

Characterizing the referral process for obstetric referrals in Blantyre District: a mixed methods approach



O. Jana, A. Mitchell, L. Simwinga, A. Blair, M. Rouse, M. Mwagomba, S. Chikuyu, D. Kumwenda, K. Baltzell

1. GAIA Malawi, 2. University of California San Francisco, 3. Blantyre District Health Office, 4. Queen Elizabeth Central Hospital

Introduction

Background

Malawi continues to register high maternal (349/100,000) and neonatal (19/1000) mortality rates despite increased hospital delivery and skilled birth attendance rates¹, highlighting the need to improve the quality of care and associated health systems. The [Global Action in Nursing \(GAIN\)](#) project conducted a study in Blantyre across 7 primary health facilities and Queen Elizabeth Central Hospital (QECH) to understand the quality of care for emergency obstetric referrals.²

Study objective(s)

- To characterise peri-referral care for obstetric emergencies in Blantyre.
- To understand the facilitators and barriers to the referral process for obstetric emergencies in the district.

Quantitative Results

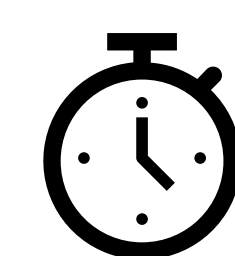


We analysed a total of 398 obstetric referral case notes from 7 primary health facilities who routinely refer to QECH.

Patients who died during or after childbirth were more likely to:



- Come from a facility more than 10km away ($p=0.06$)
- Arrive in critical condition ($p<0.001$)
- Experience a complication during their stay ($p<0.001$)



The referral time from the time a complication occurred to seeing a provider at QECH ranged from an average of 1.75 hours (SD: 0.80) at the closest facility to 5.16 hours (SD: 7.56) at the furthest ($p=0.01$).

Conclusion

Our triangulated findings underscored that challenges to the referral process are multifaceted. As such, improvements must be multidisciplinary to address availability of emergency transportation services, human and material resources, improve infrastructure; enhance communication between providers and patients, and standardize communication within and between facilities.

Future research directions

The second phase of this study aims to introduce a 'bundle of communication tools' across the 7 primary health facilities to determine their impact on the quality of pre-referral care and patient outcomes.

Methods

Study design

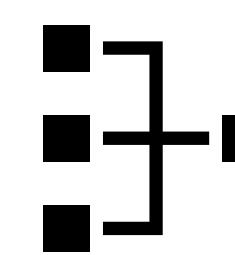
- This study used a convergent mixed methods approach
- Descriptive and bivariate models were built to explore factors associated with patient care and outcomes.
- Transcripts from focus group discussions and in-depth interviews were thematically analysed.

Data collections tools

- Quantitatively:** A set of non-identifiable patient-level variables were extracted from referred patient case notes to track a patient's peri-referral journey.
- Qualitatively:** Semi-structured interview guides were used to collect information on patient and provider referral experiences.

Qualitative Results

Three primary themes emerged as barriers to an efficient obstetric referral system in Blantyre District:



Systemic and structural challenges: inadequate infrastructure, human and material resources and inconsistent transportation modalities resulted in insufficient pre-referral care and referral delays.

Inconsistent inter and intra-facility communication: arising from difficulties in reaching the 'Flying Squad', irregularities in pre-referral notification about incoming referrals and incomplete documentation of pre-referral care.



Community Influences on maternal perspectives: negative perceptions towards referral to QECH were mainly founded on negative personal or third party experiences and hearsay.

Acknowledgement

We would like to acknowledge the generous donation from the Wyss Medical Foundation. We would also like to extend our gratitude to our partners at the Blantyre District Health Office and Queen Elizabeth Central Hospital for the longstanding collaboration to improve the quality of maternal and newborn health care and outcomes

References

- 1) Malawi Ministry of Health. Government of the Republic of Malawi: Health Sector Strategic Plan III 2023-2030. Reforming for Universal Health Coverage. (First Edition).;
- 2) Souza JP, et al. Obstetric transition: the pathway towards ending preventable maternal deaths. BJOG Int J Obstet Gynaecol. 2014 Mar;121 Suppl 1:1-4.