

OP-05

Maternal factors associated with low birth weight among deliveries registered in 2020 in the Nallur Medical Officer of Health, Sri Lanka

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Background: Maternal health and care during pregnancy, childbirth and the postpartum period are important determinants of neonatal wellbeing.

Objective: This study aims to describe the maternal and birth profile of deliveries registered in the

Nallur Medical Officer of Health (MOH) Area in 2020 and to determine the maternal factors associated with low birth weight (LBW).

Methods: A community-based cross-sectional analytical study was carried out using secondary data extracted from the "B" portion of pregnancy records and child health development records at the offices of public health midwives (PHM) of the Nallur MOH Area. The details of women who delivered in 2020 (sociodemographic profile, pregnancy profile, family history, delivery details) and their birth details were collected using KoboCollect toolkit. Descriptive analysis was performed using SPSS (v25). Factors associated with LBW were identified with bivariate analysis.

Results: In total, 339 deliveries were included. Mean age of the mothers was 30.2 (SD 4.9) years. A large proportion had studied beyond Grade 11 (33.0%, n=112) and were housewives (71.7%, n=243). At registration with PHM, the median period of amenorrhea was 7.0 (IQR 6.0-8.0) weeks, mean Body Mass Index (BMI) was 23.4 (SD 4.6) kgm⁻², and over three-quarters (77.9%, n=264) were on folic acid; 8.8% (n=30) and 6.2% (n=21) had a family history of diabetes and hypertension, respectively, while 13.0% (n=44) had a family history of both conditions. Anaemia was recorded at least once during pregnancy among 25.1% (n=85); other diseases diagnosed were gestational diabetes (n=11, 3.2%), respiratory diseases (n=7, 2.1%), and pregnancy-induced hypertension (n=1, 0.3%). Almost all deliveries were live-born (n=337, 98.8%); 53.7% were vaginal (n=182) and 42.8% were by caesarean section (n=145). Most deliveries occurred in Teaching Hospital, Jaffna (n=288, 85.0%). The ratio of male: female babies was 1:1 (169:170). The prevalence of LBW was 13.0% (n=44). There was no evidence of an association between LBW and maternal factors such as age <20 and >35 years (OR:1.26, 95% CI 0.58-2.69), underweight and overweight (OR:1.36, 95% CI 0.75-3.58), comorbidities (OR:1.0, 95% CI 0.50- 2.0) and family history of diabetes, hypertension or both (OR:1.12, 95% CI 0.56 - 2.23).

Conclusions: There was no evidence of an association between LBW and maternal factors. A study with a larger sample size is recommended.

Keywords: Maternal and child health, pregnancy profile, birth profile, low birth weight