Factors associated with cesarean section delivery at health facilities in Kabarole district, Uganda: A case control study

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ABSTRACT

Background

The World Health Organization estimates that the appropriate cesarean section (CS) rates should range from 10% to 15% at the population level. CS rate is used as an indicator of access and utilization of life-saving obstetric care. There is a low CS rate (6.5%) in Uganda which contributes to poor maternal and perinatal outcomes.

Objective

This study determined the CS rates and factors associated with cesarean delivery at health facilities in Kabarole district to guide decision making to improve access, utilization and quality of CS services.

Methods

This was a facility–based case-control study conducted among 134 cases and 134 controls at health facilities that provide CS service in Kabarole district between March and April 2016. Cases and controls were recruited consecutively and interviewed.

Both qualitative and quantitative methods of data collection were used. Structured questionnaires and Key Informant interview guides were used for primary data collection. Secondary data on monthly numbers of CS deliveries in the previous 5 years were obtained from the registers using data abstraction forms. Quantitative data was entered using EpiData 3.1 and analyzed in STATA 12 (College Station, Texas, United States). Univariate analysis was done to generate descriptive statistics. A trend analysis of CS rates for the past 5 years per annual quarter was also carried out using graphical methods. Multivariable logistic regression was used to determine factors associated with CS delivery, at a significance level of $p<0.05$. Qualitative data from KIIs was transcribed, summarized and presented as text.

Results

The cesarean section rate was 25% at health facilities in Kabarole district with evident disparities in rates between low level health facilities and high level health facilities. The high level health facilities cesarean section rates ranged from 36% to 18% while the low level facilities rates ranged from 6% to 8%.

The factors that were associated with cesarean section delivery were: having a previous CS delivery (AOR: 14 CI: 3.55-51.49), having complications during pregnancy (AOR: 35.2 CI: 14.0 88.6) and ANC attendance of 4 and more times (AOR: 2.4 CI: 1.95 6.31). Inadequate human resource, inadequate medicines and supplies reported at especially lower health facilities, myths and misconceptions about CS delivery also affected access and utilization of CS services.

Conclusion and recommendations

There are low CS rates in Kabarole district especially at lower level health facilities thus the need to ensure that cesarean sections are adequately provided to reach every woman in need of the services by providing accommodation for health workers, ensuring adequate provision of drugs and supplies, monitoring and supervision of health workers at health facilities to reduce absenteeism.

Women with the predictive factors for cesarean section should be targeted in antenatal counselling to ensure delivery in health facilities that provide CS services and enable early referral. Efforts should also be made to increase knowledge about the modes of delivery to address myths and misconceptions among women in the community.