Duke University School of Medicine

Qualitative Analysis of Barriers to Myocardial Infarction Care in Tanzania Using an Implementation Science Framework

Oscar Larraza[1], Kalipa Gedion Kisuse[1], Tumsifu Gerald[2], Faraan Rahim, Sanikitha Prattipati[3], Julian Hertz[1]

[1]Duke University School of Medicine, Durham, NC
[2]Kilamanjaro Christian Medical Center, Moshi, Tanzania
[3] Tufts University School of Medicine

Abstract

In this qualitative study, we sought to characterize facilities and barriers to evidence-based MI care across the full spectrum of care in northern Tanzania.

Past work analyzing barriers to MI care in emergency departments[1,2] has been conducted, but in order to address comprehensive MI care, this study examined the full spectrum of care, from the pre-hospital setting to long-term follow-up, using the Consolidated Framework for Implementation Research[3].

By using an implementation science framework to identify the barriers and facilitators to MI care, future health system interventions can be tailored to improve the MI care and improve MI outcomes in Tanzania.

This study successfully explored the perceived barriers to MI care that administrators, patients, and providers experienced within various healthcare facilities in northern Tanzania and lays out proposed solutions for further action.

Background

Improved access to treatment of communicable diseases, life expectancy has increased substantially in sub-Saharan Africa (SSA), resulting in an increase in incidence of cardiovascular disease[4,5]

Many countries throughout the region have struggled to adapt to these changing needs, with the subcontinent falling behind on guidelines for CVD treatment[5,6]

Recent studies have found that short- and long-term mortality following acute MI in Tanzania is extremely high, with 43% of MI patients dying within thirty days and 60% dying within one year[7,8]

Methods

Thirty interviews were conducted among patients, providers and healthcare administrators to identify common themes regarding MI care.

Themes were categorized according to the Consolidated Framework for Implementation Research into a project-specific codebook.

Results were analyzed based on frequency of occurrence in interviews and by importance of themes. Themes were also sorted across the different phases of the care continuum.
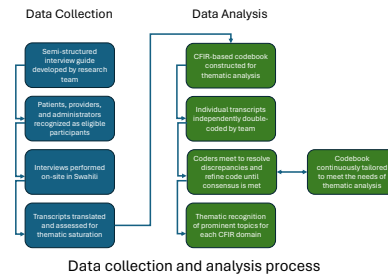
Data collection and analysis process

	Patients (n=10)		Providers (n=10)		Administrators (n=10)	
Sex	Female	7	Female	2	Female	5
	Male	3	Male	8	Male	5
Age, median (range)	71 (49-82)		29 (25-50)		51 (33-58)	
Setting of Practice			Emergency Department	3	Emergency Department	2
			Inpatient	5	Inpatient	8
			Outpatient Clinic	2		
			Degree Type		Role	
			Physician (MD)	3	Doctor in Charge	4
			Clinical Officer	3	Department Head	2
			Nurse	3	Clinical Coordinator	2
					Asst. Doctor in Charge	1
					Nursing Lead	1

Demographic breakdown of interview participants

Results

Phase of Care	Innovation	Outer	Inner	Individual
Emergency Department	Checklist Feasibility	Utilization of Referral System	Willingness to adapt, Learning culture	Providers with qualities of innovation champion
Inpatient	Checklist Feasibility	Utilization of Referral System		Providers with qualities of innovation champion
Discharge	Checklist Feasibility		Willingness to adapt	Successful patient counseling
Follow-up				Good follow-up care, good medication adherence

Facilitators of MI Care

Phase of Care	Innovation	Outer	Inner	Individual	Process
Community Awareness	Lack of educational material	Poor patient awareness of MI	Inadequate testing resources, poor provider knowledge	General poor MI knowledge	Poor patient knowledge
Emergency Department	Lack of evidence-based triage protocol	Delays in care due to facility limitations	Inadequate testing resources,	Poor patient and provider knowledge	Need for formal leaders
Inpatient	Lack of auditing/feedback, monetary expenses	Delays in care due to facility limitations	Inadequate testing resources	Poor patient and provider knowledge	Need for formal leaders
Follow-up	Need for follow-up care	Poor patient knowledge		Fatalistic outlook on health	
Health Systems/Policy	EMR challenges	Need to expand MI care capacity	Inefficient system	Financial barriers to care	Community needs not met

Barriers to MI care

Conclusions

We identified a lack of diagnostic resources in all clinical settings, especially regarding **lack of EKGs and the ability to run cardiac troponins.**

Patients reported a lack of knowledge around MI before their diagnosis, and even after being hospitalized and treated, many were **unable to explain what their diagnosis entailed.**

Providers and administrators felt as if the medical education that providers received **did not adequately teach about MI,** and that providers often wrongly diagnose their patients.

There exists **a large demand for large-scale national support** to best treat and prevent MI, consistent with past studies that identified the need for policy level actions to best serve patients in Tanzania[9].

This study built on past work to explore the perceived barriers to MI care that administrators, patients, and providers experienced within various healthcare facilities in northern Tanzania. We identified significant gaps in patient and provider knowledge about MI, allowing for future implementation of public health and medical education interventions. Similarly, this study highlights a severe and urgent need for improvements in the healthcare system to increase access to healthcare in Tanzania.

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