## ABSTRACT

Background: Early neonatal death represents 73% of all newborn deaths worldwide. In Myanmar, over 50,000 children under 5 years of age die each year and nearly half of these are neonates. Infant mortality rate (IMR) was 40 and neonatal mortality rate was 26 per 1000 live births in 2015. Most of these deaths occur in home delivery which is common in rural area. To reduce the early neonatal deaths in Myanmar, mothers' knowledge and practice for early neonatal care (ENC) in rural area needs to be investigated and improved.

Objective: This study aims to assess the practices of ENC by mothers and to assess the factors associated with ENC practices by mothers in the rural area of Magway Region in Myanmar.

Method: This is a cross-sectional descriptive study conducted between November and December 2017 in the catchment area of Satthwa Rural Health Center, Taungdwingyi Township, Magway region of Myanmar. Semi-structured pre-tested questionnaires including socio-demographic characteristic, obstetric characteristic, knowledge and practice on ENC including 1) cord care, 2) breastfeeding, 3) thermal care, and 4) others, were used, and 103 mothers who have 7 to 60 days aged babies were involved. In-depth interview to 5 mothers and 5 health care providers was also conducted. For data analysis, Fisher's exact test was used to find out the association of ENC practices with independent variables of mothers and delivery.

Result: Among the mothers, 74% delivered at heath facilities, while the remaining 26% delivered at home. All the mothers delivered at health facilities were cared by skilled birth attendants (Doctors, Lady Health Visitor or Midwives), while 59% of home delivered mothers were cared with non-SBAs.

Out of 22 ENC practices, 16 practices were conducted by more than 80% of mothers. Practices of low performance were receiving eye care (4%), receiving immunization within 24 hours (27%), dry cord care, applying nothing on the cord stump (54%), initial breastfeeding within one hour (67%), skin to skin contact within one hour (73%), and bathing after 24 hours (80%). Compare to those with home delivery, mothers with facility delivery received proper dry cord care (61% vs. 37%, p<0.05), immunization after delivery (33% vs. 11%, p<0.05), new cloth wrapping (93% vs. 48%, p<0.01), and weighing baby (99% vs. 59%, p<0.01). Mothers who delivered with SBAs bathed baby after 24 hours more than those who delivered with non-SBAs (85% vs, 50%, p<0.01).

For the relation between knowledge and practice of ENC, mothers with knowledge practiced significantly more on early breastfeeding (p<0.001), delay bathing (p<0.01), and proper dry cord care (p<0.05).

Conclusion: Many ENC practices were conducted more than 80% of mothers of both facility delivery and home delivery. But, proper dry cord care was conducted only 54% of mothers and especially low in mothers with home delivery. Practices of early skin to skin contact, early breastfeeding, and delayed bathing were relatively low, and all these practices were related with mothers' knowledge on ENC. Services of eye care and early immunization are extremely low with no relation with mothers' knowledge. These services must be improved properly at the service provider side. Education for dry cord care, early breastfeeding, early skin to skin care, and delayed bathing must be enhanced not only for mothers but also for both non-SBAs and SBAs.

(538 words)