



LJMU Research Online

Kivuva, E, Njoroge, K and Tenambergen, W

Influence of access determinants on self-referrals among pregnant women seeking delivery service in coast general referral and teaching hospital Mombasa, Kenya

<http://researchonline.ljmu.ac.uk/id/eprint/24840/>

Article

Citation (please note it is advisable to refer to the publisher's version if you intend to cite from this work)

Kivuva, E, Njoroge, K and Tenambergen, W (2021) Influence of access determinants on self-referrals among pregnant women seeking delivery service in coast general referral and teaching hospital Mombasa, Kenya. Global Journal of Health Sciences. 6 (1). pp. 1-9.

LJMU has developed [LJMU Research Online](#) for users to access the research output of the University more effectively. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LJMU Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain.

The version presented here may differ from the published version or from the version of the record. Please see the repository URL above for details on accessing the published version and note that access may require a subscription.

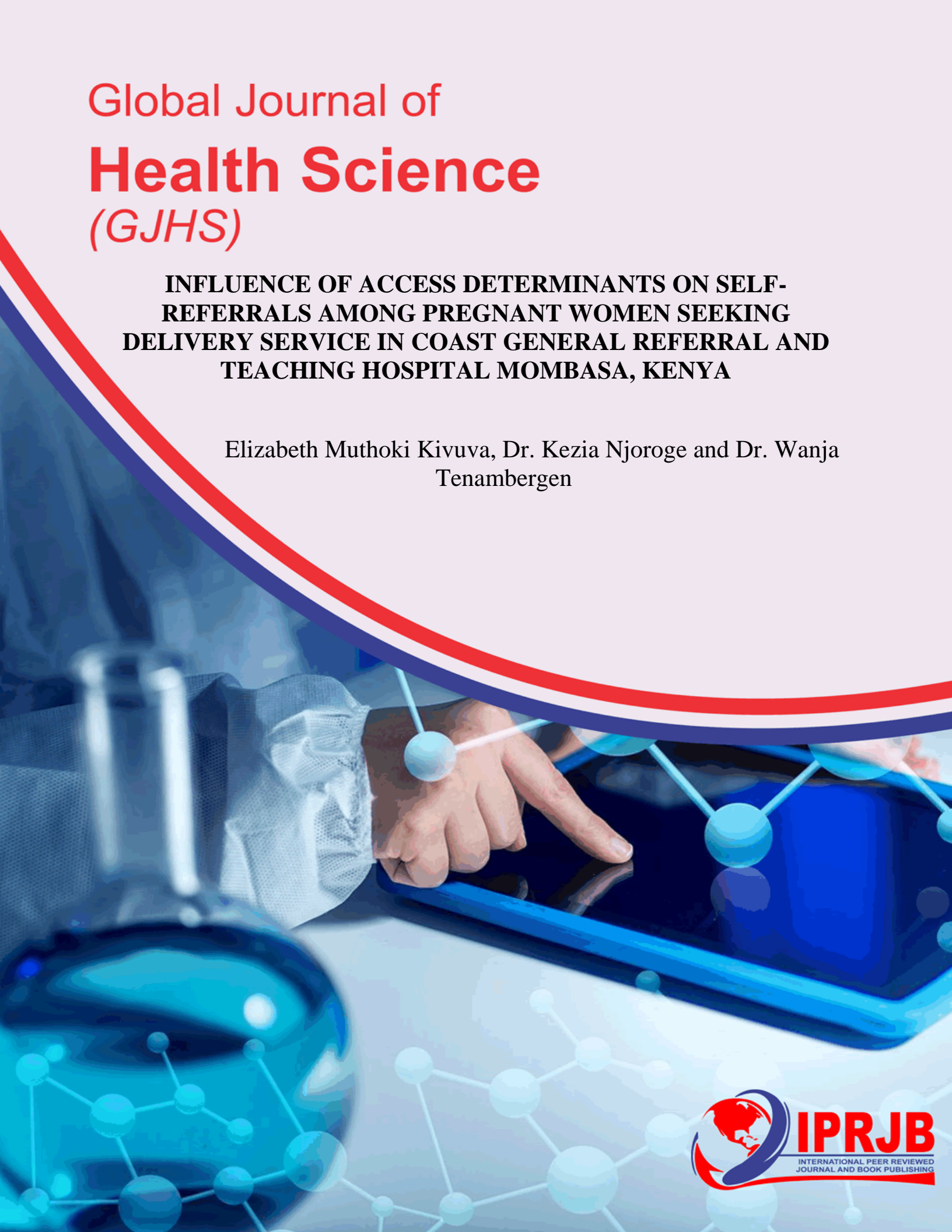
For more information please contact researchonline@ljmu.ac.uk

<http://researchonline.ljmu.ac.uk/>

Global Journal of Health Science (GJHS)

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

Elizabeth Muthoki Kivuva, Dr. Kezia Njoroge and Dr. Wanja
Tenambergen



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

^{1*} Elizabeth Muthoki Kivuva

¹Post Graduate Student: Kenya Methodist University

*Corresponding Author's E-mail: ekivuva64@yahoo.com

² Dr. Kezia Njoroge

Lecturer: Department of Health Sciences: Kenya Methodist University

³ Dr. Wanja Tenambergen

Lecturer: Department of Health Sciences: Kenya Methodist University

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.

REFERENCES

- Abdi, W.O., Salgedo, W.B, Nebeb, G.T. (2015). Magnitude and Determinants of Self-referral of Patients at a General Hospital in Ethiopia. *Science Journal of Clinical Medicine*.
- Abeno, T.A. (2014). The Determinants of Health Care Seeking and by Passing of Health Care Facilities in Kenya (Doctoral Dissertation). University of Nairobi.
- Akande, T.M. (2004): Referral System in Nigeria: A Study of Tertiary Health Facility. *Annuals of African Medicine*.
- Arab, K., Czuzoj-Shulman, N., Spence, A. & Abenhaim, H.A. (2016). Obstetrical Outcomes of Patients with HIV in Pregnancy: A Population Based Cohort. *Obstetrics and Gynaecology*.
- Abraham O, Linnander E, Mohammed H, Fetene N, Bradley E (2015):A Patient-Centered Understanding of the Referral System in Ethiopian Primary Health Care Unit. *PloSONE.2015 Journal*.

- Abodunrin, O., Akande, T., & Osagbemi, G. (2010). Awareness and Perception toward Referral in Health Care: A Study of Adult Residents in Ilorin, Nigeria. *Annals of African Medicine*.
- Becker J, Dell A, Jenkins L, Sayed R (2012.) Reasons Why Patients with Primary Health Care Problems Access a Secondary Hospital Emergency Centre. *SAMJ: South African Medical Journal.*, PubMed.
- Bayu, H., Adefris, M., Amano, A. & Abuhay, M. 2015. Pregnant Women's Preference and Factors Associated with Institutional Delivery Service Utilization in Debra Markos Town, North West Ethiopia: A Community Based Follow up Study. *BMC*.
- Dlakavu, W. 2012. Self-referral of Women in Labour at Chris Hani Baragwanath Hospital after the Introduction of a Triage MMed, Pretoria, South Africa.
- Cervantes, K., R. Salgado, M. Choi and H.D. Kalter, 2003. Rapid assessment of referral care systems: A guide for program managers. Proceedings of the Published by the Basic Support for Institutionalizing Child Survival Project, Arlington, Virginia.
- Daudi O, Naboth A, Lawrence M, Leonard L(2008). Referral Pattern of Patients Received at The National Referral Hospital: Challenges in Low Income Countries. *East Africa Journal of Public Health*.
- Edosa Tesfaye Geta1, Yibeltal Siraneh Belete, Dr. Elias Ali (2019) Determinants of Self-referral among
- Dattaray, C., Mandal, D., Shankar, u Bhattacharya,P. & Mandal, S. 2013. Obstetric patients requiring high-dependency unit admission in a tertiary referral centre .*International Journal of Critical Illness & Injury Science Outpatients at Referral Hospitals in East Woll,Western Ethiopia*.
- Duong, Binns, & Lee (2004), Utilization of Delivery Services at the Primary Health Care Level in Rural Vietnam, NGO Networks for Health, Hanoi, Vietnam.
- Goh, A., Browning Carmo, K., Morris, J., Berry, A., Wall, M. & Abdel-Latif,M. (2015). Outcomes of High-Risk Obstetric Transfers in New South Wales and the Australian Capital Territory: *The High-Risk Obstetric Transfer Study. Australian & New Zealand Journal of Obstetrics & Gynaecology*.
- GOK/MOH. (2016). Kenya Health sector referral implementation guidelines (2014)1st edition.
- Hussein J, Kanguru L, Astin M, Munjanja S (2012). The Effectiveness of Emergency Obstetric Referral Interventions in Developing Country Settings:A Systematic Review. *PLoS Med*.
- Ishandree Pillay , Ozayr Haroon Mahomed,(2019) Prevalence and Determinants of Self Referrals to a District-Regional Hospital in KwaZulu Natal, South Africa: *A Cross-Sectional Study Pan African Medical Journal*.
- Kenya Ministry of Health. (2014) Kenya Health Sector Referral Implementation Guidelines. Nairobi, Kenya: Division of Emergency and Disaster RiskManagement, Ministry of Health; Kenya.
- Kahabuka C, Kvåle G, Karen MM, Sven GH. (2011) Why Caretakers Bypass Primary Health Care Facilities For Child Care. Tanzania.

- Kanyora, J. N. (2012). Factors Contributing to Patients Bypassing the 2nd and 3rd Levels of Primary Health Care Facilities in Kirinyaga District, Kenya.
- Nath B, Kumari R, Tanu N. (2008). Utilization of the Health Care Delivery System in a District of North India. *East African Journal of Public Health*.
- Magoro, S.M., (2015). Factors Contributing to Self-Referrals of Antenatal Women for Delivery at Dilokong Hospital, Greater Tubatse Local Municipality. PhD Thesis. University of Limpopo
- Majoko, F., Nystrom, L., Munjanja S.P. & Lindmark G. (2005). Effectiveness of Referral System for Antenatal and Intra-Partum Problems in Gutu District, Zimbabwe. *Journal of Obstetrics & Gynaecology*
- Moodley, J., Pattinson, R.C., Fawcus, S., Schoon, M.G., Moran, N. & Shweni, P.M. (2014). The Confidential Enquiry into Maternal Deaths in South Africa: A Case Study. *BJOG: An International Journal of Obstetrics & Gynaecology*
- Murray SF, Pearson S. (2006) Maternity Referral Systems in Developing Countries: Current Knowledge and Future Research Needs. *Social Science Medicine*.
- Mutihir, J.T. & Nyiputen, Y.A. (2007). The Unbooked Patient: A Lingering Obstetric pathology in Jos, Nigeria. *Journal of Obstetrics and Gynaecology*.
- Mthethwa, R.O., (2006). The Factors Determining the Underutilization of Maternity Obstetric Units within the Sedibeng district (Doctoral dissertation). Available: [https://scholar-google.co](https://scholar.google.co)
- Mashishi, (2012). Assessment of Referrals to a District Hospital. Available: http://wiredspace.wits.ac.za/bitstream/handle/10539/13656/Mashishi_RE24
- Moodley, J., Pattinson, R. Maserasha, Nebiyu., Kifle, Woldemichael. & Lamessa, Dube. (2016). Knowledge of Obstetric Danger Signs and Associated Factors among Pregnant Women in Erer district, Somali Region, Ethiopia. *BMC Women's Health*.
- Masango-Makgobela AT, Govender I, Ndimande JV (2013). Reasons Patients Leave Their Nearest Healthcare Service to Attend Karen Park Clinic, Pretoria North: Original Research. *African Journal of Primary Health Care and Family Medicine*.
- Mahinda, F. W. (2013). Determinants of Self Directed Referral amongst Patients Seeking Health Services at Kenyatta National Hospital, Nairobi, Kenya.
- Pacagnella, R. C., Cecatti, J. G., Osis, M. J., & Souza, J. P. (2012). The Role of Delays in Severe Maternal Morbidity and Mortality: Expanding the Conceptual framework. *Reproductive Health Matters*.
- Ntleko, T.L. (2010) Determining the Factors Related To Patients in the Umuziwa Bantu Sub-District of KwaZulu-Natal Bypassing Primary Health Care Facilities in 2010 and Accessing The District Hospital As Their Point of First Contact. Student Dissertation in Medicine, University of KwaZulu-Natal.
- Pembe, A.B. (2010). Quality Assessment and Monitoring of Maternal Referrals in Rural Tanzania, Dissertation (Doctor of Philosophy), Faculty of Medicine, Uppsala University, Sweden.

- Raj, S.S., Manthri, S. & Sahoo, P.K. (2015). Emergency Referral Transport for Maternal Complication: Lessons from the Community Based Maternal Death Audits in Unnao district, Uttar Pradesh, India. *International Journal of Health Policy and Management*.
- Rwashana, A. S., Nakubulwa, S., Nakakeeto-Kijjambu, M., & Adam, T. (2014). Advancing the Application of Systems Thinking in Health: Understanding the Dynamics of Neonatal Mortality in Uganda. *Health Research Policy and Systems*.
- Sines, D, Apple, F & Frost, M (2005), *Community Health Care Nursing*, United Kingdom, backwell publishers.
- Rasoulynejad's. (2007). patients review for self-referral to specialist, Iranian journal public health.
- Thaddeus, S., & Maine, D. (1994). Too Far to Walk: Maternal Mortality in Context. *Social Science & Medicine*.
- Teresita A.(2014). The Determinants of Health Care Seeking and Bypassing of Health Care Facilities in Kenya.
- WHO. Management of Health Facilities: Referral Systems, Who.Int (n.d.). <https://www.who.in>
- WHO (2008) primary Health care (now more than ever)
- WHO (2011), Care in normal Birth: a practical guide maternal and new born Health safe motherhood unit, Family and reproductive Health WHO ,GENEVA.
- WHO, (2015) Henery J .Focus on Health Care Disparities Key Facts. Kaiser Family Foundation.
- Wolkite O, Waju B, GebeyehuT. (2015). Magnitude and Determinants of Self-Referral of Patients at a General Hospital, Western Ethiopia. *Science Journal of Clinical Medicine*.