

Buitrago Carolina. 2014. **Differences in Birth Weight of Newborns Delivered by Adolescents and Adult Women at the Nam Pong District Hospital.**

Master of Public Health Thesis, Faculty of Public Health, Khon Kaen University.

Thesis Advisors: Prof. Frank P. Schelp,
Assoc Prof. Dr. Pattara Sanchaisuriya

ABSTRACT

Adolescents are a growing population worldwide that have unmet needs especially in reproductive health. Teenage pregnancy has been experiencing a steady increase in developing countries as Thailand. There is a blurred line among ages because of the contradictory findings about the relation of adolescent pregnancies in higher age groups and the merely biological related risks. There is a huge debate and contradiction among studies, where it has not been established if outcomes of pregnancy are exclusively related with age or if it's a product of the synergism between social and biological factors that lead to deleterious health outcomes for the mother and the child. The main purpose of the study was to assess the birth weight of newborns of adolescent and adult women in order to determine a possible risk for the health of teenagers and their children. The birth weight in this study served as a proxy indicator of health. The study was conducted at the Nam Pong District Hospital by collecting data from hospital records. Women of all age groups who gave birth at the hospital from September 2013 to May 2014 were included into the study. Those with any comorbidity that could lead to complication during pregnancy or delivery were excluded. Additional variables investigated were gestational age, visits to antenatal care services and hematocrit values. After the exclusion criteria were applied, 340 women and children were included for the analysis. The mean age was 24.6 (SD 6.4). Adolescents, as the group defined by WHO (less than 20 years) accounted for the 31.1% of the study group. The teenage group was divided into adolescents below 16 years old, those 16 and less than 18 years old and late adolescents aged 18 to 20 years adolescents (less than 18 years) and late adolescents (18-20 years. Twenty (5.9%) girls belonged to youngest group; the following teen age group comprised of 42 (12.4%) girls, the adolescent group within the age range of 18 to 20 years included 44 (12.9%) females and the group of adult pregnant women of 243 (68.8%) individuals.

There were a total of 27 (7.94%) cases of Low Birth weight; among them 13.3 have adolescent mothers (age less than 18) and 3.28 in the group of 18-20 years but the differences were not statistically significant. differences among age groups with respect to birth weight were found in the normal range. The mean birth weight overall, was of 3023.3gr (SD 410.9). Adolescents have a mean of 2831.5gr (SD 409.4), late adolescents 3011.7 gr (SD 316.3) and adults 3058 gr (SD 422.9). Linear regression showed an increase of 11.4 gr (95%CI 4.64-18.17; p-value 0.001) for each year increasing age of the mothers. Performing an ANOVA test the difference in the means of BW among the groups (F-ratio 6.76 p-value 0.0013) turned out to be statistically significant. Post hoc comparisons were conducted to evaluate pairwise differences and it revealed that statistically significant differences (p-value 0.5) between adults and late adolescents could not be established. For antenatal care (ANC), it was found that 26.6% of adolescents attended the service for less than 4 times when compared to the other groups. The differences were statistically significant. ANC visits was also related with low birth weight showing that the odds of low birth weight are 6.7 (95%CI 2.53-16.99) times higher when there is an insufficient number of ANC visit. Stratifying by age did not result in a significant difference among the groups.

In conclusion, adolescent's females did not differ from adult women and late adolescents girls regarding the risk of delivering a low birth weight baby. At this point it is important to highlight the role of ANC in the improvement of birth weight which especially however relates to adult women even more. Despite the high coverage of this service throughout Thailand, the study shows that adolescent women in the study population did not fulfill the minimum recommended total number of visits and it was associated with LBW for the newborns of the adult women attending Nam Pong District Hospital for delivery.