

Background

Rising rates of caesarean section (CS) are a global public health issue. CS rates increased from 12.1% in 2000 to 21.1% in 2015 globally and from 7.2% in 2000 to 18.1% in 2015 in South Asia [1-2]. The World Health Organization (WHO) recommended a rate of 10-15% in 1985 [3]. There is an emphasis on the optimum use of CS for medical reasons and to avoid unnecessary intervention in low-risk pregnancies [4]. The number of CS conducted without medical indications such as maternal request is increasing [5]. CS is higher in urban, private hospitals, rich and educated women in South Asia [6].

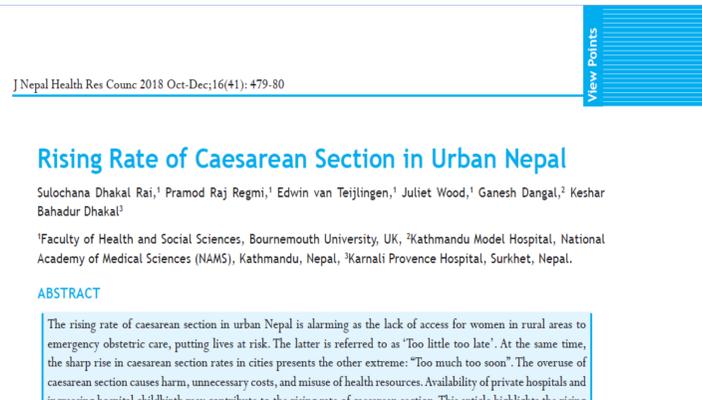
Review question:

What are the factors which contribute to rising CS rates in South Asia?



References

1. Boerma T, Ronsmans C, *et al.* : **Global epidemiology of use of and disparities in caesarean sections.** *Lancet* 2018, **392**(10155):1341-1348.
2. Dhakal Rai, S., Poobalan, A., Jan, R., *et al.* **Caesarean Section rates in South Asian cities: Can midwifery help stem the rise?** *J Asian Midwives*, 2019; **6**(2):4–22.
3. World Health Organization (WHO): **Appropriate technology for birth.** *Lancet* 1985, **2**:436-437.
4. WHO: **WHO Statements on Caesarean Section Rates.** 2015.
5. Panda S, *et al.* **Review of cesarean section on maternal request in tertiary care institute; scenario in developing country.** *Kathmandu Univ Med J* 2013, **11**(4):349-354.
6. Verma V, *et al.*: **Prevalence and determinants of caesarean section in South and South-East Asian women.** *Plos ONE* 2020, **15**(3):e0229906.
7. https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42019131237



Methods

Primary studies on CS published from Jan. 2010 to Dec. 2018 were searched on electronic databases: MEDLINE, Scopus, WoS, CINAHL, NepJOL & BanglaJOL, the protocol was registered in PROSPERO [7].

Critical Appraisal Skill Programme (CASP) checklists were used to assess the quality of studies. A narrative synthesis of the factors associated with CS was divided into distinct categories using content analysis.

Results

A total 68 studies were included in this review; exploring both indications and significantly associated factors with CS in South Asia. Foetal distress was the most common indication. Previous CS was the most common indicator for elective and repeat CS. Other common indications were antepartum haemorrhage (APH)/placenta previa/abruption, cephalopelvic disproportion (CPD), failed induction, hypertensive disorder in pregnancy, oligohydramnios, multiple pregnancy, non-pressive labour (NPOL), foetal malpresentation and breech. The most common non-medical indication was maternal request/preference. The most significant factors associated with CS were higher maternal age; higher education; urban residency; higher socio-economic status; more antenatal check-ups; low parity; and previous CS. Non-medical factors which contribute to the rise of CS were patient preference for CS, growing number of private hospitals, poor condition of public hospitals, and lack of good quality health care and hospitals in rural areas.

Discussion

Foetal distress was the most common indication for CS. The diagnosis of the former is notoriously difficult and shortage of diagnostic resources in most of South Asia add to diagnostic imprecision. Since previous CS is a common indication for CS it is a major contributing factor for rising CS rates, great effort should be put into minimizing primary CS. Higher maternal age is the most common associated factor with rising CS rates, followed by higher education, urban residency and socio-economic status. Increasing empowerment and higher socio-economic status of women leads to first pregnancies at a later age. Maternal choice/preference is the important non-medical indication for CS and significant associated factors for rising CS as women consider CS to be the safest and easiest way to give birth. This has implications for the content of antenatal information given to women about birth.

Conclusions

The review revealed various indications and determinants for CS. Great emphasis should be provided on precise diagnosis of foetal distress and minimising primary CS. The modifiable indicators reflect global trends and suggesting that a global strategy such as antenatal counselling is required to stem the rise of unnecessary CS. Realistic and candid explanation of the benefits of vaginal birth for women and babies should form an integral part of maternity care as these are issues of public health.

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