

PERCEPTION OF RURAL MARRIED WOMEN IN MYANMAR REGARDING PROVISION OF DELIVERY CARE BY MIDWIVES AND TRADITIONAL BIRTH ATTENDANTS

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ABSTRACT:

Background: Skilled birth attendants (SBAs) including midwives are important for preventing both maternal and neonatal death. In Myanmar, a large proportion of delivery care in rural areas is provided by SBAs (63.9%) especially midwives. However, some are still delivered by traditional birth attendants (TBAs) (32.6%), which may lead to increased maternal and neonatal morbidity and mortality. This study aimed to find out factors influencing perception of rural married women regarding provision of delivery care by midwives and traditional birth attendants.

Method: This was a cross-sectional study. Structured interview questionnaires was conducted in 246 married women in two villages of Leiway Township, Nay-Pyi-Taw, Myanmar who had delivered a baby within 5 years.

Results: Nearly (30%) of women were 25-29 age group with a mean age of 30.2 ± 7.37 SD years. One third of the women (33%) completed higher than secondary school level or more than 9 years of schooling. Only (34%) of women currently work and almost half of women (56%) reported having regular income. Approximately (69%) of women had ≤ 2 children and (82%) of women gave birth by skilled birth attendants. A half of women (53%) paid less than 20000 Kyats (20 USD) on delivery services. Majority of women (82%) reported that number of walking hour from home to health center was 1-2 hour(s). Mean knowledge and perception scores of women on delivery care was 18.95 ± 1.91 SD (min-15, max-24) and 48.16 ± 7.09 SD (min-29, max-61) respectively. Multiple linear regression analysis showed that women's age 25-29 years ($\beta = 3.46, p < 0.01$) and 30-39 years ($\beta = 3.01, p < 0.05$) with current worked women ($\beta = 1.94, p < 0.05$) that of knowledge scores of women ($\beta = 1.5, p < 0.001$) were significantly more likely to have positive perception on provision of delivery care by midwives and may increase perceived utilization of midwives oriented delivery care.

Conclusion: Age, working status and knowledge scores of women are the strong predictors of perception on delivery care by midwives and traditional birth attendants. Health education about advantages of midwife assisted delivery care should be encouraged to rural married women.

Keywords: Rural married women, Delivery care, Midwives, Traditional birth attendants, Myanmar

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INTRODUCTION

Every year, more than half a million of women die in pregnancy and childbirth worldwide. The majority (99%) of these deaths occur in developing countries [1]. To avoid maternal morbidity and mortality, every woman should have right to access quality maternal health services given by skilled

birth attendants like midwives. Midwives are essential for providing quality health care to mothers and children in rural settings [2]. They are regarded as backbone of Myanmar health care system because the most peripheral frontline health facility (rural health centers and sub-rural health centers) located deep in the rural community in Myanmar is run by mid-wives [3]. In most developing countries including Myanmar, current number of SBAs is insufficient, and an estimated 700,000 midwives are

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needed worldwide, but currently shortage of them about 50 %. Therefore, traditional birth attendants (TBAs) may be able to delivery some or parts of the interventions [4].

In Myanmar, mother and children constitute over 60% of the total population. MMR is 200/100,000 live births in 2010. Skilled attendants delivered about 63.9% of the pregnant women and TBAs delivered about 32.6%. The proportion of assistance by TBAs in rural areas is twice the proportion in urban areas (38% vs 16%) [5]. Wanjira et al. [6] indicated that unskilled birth attendants like TBAs are most likely to attend to deliveries in unhygienic conditions causing both the mother and the newborn at risk of delivery related complications and this may lead to maternal and neonatal morbidity and mortality.

In Sweden, the patients' age was important for their perception with the provision of nursing care [7]. According to Oo et.al study in Myanmar, younger women, i.e 30 years and below had lower utilization of SBAs then older women because women involved in decision making on their own health care with increasing age [8]. Education level of mothers affects the delivery care services. In Nigeria, Adeyemo et al. [9] indicated that education was a significant factor on perception of pregnant women toward midwives led delivery care. Working women have more decision making power and can spend money on a facility delivery because they have more chance to overcome access barriers including transportation costs or female mobility limitations [10]. Higher socio-economic status was associated with positive perception on health care where as the poor had more negative perception on health care [11].

In Kenya, Wanjira et al. [6] indicated that the higher parity of mothers, the more they practice unsafe delivery. In Thailand, mothers who delivered with SBA were more likely to use health care services because they perceived that SBAs can handle any complications occurring during delivery or after delivery [12]. In Uganda, difficult in geographic and economic access to health care was the main factors affecting perception of women [13, 14]. Knowledge about the risks of childbirth (recognition of danger signs), and benefits of skilled attendance influenced women's perception and increased perceived utilization of SBAs [9, 10]. Increasing maternal knowledge could empower them in decision making process in maternal health care [15].

The health need of women and children, particularly of those living in rural areas of developing countries including Myanmar, is not adequately met. Although Maternal and Child

Health Care services (MCH) is strengthened to improve the maternal and child health and Ministry of Health trains midwives 2 times per year to reach the target that one midwife will cover one village all over the country, it is still a challenge as national concern. Therefore TBAs play a key role in some areas and they still inevitably take care of some deliveries with unsatisfactory outcomes. So it can be thought that if community's perception express that delivery by MW has better outcome than by TBA, unnecessary morbidity and mortality of maternal and child will significantly decrease and MDG goals will be timely fulfilled. Therefore this study focused on the influencing factors for perception of rural married women regarding provision of delivery care by MWs and TBAs in one selected area of Myanmar.

METHOD

The study is based on the secondary data which was conducted at Leiway Township, Nay Pyi Taw, Myanmar. Leiway Township has high utilization of TBAs (32.6%). This data set is from Department of Health Planning, Ministry of Health, Myanmar. This study included a sample of 246 married women who had experience of at least one delivery regardless of outcomes of delivery within the past 5 years and resided in rural areas. The study used multistage sampling. This study obtained IPSR-Institutional Review Board (IRB) approval from Institute of Population and Social Research (COA. No. 2014/1-1-24).

Knowledge was measured using 15 questions for knowledge on delivery care. The responses were "Yes" and "No". Correct answers were scored 2 and incorrect answers were score 1. The higher score indicated the more knowledge. The score ranged from 15-24. There are 26 questions for perception (15 question from attitude questionnaires and 11 questions from perception questionnaires) because attitude toward delivery care and perception toward delivery care questionnaire were same concept. In attitude questionnaires, there were 5 options: strongly agree, agree, neutral, disagree and strongly disagree are given and scores as 5,4,3,2,1 accordingly. The scores ranged from 15-75. And in perception questionnaires, 3 responses like Yes, No, Don't know and score as 3,2,1 accordingly. The scores ranged from 11-33. These scores were combined into perception scores ($15 \times 5 = 75$ and $11 \times 3 = 33$). So, total perception score ranged from 26 -108. The higher perception score indicated the more positive perception about delivery care by midwives.

Descriptive statistics was used to describe frequency and percentage distribution of variables.

Table 1 Percentage distribution of socio-economic and demographic characteristics, maternal characteristics, access to delivery care

Variables	Number	Percentage
Age group		
≤ 24 years	57	23.2
25-29 years	73	29.7
30-34 years	53	21.5
≥ 35 years	63	25.6
Education		
No education	23	9.3
Primary	72	29.3
Secondary	71	28.9
> Secondary	80	32.5
Working status		
No	57	65.9
Yes	73	34.1
Household income regularity		
No	57	43.9
Yes	73	56.1
Parity		
≤ 2 children	57	23.2
> 2 children	73	29.7
Attendant on delivery care		
Traditional Birth Attendants	57	17.9
Skilled Birth Attendants	73	82.1
Affordability to delivery care		
< 20000 kyats	57	53.3
20001-50000 kyats	73	22.3
> 50000 kyats	53	24.4
Accessibility to delivery care		
< 1 hour	41	16.7
1-2 hour	201	81.7
> 2 hour	4	1.6

For data analysis, Stata software programme was used. Student's t test, ANOVA, and correlation were used for bivariate analysis. Multiple linear regression analysis used to determine the relationship between each independent variable (socio-economic and demographic characteristics, maternal characteristics, access to delivery care and knowledge of rural married women regarding provision of delivery care by midwives and by traditional birth attendants) and dependent variable (perception of rural married women regarding provision of delivery care by midwives and by traditional birth attendants).

RESULTS

Cases with missing data was dropped out and run analysis what remained. Therefore, total sample size decreased from 350 respondents to 246 respondents. Table 1 showed that nearly 30% of women were 25-29 years age group. Education refers to the highest level of education attended by the women. One third of the women (33%) completed higher than secondary school level. Most of women

(66%) reported full-time housewives at the time of the survey. Regarding household receiving regular income, almost half of women (56%) reported having regular income. Parity refers to number of children of women at the time of survey. Most of women (70%) had ≤ 2 children. Attendants at delivery care indicate whether women's delivery was attended by trained health personnel or not. Majority of the women (82%) gave birth by SBAs. Affordability means amount of costs for delivery care services (drugs, consultation fees, hospital costs, travel costs, others costs). About half of women (53%) paid < 20000 kyats on delivery services (1 US\$ = 900 kyats). The time taken by women to the nearest health centers indicates the distance between their house and health facility. The majority of women (82%) reported that number of walking hour from home to nearest formal health center was 1-2 hours.

Knowledge on delivery care assesses how much the married women know about provision of delivery care by midwives and by traditional birth attendants. Results are shown in Table 2.

Table 2 Percentage distribution of knowledge score of women on delivery care

Knowledge of women on delivery care	Number of women	Percentage
15-19	142	57.7
20-24	104	42.3
Total	246	100
Mean ± SD	19 ± 1.9	
Median	19	
Minimum	15	
Maximum	24	

Table 3 Percentage distribution of perception score of women on delivery care

Perception scores of women on delivery care	Number of women	Percentage
29-49	130	53.3
50-68	116	46.7
Total	246	100
Mean ± SD	48 ± 7.1	
Median	49	
Minimum	29	
Maximum	68	

Table 4 Regression coefficient on perception on delivery care by MWs and TBAs

Perception on delivery care	β	Standard error	t	95 % of β	
				Upper	Lower
Age group					
≤ 24 years (reference)					
25-29 years	3.5**	1.2	2.9	1.1	5.8
30-34 years	3.0*	1.3	2.3	0.4	5.7
≥ 35 years	1.8	1.3	-1.2	-0.8	4.3
Education					
No education (reference)					
Primary	0.2	1.7	0.1	-3.0	3.5
Secondary	-1.1	1.6	-0.7	-4.3	2.1
> Secondary	-1.5	1.6	-0.9	-4.7	1.7
Working status					
No (reference)					
Yes	1.9*	0.9	2.1	0.1	3.8
Household income regularity					
No (reference)					
Yes	1.1	0.9	1.2	-0.7	2.9
Parity					
> 2 children (reference)					
≤ 2 children	-1.7	1.1	-1.6	-3.7	0.4
Attendants on delivery care					
TBA (reference)					
SBA	0.3	1.2	0.3	-2.1	2.7
Affordability to delivery care					
≤ 20000 kyats (reference)					
20001- 50000 kyats	1.0	1.1	0.9	-1.2	3.2
> 50000 kyats	0.8	1.1	0.7	-1.1	3.1
Accessibility to delivery care					
< 1 hours (reference)					
1-2 hours	-1.4	1.2	-1.2	-3.7	0.9
> 2 hour	1.0	3.7	0.5	-6.3	8.0
Knowledge on delivery care					
Constant	18.7***	4.6	4.1	9.7	27.7

n= 246, R²= 0.2, df= 15, 230, *** (p<0.001), ** (p< 0.01), * (p< 0.05)

Mean knowledge score of women on delivery care is 18.95 ± 1.9 SD and minimum is 15 and maximum is 24. The higher score indicated the more knowledge. It means that most of them (57.7 %) have not well enough knowledge about delivery care.

Perception on delivery care assesses how married women interpret their beliefs about provision of delivery care by midwives and traditional birth attendants based on their prior experience. The mean score of perception of women on delivery care is 48.2 ± 7.1 SD and the minimum and the maximum number is about 29 and 68 respectively. The higher perception score indicated the more positive perception about delivery care by midwives. It means that their perception about delivery care by MWs is slight negative perception (Table 3).

Considering age of the respondents, controlling other independent variables, there was a positive relationship between age group and perception on delivery care. When the young age group ≤ 24 years is a reference category, women age 25-29 year old and 30-34 years old had higher perception score, ($p < 0.01$) and ($p < 0.05$) respectively. With regards to working status, controlling other independent variables, working women had more positive perception on delivery by midwives than full-time housewives ($\beta = 1.9$ and $p < 0.05$). Knowledge had positive effect on perception by controlling other independent variables. Net of other independent variables, one unit increase in knowledge score of the respondents increased perception scores by 1.5, $p < 0.001$. Education, household income regularity, parity, attendants on delivery care, accessibility and affordability on delivery care were not significant factors for perception on delivery care (Table 4).

DISCUSSIONS

In this study, most of women (30%) are between 25-29 years of age and there is an association between age of the respondents and perception on delivery care. Current findings in this thesis, compared with age ≤ 24 years, middle age group such as age group 25-29 years and 30-34 years have more positive perception on delivery care by midwives but > 35 years age group has no association with perception on delivery care. It means that middle age groups have positive perception on delivery care by midwives. It seems that older women have more decision making power to make choosing of birth attendants and their perception lead to positive perception on delivery care by midwives as in Nepal [14].

Regarding education, one third of the respondents (33%) are above secondary school

level. Although different education level reflects the perception on utilization of skilled birth attendants, education and perception of women on delivery care had no significant association in this study. It may be due to the fact that women did not respond properly in perception questionnaires. There was observed a lot of "don't know" answers in the finding.

In this study, majority of women (66 %) is full-time housewives and it means that they have no income even a penny like other rural areas in Myanmar. There is an association between working status and perception of women on delivery care. Women who are working and earning money increase their economic autonomy and have more chance to overcome access barriers including transportation costs or female mobility limitations [16]. They can save money and spend it on skilled delivery care because of raising awareness and have got right information about delivery care services from workmates and community [10]. In Myanmar, some women who are currently working can lead the whole family with their own autonomy and this situation lead to positive perception towards delivery care by MWs.

According to current finding, only 56% of household have regular income. The study found no significant association between household income regularity and perception of women on delivery care. Generally, income regularity of household may have positive perception on delivery care by midwives than which do not have. But, almost all women can use delivery care services freely because all MCH services are free of charge in Myanmar.

In the current study, most of women (69%) have ≤ 2 children. This result is same with total fertility rate of Myanmar women (TFR = 2) [5]. Then, no significant association is observed between parity and perception on delivery care. In this study, it may be related with their first experience of delivery and if they perceived that child birth by MWs was safe and skillful, they may be delivered by midwives regardless of how many children they have.

Most of women (82%) used SBAs during delivery. But, it does not reach the UN target of SBA coverage. This study found no statistically significant differences between attendants on delivery care and perception on delivery care. In general, women once delivered by SBAs also want to deliver with SBAs next times and may have positive perception toward midwives oriented delivery care. But this situation may depend on miscommunication between patients and SBAs/TBAs in Myanmar. If they will perceive as services of MWs are limited and misperception

about inappropriate behavior of them, their perception will change to use TBAs services. Because some of respondents perceived that TBAs' health knowledge and their services have as same as MWs and are available at home, like a kin to them and affordable with minimum amount of money and patients can demand and receive additional time and support from TBAs.

More than half of the women (53 %) paid < 20000 kyats for delivery (1 US \$ = 900 kyats). Affordability to delivery care i.e. amount of cost for delivery care services is not associated with perception on delivery care. But In Myanmar, 26 % of populations are below extreme poverty line (< 1.25 US \$ per day) ; most of them live in rural area. Almost all countries, maternal health care services including delivery care in public hospital and health centers is free of charge but indirect cost such as transportation costs are still barriers among poor people. So, these high costs lead failure to access quality delivery care services.

Most of the women (82 %) live within one to two walking hour from their house to health centers. It means that they had to walk nearly one and half hours to health center in order to receive maternal health care services. Implication on geographical factors like hard to reach area, poor or non-existent roads and the absence of proper transport in rural areas, distance remains as the major obstacle for using health services [8, 17]. But, in Myanmar, most of rural people used bicycles, motorcycles and also trailer jeeps (a small 1/4-ton cargo trailer and mostly used in rural area of Myanmar) to go to health center which can save time. Even if women herself did not have any vehicles, her neighbors could help and transport her to the hospital with their own.

Knowledge on delivery care assesses whether married women have knowledge about provision of delivery care by MWs and TBAs. Regarding findings mean knowledge score of women on delivery care was 18.95 ± 1.91 SD and minimum was 15 and maximum was 24. It means that most of women have moderate level of knowledge about delivery care by MWs and TBAs. In this study, knowledge of women on delivery care is positively associated with perception of women on the delivery care. It could be said that the higher the knowledge, the stronger the good perception for midwife oriented delivery care. And, also vice versa, if they have prevailing knowledge based on their previous bad experiences about delivery care services or low knowledge on delivery care by midwives, they will have negative perception on delivery care by midwives and they will have positive perception

toward TBAs services. Like other studies, knowledge of risk involved in unskilled attendants was linked to incorrect choices in unsafe delivery. Increasing maternal knowledge could empower them in decision making process in maternal health care. If women have enough knowledge about delivery care services by SBAs, they will use delivery care services given by MWs and it also can help relieve them from misperception of midwives oriented delivery care services. Knowledge about the risks of childbirth (recognition of danger signs), and benefits of SBAs are influenced by women's perception [9, 10]. In Myanmar, midwives are also well-trained and they can give health education to women well. But because of shortage and over workload of midwives, they cannot give sufficient information about risk and benefit of child birth by SBAs and their information did not reach to target groups effectively.

In conclusion, the study reveals that some of the deliveries are still delivered by TBAs and this situation does not reach United Nations target of coverage of SBAs utilization. Adequate knowledge on delivery care will improve perceived utilization of delivery care by MWs as a whole particularly in rural settings. However, it was concluded that knowledge of women on delivery care is the most important factor influencing perception of married women regarding provision of delivery care by MWs and TBAs.

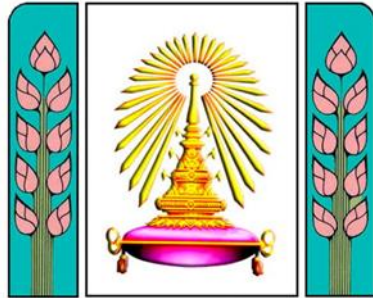
On the basis of the finding, some suggestion could be useful to help increase community utilization of midwives oriented delivery care in Myanmar. Health education about advantages of midwife assisted delivery care in target groups should be provided. Behavioral change communication and promote the knowledge and perception of rural married women to encourage midwife oriented delivery care should be enhanced. Strengthening of human resources especially midwife posting should be enhanced in rural and sub-rural health centers. MWs for kind and compassionate care and the services married women expect most should be trained. In this study, perception on delivery care has been investigated in terms of only delivery care services. So, it should be investigated antenatal care and post natal care services. For further study, it is necessary to examine relationship between not only individual characteristics of women but also household factors as well as community factors on perception on delivery services. Qualitative research should be done to fully understand reasons behind negative perception on delivery care by midwives in order to provide the effective intervention program.

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REFERENCES

1. World Health Organization [WHO]. Education material for teachers of midwifery. 2nd ed. Geneva: WHO; 2008.
2. World Health Organization [WHO]. The World health report 2005: make every mother and child count. Geneva: WHO; 2005.
3. Ministry of Health Myanmar. Health in Myanmar 2013. Myanmar: Ministry of Health, Myanmar; 2013.
4. World Health Organization [WHO]. WHO maternal mortality fact sheet. (Fact sheet No.348). Geneva: WHO; 2012
5. Ministry of Immigration and Population Myanmar. Country report on 2007: fertility and reproductive survey. Myanmar: Ministry of Immigration and Population, Myanmar; 2009.
6. Wanjira C, Mwangi M, Mathenge E, Mbugua G, Ng'ang'a Z. Delivery practices and associated factors among mothers seeking child welfare services in selected health facilities in Nyandarua South District, Kenya. *BMC Public Health*. 2011; 11: 360. doi: 10.1186/1471-2458-11-360.
7. Johansson P, Oleni M, Fridlund B. Patient satisfaction with nursing care in the context of health care: a literature study. *Scand J Caring Sci*. 2002 Dec; 16(4): 337-44.
8. Oo K, Win LL, Saw S, Mon MM, Oo YTN, Maung TM, et al. Challenges faced by skilled birth attendants in providing antenatal and intrapartum care in selected rural areas of Myanmar. *WHO South-East Asia Journal of Public Health*. 2012; 1(4): 467-76.
9. Adeyemo FO, Oyadiran GO, Ijedimma MO, Akinlabi BO, Adewale AJ. Perception of pregnant women towards midwives: attitude and practice during child delivery in health institutions in Ogbomoso, South-West, Nigeria. *Epidemiology Biostatistics and Public Health*. 2014; 11(2). DOI: 10.2427/8937
10. Gabrysch S, Campbell OM. Still too far to walk: literature review of the determinants of delivery service use. *BMC pregnancy and childbirth*. 2009; 9: 34. doi:10.1186/1471-2393-9-34
11. Nikoloski Z, Mossialos E. Corruption, inequality and population perception of healthcare quality in Europe. *BMC Health Services Research*. 2013; 13: 472. doi:10.1186/1472-6963-13-472
12. Arif MS. Determinants of use of maternal care services: evidence from Kanchanaburi province, Thailand. [Kanchanaburi: S.n]; 2005.
13. Armstrong A. The impact of traditions and traditional birth attendants on maternal mortality: a case study of Nyakayojo sub-county, Mbarara district, Uganda: University of Colorado; 2011.
14. Furuta M, Salway S. Women's position within the household as a determinant of maternal health care use in Nepal. *Int Fam Plan Perspect*. 2006 Mar; 32(1): 17-27.
15. Phoxay C, Okumura J, Nakamura Y, Wakai S. Influence of women's knowledge on maternal health care utilization in southern Laos. *Asia Pac J Public Health*. 2001; 13(1): 13-9.
16. Kistiana S. Socio-economic and demographic determinants of maternal health care utilization in India. Adeliade, Australia: [S.n]; 2009.
17. Karkee R, Binns CW, Lee AH. Determinants of facility delivery after implementation of safer mother programme in Nepal: a prospective cohort study. *BMC Pregnancy Childbirth*. 2013; 13: 193. doi:10.1186/1471-2393-13-193.



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