



A Study of the risk factors of Low Birth Weight of Neonates at Matara General Hospital

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Birth weight is a powerful predictor of infant growth and survival. Infants born with low birth weight (LBW) begin life immediately disadvantaged and face extremely poor survival rates. In most developing countries it was approximated that every ten seconds an infant dies from a disease or infection that can be attributed to LBW. According to the definition of WHO, LBW neonates are those that weigh less than 2500g at the time of birth, and others are normal birth weight (NBW). Compared to NBW neonates, LBW is positively associated with infant mortality and negatively associated with normative childhood cognitive and physical development. Objective of this study is to identify and quantify the most effective risk factors of LBW among some selected factors.

Mothers who only just delivered babies were randomly selected for the study in three randomly selected days. Selected mothers were interviewed to obtain answers to a pretested questionnaire. Information were also collected using Bed-Head Tickets (BHT), ward records of neonates & mothers and clinical reports pertaining to mother's pregnancy. The study was carried out at ward no: 29 and 30 in General Hospital, Matara. Seventeen predictor variables describing health, economical background, education level and history of pregnancy period were examined pertaining to 154 individual births. The results show that the majority of neonates were NBW 117 (76%) and others were LBW neonates 37 (24%). All predictor variables are independent of each other since there has been no strong correlations. χ^2 -Test and Fisher's Exact Test were used in preliminary analysis to obtain associated predictors with LBW. With respect to the results of the preliminary analysis and clinically importance of the predictors, multivariate logistic regression has been applied to obtain the best fit model for the sample data. R statistical software for Windows (version 2.10.1) has been used in the statistical analysis.

Results of this study indicate that the major risk factors for LBW are premature labor, gestational age of mothers and status of birth.

Key words: Low birth weight (LBW), Risk factors, Neonates (infant < 28 days)