Title: Role of internet use, mobile phone, media exposure and domestic migration on reproductive health service use in Bangladeshi married adolescents and young women.

Author name: Anita Pickard, Md Irteja Islam, Md Sabbir Ahmed, Alexandra Martiniuk.

Abstract: Numerous studies have identified factors that are associated with increased access to reproductive health services in lower-middle-income countries (LMICs). However, limited studies examined the influence of access to internet or a mobile phone, media exposure and domestic migration on reproductive health services use in LMICs like Bangladesh. This study investigated the role of such factors on the use of contraceptives, antenatal care (ANC) and postnatal care (PNC) by married adolescents and young women in Bangladesh and whether it was varied by area. Secondary data for 1665 married women aged 15–24 years, sourced from the 2019 Multiple Indicator Cluster Surveys, were included in both bivariate analyses and logistic regression modelling to examine the role of access to internet and/or mobile phone, media exposure and domestic migration on the outcome variables (contraceptive, ANC and PNC). All regression models were controlled for age, wealth, education and number of existing children. Among all participants, 69.8% were aged 20–24 years and 85.6% lived in rural areas. Of the total sample, 67.5% used contraceptives, 75.7% utilised ANC and 48.7% accessed PNC. Domestic migration significantly increased contraceptive use, with women who had moved locally within the last five years 1.84 times more likely to use contraception than those who had never moved (95% CI: 1.41–2.41, $p<0.001$). Women with internet or mobile phone access were more likely to receive ANC (aOR: 1.57, 95% CI: 1.22–2.00, $p<0.001$) compared to those without internet/mobile phone access. Media exposure was found to increase the likelihood of receiving ANC in urban areas. No significant influence was found on the use of PNC. Internet/mobile-based platforms are promising avenues for public health messaging regarding ANC in Bangladeshi married adolescents and young women. Further research is required into determinants of PNC service use in low-resource settings.

Keyword: Reproductive Health Services, Married Adolescents, Young Women, Contraceptive Use, Antenatal Care (ANC), Postnatal Care (PNC)

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