

2008. The data collection period for analysis was from February to March 2007.

Measures

Data collection. We collected data for five variables: (a) antenatal care (ANC) and childbirth care, (b) knowledge of danger signs during the perinatal period, (c) knowledge of contraception, (d) accepting first aid, and (e) health behaviors. All data were collected via structured interviews using a questionnaire, which was developed to evaluate the participants' knowledge or awareness regarding the five variables. This questionnaire was based on the UNICEF Multiple Indicator Cluster Survey (UNICEF, 2012a,b) and also included themes regarding the country, culture, and survey goals. The validity of the questions was evaluated by two specialists in this field; consensus was used to determine which items were included in the questionnaire. The final questionnaire contained 102 questions, including 31 items regarding background characteristics, 16 items regarding ANC, 9 items regarding danger signs during the perinatal period, 10 items regarding contraception use, 3 items regarding accepting first aid, and 33 items regarding health behaviors.

Study procedures. Potential participants were identified using the village map and selected via random sampling. We also recruited study collaborators, who were all graduate students at Meiktila University, which is the nearest university to the study villages. The study collaborators completed a 5-day training program that was administered by one of the authors before data collection. The training program was developed to address the questionnaire's contents, sampling and survey implementation, communication skills, and ethical considerations. The study collaborators then visited the prospective participants, explained the aims of the study, and arranged an appointment to administer the questionnaire if the participants consented. If a participant could not complete the questionnaire due to illiteracy, the collaborator input the participant's response on the questionnaire on her behalf after she answered verbally. All data were collected between February and March 2007; the experimental villages were evaluated before the control villages. The data were then translated from Myanmar to English by native

Myanmar speakers who could also speak English (as indicated by a TOEFL score of 500).

Analytic strategy

Data analysis. The Mann-Whitney *U* test, chi-square test, and Fisher's exact test were used to compare the outcomes between the experimental and control villages. Multiple logistic regression analyses were performed to identify the relationship between the WVGs and the outcome variables. We calculated the variance inflation factor for the variables to check for collinearity before inclusion in the analyses. Differences were considered statistically significant at a *p*-value of $<.05$, and SPSS software (version 22.0; SPSS Inc., Chicago, IL, USA) was used for all analyses.

Results

Baseline characteristics

The baseline characteristics of the villages are shown in Table 1. More than half of the women in E1 were employed in the sewing industry, while the remaining women worked as farmers. The midwife characteristics were similar for E2 and C2, although the midwife characteristics were different for E1 and C1. The midwife in village C1 had married a resident, settled with her family in the village, and lived there for 15 years. All other midwives were young and had recently been assigned to the village as their first posting (≤ 3 years of experience). Among the 188 participants, 38 women were from C2 (the control for E2) and 50 women were from each of the three remaining villages. Only 38 women from C2 were included because no other women fulfilled the inclusion criteria. The sociodemographic characteristics (e.g., age, education level, and economic status) were similar between the four villages.

Questionnaire findings

Antenatal and childbirth care. Village C1 had a significantly higher proportion of participants who had received ANC at least once during the last pregnancy, compared to E1 ($\chi^2 = 15.17$, $p < .001$). In contrast, E2 had a significantly higher proportion of participants who had received ANC, compared to C2 ($\chi^2 = 24.43$, $p < .001$) (Table 2). Village C1 had a higher proportion of participants