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REFERRALS AMONG PREGNANT WOMEN SEEKING  
DELIVERY SERVICE IN COAST GENERAL REFERRAL AND  
TEACHING HOSPITAL MOMBASA, KENYA**

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## **INFLUENCE OF ACCESS DETERMINANTS ON SELF-REFERRALS AMONG PREGNANT WOMEN SEEKING DELIVERY SERVICE IN COAST GENERAL REFERRAL AND TEACHING HOSPITAL MOMBASA, KENYA**

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### **Abstract**

**Purpose:** The purpose of this study was to establish influence of access determinants on self-referrals among pregnant women seeking delivery service in Coast General Referral and Teaching Hospital (CGTRH).

**Methodology:** The study adopted a descriptive cross-sectional research. The study target population was all pregnant women seeking delivery services in coast general teaching and referral hospital at the maternity unit. Therefore, 6,420 formed the study population as it is from this sampling frame that a sample of mothers was obtained. A sample of 376 pregnant women was obtained. Systematic random sampling was used to select the pregnant women to be included in the sample. Data was collected using a structured questionnaire. The data collected were cleaned and coded, quantified and analyzed quantitatively. Quantitative data were analyzed using IBM SPSS where descriptive and inferential statistics were used to capture the data in order to understand the pattern and nature of relationships. Univariate analysis was done using descriptive statistics (frequencies and percentages,) in order to summarize the data, and the results were presented using charts, graph and tables.

**Results:** The findings revealed a significant relationship between the operating hours of CGTRH and self-referrals to the facility. The results indicated that pregnant women who indicated the 24 hours operating nature of CGTRH as their reason for seeking services at the facility were 2 times more likely to make self-referrals compared to those who disagreed that they sought services at the facility because the facility is open 24 hours in a day. A multivariable logistic regression analysis at a significance level of 0.05 further indicated that the operating hours of CGTRH had a significant influence on self-referrals pregnant women seeking delivery services at the facility.

**Unique contribution to theory, practice and policy:** The study recommended that The Mombasa county department of health should find ways of ensuring that primary health facilities in the county are open for 24 hours in a day to attract more pregnant women seeking delivery services at the facilities and thus minimize the number of pregnant women seeking delivery services directly from the Coast General Teaching and Referral Hospital.

**Key words:** *Access Determinants, Self-Referrals, Pregnant Women, Delivery Service*

## 1.0 INTRODUCTION

The perception that better facilities are readily available at referral facilities appears to influence patients judgment of quality of care ( DeValk *et al.*, 2014; Maharaj *et al.*, 2013; Sharaf *et al.*,2013) The likelihood of being able to access investigations such as blood tests and x-rays at referral facilities, and the inability to receive the same services at PHC facilities, were several of the reasons provided by most participants for bypassing their PHC facilities to a higher level (Unwin *et al.*, 2016; Alyasin *et al.*, 2014; Linden *et al.*, 2014;). In addition to the lack of diagnostic facilities, an additional factor highlighted by the care givers of children under-five was the lack of medications available at PHC facilities (Kahabuka *et al.*,2011). Other studies, identified the lack of stock of medication at the primary level of care ,as the reason for by passing said facilities (Young *et al.*, 2015; Visser *et al.*, 2015).In a qualitative study carried out by (Beache *et al.*, 2016) in Saint Vincent and the Grenadines (SVG), it was observed that it was not only the absence of attending doctors but also the absence of diagnostic facilities that further necessitated patients to seek care at a referral facility.

Availability of medication at the pharmacy was reported as an important determinant of self-referral in both inn both referred and self-referral patient. According to a study done in South Africa (Ishandree *et al.*, 2019), showed that the availability of medication at the pharmacy was noted as an important determinant of self-referral in both the referred and self-referred patients. Study done in Kenya (Abeno *et al.*, 2014) showed that dissatisfaction with the shortage of medicine in the facility affects health seeking behaviour. Another study conducted in (Visser *et al.*, 2015) Limpopo reported that local clinic consistently experienced pharmaceutical stock outs. In Ethiopia showed that (38 %) of the self-referral patient had gotten drugs prescribed in the lower health facilities.

According to (Mashishi *et al.*, 2012), a high number self-referred woman lived closer to Dilokong Hospital than those who were referred. In their assessment of the effectiveness of emergency maternal care in developing countries. (Hussein *et al.*, 2012), found that non-medical factors such as cost and distance between place of residence and health facility were important in determining a decision for delivery. Distance from the pregnant woman's place of residence to the delivery facility of choice, is one of the key determinants of self-referral by pregnant women.

Transport from home to the delivery facility of choice plays an important role in maternal health. (Pembe *et al.*, 2010) found that transport mode and cost were major reasons for non-compliance with the referral system .Considering the importance of the transport system in the referral chain, (Sahoo *et al.*, 2015) suggested a response time of 30 minutes, that the transport vehicle should be able to transport the woman or the new born to are referral site within an hour, and that the transport mode must preferably be an ambulance service that is free of cost at the time of need. The Confidential Enquiry into Maternal Deaths (CEMD) in South Africa (Moodley *et al.*, 2014) found that in 35% of maternal deaths transport problems to facilities played a significant role.

A study done in Ethiopia (Edosa *et al.*, 2017) showed that location and access to transport of health facility were strongly associated with patient self-referral. (Mahindra *et al.*,2013) in study done in Kenya on determinant of self-referral to Kenyatta National Hospital (KNH) identified that location of health facility is one of institutional determinant cited as patients reason why they refer to seek health services from a referral facility bypassing lower level.

## 1.1 Statement of the Problem

According to Data Health Information System (DHIS, 2018) Mombasa county has 105 registered facilities both private and government owned. Out of the 34453 total deliveries reported in Mombasa county 26987 were normal deliveries. Coast General Teaching & referral Hospitals (CGTRH) reported 9017 total deliveries of which 6420 were normal deliveries and 2510 caesareans sections performed cases. The Coast General Referral and Teaching Hospital (CGTRH) is a regional referral hospital. Low risk pregnant mothers are self-referring to CGTRH for delivery and therefore passing the primary health care facilities leading to severe overcrowding at the hospital and here by compromising health care for all.

A referral system is meant to compliment the Primary Health Care (PHC) principle of treating patient as close to their home as possible at the lowest level of care with appropriate level of expertise. This back up function of referral is of particular importance during pregnancy and childbirth. This is because a range of potentially life threatening complications require management and skills that are only available a higher level of care (WHO, 2011)

Most referral health facilities (level five) are faced with challenges ranging from congestion of patients at these health facilities, strained/ limited resources (both human and material) to deal with the voluminous patients, slow rate of service delivery to the patients due to high numbers, unclear guidelines that gives direction on referral execution and compromised quality of services to the patients, (Abodunrin *et al.*, 2010). Referral procedures are supposed to be followed whereby patients are officially referred from a lower health facility and have a referral letter detailing the medical history of the health problem and the referring facility. This is however not the case; many patients often bypass lower levels of healthcare and opt to seek healthcare at CGTRH

Despite the efforts by the government to improve the referral system in Kenya in order to improve efficiency in the health system and health outcomes, no study has been carried out by the government or scholars to determine the determinants of self-referral among pregnant women seeking delivery in Mombasa County. Therefore, this study sought to bridge the knowledge gap by establishing the access determinants on self-referrals among pregnant women seeking delivery service in. CGTRH

## 2.0 METHODOLOGY

The study adopted a descriptive cross-sectional research. The study target population was all pregnant women seeking delivery services in coast general teaching and referral hospital at the maternity unit. Therefore, 6,420 formed the study population as it is from this sampling frame that a sample of mothers was obtained. A sample of 376 pregnant women was obtained. Systematic random sampling was used to select the pregnant women to be included in the sample. Data was collected using a structured questionnaire. The data collected were cleaned and coded, quantified and analyzed quantitatively. Quantitative data were analyzed using IBM SPSS where descriptive and inferential statistics were used to capture the data in order to understand the pattern and nature of relationships. Univariate analysis was done using descriptive statistics (frequencies and percentages,) in order to summarize the data, and the results were presented using charts, graph and tables.

### 3.0 RESULTS

#### 3.1 Access Determinants of Self-Referrals among Pregnant Women at CGTRH

The study sought to determine access enabling determinants of self-referrals among pregnant women seeking delivery services at Coast General Teaching and Referral Hospital. Responses were rated on a five-point Likert scale; where 1 depicted Strongly Disagree, 2 depicted Disagree, 3 depicted Agree and 4 depicted Strongly Agree. Frequencies/percentages of the responses were obtained and summarize their views.

The results indicated that majority of the respondents agreed that they sought delivery services at the referral facility due to availability of drugs at the referral facility, quality of service at the referral facility, laboratory tests at the referral facility), and because the facility is open 24 hours in a day. Table 1 presents the results.

**Table 1: Access Factors Motivating Pregnant Women to Seek Delivery Services Directly at CGTRH**

Access Enabling Factors	N	Disagree		Agree	
		F	%	F	%
CGT&RH is close to where I live compared to PHC	376	244	65	132	35
Availability of drugs attracted me to referral facility	376	85	23	291	77
Quality of service attracted me to this referral facility	376	18	5	358	95
I come to this referral facility for laboratory tests	376	91	24	285	76
CGT&RH is open 24 hours in a day which is encouraged you to attend	376	35	9	341	91

The findings are consistent with several other studies. DeValk *et al.*,(2014), Maharaj *et al.*, (2013) and Sharafet *al.*, (2013) indicated that the perception that better facilities are readily available at referral facilities appears to influence patients judgment of quality of care. Unwin *et al.*, (2016), Alyasinet *al.*,(2014) and Linden *et al.*,(2014) also noted that the likelihood of being able to access investigations such as blood tests and x-rays at referral facilities, and the inability to receive the same services at PHC facilities, were several of the reasons provided by most participants for bypassing their PHC facilities to a higher level. Other studies, identified the lack of stock of medication at the primary level of care,as the reason for by passing said facilities (Young *et al.*, 2015; Visser *et al.*, 2015).Beacheet *al.*(2016) observed that it was not only the absence of attending doctors but also the absence of diagnostic facilities at PHC facilities that further necessitated patients to seek care at a referral facility.

Bivariable logistic regression at a significance level of 0.05 was conducted to determine the influence of access enabling factors on self-referral among the pregnant women, and thus screen the access enabling factors for inclusion in multivariable logistic regression. The results indicated that pregnant women who indicated the 24 hours operating nature of CGTRH as their reason for seeking services at the facility [OR = 0.487; 95% CI = 0.242 to 0.982; p < 0.05] were 2 times more likely to seek delivery services directly from CGTRH, bypassing lower level

healthcare facilities, compared to those who disagreed that they sought services at the facility because the facility is open 24 hours in a day. Table 2 presents the results.

**Table 2: Bivariable Regression Results of Access Factors on Self-Referrals among Pregnant Women Seeking Delivery Services at CGTRH**

Risk Factors	N	Referral Status				Regression Results			
		Referral		Self-Referral		OR	95% CI	Sig.	
		F	%	F	%				
Close proximity of CGTRH	Disagree (Reference)	244	96	39	148	61	1.000		
	Agree	132	48	36	84	64	1.135	.733 to 1.759	.570
Availability of drugs at CGTRH	Disagree (Reference)	85	37	44	48	56	1.000		
	Agree	291	107	37	184	63	.754	.462 to 1.232	.462
Quality of service at CGTRH	Disagree (Reference)	18	8	44	10	56	1.000		
	Agree	358	136	38	222	62	.766	.295 to 1.988	.583
Availability of laboratory services at CGTRH	Disagree (Reference)	91	36	40	55	60	1.000		
	Agree	285	108	38	177	62	.932	.575 to 1.512	.776
24 hours operating nature of CGTRH	Disagree (Reference)	35	19	54	16	46	1.000		
	Agree	341	125	37	216	63	2.052	1.018 to 4.135	.044

The results are inconsistent with the findings of a study done in South Africa by Ishandree *et al.*,(2019) who found that availability of medication was a significant determinant of self-referral in both the referred and self-referred patients. Abeno *et al.*,(2014) also showed that dissatisfaction with the shortage of medicine in the facility affects health seeking behaviour. Another study by Visser *et al.*,(2015) showed that only 38% of the self-referral patients had gotten drugs prescribed in the lower health facilities.

The findings on distance to referral facility differ with findings of Mashishi *et al.*(2012) who established that a high number self-referred woman lived closer to Dilokong Hospital than those who were referred. Hussein *et al.*(2012) also found that distance from the pregnant woman's place of residence to the delivery facility of choice, is one of the key determinants of self-referral by pregnant women. Edosa *et al.* (2017) showed that location and access to transport were strongly associated with patient self-referral. Mahindra *et al.*,(2013) also identified that location of health facility is one of key determinants for patients to seek health services from a referral facility bypassing lower level.

The findings on operating hours are consistent with a study in KwaZulu Natal, South Africa by Pillay and Mahomed (2019) who established that in spite of operating hours being one of the

highest ranked factors for self-referrals among patients, a multivariable analysis indicated that operating hours was not a significant determinant for self-referrals.

#### **4.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

##### **Summary**

The study sought to determine access enabling determinants of self-referrals among pregnant women seeking delivery services at Coast General Teaching and Referral Hospital. Bivariable logistic regression analysis at a significance level of 0.05 revealed a significant relationship between the operating hours of CGTRH and self-referrals to the facility. The results indicated that pregnant women who indicated the 24 hours operating nature of CGTRH as their reason for seeking services at the facility were 2 times more likely to make self-referrals compared to those who disagreed that they sought services at the facility because the facility is open 24 hours in a day. A multivariable logistic regression analysis at a significance level of 0.05 further indicated that the operating hours of CGTRH had a significant influence on self-referrals pregnant women seeking delivery services at the facility.

##### **Conclusion**

The study concludes that the 24 hours operating nature of the referral facility is a significant determinant of self-referrals among pregnant women seeking delivery services at Coast General Teaching and Referral Hospital.

##### **Recommendations**

The Mombasa county department of health should find ways of ensuring that primary health facilities in the county are open for 24 hours in a day to attract more pregnant women seeking delivery services at the facilities and thus minimize the number of pregnant women seeking delivery services directly from the Coast General Teaching and Referral Hospital.

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