

Abstract of Master's Dissertation

No.1

Course	Master of Public Health	Name	SAMBATH SREYLEAK
Thesis Title	Risk factors associated with Preterm Births: A Case-Control study at National Maternal and Child Health Center in Cambodia		

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Background: Preterm birth (PTB) is well-known as a public health problem, threatening the lives of millions of babies in the world. WHO defines PTB as live birth delivery before the completeness of 37 weeks of gestational age or less than 259 days from the last first day of menstruation. It is estimated that 15 million babies are born prematurely each year, and more than one million die from its complications. The higher prevalence is in Southeast Asia and Sub-Saharan Africa, where health systems are fragile and healthcare services utilization is low. In 2019, prematurity was responsible for 44% of neonatal deaths in Cambodia. However, the risk factors associated with preterm birth and the available data are scarce and not well documented. The identification of associated risk factors is essential for timely intervention in at-risk pregnant women. Thus, it is urgent to identify the potential associated risk factors of PTB in Cambodia.

Objectives:

This study aims to investigate factors associated with PTB among postpartum women enrolled at National Maternal and Child Health Center (NMCHC), Phnom Penh, Cambodia. Specifically, are:

1. Describe the socio-demographic characteristics of postpartum mothers.
2. Identify factors associated with PTB among the participants.

Methods: A hospital-based unmatched case-control study was carried out on 100 cases and 100 control postpartum mothers from mid-July to early September 2022 in NMCHC. Cases and control groups were recruited from the delivery ward's registration book. When an eligible case was identified, the respective control group was equivalently selected until the required sample size was attained. The gestational age was determined using the last menstruation period (LMP) with or without reliable ultrasonography measured between the first trimester until the 16th week of gestation. Face-to-face interviews using structured questionnaires and participants' medical record files were utilized to collect data.

* The abstract, containing background, objectives, methods, results and conclusion should not exceed 300-500 words and printed double sided on

A4 paper)

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<p>Microsoft Excel 2016 and Stata IC software program (version 15.1) were used for data entry and statistical analysis, respectively. Independent variables with P-value ≤ 0.25 in bivariate analysis were purposefully imputed in the multivariable logistic regression analysis. Adjusted Odds ratio (AOR) and 95%CI, along with P-value ≤ 0.05, were considered significant for the association. Ethical approval was obtained.</p> <p>Results: Out of 100 cases and 100 control postpartum mothers recruited, the response rate was 93.89%. Maternal aged 18 to 24 years [AOR=4.51, 95%CI: 1.977-10.326, P-value≤ 0.001], higher education [AOR=2.743, 95%CI:1.057-7.118, P-value≤ 0.038], twin gestations [AOR=20.281, 95%CI: 2.270-181.195, P-value ≤ 0.007], PROM [AOR=4.564, 95%CI: 2.085-9.989, P-value≤ 0.001], pre-eclampsia/eclampsia [AOR=3.954, 95%CI: 1.484-10.536, p-value≤ 0.006] were found to be risk factors associated with PTB. However, sexual intercourse in the last trimester of pregnancy was a protective factor against PTB [AOR=0.494, 95%CI: 0.254-0.961, P-value≤ 0.038].</p> <p>Conclusion and Recommendation: This study concluded that maternal aged 18 to 24 years, PROM, twin gestations, educated mothers, and pre-eclampsia/ eclampsia were risk factors exposing pregnant women to PTB. Nevertheless, sexual intercourse was a protective factor. Although some independent variables have not demonstrated an association with PTB, they still need to be further investigated or can be used for screening at-risk women.</p> <p>Keywords: Preterm birth, risk factors, case-control study (Word count: 497 words)</p>			