

## RISK FACTORS OF PRETERM DELIVERY AMONG MOTHER WITH PRETERM CONTRACTION IN SARAWAK

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Preterm birth as defined by World Health Organization (WHO) is the birth of a baby prior to 37 completed weeks of gestation (WHO, n.d). Preterm births can be spontaneous, resulting from preterm labor or preterm premature rupture of the membranes, or medical, resulting from a preterm cesarean or induced delivery. Based on report by WHO, more than 60% of preterm births occur in third world countries such as Africa and South Asia. The top five countries with the highest number of preterm births were India, China, Nigeria, Pakistan and Indonesia, followed by United State of America being the sixth along with other South Asia countries (Blencowe *et al.*, 2012). The Born Too Soon report 2012 by Howson *et al.* (2013) stated that 15.1 million babies were born before 37 weeks of pregnancy every year in the world, representing one of every tenth baby, signifying the importance of preterm birth as global health burden (Howson *et al.*, 2013). In Malaysia, the number of preterm birth in 2010 was 70,900 (12.3%), ranked below 50 in the world (Blencowe *et al.*, 2012).

In addition, premature infants who survive often have significant morbidities including necrotizing enterocolitis, retinopathy of prematurity, intra-ventricular haemorrhage, chronic lung disease and developmental delay (Glass *et al.*, 2015). It was reported that 28% of the neonatal death unrelated to congenital anomalies is due to preterm birth (Lawn *et al.*, 2006). The cost estimated by the Institute of Medicine (US) Committee on Understanding Premature Birth and Assuring Healthy Outcomes, the annual societal economic burden associated with preterm birth in the United States

was \$26.2 billion, inclusive of the medical care services, maternal delivery cost, long term expenditures, early intervention services, special education services, lost household and labor market productivity associated with disabilities (Behrman & Butler, 2007).

Ideally, preventing preterm birth is the best option however prevention remains a challenge because causes of preterm birth are many and complex, and difficult to understand. Risk factors such as locality, substance intake during pregnancy, history of abortion, history of still birth, history of preterm labour, premature rupture of membrane, history of bleeding during pregnancy, urinary tract infection, hypertension during pregnancy, stress, low maternal body mass, and prolonged standing have been associated with an increased risk of preterm delivery (Alijahan *et al.*, 2014; Gebreslasie, 2016). Low socioeconomic status (SES) has been associated with an increased risk of preterm birth, although the relationship varies by SES indicator (Savitz *et al.*, 2004; Blumenshine *et al.*, 2010).

This was a cross-sectional study carried out in Sarawak General Hospital (SGH) in Kuching, Sarawak. Sarawak is one of two Malaysia states on the island of Borneo. Kuching is the city of Sarawak state and SGH is the largest government hospital in Kuching. The total delivery rate is about 12,000 annually in SGH (Annual report SGH 2014). The preterm delivery rate is about 250 in 2009 (National Obstetrics Registry 2009). The inclusion criteria were patients presented with pain and contraction in early 3<sup>rd</sup> trimester. A woman was considered to have experienced preterm contractions if she reported one or two in ten minute's uterine contractions in singleton pregnancy. The inform

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