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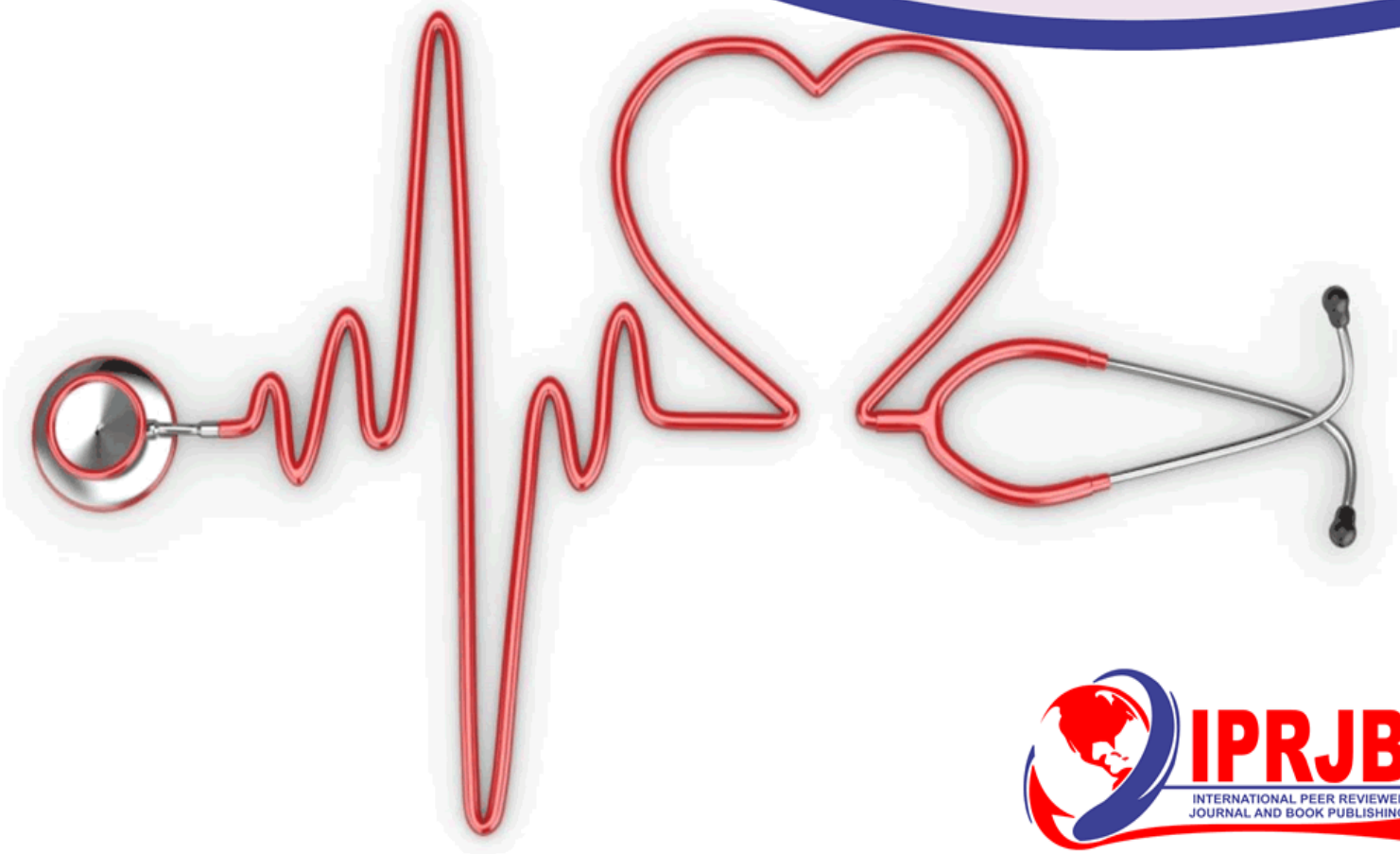

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PATIENT SATISFACTION WITH EMERGENCY CARE SERVICES ACCESSED AT SELECTED HEALTH FACILITIES IN NAIROBI CITY COUNTY: PATIENTS' PERSPECTIVE

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Abstract

***Purpose*:** The main aim of the study was to study the factors influencing patient satisfaction with emergency care services accessed at selected health facilities in Nairobi City County.

***Methodology*:** In this study, descriptive research design was adapted. The target population of the study included patients seeking emergency healthcare from five public health facilities in in Nairobi County. Stratified proportion and simple random sampling technique were used to select 304 respondents among patients in emergency department. Data collection tool was used to obtain quantitative data. Nairobi City County referral facilities were purposely selected because of the high number of patient throughput. Systematic sampling was done to identify the respondents. Descriptive cross-sectional study design was used where quantitative approach was used for data collection.

***Findings*:** The results showed that there is a positive and significant influence of the physician service factors on access and patient's perspective to emergency healthcare services in public hospitals in Nairobi County ($r = .596^{**}$, $P = .001$). On waiting time factor, findings show that there is a positive and significant influence access and patients' perspective to emergency healthcare services in public hospitals in Nairobi County (r=.407**, $P = 0.001$) on quality of care, findings show that there is a positive and significant influence access and patients' perspective to emergency healthcare services in public hospitals in Nairobi County (r=.255**, $P = 0.001$). Lastly, results showed that there is a positive and significant influence of the health facility type factor on access to emergency healthcare services in public hospitals in Nairobi County ($r = .257^{**}$, $P = .001$). This implies that the four factors are important and significant determinants of access and use of emergency healthcare services in public hospitals in Nairobi County.

***Unique contribution to theory, policy and practice*:** The researcher brings in a wealth of new knowledge to the field of emergency healthcare, where the health sector can adopt a strong pillar of health service delivery by introducing a physician specialty course on emergency healthcare and medicine, further, proper mechanisms can be put to reduce waiting times before a patient seeking emergency healthcare is attended to. This would rely on the quality of care the patient receives when in need.

Key Words: *Emergency Healthcare, Access to emergency healthcare, Physician Service, Waiting time, Quality of care, Health Facility type*

1.0 INTRODUCTION

Globally, availability of emergency healthcare is essential human right for everyone. This can simply be realized with enhanced access to health facilities; enhanced support from healthcare service providing establishments, harmonization with local communities; enhanced access to primary healthcare in under-reached areas, increase in health personnel; condensed cost of healthcare as well as; improved efficiency of the health sector (WHO, 2008). For this to be realized there is need to improve access to emergency health care (EHC).

The policies on access to healthcare promise that healthcare facilities should be located within a shorter mobile distance from people needing it (Noor et al., 2006). Additionally, and as stipulated in the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), right to access to skilled health workers is essential within the process of ensuring easy access to healthcare amenities. However, this has not been realized. Accordingly, there have been cases of delays in accessing effective treatments in many parts of the world. This has led to increased morbidity and impermanence rates (Hagar & Kartzinel, 2014). This underlines the importance of putting in place apparatuses aimed at enhancing access to EHC. Regrettably, this is often not the case in most African countries.

Atupamoi (2017) contends that in most developing countries of Africa, most people do not have access to reasonably cheaper services. In some instances, such services are available but are confronted with "high costs, lack of care coordination, lack of enough health facilities, skewed distribution of health facilities as well as lack of adequately trained healthcare service providers, high ratio of healthcare workers to community members. Some of these challenges have also been highlighted by WHO (2008) which points out that access to EHC is often challenged by "strategically located and evenly distributed health facilities that are well equipped with highly skilled and trained personnel, functioning medical kits, availability of up-to-date drugs, and reasonably sited health facilities that are within a walking distance to patients."

In Kenya, Karanja (2014) argues that access to EHC faces abundant challenges. Herein, the most glaring task is inadequate funding. In this regard, limited funding implies that many citizens have to undertake out of pocket spending in the wake of limited funding. In addition, high levels of deficiency mean that poor financing policies deny access to EHC by most of the local population. Since almost 46% of Kenyans live on less than a dollar a day, this means that a very large section of the Kenyan population cannot afford some forms of EHC. This situation is confounded by the fact that "poverty is a key driver of unfortunate health status while at the same period poor health eminence drives the poor into unfathomable poverty." Subsequently, access to emergency healthcare remains an implausible trance for the poor.

The Kenya Health Policy 2012–2030 has identified the desire to reinforce the emergency healthcare access in Kenya as a way of enlightening efficiency in the health system and improving patient outcomes (Peters, 2018). Some of the critical investment priorities for the emergency healthcare access outlined in KHSSP 2012–2018 include compliance to healthcare policy tools and guidelines at all levels, orientation of the management teams on their roles and functions, and requirements for emergency healthcare access such as staff allowances for expertise movement and ambulatory care for provision of healthcare while travelling (Eleftheriadis, 2015). The Kenyan health sector has established an emergency healthcare access strategy, with standard, guidelines, and forms to guide the sector in

building an effective system that responds to the needs of the populations during times of need.

From the 2009 population census, the Nairobi City County population was estimated at 4,157,757 with an annual growth rate of 3.8% (Dianne, 2013). In the Sessional Paper number 6 of 2012 on the Kenya Health Policy (2012-2030), the National government has constructed a draft health policy framework that guides health service delivery in line with the Constitution and with Kenya's Vision 2030, which involved provision of Ambulance services: including emergency response and patient referral system.

According to the Nairobi city county health sector strategic and investment plan (2017), the County has a public health personnel estimated at 3,290 of which 2,604 (79%) are technical staff. This omits staff of national referral institutions (KNH, Spinal Injury and Mathari Hospital) and medical officers/registrars currently undertaking specialized studies. The technical staff mainly comprise of Nurses (1,379; 41.9%), Clinical officers (269; 8.2%), Public health officers (202; 6.1%), Medical Officers/Specialists (292; 5.8%) and Laboratory technologists/technicians (170; 5.2%). According to Red Cross Society,(2019)63% of incapacitated patients could not get healthcare essentials within Nairobi City County as a result of various injuries borne by post-election related injuries. This infers that access to quality emergency healthcare is a big problem.

Regardless of the efforts by the county government to improve the health system in order to improve efficiency and health outcomes, no evaluation has been carried out by the government or scholars to determine the challenges facing implementation of emergency health care system for quality health care service delivery in Nairobi City County. Therefore, this study seeks to bridge the knowledge gap by establishing the factors influencing patient satisfaction with emergency care services accessed at selected health facilities in Nairobi City County.

Specific Objectives

i. To establish the influence of physician service on patient satisfaction while accessing emergency healthcare at selected healthcare facilities in Nairobi City County.

ii. To examine the influence of waiting time on patient satisfaction when accessing emergency healthcare at selected healthcare facilities in Nairobi City County.

iii. To assess the extent to which quality of care influences patient satisfaction while accessing emergency healthcare at selected healthcare facilities in Nairobi City County.

iv. To determine the influence of health facility type on patient satisfaction while accessing emergency healthcare at selected healthcare facilities in Nairobi City County

2.0 THEORETICAL FRAMEWORK AND LITERATURE REVIEW

2.1 Theoretical Framework

Patient Satisfaction Theory

In the theory of change (Rafat & Rami, 2018), HiAP (Health in All Policies) is defined as "an approach to public policies across sectors that systematically takes into justification the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. It entails the idea that by introducing governance edifices and institutional arrangements (such as public health coordinators),

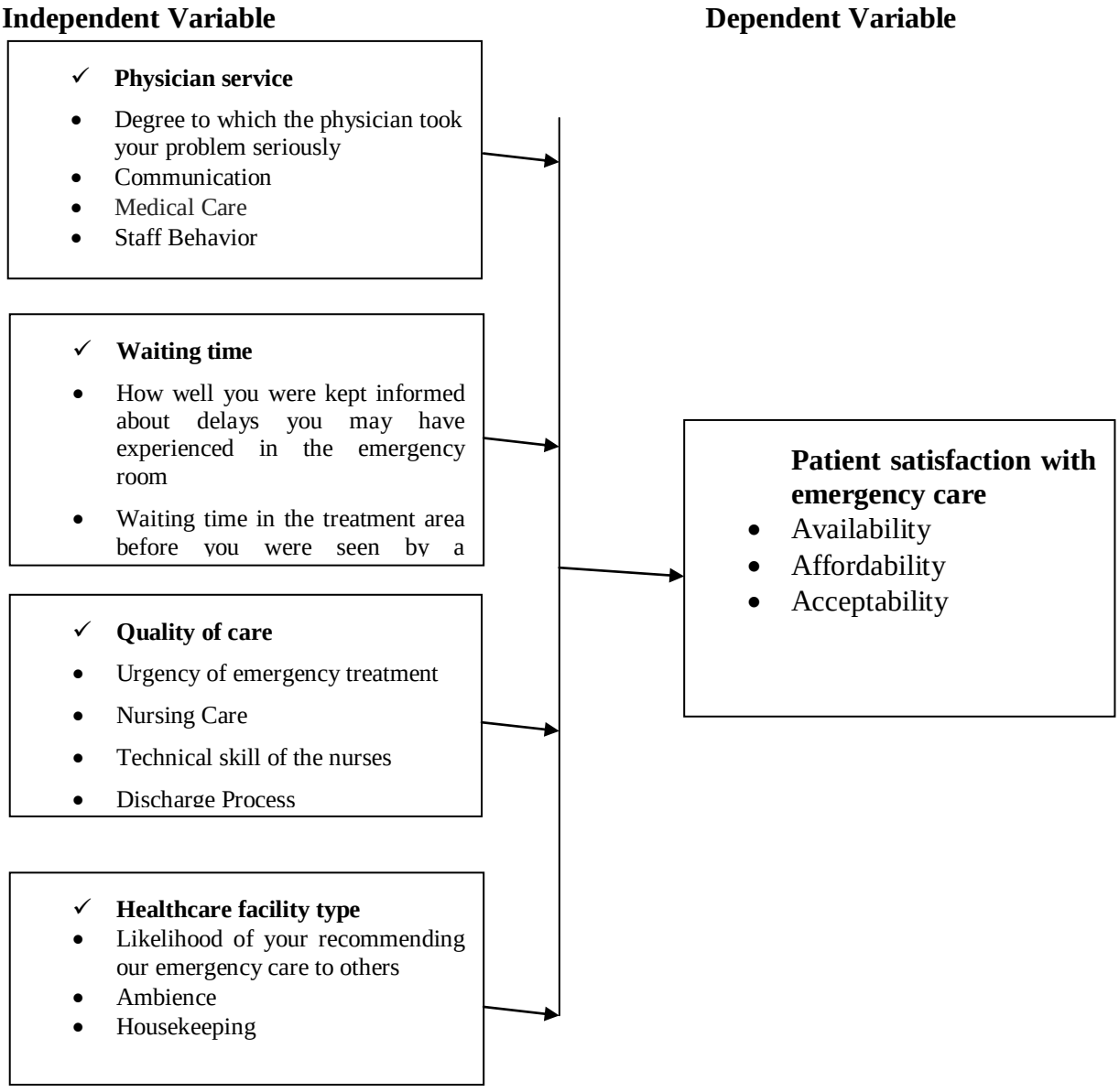
governments will be able to attain a whole of government method to ensure better population health and health equity.

Patient Satisfaction Theory adapted from Gesell, (2003)

According to Gesell (2003), in the emergency department, the Primary Provider Theory holds that total service satisfaction (OS) is the function of patient satisfaction with physician service (SP), patient satisfaction with waiting time (SWT), and patient satisfaction with nursing service (SN). This is hierarchically related to the patient's expectation that the physician provides the greatest clinical value, followed by waiting for the physician, and then satisfaction with the nursing service.

Conceptual Framework

This study conceptualizes that implementation of emergency health care policies such as policies on financing of healthcare, emergency workforce policies, right to health policies and emergency response policies (the independent variables in this study) affects access to emergency healthcare (the dependent variable) as illustrated as shown in Figure 2.2 Conceptual Framework.



3.0 METHODOLOGY

The study was done between the period of August to April 2018-2019. The study adopted a cross-sectional survey research design to obtain data from a target population. The sample population was selected from five public referral hospitals in Nairobi County. Nairobi County has a population of more than 3.4 Million people Ministry of Health, Kenya Health Information System (HIS) statistical report. The target population from the four hospitals was 1805 patients from the emergency departments. The required number of hospitals was obtained through stratified random sampling from the nine divisions in the area of study. Simple random sampling was applied in selecting the emergency healthcare staff in public healthcare facilities within the already existing divisions (strata) in Nairobi City County. The study sample was 1805 patients from the casualty departments. Simple random sampling technique was used to select the respondents. A structured questionnaire was used to collect primary data.

4.0 RESULTS AND DISCUSSION

4.1 Response Rate

Table 1: Analysis of the Response Rate

The following table provides a response rate obtained from the study

Response	Frequency	Percent
Returned	304	93%
Not returned	23	7%
Total	**327**	**100%**

Table 1 shows that 327 questionnaires were administered to patients who sought EHC at selected health facilities in Nairobi City County. The numbers of questionnaires returned, correctly filled and accepted by the researcher were 304 in number (93% of the administered questionnaires). According to Babbie (2013) a response rate of above 50 % is allowed for analysis, hence a rate of 304 (93%) is allowed for analysis.

4.2 Socio-Demographic Characteristics

Table 2: Socio-Demographic Characteristics of the Respondents

Characteristics	Frequency	Percent
Gender		
Male	157	51.6
Female	147	48.4
Total	**304**	**100.0**
Age		
Below 24 years	54	17.8
25-29 years	63	20.7
30-34 years	63	20.7
35-39 years	51	16.8
40-44 years	29	9.5
45-49 years	27	8.9
over 50 years	17	5.6
Total	**304**	**100.0**
Education Level		
Primary	18	5.9
Secondary	58	19.1
Diploma	131	43.1
Bachelor's Degree	56	18.4
Postgraduate Degree	41	13.5
Total	**304**	**100.0**

Most of the respondents 157 (51.6%) were male. In this study, both male and female respondents were well represented and therefore, the result was not gender biased. Overall, majority 86.6% of the respondents were less than 45 years old. Among the respondents, 63 (20.7%) were aged between 25-29 years, 63 (20.7%) were aged between 30-34 years and 51 (15.8%) were (40-44 years. Most of the respondents 131(43.1%) had attained diploma level of education. This also implies that most of the respondents had attained diplomas.

4.3 Access to Emergency Healthcare Services

Table 3: Patients' satisfaction with Healthcare (n=304)

Item	SA N (%)	A N (%)	NS N (%)	D N (%)	SD N (%)	Mean	SD.
Availability							
Health workers are always available for my healthcare	61(20)	69(22.6)	46(15.1)	58(19)	70(23.6)	3.02	1.47
I received the emergency health care service demanded within the time frame of my emergency	28(9.2)	59(19.4)	39(12.9)	69(22.6)	109(35.9)	2.57	1.43
The health service was done promptly within the health facility	0(0.0)	40(13.1)	48(15.7)	64(20)	152(50)	1.08	1.09
The drugs for my emergency case were readily available	0(0.0)	40(13.1)	48(15.7)	64(20)	152(50)	2.08	1.09
The equipment for my emergency healthcare was readily available	47(15.4)	50(16.4)	76(25)	31(10.1)	100(33)	2.99	1.61
Affordability							
The costs and price for my emergency service was affordable	52(17.1)	33(10.8)	21(6.9)	29(9.5)	169(55.6)	1.76	1.60
The household resources and willingness for me to pay for the emergency care was within my means.	38(12.5)	35(11.5)	48(15.8)	60(19.7)	123(40.5)	2.64	1.58
Acceptability							
The health services offered during my emergency was acceptable	0(0.0)	52(17.1)	72(23.6)	68(22.4)	112(36.8)	2.79	1.12
My community practices allowed for the EC visitation	0(0.0)	20(6.6)	72(23.6)	72(23.6)	140(46)	2.09	.98
My cultural preferences allowed for the emergency care practice	0(0.0)	40(13.1)	48(15.8)	64(21)	152(50)	1.08	1.09
My attitude was positive toward the emergency healthcare that I received	31(10.2)	56(18.4)	47(15.5)	55(18.1)	115(37.8)	2.55	1.52

Results shows that On urgency of availability, less than half of the respondents 130(42.6%) agreed that the health workers were always available for their healthcare and they received healthcare service within the timeframe of their emergency, however majority of the respondents 174 (57.2%) with a mean of 3.02 and 2.57 respectively the respondents were not sure if the health workers were always available for their healthcare and if they received healthcare service within the timeframe of their emergency. A further small number of

respondents 40(13.1%) agreed that the health service was done promptly within the health facility. The findings indicate that patients extend of satisfaction with emergency healthcare in Nairobi County is generally unsatisfactory, this is evident in the item on the tool assessing the availability of the equipment for my emergency healthcare, where 187 (68%), disagreed that the equipment for the emergency care was not readily available.

Table 4: Respondents Perceived Patient Waiting Time During EHC Services (n=304)

Item	SA	A	NS	D	SD	Mean	Std. Dev.
	N (%)	N(%)	N(%)	N(%)	N(%)		
Emergency Care Attention Time							
I was attended to immediately upon arrival at the healthcare facility	39(12.8)	42(13.8)	27(8.8)	36(11.8)	160(52.6)	2.78	1.49
The healthcare facility have adequately trained staff to handle mass emergency cases like mine	0(0.0)	20(6.5)	60(19.7)	72(23.6)	152(50)	2.97	.97
The ambulance arrived quickly at the point when I needed it	36(11.8)	41(13.4)	39(12.8)	36(11.8)	152(50)	3.75	1.46
Waiting Time in the Treatment Area							
I accessed the healthcare service through phone connection directly to the HC facility	0(0.0)	4(1.3)	48(15.7)	72(23.6)	180(59.2)	2.41	.80
I took a short time in the waiting line upon arrival	0(0.0%)	36(11.8)	56(18.4)	164(53.9)	48(15.8)	2.74	.87

Regarding emergency care attention time, a few of the respondents 81 (26.6%) agreed with evidence from the statement that they were attended to immediately upon arrival at the healthcare facility. However, a majority of the respondents 223 (73.4) disagreed that the ambulance arrived late at the point when they needed it with a mean of 2.2. Concerning waiting time in the treatment area only a few respondents 4 (1.3%) agreed that they accessed the healthcare service through phone connection directly to the HC facility, and it took them a short time in the waiting line upon arrival, with means of 2.41 and 2.74 respectively. However, a majority of the respondents 300 (98.7) disagreed that they could not access the health facility directly and it took them a long time to be attended at the healthcare facility. Since access to healthcare took long time, the tendency of respondents to easily benefit from healthcare treatment as argued by Guttmann (2017) could be thwarted.

Table 5: Respondents Perceived Quality of Care During EHC Services (n=304)

Item	SA	A	NS	D	SD	Mean	Std. Dev.
	N(%)	N(%)	N(%)	N(%)	N(%)		
Urgency of emergency treatment							
The physician always assisted me in understanding the importance of following the instructions after receiving healthcare at the EHC	0(0.0)	52(17.1)	72(23.6)	63(20.7)	117(38.4)	2.81	1.13
Health facility always had enough personnel to deal with my emergency	0(0.0)	20(6.5)	72(23.6)	72(23.6)	140(46)	3.09	.98
Nursing Care							
The physician always explained the purpose of examination and treatment to me	0(0.0)	40(13.1)	48(15.7)	64(21)	152(50)	3.08	1.09
The physician told me what i wanted to know about the condition of my illness/injury	152(50)	56(18.4)	47(15.4)	31(10.1)	18(5.9)	2.04	1.26
Technical skill of the nurses							
The physician always prepared me for what I expected from the examination and treatment	47(15)	56(18.4)	152(50)	31(1.10)	18(5.9)	2.73	1.26
The staff were always efficient and qualified to handle my situation	14(4.6)	48(15.7)	234(76.9)	6(1.9)	2(0.6)	2.78	.72
Discharge Process							
The physician always provided clear and accurate instructions to me prior leaving the health facility	124(40.7)	92(30.2)	42(13.8)	30(9.9)	16(5.2)	2.09	1.19
I was discharged in a process that was short and less tedious	39(12.6)	127(41.8)	116(38.1)	22(7.2)	0(0.0)	2.40	.89
I made payment easily by the use of my cash/ insurance	0(0.0)	68(22.3)	56(18.4)	48(15.7)	132(43.4)	2.80	1.22

4.5 Respondents Perceived Quality of Care during EHC Services

The respondents were asked to state their perceived quality of care during emergency healthcare services. The findings are summarized in **Table 5**. Overall, the study findings show that most respondents disagreed that a majority of the respondents 253 (83.2%) stating that physician always assisted them in understanding the importance of following the instructions after receiving healthcare at the EMC facility. Regarding nursing care, a few respondents 40(13.1%) agreed that the physician always explained the purpose of examination and treatment to them. However, a majority of the respondents 264 (86.8%) disagreed that the physician always explained the purpose of examination and treatment to them. This could also be due to the reasons highlighted by Omalla (2017) who was of the same opinion.

Table 6: Respondents' Views of the Health Facility during EHC Services (n=304)

Item	SA N(%)	A N(%)	NS N(%)	D N(%)	SD N(%)	Mean	SD
Likelihood of your recommending our emergency care to others							
I can always easily recommend potential patients to the facility	54(17.7)	52(17.1)	152(50)	30(9.8)	16(5.2)	2.68	1.25
The healthcare facility did not discriminate against me regardless of my condition	0(0.0)	36(11.8)	56(18.4)	64(21)	148(48.6)	3.07	1.07
Ambience							
I am satisfied with healthcare facility premises in the department that offered me emergency healthcare service	26(8.5	52(17.1)	31(10.1)	35(11.5)	160(52.6)	3.83	1.36
The physician always included me on decisions about my treatment	0(0.0)	20(6.5)	60(19.7)	72(23.6)	152(50)	2.17	.97
Housekeeping							
Healthcare facility has a comfortable arrangement for the emergency condition I have	46(15.1)	48(15.7)	152(50)	34(11.1)	24(7.8)	2.81	1.34
Health facility always has enough medical supplies such as medicines and equipment to deal with my emergency	0(0.0)	4(1.3)	48(15.7)	72(23.6)	180(59.2)	2.41	.80
The healthcare facility has enough bed space and other facilities to accommodate my emergencies	0(0.0)	36(0.17)	56(0.19)	178(58.5)	34(11.1)	3.69	.82

4.6 Respondents' Views of the Health Facility during EHC Services

The respondents were asked to state their views on the health facility while accessing the emergency healthcare services, the results are summarized in **Table 6.** Overall, the majority of the respondents 198 (65.1%) disagreed that they would not always easily recommend potential patients to the facility. This shows that most patients were not satisfied with the healthcare facility as recommended by Gesell (2003) in the patient satisfaction theory. In

their regard, their tendency to recommend the healthcare services to others was greatly reduced.

Table 7: Bivariate Analysis: All Variables

Correlations

		Physician Service	Waiting Time	Quality of Care	Emergency Healthcare Facility	Patients' Satisfaction with Emergency Health Care
Physician Service	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	304				
Waiting Time	Pearson Correlation	.596**	1			
	Sig. (2-tailed)	.000				
	N	304	304			
Quality of Care	Pearson Correlation	.407**	.463**	1		
	Sig. (2-tailed)	.000	.000			
	N	304	304	304		
Emergency Healthcare Facility	Pearson Correlation	.255**	.168**	.259**	1	
	Sig. (2-tailed)	.000	.003	.000		
	N	304	304	304	304	
Patients' Satisfaction with Emergency Health Care	Pearson Correlation	.257**	.231	.235**	.268	1
	Sig. (2-tailed)	.000	.006	.000	.001	
	N	304	304	304	304	304

**. Correlation is significant at the 0.01 level(2-tailed).

*. Correlation is significant at the 0.05 level(2-tailed).

The researcher further did a bivariate correlation to test the relationship between independent and dependent factors. The results are shown in table 6. The bivariate linear correlations analysis revealed that there is a positive and significant influence of the physician service factors on patient satisfaction with emergency healthcare services in public hospitals in Nairobi ($r = .596^{**}$, $P = .001$). Further results revealed that there was a positive and significant influence of patient waiting time factor on patient satisfaction with emergency healthcare services in public hospitals in Nairobi (r=.407**, $P = 0.001$). The results also revealed that there was a positive and significant influence of quality of care on patient satisfaction with emergency healthcare service in public hospitals in Nairobi County ($r = .255^{**}$, $P = .001$). Lastly, the bivariate results showed that that there is a positive and significant influence of the health facility on patient satisfaction with emergency healthcare services in public hospitals in Nairobi ($r = .257^{**}$, $P = .001$). These findings show that physician service factors had the most influence on patient satisfaction with emergency healthcare services.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the study findings, it can be concluded that emergency care patients were generally dissatisfied with EC delivery. This was attributable to low activity by the physicians during emergency care delivery. In this regard, Pearson correlation shows that there was statistical

significant relationship between X_1 physician's action (r=.257**, p<0.001) and patients satisfaction with EHC.

In addition, lack of timely access to emergency healthcare due to long waiting times influenced access to EHC. However, it did not have strong influences on patients' satisfaction with EHC services as shown by Pearson correlation that shows that there was no statistical significant relationship between X_2 waiting time and patients' satisfaction with EHC services.

Interestingly, low quality of care during emergencies was a major determinant of patients' satisfaction with EHC services. This can be shown by Pearson correlation that shows that there was statistical significant relationship between X_3 quality of care (r=.235**, p<0.001) and patients' satisfaction with EHC services (r=304, p>0.001).

Finally, lack of guaranteed healthcare facilities that could provide immediate emergency care as, and when needed, could thwart access to emergency healthcare and therefore, satisfaction of patients with emergency healthcare. There was also low acceptability of emergency healthcare by patients, poor infrastructure therefor no ease of access. This can be evidenced by Pearson correlation that shows that there was statistical significant relationship between X_4 access to emergency healthcare facility (r=.268, p<0.001) and patients satisfaction with EHC

Recommendations

Physicians should be specifically trained with support by the Ministry of Health to enhance patient experience during the emergency care delivery and supported by being given enough equipment enhance access to EHC.

The ministry of health officials from both county and the national government governments should collaboratively put in place a proper management support framework in the emergency care to enhance quick access of patients so as to boost faster access to EHC

The management of the health facility as well as ministry of health should ensure that there was adequate dissemination of required information to the physicians in order to improve quality of care.

Lastly, the ministry of health as well as non-state actors should put in place mechanisms aimed at increasing access to EHC services through provision of enough transport such as ambulances, and comfortable healthcare facilities to handle all types of emergencies, whether of medical or trauma nature.

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