


**EFFECT OF MOBILE PHONE
SHORT MESSAGE SERVICE ON
EXCLUSIVE BREASTFEEDING AND
POSTPARTUM FAMILY PLANNING PRACTICES
OF LACTATING MOTHERS IN YANGON REGION**

The logo of the University of Public Health is a shield-shaped emblem. It features a central caduceus (a staff with two snakes entwined around it and wings at the top) set against a light blue background. The shield is framed by a yellow laurel wreath. At the top of the shield, there is a banner with text in Burmese script.

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**PhD (PUBLIC HEALTH)
UNIVERSITY OF PUBLIC HEALTH
YANGON
2021**

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the Postgraduate Academic Board of Studies
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ABSTRACT

Maternal and child health care is the major public health sector for national development. During the first 1,000 days of life: pregnancy through the first 2 years of life is the critical period for the growth and development of children's future lives. The spacing birth interval of 24 months or more between two pregnancies is an effective intervention for reducing maternal, perinatal mortality, and their consequences. Annually over two-third of under-five deaths are linked with malnutrition which is also associated with improper feeding practices. The rapid growth of Myanmar Mobile market and telecommunication was taken the opportunity for the intervention in this study to improve maternal and child health. A community-based intervention study (group randomized trial) was conducted aiming to assess the effectiveness of mobile phone short message service on exclusive breastfeeding (EBF) and postpartum family planning practices (PPFP) of lactating mothers. The study was conducted among 30-34 weeks gestational pregnant women (n= 94 in the intervention group and n= 100 in the control group) in South Dagon and Hmawbi Townships from July 2019 to June 2020. One time phone call confirmation of delivery status and two times follow up at two months and six months of child age were conducted to assess intervention improvement. Wealth index and propensity scores were calculated and used in the logistic regression model (Model-1) to adjust differences of baseline characteristics and potential confounding variables. In Model-2, generalized estimating equations with underlying logistic regression model was used to adjust for within-person correlation and time effects of follow up.

Findings revealed that mobile phone short message service (SMS) improved infant young child feeding practices (IYCF) and child morbidity status in the intervention group. However, there was no significant difference in early initiation of breastfeeding and PPFP practice at 6 months postpartum between the two groups. Lactating mothers from the intervention group had significantly higher in exclusive breastfeeding ($p=0.001$), predominant breastfeeding ($p=0.005$) and less early introduction of complementary food before 6 months of age ($p=0.008$) and less getting child morbidity under 6 months of age than the control group ($p=0.01$). Evaluation of impact on SMS health promotion service shows that only 52 out of 94 participants always read the received SMS. Moreover, except for PPFP status, all IYCF practices and child

morbidity status over 6 months follow up were significantly higher and improved in the complete SMS received participants than the counterpart in the intervention group. It is concluded that mHealth is a useful and effective way for mobile phone users mothers and recommended to apply at the national level to promote maternal and child health services. SMS text messages of health education should be delivered with different font styles (both Zawgyi and Unicode). Dissemination of health education from basic health staff to related communities via mobile health should be implemented with the aids of mobile tablets distributed by the Ministry.

