRACT**

Becoming a first-time mother is a significant transition, and maternal self-efficacy (MSE) is regarded as a key predictor of maternal functioning. This study assesses the level of maternal self-efficacy in infant care among first-time mothers in Mansalay, Oriental Mindoro.

A descriptive-correlational research design was employed. The study involved a sample of 227 first-time mothers from Mansalay, Oriental Mindoro. Data were collected through questionnaire interviews.

The first-time mothers responded in this study were confident in taking care of their infant. It showed that the respondents were confident in doing care taking procedures and situational beliefs while moderately confident in identifying evoking behaviors of the infant and reading behaviors or signaling from their infant.

It has been found that demographic profile of the respondents such as maternal age, educational attainment, marital status, income class, sex of the child, age of the child, father currently living with the child and partner's employment status have no significant relationship with MSE. This means that majority of the respondents are confident in infant care and confirm the importance of MSE in the transition to motherhood, the complexity of different factors that may have an impact as first-time mothers.

*Keywords: maternal self-efficacy, infant care, motherhood, first-time mothers*

## INTRODUCTION

Motherhood is considered to be a significant phase in a woman's life. Motherhood brings increased responsibilities and an even bigger challenge to acquire the necessary parenting knowledge and skills upon acceptance of the maternal role. Despite the positive aspects, it is found that many first-time mothers or primiparous women find it difficult to manage motherhood with the tasks of taking care of the baby while juggling work or study (Watts et al., 2015). Owing to the lack of previous experience, first-time mothers usually have more difficulties adjusting to the physical, social, emotional, and psychological challenges of motherhood (Leahy-Warren & McCarthy, 2011). One important aspect that plays a role in the development of parenting behaviors is maternal self-efficacy. Social learning theorist Albert Bandura (1997) originally defined self-efficacy as a person's belief in one's capacities to perform specific tasks toward the attainment of goals. He further discussed that since individuals can understand their potential, self-efficacy can be a reliable predictor of a person's motivation to accomplish performance tasks or goals in many contexts.

Various studies also indicated other significant factors affecting the level of self-efficacy among mothers. Shorey et al. (2014) indicated in their study among Singaporean primiparas in the early postnatal period that the main predictors of maternal self-efficacy include age, family income, and social support. A cross-sectional study conducted in South Korea found that working mothers who serve as primary caregivers tend to have higher maternal self-efficacy than those who do not and that social support from spouses contributes significantly to a higher level of maternal self-efficacy among working mothers (Song et al., 2022). Lara et al. (2017) also assert that adolescent mothers tend to have a lower level of maternal self-efficacy, which leads to a lack of confidence in fulfilling their maternal responsibilities.

The Municipality of Mansalay in the Province of Oriental Mindoro is a second-class municipality with around 60,000 inhabitants located in the southernmost portion of the province. The Rural Health Unit (RHU) recorded a total of 261 first-time mothers in 2021 and 234 in 2022, with the majority of first-time mothers from the barangays of B. del Mundo, Poblacion, and Sta. Teresita. The local health office identified the youngest age for a first-time mother to be 14 years old and the oldest to be 42 years old.

The purpose of this study is to determine the level of maternal self-efficacy in infant care of first-time mothers in the identified municipality. The lack of local studies has posed the need to conduct a study to provide sample information for understanding the different factors that relate to maternal self-efficacy and early infant care. In particular, the study will aid the local health office in identifying programs and interventions that can improve pre-and post-natal care among first-time mothers being catered to by the local health office.

## MATERIALS AND METHODS

### Research Design

The researcher employed a descriptive-correlational research design, which is suited for achieving the study's purpose and objectives. Descriptive research is research that aims to provide a glimpse of the existing situation. A correlational study seeks to uncover correlations

between variables and to forecast future events based on current information. This study includes the assessment of first-time mothers to determine the level of maternal self-efficacy in infant care in terms of care-taking procedures, evoking behaviors, reading behaviors, or signaling, and situational beliefs about related variables.

### Study Site

The study was conducted in the sixteen barangays in Mansalay, Oriental Mindoro, specifically at Brgy. B. del Mundo, Poblacion, Cabalwa, Sta. Brigida, Roma, Wasig, Don Pedro, Bonbon, Maliwanag, Manual, Balugo, Budburan, Villa Celestial, Sta. Maria, Waygan, and Sta. Teresita.

### Respondents of the Study

The population proportion will be used in the study to determine the sample size. Considering the percentage of first-time mothers in the earlier research (Azmoude et al., 2015). With anticipated percentage frequency of 82%, with a 95% confidence interval, a 5% margin of error, a design effect of 1, a sample size of 227 first-time mothers is necessary for this study. Mothers having postpartum check-ups, EPI check-ups and house-to-house interview was approached through convenience.

### Research Instrument

A variety of background information, including maternal age, civil status, income level, educational attainment, occupation, infant gender, infant age, partners' occupation and if father is currently living with the child was gathered to determine the sample's representativeness. Maternal age is measured in years and is defined as the mother's age at the time of the late pregnancy stage. Unmarried (single or cohabiting) and married statuses will be noted in the civil register. The 2017 Philippine income cluster was used to measure income levels (Albert et al., 2018). The mother's level of education was referred to as her educational achievement (never been to school, elementary level, elementary graduate, high school level, high school graduate, vocational, college level, college graduate).

The attitudes of the mothers about their level of self-efficacy in caring for their children was assessed using the PMP S-E tool (Barnes & Adamson-Macedo, 2007). The focus of this measure is on 20 characteristics that are divided into four subscales: caretaking procedures, evoking behaviors, reading behaviors or signaling, and situational beliefs. The respondent rates each aspect on a five-point Likert scale, with 1 representing strong disagreement and 5 representing strong agreement. As a result, the total score might range from 20 to 80, with a Cronbach's alpha of 0.78 indicating that a higher score indicates a higher degree of MPSE (Aliabadi et al., 2013).

### Data Collection

A letter of request was given to the Municipal Health Officer and barangay captains to seek their approval prior to the conduct of the study. After securing approval, the letter of request was also presented to the rural health midwives from the three barangays where the

study will be conducted. Through a survey interview with a questionnaire, data was collected. During scheduled postpartum, expanded program on immunization clinic visits in the barangay health facility and house-to-house visit, the postpartum moms was approached. A questionnaire designed in the local dialect was used to collect information during the structured interview. This allowed participants who were unable to read to respond freely and completely comprehend the questions.

### Ethical Consideration

Participation in the study was voluntary, and the mothers were informed that they had the option of answering the questionnaire or not. The research participants' complete anonymity was respected. Before conducting the interview, the researchers obtained informed consent from the mothers. Participants were informed of the study's objectives and methodology. The researcher carefully reads the informed consent form to ensure that the respondent understands the study's purpose, the length of participation, and the risks and benefits of participating. The first-time mothers who agreed to participate in the study filled out a formal consent form. The researcher was open to any clarifications that would help people understand the statement in the research instrument. The questionnaire was coded and listed on a separate sheet; the code from the list was then matched after data collection. Specific information from the questionnaires could not be linked to specific people. Access to the data was restricted to the researcher.

### Data Analysis

The demographic profile was computed using frequency and percentages. Contrary to Bandura's (1977) previous advice, the maternal self-efficacy scores for each item were analyzed using a weighted mean and classified into one of the following groups: highly confident (4.20-5.00), confident (3.40-4.19), moderately confident (2.60-3.39), not confident (1.80-2.59), and highly not confident (1.00-1.79). Kendall's tau was used in the study to analyze four subscales of maternal parenting self-efficacy, with self-efficacy being the outcome variable and sociodemographic and associated variables serving as explanatory variables. A correlational analysis was conducted to determine the relationship between sociodemographic characteristics and maternal parenting self-efficacy, with .05 level of significance.

## RESULTS

### Demographic Profile of First-Time Mothers

Most of the study's respondents are between the ages of 20 to 29 (42.3%) and have mostly reached high school (26.4%). Additionally, it shows that most of the respondents (42.3%) were self-employed, 45.4% were living together or cohabiting, had a partner who had no work (31.7%). And belonged to the middle-income class (42.7%). More than half of the respondents have a female child (54.6%), are aged 7 months above (79.3%), and are currently living with their father (65.6%). The data shows that most of the respondents were in early adulthood (Table 1).

Table 1. Demographic profile of the respondents (n=227)

PROFILE	FREQUENCY	PERCENTAGE
<b>Maternal Age (years)</b>		
≤ 19	20	8.8
20-29	96	42.3
30-34	79	34.8
35-39	29	12.8
≥ 40	3	1.3
<b>Educational Attainment</b>		
elementary level	38	16.7
elementary graduate	45	19.8
high school level	60	26.4
high school graduate	25	11.0
vocational course	25	11.0
college level	19	8.4
college graduate	10	4.4
graduate level	5	2.2
<b>Marital Status</b>		
married, living together	42	18.5
married, not living together	79	34.8
live-in /cohabiting	103	45.4
widowed	3	1.3
<b>Income Class</b>		
poor	48	21.1
low income (but not poor)	54	23.8
lower middle class	97	42.7
middle class	28	12.3
<b>Employment Status</b>		
no work/plain housewife	53	23.3
full-time worker	41	18.1
part-time worker	37	16.3
self-employed	96	42.3
<b>Sex of the Child</b>		
male	103	45.4
female	124	54.6
<b>Age of the child</b>		
3 months up to less 6 mos.	34	15.0
6 months	13	5.7
7 months above	180	79.3
<b>Currently living with the father of the child</b>		
yes	149	65.6
no	78	34.4
<b>Partner's employment status</b>		
no work	72	31.7
full-time worker	35	15.4
part-time worker	66	29.1
self-employed	54	23.8

### Level of Maternal Self-Efficacy in Infant Care of the Respondents

The results show that the first-time mothers in the study were confident in caring their infants (mean=3.77±.15). Furthermore, they are confident in doing care taking procedures (mean=4.02 ±.32), situational beliefs (mean=4.17±.37) and moderately confident in identifying evoking behaviors of the infant (mean=3.74±.29) and reading the behavior and signals coming from their infant (mean=3.14±.24) [Table 2].

Table 2. Maternal self-efficacy in infant care.

MATERNAL SELF-EFFICACY IN INFANT CARE	MEAN	SD
<b>Care Taking Procedures</b>		
1. I am good at keeping my baby occupied	3.93	.69
2. I am good at feeding my baby	3.94	.52
3. I am good at changing my baby	4.33	.67
4. I am good at bathing my baby	3.89	.59
Weighted mean	4.02	.32
<b>Evoking Behavior</b>		
1. I can make my baby happy	4.33	.47
2. I can make my baby calm when he/she has been crying	3.06	.66
3. I am good at soothing my baby when he/she becomes upset	3.66	.77
4. I am good at soothing my baby when he/she becomes fussy	4.09	.68
5. I am good at soothing my baby when he/she continually cries	4.02	.71
6. I am good at soothing my baby when he/she becomes more restless	2.97	.70
7. I am good at getting my babies attention	4.01	.57
Weighted mean	3.74	.29
<b>Reading Behavior/Signaling</b>		
1. I believe that I can tell when my baby is tired and needs to sleep	4.68	.47
2. I believe that I have control over my baby	4.71	.46
3. I can tell when my baby is sick	2.74	.46
4. I can read my baby's cues	2.39	.55
5. I am good at understanding what my baby wants	2.32	.70
6. I am good at knowing what activities my baby does not enjoy	2.03	.80
Weighted mean	3.14	.24
<b>Situational Beliefs</b>		
1. I believe that my baby responds well to me	3.12	.84
2. I believe that my baby and I have a good interaction with each other	4.59	.52
3. I can show affection to my baby	4.81	.40
Weighted mean	4.17	.37
Maternal self-efficacy in infant care	3.77	.15

Legend: *highly confident* (4.20-5.00); *confident* (3.40-4.19); *moderately confident* (2.60-3.39); *not confident* (1.80-2.59); *highly not confident* (1.00-1.79)

### Correlation between Demographic Profile and Maternal Self-Efficacy in Infant Care

Data presented in table 3 illustrates that there is no significant correlation between maternal age ( $r=.023$ ,  $p$ -value =  $.650$ ), educational attainment ( $r=.007$ ,  $p$ -value= $.885$ ), marital status ( $r=.008$ ,  $p$ -value= $.884$ ), incomes class ( $r=.73$ ,  $p$ -value= $.146$ ), sex of the child ( $r=.015$ ,  $p$ -value= $.785$ ), age of the child ( $r=.047$ ,  $p$ -value= $.070$ ), father currently living with the child ( $r=.45$ ,  $p$ -value= $.405$ ) and partner's employment status ( $r=.004$ ,  $p$ -value= $.943$ ) with the maternal self-efficacy of the first-time mothers.

Table 3. Correlation of respondent's profile and maternal self-efficacy in infant care.

Profile	Maternal Self-Efficacy in Infant Care	
	r	p value
Age	.023	.650
Educational attainment	.007	.885
Marital status	.008	.884
Income class	.73	.146
Employment status	.091	.070
Sex of the child	.015	.785
Age of the child	.047	.385
Currently living with the father of the child	.45	.405
Partner's employment status	.004	.943

\* Correlation is significant at the 0.05 level (2-tailed)

## DISCUSSION

The study was designed to determine the level of maternal self-efficacy in infant care among first-time mothers in Mansalay, Oriental Mindoro. The study's overall findings indicated that respondents were confident in their maternal self-efficacy. It also revealed that there is no significant relationship between the respondents' demographic profile and maternal self-efficacy.

Results shows that first-time mothers can be confident regardless of their age, marital status, educational attainment, income class, employment status, sex of the child, age of the child, father currently living with the child and partners' employment status. Each mother has unique experiences, backgrounds, personalities that may influence their confidence in rearing/caring their infant. Individual differences can enhance the confidence of first-time mothers without being influenced by their demographic profile. Providing first-time mothers with childcare education can boost their confidence in their role and childcare behaviors during the early postpartum period (Shafaie et al., 2017). The level of support from family, friends or other health professionals may play more significant role in shaping maternal self-efficacy than demographic factors. Nilsson et al. (2013) also concluded in their study that a woman's sense of empowerment stemmed from a presence and trusting relationship with experts and partners. A mother with strong support networks may feel more confident in their parenting abilities regardless of their demographic background. Another, mothers often gain confidence

in understanding their children's needs and responding appropriately while adjusting to motherhood and building the parent-child bond (Zheng et al., 2018). However, there are factors that may also contribute or affect a mother's confidence in caring for their child.

First-time mothers may have access large source of health information through various sources such as online resources and parenting classes which can enhance their confidence in infant care. Demographic variable may not directly impact access to these resources. Access to online resources can boost confidence in first-time mothers by giving empirical and trustworthy parenting information (Alamiyah, 2020). Online platforms enable mothers to seek peer support and build ties within the online community (Kean, 2021). Furthermore, online tools help moms quickly learn new things and overcome the problems of early parenthood (Newhouse, 2016). Overall, online tools give first-time mothers with useful knowledge, support, and a sense of community, which can boost their confidence in their parenting skills.

Cultural beliefs can boost first-time mothers' confidence by offering them a sense of support and affirmation. Mothers feel more empowered and effective in their roles when cultural values and traditions are recognized and respected (Gao et al., 2010). Furthermore, cultural beliefs might influence women's expectations and perceptions of motherhood, allowing them to depend on their cultural history for support and advice (Reihani et al., 2016). Embracing cultural ideas and customs can help first-time mothers feel more powerful and effective in their new role, regardless of their demographic profile.

Previous experiences with infants such as caring for younger siblings or exposure to child care may have impact to their confidence. In the research by Maehara et al. (2016), states that women with prior experience caring for babies had higher maternal confidence scores than those without such experience. It also found that mothers who exclusively breastfed had significantly higher confidence levels. While in the study of Caroli and Sagone (2014), highlighted that primiparous women, unlike those who have already experienced motherhood, have a personal experience influenced by the prospect of assuming a completely new role and caring responsibilities.

The primary limitation of this study is its cross-sectional design and the level at which maternal infant rearing self-efficacy and sociodemographic factors were assessed. This study does not claim that its findings are representative of all Filipino women. Because the women in this study are first-time mothers concentrated in one municipality, it is difficult to say that the sample fully represented all of the province's sociocultural groups. Another limitation of this study was its cross-sectional design, which means that the relationships between maternal infant rearing self-efficacy and socio-demographic variables did not necessarily indicate causal relationships. To summarize, whether an intermediary link in a causal relationship with a mother's caring practices over time warrants further investigation and evaluation.

## **CONCLUSION**

The study reveals that most respondents are early adults, self-employed, and confident in maternal infant care. Demographic factors have no significant impact on this confidence. First-time mothers are confident in infant care due to various factors. Recommendations include collaborating with health offices for seminars, providing social support, encouraging



education, and researching interventions to enhance maternal self-efficacy among disadvantaged groups. Strengthened public health efforts are necessary to improve maternal self-efficacy, aligning caregivers' understanding with infants' needs. Further research is required to explore intervention efficacy in prolonging infant care duration.

## REFERENCES

- Alamiyah, S. S. (2020). 'I become more confident': Mother use of online platform for parenting information. *Advances in Social Science, Education and Humanities Research*, 423. <https://doi.org/10.2991/assehr.k.200325.039>
- Albert, J. R. G., & Vizmanos, J. F. V. (2018). Vulnerability to poverty in the Philippines: An examination of trends from 2003 to 2015. *RePEc: Research Papers in Economics*. <https://www.pids.gov.ph/publication/discussion-papers/vulnerability-to-poverty-in-the-philippines-an-examination-of-trends-from-2003-to-2015>
- Aliabadi, F., Borimnejad, L., Kamali, M., Rassafiani, M., & Nazi, S. (2013). Perceived Maternal Parenting Self-Efficacy (PMP S-E) Tool: translation and face validation with Iranian mothers of hospitalized preterm neonates. *Iranian Rehabilitation Journal*, 11(1), 7-10. <https://irj.uswr.ac.ir/article-1-374-en.html>
- Azmoude, E., Jafarnejade, F., & Mazlom, S. R. (2015). The Predictors for Maternal Self-efficacy in Early Parenthood. *Journal of Midwifery and Reproductive Health*, 3(2), 368-376. <https://doi.org/10.22038/jmrh.2015.4050>
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215. <https://doi.org/10.1037/0033-295x.84.2.191>
- Bandura, A. (1997). Self-efficacy: The exercise of control. *W H Freeman/Times Books/ Henry Holt & Co.*
- Barnes, C., & Adamson-Macedo, E. N. (2007). Perceived Maternal Parenting Self-Efficacy (PMP S-E) tool: development and validation with mothers of hospitalized preterm neonates. *Journal of Advanced Nursing*, 60(5), 550-560. <https://doi.org/10.1111/j.1365-2648.2007.04445.x>
- Caroli, M. E. D., & Sagone, E. (2014). The experience of pre- and postpartum in relation to support, stress, and parenthood representation. *Procedia - Social and Behavioral Sciences*, 116, 697-702. <https://doi.org/10.1016/j.sbspro.2014.01.282>
- Gao, L., Chan, S. W., You, L., & Li, X. (2010). Experiences of postpartum depression among first-time mothers in mainland China. *Journal of Advanced Nursing*, 66(2), 303-312. <https://doi.org/10.1111/j.1365-2648.2009.05169.x>
- Kean, T. (2021). Web-based psychoeducation for first-time mothers more effective than home-based psychoeducation or routine care. *Evidence-Based Nursing*, 24(3), 75-75. <https://doi.org/10.1136/ebnurs-2019-103193>
- Lara, M. A., Patiño, P., Navarrete, L., Hernández, Z., & Nieto, L. L. (2017). Association between depressive symptoms and psychosocial factors and perception of maternal self-efficacy in teenage mothers. *Salud Mental*, 40(5), 201-208. <https://doi.org/10.17711/sm.0185-3325.2017.026>

- Leahy-Warren, P., & McCarthy, G. (2011). Maternal parental self-efficacy in the postpartum period. *Midwifery*, 27(6), 802–810. <https://doi.org/10.1016/j.midw.2010.07.008>
- Maehara, K., Mori, E., Tsuchiya, M., Iwata, H., Sakajo, A., Ozawa, H., Morita, A., Maekawa, T., Makaya, M., & Koji, T. (2016). Factors affecting maternal confidence among older and younger Japanese primiparae at one-month post-partum. *Japan Journal of Nursing Science*, 13(4), 424–436. <https://doi.org/10.1111/jjns.12123>
- Newhouse, N. (2016, May). bump2bump: Online Peer Support in First-Time Pregnancy. *In Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems*. pp. 239–243. <https://doi.org/10.1145/2851581.2859021>
- Nilsson, L., Thorsell, T., Wahn, E. H., & Ekström, A. (2013). Factors influencing positive birth experiences of First-Time mothers. *Nursing Research and Practice*, 2013, 1–6. <https://doi.org/10.1155/2013/349124>
- Reihani, M., Keshavarz, Z., Vedadhir, A., & Zaeri, F. (2016). Cultural safety in motherhood: evidence from midwives and nurses in the multicultural context of Iran society. *Medical Ethics Journal*, 10(36), 55–64. <https://doi.org/10.21859/mej-103655>
- Shafaie, F. S., Mirghafourvand, M., & Bagherinia, M. (2017). The association between maternal self-confidence and functional status in primiparous women during postpartum period, 2015–2016. *International Journal of Women's Health and Reproduction Sciences*, 5(3), 200–204. <https://doi.org/10.15296/ijwhr.2017.36>
- Shorey, S., Chan, S. W., Chong, Y. S., & He, H. (2014). Predictors of Maternal Parental Self-Efficacy among Primiparas in the early postnatal period. *Western Journal of Nursing Research*, 37(12), 1604–1622. <https://doi.org/10.1177/0193945914537724>
- Song, J.-E., Roh, E. H., Chae, H.-J., & Kim, T. (2022). Ecological factors influencing parenting self-efficacy among working mothers with a child under 36-month-old in South Korea: a cross-sectional and correlational study. *BMC Women's Health*, 22(1). <https://doi.org/10.1186/s12905-022-01639-8>
- Watts, M. C. N. C., Liamputtong, P., & McMichael, C. (2015). Early motherhood: a qualitative study exploring the experiences of African Australian teenage mothers in greater Melbourne, Australia. *BMC Public Health*, 15(1). <https://doi.org/10.1186/s12889-015-2215-2>
- Zheng, X., Morrell, J., & Watts, K. (2018). Changes in maternal self-efficacy, postnatal depression symptoms and social support among Chinese primiparous women during the initial postpartum period: A longitudinal study. *Midwifery*, 62, 151–160. <https://doi.org/10.1016/j.midw.2018.04.005>