

## Decision-Making Processes and Influences: Repeat Caesarean Deliveries

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A previous Caesarean Delivery (CD) accounts for a significant proportion of Repeat Caesarean Delivery (RCD) in high income countries [1-3]. Concern about increased maternal and neonatal risks, particularly uterine rupture and perinatal death was related to RCD [4]. While perceptions of safety were a common reason for Caesarean Deliveries by Maternal Request (CDMR) without medical indication [5], evidence demonstrates that CDMR were associated with higher rates of infection and length of hospital stay and neonatal respiratory morbidity, compared to planned vaginal delivery [6].

Women's birth choice should not be solely focused on physiological safety but also include the fulfilment of psycho-social-spiritual need. In Taiwan, RCD ranks as the top reason for the high caesarean rates [7]. More than 90% of Taiwanese women who have had a previous CD chose a RCD following their next pregnancy [8], but little is known about decision-making processes and influences. In 2012, we conducted a qualitative study in a medical centre in northern Taiwan. A total of 21 women and 11 obstetricians participated in the study. 16 women had a RCD. Factors influencing Taiwanese women's decisions included internal factors (previous negative experience of birth, concern about uterine rupture, fixing the scar of previous caesarean and unsuitable situations for vaginal birth) and external factors (obstetrician's recommendation, the experience of female significant others, an inaccurate information from internet and the unconditional financial coverage from Health National Insurance [6]. Of all these factors, previous negative experience of birth was the most frequently cited factor for women to opt for RCD. These women underwent an unsuccessful induction of labour and trial of labour in their previous birth. They were concerned they would experience the pain of a trial of labour and, in the event a CD was required, wound pain from the operation. Kuan [9] reveals that Taiwanese women were fearful to undergo pain twice again due to medicalisation hospital system [9]. While birth has become more medicalised, medicalisation of the birth environment has potentially increased unnecessary CD. Midwife-led continuity of care holds promise for improvement of over-medicalisation of the birth environment [10-12].

While shared decision-making is an aspirational framework for health care decision-making, obstetrician-directed mode of birth choice in Taiwan was difficult to implement in practice. Taiwanese obstetricians tended to recommend or arrange a RCD to women in order to decrease the risk of uterine rupture and to avoid malpractice litigation [13]. Obstetricians provided limited information regarding the benefits of Vaginal Birth After Caesarean (VBAC) and the risks of RCD, which have biased and ultimately influenced women to choose RCD. Crockery [14] reported that health professionals tend to opt for diagnostic decisions that will lead to good outcomes, rather than those

associated with bad outcomes (outcome bias). All women have the right to be fully informed of the alternative options of birth.

The internet has been found to play an important role for Taiwanese women in searching for information. Taiwanese women were afraid to ask their obstetricians for information because of obstetricians' time constraints; thus, they sought help from other women on the internet. However, a lack of comprehensive information on the internet contributed to women selecting RCD. Lagan et al. found that approximately half women used the internet as a source of information [15]. However, the quality of information on web-based resources was incomplete leading women to choose CD [16,17]. Decision aids explaining the risks and benefits regarding various birth choices help to assist women to make informed decisions [18-20].

Decisions-making process for RCD among Taiwanese women varied slightly. Decision-making processes involved searching information regarding mode of birth, evaluating vaginal birth risk, trusting obstetricians' professional judgment, and a lack of progress during the course of labour. In our current study, if women participated passively in the decision-making process regarding their options for mode of birth, their choices were primarily guided by risk reduction of uterine rupture. They were particularly influenced by obstetricians' recommendations. By contrast, women who actively participated in the decision-making regarding their birth choices were guided by a previous successful experience of vaginal birth. Comprehensive information regarding birth choices should be provided in early pregnancy. Establishing a supportive birth environment may help reduce women's fear of vaginal birth and improve women's confidence to overcome their fear.

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