## **ABSTRACT**

## **Introduction:**

Pregnancies can be either planned or unplanned. Unplanned pregnancies are a major public health issue globally causing poor maternal and foetal outcomes. Addressing this problem would improve the well-being of antenatal mothers and their children. Family planning is an important step to minimise the burden of unplanned pregnancies.

# **Objective:**

To determine the prevalence of unplanned pregnancies & their associated factors among antenatal clinic attendees & their family planning preferences, in Thimbirigasyaya Divisional Secretariat Division.

## **Methods:**

A cross-sectional study was conducted in three randomly selected antenatal clinics (Borella, Kirula and Wellawatte) which covered District 3, District 4 & District 5 Medical Officer of Health (MOH) areas of Thimbirigasyaya Divisional Secretariat Division of the Colombo Municipal Council. A total of 425 antenatal mothers who attended these antenatal clinics, fulfilling the inclusion criteria were included in the study using a consecutive sampling method. The principal investigator using interviewer-administered questionnaires did data collection. Data on socio-demographic factors, previous pregnancies if any, planning status, use of family planning practices & decision-making by the couple were collected. Regarding the current pregnancy, the planning status, utilisation of health services, decision to have the pregnancy and family planning preferences following the current pregnancy were obtained and analysed. The prevalence of unplanned pregnancies was calculated based on responses given to the question on the timing of the current pregnancy. Statistical analysis & strength of association between the planning status of the current pregnancy and its associated factors was done using the Chi-Square test, Odds Ratio and 95% confidence interval. Family planning practices and preferences were calculated as percentages. Statistical Package for Social Sciences (SPSS) version 21 was used for data analysis.

## **Results:**

The total sample size was 425 and there were no nonresponders as all participants were willing to join the study. The age distribution was between 15 to 44 years. The age group of 22 to 34 years included 83.2% of the total study population. There were 37.2% Sinhalese, 33.9% Moors and 28.9% Tamils in the study sample. The prevalence of unplanned pregnancies was 32.7% in the study population. The 95 % confidence interval was 28.26 - 37.39.

Being married (p = <0.05, OR = 3.08, CI. = 1.15-8.3), marital age less than 20 years (p = <0.001, OR = 0.3, CI. = 0.19-0.47), highest education level of mother being less than Grade 11 (p = <0.001, OR = 0.42, CI. = 0.25-0.68), highest education level of spouse being less than Grade 11 (p = <0.05, OR = 0.48, CI. = 0.29-0.79), mother being employed in the preceding 12 months (p = <0.001, OR = 4.18, CI. = 2.32-7.53), monthly household income of less than LKR 25,000 (p = <0.001, OR = 0.47, CI. = 0.31-0.72), number of past conceptions being two or less (p = <0.05, OR = 2.1, CI. = 1.06-4.12), interpregnancy interval of less than 24 months (p = <0.001, OR = 0.25, CI. = 0.12-0.53), using family planning practices in the past (p = <0.05, OR = 0.62, CI. = 0.4-0.94), intake of folic acid before pregnancy (p = <0.001, OR = 2.27, CI. = 1.5-3.43), never wanting or expecting the current pregnancy (p = <0.001, OR = 0.005, CI. = 0.0096-0.064) and not planning for another pregnancy (p = <0.001, OR = 0.31, CI. = 0.2-0.47) had statistically significant associations with planning status of the current pregnancy at 95% confidence interval (p < 0.05).

Being less than 20 years of age at first pregnancy (OR = 0.67, CI. = 0.36-1.24), use of family planning at the time of pregnancy (OR = 0.57, CI. = 0.32-1.05), time of first antenatal clinic registration within 12 weeks of gestation (OR = 1.5, CI. = 0.88-2.56), number of children expected after marriage being two or less (OR = 1.04, CI. = 0.61-1.74), having home visits by health care workers during antenatal period (OR = 0.79, CI. = 0.53-1.19) and mother visiting the hospital for any other medical condition during the pre-pregnancy period (OR = 0.66, CI. = 0.39-1.13) did not show any statistically significant association with planning status of the current pregnancy at 95% confidence interval (p > 0.05).

Thirty-three per cent of antenatal mothers had used some form of family planning method in the past and most of them had used condoms and depot-medroxyprogesterone acetate. Side effects were the major reason for not using a method in the past among non-users.

Around 60% had decided to use a family planning method following the current pregnancy and the majority have decided to use their chosen method for two to five years.

## **Conclusions:**

According to the study, one-third of the pregnancies at antenatal clinics in the Thimbirigasyaya Divisional Secretariat Division were unplanned pregnancies. The following associated factors showed a positive association with the planning status of the current pregnancy at a 95% confidence interval: being married, marital age less than 20 years, highest education level of the mother being less than Grade 11, highest education level of the spouse being less than Grade 11, the mother being employed in the preceding 12 months, monthly household income of less than LKR 25,000, number of past conceptions being two or less, an interpregnancy interval of less than 24 months, using family planning practices in the past, intake of folic acid before pregnancy, never wanting or expecting the current pregnancy and not planning for another pregnancy.

One-third of the mothers had used a family planning method in the past, primarily to space their pregnancies. Following the current pregnancy, more than half of the participants intended to use a family planning method, with depot-medroxyprogesterone acetate being a popular choice. Half of the future users said they planned to use their chosen method for two to five years, whereas non-users said the main reason they didn't want to use family planning in the future was because of negative side effects.

#### **Recommendations:**

Improving the education level of females, female employment and creating awareness among the vulnerable population regarding family planning methods is important. Special attention should be given when providing services related to pre-pregnancy counselling and family planning. Studies on the failure of family planning methods and postnatal outcomes following unplanned pregnancies should be carried out to broaden the knowledge and understanding of this public health problem.

**Keywords:** 'Unplanned pregnancies', 'Associated factors', 'Family planning preferences', 'Antenatal clinic attendees'