PREFERENCE OF GHANAIAN WOMEN FOR VAGINAL OR CAESAREAN DELIVERY POSTPARTUM

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SUMMARY
Objective: To determine Ghanaian women’s preferred mode of delivery and opinion of caesarean section after caesarean delivery.

Design: A cross sectional study of women who recently delivered by caesarean section prior to hospital discharge.

Setting: Two teaching hospitals in Ghana: Komfo Anokye Teaching Hospital, Kumasi, and Korle-Bu Teaching Hospital, Accra.

Respondents: 154 patients who delivered by caesarean section between the 1st and 31st August, 2003 were interviewed. Of the 154 initiating the interview, 151 completed, and 145 had complete data.

Main Outcome Measures: Delivery preference and general opinion of caesarean delivery.

Results: The majority of women interviewed indicated that they preferred vaginal delivery (55%). Despite preference for vaginal delivery among these women who had delivered by caesarean section, the majority had a generally positive opinion of caesarean section (53%).

Conclusion: Ghanaian women with experience of caesarean delivery prefer vaginal delivery.

Keywords: Ghanaian women, preference, caesarean delivery, vaginal delivery

INTRODUCTION

Caesarean section rates vary all over the world. Researchers have examined whether non-medical indications for caesarean section, such as obstetrician preference1 maternal request2 and maternal preference3-8 explain the regional variation. To date, such research has focused mainly on countries with high national rates of caesarean deliveries such as: Brazil (20-50%),9 Singapore (20%),10 South Korea (40%),11 Italy (30%),11 United Kingdom (20%),12 and Australia (20-30%).13 Overall, these studies came to a consistent conclusion that the vast majority of women in high caesarean section rate countries prefer vaginal delivery.

There has been little research to determine the preferred mode of delivery in countries with low prevalence of caesarean section. In Ghana, only 4% of live births are by caesarean delivery, a figure that has not changed significantly since 1998.9 The main objective of this study is to determine the preferred mode of delivery among caesarean delivered women in Ghana. Secondly, it is to discover their opinions regarding caesarean delivery.

METHODS

Recruitment and Study Sample

The study was conducted at the two Obstetrics Departments of the Komfo Anokye and Korle-Bu Teaching Hospitals. Komfo Anokye Teaching Hospital (KATH) is located in Ghana’s second largest city, Kumasi, and Korle-Bu Teaching Hospital (KBTH) is located in Accra, the capital city of Ghana. Obstetric patients who had delivered live born infants by caesarean section between the 1st and 31st of August 2003 were recruited into the study. The recruitment of the patients was done by Obstetric House Officers who had not participated in the patients’ delivery. The study was approved by the Committee for Human Research Publications and Ethics of KNUST/KATH. A pretested survey instrument was used to interview the recruited patients after obtaining verbal informed consent.

A total of 154 caesarean section patients were consecutively recruited into the study: 64 at KATH and 90 at the KBTH. Two open-ended questions from the survey are summarized here to examine women’s preferred mode of delivery and their general opinion of caesarean delivery. Out of the 154 patients recruited, 145 (94.1%) had complete data. The two open-ended questions from the survey were as follows:

“Kindly tell me your feelings about caesarean as against vaginal delivery now that you have been delivered by caesarean section.”

“What is your opinion of caesarean section as a way of delivery in general?”
Responses to the first question (preference) were coded into preferred vaginal delivery, preferred caesarean delivery, or no preference. The second question was coded into two categories—positive or negative opinion of caesarean delivery. The coded responses were entered into SPSS statistical software (SPSS, Version 10). The survey instrument also included questions on demographics, socioeconomic status and reproductive health history. The patient’s full, and sometimes multiple, responses to the two open-ended questions were explored to provide further context for women’s delivery preference and opinion of caesarean delivery. These data were entered into Microsoft Excel exactly as they were recorded on the survey instrument.

Data Analysis
To compare women delivering at the two sites, means and frequencies were tabulated on the demographic, socioeconomic and reproductive health history variables. Bivariate and multivariable multinomial logistic regression was utilized to detect any differences in demographic characteristics and location with the preferred mode of delivery.

The open-ended responses were grouped into themes, based on similarity of response. For example, if one study subject responded, ‘vaginal delivery is better’, and another responded, ‘vaginal delivery is the best’, the two answers were coded in the same category. Although the two statements differ in wording they represent a unified concept. After the open-ended responses were categorized into themes, the coded responses were entered into the SPSS file containing the quantitative data to facilitate data analysis.

RESULTS
The mean age of women in the sample was 29.3 ± 5.4 years, and mean parity was 2.1 ± 1.8 live births. Most respondents were Protestant or Pentecostal, and the majority had attained Junior Secondary School (or middle school) education. The majority of the women, 106/145 or 73.1%, were married.

Details of the demographic, reproductive history, and socioeconomic variables stratified by study location are displayed in Table 1. There were some significant differences between the two sites—women from Kumasi had significantly higher parity, had fewer years of schooling on average, and were more likely to have experienced the death of a child.

Table 1 Demographic, reproductive and socio-economic characteristics of the respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>n</th>
<th>Kumasi</th>
<th>n</th>
<th>Accra</th>
<th>p-value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>mean (SD)</td>
<td>57</td>
<td>30.18 (5.61)</td>
<td>86</td>
<td>28.66 (5.24)</td>
<td>0.1</td>
<td>29.27 (5.42)</td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>mean (SD)</td>
<td>58</td>
<td>2.78 (2.09)</td>
<td>64</td>
<td>1.64 (1.40)</td>
<td>0.0005</td>
<td>2.18 (1.84)</td>
</tr>
<tr>
<td>Previous CS Deliveries</td>
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<tr>
<td>mean (SD)</td>
<td>49</td>
<td>0.53 (0.74)</td>
<td>50</td>
<td>0.62 (0.78)</td>
<td>0.5</td>
<td>0.58 (0.76)</td>
</tr>
<tr>
<td>Education (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean (SD)</td>
<td>45</td>
<td>8.62 (2.96)</td>
<td>75</td>
<td>11.04 (3.69)</td>
<td>0.0003</td>
<td>10.13 (3.62)</td>
</tr>
<tr>
<td>Child Deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean (SD)</td>
<td>46</td>
<td>0.41 (0.69)</td>
<td>54</td>
<td>0.13 (0.39)</td>
<td>0.01</td>
<td>0.26 (0.56)</td>
</tr>
</tbody>
</table>

Preferred mode of delivery
The majority of respondents, 80/145 (55.2%), responded that they prefer vaginal delivery to caesarean delivery. In Kumasi, 61.0% of women preferred vaginal delivery while in Accra, this was slightly over half (51.2%). The difference in delivery preference by site was not statistically significant.

Nearly a quarter of all women in the study had no preference for a delivery mode (24.1%) according to their comments to the open-ended questions. Women, who had ever given birth, prior to this caesarean delivery, were more likely to prefer vaginal delivery. Those women who had only ever experienced caesarean delivery were more likely to not state a delivery preference while those who had experienced both caesarean and vaginal delivery were more likely to prefer vaginal delivery (data not shown). Nearly 60% of women had prior vaginal deliveries.

There were 80 women who reported a preference for vaginal delivery who made a total of 98 comments. The most frequent comment (30/98 or 30.6%) of those who preferred vaginal delivery was ‘vaginal delivery is best’ without any qualifiers added to the statement. Figure 1 displays the responses to the reasons for vaginal preference. A total of 39 comments were made by the 30 women who preferred caesarean delivery.
The most frequent comment 17/39 (43.6%) was ‘Caesarean section involves less labour pain’. The full responses to this question are found in Figure 2. Out of the 15 women who responded with a ‘no preference’ answer, the most frequent response was ‘Caesarean section is safe, but it is more expensive than vaginal delivery’.

The unadjusted multinomial logistic regression analysis with preference (vaginal, caesarean, or no preference) yielded no significant associations between study participant age, educational level, marital status, or geographical location and delivery preference. In the unadjusted model only literacy was significant in the comparison between no preference and vaginal preference. In the adjusted multinomial logistic regressions analysis, no covariates were significant.

Study participant’s opinion of caesarean section
The 145 women who responded to the question regarding their opinion of caesarean section supplied a total of 175 comments. A simple grouping of the opinion responses into generally positive and negative responses yields 93/175 (53.1%) positive statements and 77/175 (44.0%) negative statements.
Five women reported comments that did not reflect either a positive or negative opinion (5/175 or 2.9%). Four said that “the doctor knows best when it comes to caesarean section, and one said “the earlier the better”.

The detailed responses to the question about respondents’ opinions of caesarean section are shown in Figure 3. The most frequent positive response to this question was, ‘good’ and 24/175 (13.7%) fell into this category. The most frequent negative response was ‘painful’, 14/175 (8.0%).

DISCUSSION

The Ghanaian women surveyed in this study displayed a clear preference for vaginal delivery as opposed to caesarean delivery. Interestingly, this preference for vaginal delivery has also been noted by studies done in various populations with high caesarean section rates³-⁸. The national caesarean section rate therefore does not appear to correlate with women’s delivery preferences. Rates may vary while preference for caesarean delivery remains low, even though the procedure may be acceptable¹⁰-¹². Our data suggest that preference is influenced by both experience and norms—vaginal delivery was preferred among women with prior deliveries, especially those with prior vaginal delivery.

Opinions of caesarean section expressed by women in this study are similar to those expressed in countries with high rates of caesarean section³-⁶. Pain was the most frequent negative concern in this Ghanaian study. Thus, women in areas of high and low rates of caesarean section mention pain frequently in caesarean delivery perception studies. Interestingly, however, in this study there were 10/175 (5.7%) women who said that ‘CS is less painful than vaginal delivery’ when asked about their opinion of caesarean delivery.

Although analyzed together, there are statistically significant differences in parity, years educated, and number of child deaths between the samples at the two study sites. There was no significant difference in preferred mode of delivery by study site; however, the women in Accra had more positive opinions regarding caesarean delivery than women in Kumasi.

There are a few limitations to this study. First, the study participants were approached whilst still hospital patients. Women who deliver by caesarean section often feel the pain and discomfort of surgery some time after the surgery. If the women had been surveyed a few months following the delivery experience they may have answered the questions differently, having had a better understanding of the difference in long term pain between vaginal and caesarean delivery. Second, the fact that doctors interviewed the women while they were still on the hospital ward may have influenced the women to respond differently than they would have if a non-medical person had interviewed them. Third, the sample size is small. A larger sample would have offset the analysis restrictions imposed by missing responses. These limitations notwithstanding, the study provides some insight into delivery prefer-
ence in Ghana. We conclude that vaginal delivery is the preferred mode of delivery among women in Ghana who have delivered by caesarean.

ACKNOWLEDGMENTS
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