A Cross-Cultural Comparison of Attitudes Toward and Perceptions of Childbirth Interventions in Rural Kenya and Guatemala

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INTRODUCTION

- Maternal mortality remains a major global health challenge, with nearly 95% of maternal deaths occurring in low- and middle-income countries, many from preventable causes[1]
- Access to safe childbirth care can be affected by socioeconomic barriers, limited healthcare availability, and distance from trained obstetric providers[2,3]
- Cultural beliefs, family experiences, and community norms may shape how women think about childbirth, pain, and medical interventions[4,5]
- Pain relief, cesarean delivery, and assisted vaginal delivery can be important parts of obstetric care, but women's comfort with these interventions may vary across communities
- There is limited research comparing women's views of childbirth interventions across rural communities in different countries
- This study aimed to evaluate and compare attitudes toward and perceptions of childbirth interventions among women in rural Kenya and rural Guatemala

METHODS

- After KCU IRB approval, a cross-sectional, anonymous survey was conducted among women aged ≥18 years in rural Kenya and rural Guatemala
- Surveys were collected in rural Kenya from November–December 2025 and in rural Guatemala in February 2026 after completion of a community health clinic visit (Figure 1)
- The 21-item survey assessed demographics, attitudes toward labor pain control, perceptions of delivery methods and obstetric interventions, and cultural influences on childbirth
- Surveys were administered in Spanish in Guatemala and English in Kenya, with translator support available in Kenya
- A total of 49 surveys were collected and analyzed in SPSS using descriptive statistics, chi-square tests, and Mann–Whitney U tests, as appropriate

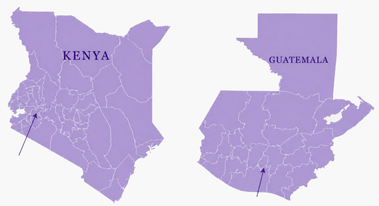

Figure 1. Study locations

RESULTS AND DISCUSSION

Table 1. Baseline demographic characteristics of respondents

	Total N = 49	Kenya n = 27	Guatemala n = 22
Age category, n (%)			
18–24 years	5 (10.2)	4 (14.8)	1 (4.5)
25–34 years	13 (26.5)	7 (25.9)	6 (27.3)
35–44 years	8 (16.3)	2 (7.4)	6 (27.3)
45–54 years	9 (18.4)	7 (25.9)	2 (9.1)
55+ years	14 (28.6)	7 (25.9)	7 (31.8)
Highest level of education, n (%)			
Fourth grade	16 (32.7)	10 (37.0)	6 (27.3)
High school	16 (32.7)	9 (33.3)	7 (31.8)
College/university	14 (28.6)	6 (22.2)	8 (36.4)
Trade school	1 (2.0)	1 (3.7)	0 (0.0)
Other	2 (4.1)	1 (3.7)	1 (4.5)
Occupation, n (%)			
Farmer	15 (30.6)	13 (48.1)	2 (9.1)
Teacher	2 (4.1)	0 (0.0)	2 (9.1)
Cook	4 (8.2)	2 (7.4)	2 (9.1)
Hotel worker	5 (10.2)	4 (14.8)	1 (4.5)
Medical officer/HCW	1 (2.0)	1 (3.7)	0 (0.0)
Student	3 (6.1)	2 (7.4)	1 (4.5)
Cleaner	1 (2.0)	0 (0.0)	1 (4.5)
Other	18 (36.7)	5 (18.5)	13 (59.1)

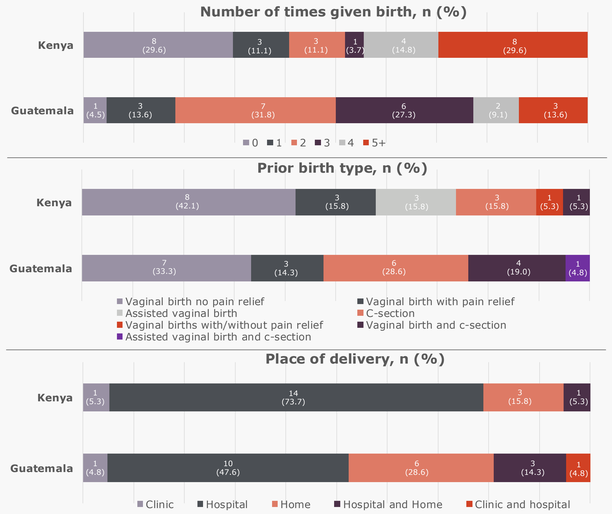

Figure 2. Obstetric history by country

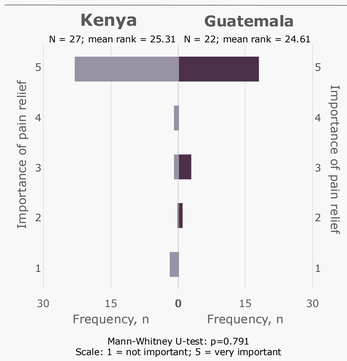

Figure 3. Pain relief importance by country

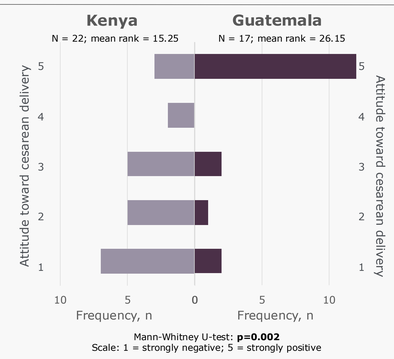

Figure 4. Cesarean delivery attitudes by country

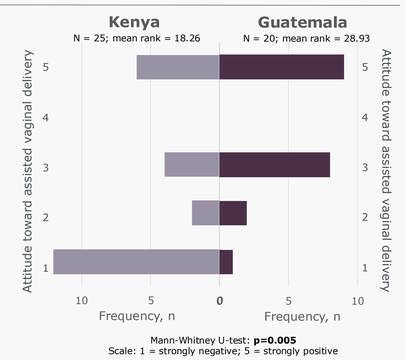

Figure 5. Assisted vaginal delivery attitudes by country

Table 2. Perceived safety of labor pain relief methods

Pain relief method	Kenya mean rank (n)	Guatemala mean rank (n)	p-value
Injection in back/spine	20.06 (25)	23.62 (17)	0.318
IV medication	20.18 (22)	20.89 (18)	0.831
Nitrous oxide/gas	19.43 (21)	18.44 (16)	0.771
Injection into vagina	19.71 (21)	16.80 (15)	0.365
Non-medicated methods	22.70 (22)	15.09 (16)	**0.028**

Table 3. Most common concerns about obstetric interventions

Intervention	Kenya most common concerns, n (%)	Guatemala most common concerns, n (%)
Epidural	Did not know what it is: 10 (37.0); Harm to child: 8 (29.6)	Afraid of injections: 9 (40.9); Harm to child: 6 (27.3)
Cesarean delivery	Having surgery: 9 (34.6); Can affect the mother: 7 (26.9)	Can affect the baby: 7 (35.0); Having surgery: 6 (30.0)
Assisted vaginal delivery	Can affect the baby: 17 (65.4); Can affect the mother: 4 (15.4)	Can affect the baby: 10 (47.6); No concerns: 6 (28.6)

- Guatemalan respondents were more likely to consider elective C-section (61.9% vs. 29.6%; **p=0.044**)
- Kenyan respondents were more likely to have heard of forceps- or vacuum-assisted delivery (70.4% vs. 19.0%; **p<0.001**)
- If intervention was needed in active labor, Kenyan women most often preferred assisted vaginal delivery (59.3%); Guatemalan women were split between assisted vaginal delivery and C-section (40.9% each; p=0.220)
- More Guatemalan than Kenyan respondents supported birth without pain relief (57.1% vs. 44.4%; **p=0.041**)
- Childbirth information sources, maternal influence, and feeling judged did not differ significantly by country (p=0.256, p=0.100, p=0.835)

CONCLUSION

- Overall, respondents shared similar views on the importance of pain relief, but differed in their familiarity with and acceptance of specific obstetric interventions
- Differences in attitudes toward cesarean and assisted vaginal delivery suggest that patients may have various levels of familiarity, concern, and comfort with these interventions based on availability of healthcare education and cultural practices
- This study highlights the importance of recognizing these perspectives to help healthcare teams provide clearer counseling, address patient concerns in a more targeted approach, and support more culturally competent maternal care, overall supporting women's health as a whole globally

LIMITATIONS/FUTURE DIRECTIONS

- The study included a small convenience sample from two rural outreach settings
- Missing responses for some questions limited the strength of subgroup comparisons
- Future studies should explore why women hold different views of cesarean and assisted vaginal delivery, including how prior birth experiences, trusted information sources, and access to obstetric care shape these perceptions

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