Journal of Young Pharmacists, 2025; 17(4):986-990.
https://www.jyoungpharm.org

Original Article

Social Determinants of Exclusive Breast Feeding Among Family Farmers in Central Myanmar

Winn Lwin Htoo[1], Theingi Maung Maung[2,*], Prabal Bhargava[3], Hnin Pwint Phyu[4], Sherly Deborah George[5], Myo Hlaing Win[1], Aye Thiri Mon[1], Suu Mon Phyo[1], Myat Noe Wai[1], Zin Min Naing[1], Sai Htet[1], Khaing Lay Mon[1]

[1]Community Health Department, University of Community Health, Magway, MYANMAR.
[2]Community Based Department, Faculty of Medicine, Universiti Kuala Lumpur, Royal College of Medicine Perak, Ipoh, MALAYSIA.
[3]Ophthalmology Department, School of Medicine, Faculty of Health and Medical Science, Taylor's University, MALAYSIA.
[4]Preclinical Department, MK-Faculty of Medicine and Health Sciences, Universiti Tunku Abdul Rahman, MALAYSIA.
[5]Department of Physiology, Faculty of Medicine, Manipal University College Malaysia, Melaka, MALAYSIA.

ABSTRACT

Background: Undernutrition is a public health problem in many developing countries. Providing better care and nutritional improvement are still challenges in rural areas of Myanmar. Agriculture is the main sector in the country and there is a paucity of knowledge on breastfeeding among family farmers. This study aimed to find out the knowledge and attitude of exclusive breastfeeding and its social determinants among Myanmar family farmers. **Materials and Methods:** A cross-sectional study was conducted in Magway Division, Myanmar. A total of 160 mothers of 6 to 24 months were recruited by convenience sampling. Data was collected by face-to-face interview method by using the structured questionnaire. **Results:** The prevalence of exclusive breastfeeding among the respondents was 64.7% and 89.5% of mothers started breastfeeding within half an hour. Findings reported that 61.4% of the study population had a good level of knowledge and 38.6% had poor knowledge related to exclusive breastfeeding. In this study,89.5% of mothers were identified as having good attitudes, and 10.5% were identified as having poor attitudes toward exclusive breastfeeding. The education level of parents, respondent's knowledge, and attitude toward exclusive breastfeeding were identified as determinants of exclusive breastfeeding. **Conclusion:** A more educated family can have better lifestyle choices and awareness of nutrition among the rural population.

Keywords: Breast feeding, Social determinants, Knowledge, Attitude, Family farmers.

Correspondence:
Dr.Theingi Maung Maung
Associate Professor, Faculty of Medicine, Universiti Kuala Lumpur, Royal College of Medicine Perak, No.3, Jalan Greentown, 30450 Ipoh, Perak, MALAYSIA.
Email: theingi.maung@unikl.edu.my; drtheingi68@gmail.com

Received: 09-06-2025;
Revised: 25-08-2025;
Accepted: 16-10-2025.

INTRODUCTION

The breast milk consists of 87% water, 7% lactose, 4% fat, and 1% protein (Bjarnadottir, 2024). There are several evidence that breast milk is good for baby's health. It can provide the necessary nutrients for the baby, protect against allergies and infections. Breast fed babies have healthier body weights and better IQ scores. Breast feeding can strengthen the bonding between mother and child (Bjarnadottir, 2024).

According to World Health Organization, if an infant consumes human milk with no supplements like water, juice, non-human milk, food except for vitamins, minerals and medications, that situation can be regarded as exclusive breastfeeding. It is recommended that exclusive breastfeeding is important for the first six months of life and breastfeeding can be continued for 2 years or beyond (Anand, 2013; Andrino *et al*., 2016).

The development of brain, eyesight and digestive system in a baby can be enhanced by breastfeeding. Until 6 months of age, baby's intestine is not suitable for non-human proteins which can cause allergies. The early months of baby's life are important for long-term growth and colostrum (immature milk for the first 3 days of life) can protect baby against diseases (Taylor and Cameron, 2023).

The breast milk is not only free and convenient, but also it has the ideal combination of proteins, fats, vitamins, and carbohydrates. Leukocytes in breast milk can help to fight infection and the fat and lactose can provide the energy for the baby (Agrawal *et al*., 2022). Breastfeeding can lose pregnancy weight faster by burning the extra calories in mother. By releasing oxytocin, uterus can return to per-pregnancy size and reduce the postpartum haemorrhage. The risk of osteoporosis, ovarian and breast cancers can be reduced by breastfeeding. It also can reduce the risk of Type II Diabetes and hypertension in mother (Center for Disease Control and Prevention, 2023)

OPEN ACCESS

Manuscript TECHNOMEDIA

DOI: 10.5530/jyp.20250056

Although the benefits of breastfeeding are comprehensible, cultural practices like delay in breastfeeding initiatives, colostrum discarding, the use of complementary foods before age of 6 months can discourage exclusive breastfeeding (Brown, 2018). Barriers such as promotion of infant formula, poor knowledge about breastfeeding, lactation problems and misconception that formula is equivalent to breast milk can jeopardise infant feeding. Lack of supporting childcare especially for working mother who must return to the workforce while infant is still young is another constraint for the breastfeeding. Barriers to breastfeeding are more common among younger mothers, those from low socio-economic background and aboriginal population (Brown, 2018).

To enable mother to establish and sustain exclusive breastfeeding for six months, WHO and UNICEF recommend initiating breastfeeding within the first 4 hr of life; feed mother's milk exclusively without any additional food or drink, not even water; breastfeed on demand that is as often as the child wants, day and night; not to use of bottles, teats, or pacifiers (Chen *et al*., 2019).

Nutritional improvement is also an essential component of the second goal of the Sustainable Developments Goals (SDGs) (Walters D *et al*., 2016). Based on 2015-2016 Myanmar Demographic and Health Survey, it was revealed that exclusive breastfeeding prevalence was only 52.2% (Dukuzumuremyi *et al*., 2020). Under-nutrition is still a public health problem in the country and a hospital-based study reported that returning to work was one of the main barriers to breastfeeding (United Nations, 2023).

Agriculture is the main sector in the country and approximately 60% of GDP depends on agriculture and 70% of population live in rural area and majority of them are farmers (Hernández-Vásquez *et al*., 2021). Providing better care and nutrition for rural population has become public health challenges in Myanmar. There is a paucity of knowledge on breastfeeding among family farmers and therefore, this study aimed to find out the knowledge and attitude of exclusive breastfeeding and its social determinants among Myanmar family farmers.

MATERIALS AND METHODS

A cross-sectional study was conducted in Magway Division which was in central Myanmar from June to September 2020. Total 160 mothers of 6 to 24 months aged infants who resided in rural area took part in this study by convenience sampling. The mothers who have 6 to 24 months children at the time of data collection were eligible to include in this study. Those mothers who had admitted hospitals for certain reasons and who were travelling at the time of data collection were excluded from this study. Data was collected by face-to-face interview method by using the structured questionnaire.

A total of 10 questions were asked to assess the knowledge level and another 10 questions were asked to assess the attitude level of the respondents. Those who scored more than 70% were considered as having good knowledge, whereas those who scored less than or equal to 70% were considered as having poor knowledge. For attitude towards exclusive breastfeeding, those who scored more than 75% were considered with a good attitude and those with score less than or equal to 75% were considered as poor attitude.

Data entry, data checking and data analysis was done with SPSS software version 25.0. Chi-square test was used to identify the association between the practice of exclusive breastfeeding and socio-demographic characteristics, family characteristics, obstetric characteristics, knowledge, and attitude of mother. p-value of <0.05 was considered to indicate statistical significance.

Ethical Consideration

Ethical clearance was taken from the Ethical Review Committee, University of Community Health, Magway, Myanmar. (Reference: UCH/SP/2019/21). Privacy and confidentiality were maintained throughout the study.

RESULTS

Total 160 mothers involved in this study and majority of them were aged in between 21-30 years (49.7%), Burmese Buddhist (99%), those with primary school education (57.5%), farmers (77.1%) and having partner's occupation as farmers (78.4%) and partner's education as primary (47.1%).

As for the family characteristics, majority of them were from nuclear families (56.9%). Most of them had more than 5 family members (54.9%), 19-24 months old baby (35.3%), male child (52.9%), first born baby (45.1%) and single child in their family (47.2%).

Obstetric history reported that majority of the respondents took proper antenatal care (98.7%), had at least 4 antenatal visits, had received information on exclusive breastfeeding during antenatal visit (85.4%) and post-natal visit (91.7%). Findings showed that more than half (56.9%) of the respondents gave birth in the hospital and home delivery is the second highest among the participants.

The prevalence of exclusive breastfeeding among the respondents was 64.7% and 89.5% of mothers started breastfeeding within half an hour. The proportion of individuals who did not practice exclusive breastfeeding was 35.29%, with the most commonly reported reasons being maternal health issues and insufficient breast milk production.

The respondents' knowledge and attitudes were evaluated through a series of questions, with individuals achieving a score above 70% classified as possessing good knowledge, while those scoring 70% or below were categorized as having poor knowledge. Findings reported that 61.4% of the study population had a good level of

knowledge and 38.6% had poor knowledge related to exclusive breastfeeding (Table 1).

For attitude towards exclusive breastfeeding, those who scored more than 75% were considered with a good attitude and those with a score less than or equal to 75% were considered as poor attitude. In this study, 89.5% of mothers were identified with a good attitude and 10.5% were identified with a poor attitude towards exclusive breastfeeding (Table 1). Majority of mothers strongly agreed that colostrum was important for the infant, and they also agreed with the benefits of breastfeeding (Table 2).

Based on the results, parental education level, as well as respondents' knowledge and attitude toward exclusive breastfeeding, were identified as key determinants of exclusive breastfeeding (Table 3).

DISCUSSION

The maternal and child health care in Myanmar had been improved and the criteria of adequacy of contacts included having 4 or more Antenatal visits and delivery at a health care facility with skilled birth attendant(s). Most of the study population had proper Antenatal care and Antenatal visit, and more than half (56.9%) of the respondents used hospital for delivery (Hmone *et al.*, 2017).

Home delivery was the second most common preference method and approximately one third of the respondents gave birth at home attended by midwives. Despite promoting safe delivery, pregnant women in rural area of Myanmar still preferred home delivery. It was supported by a study done in 2022, showing that lower socio-economic condition, husband's occupation in agriculture were negatively associated to institutional delivery (Lwin and Punpuing, 2022). A meta-analysis study based on low- and middle-income countries revealed that women in the rural area chose more home birth than those in urban area (Tong, 2012). The main reasons of home birth among Asian women were being identified as poverty, affordability, accessibility to birth attendant, remote access to health centre and traditional belief (Neves *et al.*, 2021).

The prevalence of exclusive breastfeeding based on 2015-2016 Myanmar Demographic and Health Survey was 52.2% and it was 64.7% in the current study. A national survey in Myanmar stated that breastfeeding did not depend on socio-economic factors of the family and this study indicated that the exclusive breastfeeding was quite satisfactory among family farmers although they had low education level. Moreover, breastfeeding practice among rural community and working mothers was improved by Community-based promotion of breast-feeding practices in Myanmar (Sarker *et al.*, 2016).

Breastfeeding practice did not depend on occupation and farmer women in this study had satisfactory practice of exclusive breastfeeding, showing 61.4% had good level of knowledge and 89.5% had a good attitude towards breastfeeding. These findings supported findings from the studies done in farmer women in Nigeria and China (Chen *et al.*, 2019). It was revealed that agriculture related occupations were positively associated to breastfeeding, whereas white collar and industry related occupations were negatively associated to breastfeeding (Thet *et al.*, 2018).

Maternal education was a determinant for exclusive breastfeeding in this study and most of the respondents had primary education. Survey findings from 81 low- and middle-income countries

Table 1: Maternal knowledge and attitude related to Exclusive Breastfeeding.

Variables	n	%
Knowledge level		
Poor	59	38.6
Good	94	61.4
Attitude level		
Poor	16	10.5
Good	137	89.5

Table 2: Attitude towards exclusive breastfeeding among family farmers.

Attitude questions	Strongly agree	Agree	Disagree	Strongly disagree
Breastfeeding alone is adequate up to six months.	82.4%	11.8%	3.3%	2.6%
Mother's milk contains all the necessary nutrients for the baby.	85.6%	13.7%	0.7%	0.0%
Breastfeeding can cause malnutrition of the baby.	5.9%	7.8%	13.7%	72.5%
Breastfeeding can cause low cost.	80.4%	17.0%	2.0%	0.7%
Breastfeeding causes busier for mother.	30.7%	17.6%	17.6%	34.0%
Breastfeeding can space pregnancy.	41.8%	36.6%	15.0%	6.5%
Breastfeeding should be stopped when the child becomes ill.	10.5%	11.1%	18.3%	60.1%
Breastfeeding can prevent diseases.	79.1%	20.9%	0.0%	0.0%
Breastfeeding makes love and affection between mother and baby.	89.5%	9.8%	0.7%	0.0%
Colostrum should be given to infant.	92.8%	7.2%	0.0%	0.0%

Table 3: Socio-demographic determinants of exclusive breastfeeding.

Socio-demographic characteristics	Exclusive breastfeeding		Chi-square value	*p*-value
	Yes	No		
Age of mother				
≤20 years	5	3	0.641	0.726
21-30 years	47	29		
>30 years	47	22		
Education of mother				
Primary and below	61	45	7.743	0.005*
Above primary	38	9		
Occupation of mother				
Farmer	77	41	0.068	0.794
Others	22	13		
Education of father				
Primary and below	49	39	7.386	0.007*
Above primary	50	15		
Occupation of father				
Farmer	77	43	0.071	0.790
Others	22	11		
Maternal knowledge of exclusive breastfeeding				
Good	76	18	27.823	0.000*
Poor	23	36		
Maternal attitude towards exclusive breastfeeding				
Good	96	41	1	0.000*
Poor	3	13	6.524	

*Significant at *p*-value<0.001

reported that the prevalence of exclusive breastfeeding and early initiation increased in all education levels, predominantly in women with low level of education. The same study highlighted continued breastfeeding at 1 and 2 years was reduced among women with no formal education (American Pregnancy Association, 2023). Sustainability of proper breastfeeding practice should be encouraged to all mothers.

Although majority of father's education was primary, and paternal education is another important factor for breastfeeding in family farmer. Father's role was important for exclusive breastfeeding. Partner's involvement in household chores, childcare, preparing meals indirectly helped mother in initiating breastfeeding and nursing a child (Yadanar *et al.*, 2020).

To achieve the global target to increase rate of exclusive breastfeeding to at least 50% by 2025, Myanmar Government led maternal and child health services raised the awareness of breastfeeding among the pregnant mothers, giving satisfactory level of knowledge and attitude towards exclusive breastfeeding in this study (Yadanar *et al.*, 2020). A systematic review by Dukuzumuremyi and colleagues (2020), indicated that better knowledge and positive attitude of mother were key roles in exclusive breastfeeding practices. The same findings were noticed in the current study.

Limitations of the study

This study did not assess breastfeeding practices, and there is a possibility of recall bias and selection bias in the data collection process.

CONCLUSION

The prevalence of exclusive breastfeeding among family farmer in the rural area of Myanmar was 64.7%. The knowledge and attitude towards exclusive among the respondents were satisfactory and parental education was identified as a determinant factor on breastfeeding. Findings from this study can be served as baseline data for more exploratory studies and the practice of breastfeeding, maternal nutritional intake, vaccination, and birth spacing should also be considered along with the exclusive breastfeeding.

ACKNOWLEDGEMENT

We extend our sincere gratitude to all the mothers who participated in this study and generously shared their time and experiences. Special thanks to University of Community Health, Magway for providing the necessary resources and support for this research.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

Agrawal, J., Chakole, S., & Sachdev, C. (2022). The role of fathers in promoting exclusive breastfeeding. Cureus, 14(10), Article e30363. https://doi.org/10.7759/cureus.30363

American Pregnancy Association. (2023). What's in breast milk? https://americanpregnancy.org/healthy-pregnancy/first-year-of-life/whats-in-breastmilk/

Anand, R. (2013). 4.1 infant and young child feeding. In IAP textbook of pediatrics (pp. 136-142).

Andrino, M. A. P., Balasoto, I. H. H., Bono, M. K. Z. G., & Canindo, K. R. (2016). Reasons why women choose home birth. Asia Pacific Journal of Multidisciplinary Research, 4(4), 57-63. https://doi.org/10.5281/zenodo.3035391

Bjarnadottir, A. (2024). 11 benefits of breastfeeding for both mom and baby. Healthline. https://www.healthline.com/health/breastfeeding/11-benefits-of-breastfeeding

Brown, A. (2018). Sociological and cultural influences upon breastfeeding (pp. 137-162). Family Larsson-Rosenquist Foundation.

Center for Disease Control and Prevention. (2023). Breastfeeding benefits both baby and mom. Breastfeeding. https://www.cdc.gov/breastfeeding/features/breastfeeding-benefits.html

Chen, J., Xin, T., Gaoshan, J., Li, Q., Zou, K., Tan, S., Cheng, Y., Liu, Y., Chen, J., Wang, H., Mu, Y., Jiang, L., & Tang, K. (2019). The association between work related factors and breastfeeding practices among Chinese working mothers: A mixed-method approach. International Breastfeeding Journal, 14, 28. https://doi.org/10.1186/s13006-019-0223-z

Dukuzumuremyi, J. P. C., Acheampong, K., Abesig, J., & Luo, J. (2020). Knowledge, attitude, and practice of exclusive breastfeeding among mothers in East Africa: A systematic review. International Breastfeeding Journal, 15(1), 70. https://doi.org/10.1186/s13006-020-00313-9

Hernández-Vásquez, A., Chacón-Torrico, H., & Bendezu-Quispe, G. (2021). Prevalence of home birth among 880,345 women in 67 low- and middle-income countries: A meta-analysis of Demographic and Health Surveys. SSM-Population Health, 16, Article 100955. https://doi.org/10.1016/j.ssmph.2021.100955

Hmone, M. P., Li, M., Agho, K., Alam, A., & Dibley, M. J. (2017). Factors associated with intention to exclusive breastfeed in central women's hospital, Yangon, Myanmar. International Breastfeeding Journal, 12, 29. https://doi.org/10.1186/s13006-017-0120-2

Lwin, K. Z., & Punpuing, S. (2022). Determinants of institutional maternity services utilization in Myanmar. PLOS One, 17(4), Article e0266185. https://doi.org/10.1371/journal.pone.0266185

Neves, P. A. R., Barros, A. J. D., Gatica-Domínguez, G., Vaz, J. S., Baker, P., & Lutter, C. K. (2021). Maternal education and equity in breastfeeding: Trends and patterns in 81 low- and middle-income countries between 2000 and 2019. International Journal for Equity in Health, 20(1), 20. https://doi.org/10.1186/s12939-020-01357-3

Sarker, B. K., Rahman, M., Rahman, T., Hossain, J., Reichenbach, L., & Mitra, D. K. (2016). Reasons for preference of home delivery with traditional birth attendants (TBAs) in rural Bangladesh: A qualitative exploration. PLOS One, 11(1), Article e0146161. https://doi.org/10.1371/journal.pone.0146161

Taylor, R. B., & Cameron, K. (2023). The benefits of breastfeeding for both mother and baby. WebMD. https://www.webmd.com/parenting/baby/nursing-basics

Thet, M. M., Aung, T., Diamond-Smith, N., & Sudhinaraset, M. (2018). The influence of a community-level breast-feeding promotion intervention programme on breast-feeding practices in Myanmar. Public Health Nutrition, 21(16), 3091-3100. https://doi.org/10.1017/S1368980018001799

Tong, A. (2012). Factors influencing price of agricultural products and stability countermeasures. Asian Agricultural Research. https://doi.org/10.22004/ag.econ.137216

United Nations. (2023). Goal, 2. Department of Economic and Social Affairs. https://sdgs.un.org/goals/goal2

Walters, D., Eberwein, J. D., Sullivan, L. M., D'Alimonte, M. R., & Shekar, M. (2016). Reaching the global target to increase exclusive breastfeeding: How much will it cost and how can we pay for it? Breastfeeding Medicine, 11, 413-415. https://doi.org/10.1089/bfm.2016.0128

Yadanar, Mya, K. S., & Witvorapong, N. (2020). Determinants of breastfeeding practices in Myanmar: Results from the latest nationally representative survey. PLOS One, 15(9), Article e0239515. https://doi.org/10.1371/journal.pone.0239515.

Cite this article: Htoo WL, Maung TM, Bhargava P, Phyu HP, George SD, Win MH, *et al*. Social Determinants of Exclusive Breast Feeding Among Family Farmers in Central Myanmar. J Young Pharm. 2025;17(4):986-90.