

Prevalence of undernutrition and associated factors among pregnant women in the first trimester in Colombo District, Sri Lanka

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Undernutrition during pregnancy remains a critical public health concern, particularly in low and middle-income countries, including Sri Lanka, where it contributes to poor maternal and neonatal outcomes. Identifying nutritional status early in pregnancy is crucial for timely intervention and improving maternal and fetal health. The objective of this study was to assess the prevalence of undernutrition and determine associated socio-demographic and pregnancy-related factors among pregnant women in the first trimester in Colombo District, Sri Lanka. A descriptive cross-sectional study was conducted among 422 pregnant women in the first trimester attending antenatal clinics in four purposively selected Medical Officer of Health (MOH) areas within the Colombo District. Participants were selected using a stratified random sampling technique. Undernutrition was assessed using standard mid-upper arm circumference, which was less than 23 cm. Data were collected through a validated questionnaire that consisted of demographics, pregnancy-related, and anthropometric data. Descriptive statistics were used for frequency and percentage distribution, while chi-square tests identified significant associations between undernutrition and various factors. Statistical significance was set at $p < 0.05$. A total of 380 participants responded. Of these 243 (63.9%) were aged >30 years. Among the participants, 32.9% ($n=125$) were identified as undernourished. Undernutrition was significantly associated with maternal age ($p<0.001$), educational attainment ($p<0.001$), marital status ($p<0.001$), unplanned pregnancies ($p=0.002$), absence of regular antenatal follow-up ($p=0.025$), and inadequate rest ($p<0.001$). Socioeconomic factors such as occupation type ($p<0.001$) also showed significant associations, whereas monthly income did not demonstrate a strong link ($p=0.250$). A considerable proportion of pregnant women in Colombo experiences undernutrition. Strengthening the interventions targeting young, less-educated, unemployed, and unmarried mothers, particularly those with unplanned pregnancies and irregular antenatal visits, is essential though further analysis is required to confirm independent predictors of undernutrition.

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