

Correlates of Outpatient Health Care Services in an Upcountry Referral Hospital in Uganda: Management Revival Strategies

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Abstract: *The study investigated the correlates of outpatient health care service at Iganga referral hospital using data that was initially collected on resource availability and patient care in the hospital. The objective was to establish the variables that correlate with outpatient health care services offered in the different units and departments of the hospital. The results indicate that the significant correlations of outpatient health care services at the hospital with; (1) child health services ($r = .466^{**}$, $p < 0.0001$); (2) maternal health services ($r = .420^{**}$, $p < 0.0001$); (3) STI/HIV/AIDS services ($r = .304^{**}$, $p < 0.010$); (4) tuberculosis services ($r = .510^{**}$, $p < 0.0001$); (5) equipment, drugs and facilities ($r = .422^{**}$, $p < 0.0001$); (6) adequate supervision ($r = .459^{**}$, $p < 0.0001$); (7) infrastructure ($r = .463^{**}$, $p < 0.0001$); (8) staff training and development ($r = .283^*$, $p < 0.017$); (9) sanitation facilities ($r = .317^{**}$, $p < 0.007$). In addition, the regression results indicate that there is one significant determinant of outpatient health care services which is patient care and attention ($\beta = .426$, $T = 3.107$, $P < 0.003$). Based on these results, it was recommended that referral hospitals in Uganda should be well managed and funded to offer regular treatment to outpatients and ensure as investigated, that doctors and drugs are readily available to patients who seek services from the hospital. Similarly, it is critical for hospital management to ensure adequate supervision, quality sanitation facilities, enough physical infrastructures and have training and development for significant outpatient health care services.*

Keywords: Outpatient Healthcare services, maternal health services, Hospital, Child health care services

1. Introduction

One of the fundamental functions of a hospital is to offer quality treatment and care to patients in terms of both outpatient and inpatient services and attention to the caregivers. It is therefore prudent that hospitals provide outpatient care services with not only prodigious wisdom but with strong proactive orientation leadership using a patient centered environmental approach. In Uganda, there has been a general outcry about the laxity and general lack of facilities in these hospitals. This article therefore investigates the correlates of outpatient care services which emanates from our research that investigated the relationship between resources availability and patient care in the public referral hospital in Uganda. The main purpose here was to determine the significant variables that correlate and thereafter determine outpatient health care services. The research by Stern *et al.*, (2003) and Tateke *et al.*, (2012) concluded that adequacy of health services should be measured by the existence of professional specialists, a hospital welcoming culture, commitment by health workers and their technical competency. Outpatient care in this study was measured by the degree to which Iganga Referral Hospital offers regular treatment for patients; the degree to which doctors are readily available; and the degree to which the required drugs are accessible and readily available, among others. The study was premised on the assumption that hospitals are established to treat patients and promote quick or steady recovery. Therefore they are expected to have a conducive environment that promotes the wellbeing of patients in terms of clinical care, comfort, sense of control and welfare.

The research by Goel *et al.*, (2014) shows that in this modern era, the quality of services provided in this sector is increasingly a function of patient's experiences at the health facility. Therefore, dimensions such as behavior of staff; the way physicians interact with patients; the general management of the health facility; and the physical environment are critical to the overall satisfaction of patients. Patient satisfaction is a barometer of patient outcome and other health indicators of the hospital. A satisfied patient has better adherence to treatment protocols and is expected to go for regular follow up given the illness. Thus, understanding of patient expectation and their level of satisfaction is of utmost importance for provision of quality health care.

It was observed further by Goel *et al.*, (2014) that most public health facilities in developing countries like India are less concerned with the facilities provided to patients and their families. For example, the long queues outside the outpatient departments, small and unkempt waiting areas, poor condition of toilets, unsympathetic attitude of doctor and other health care staff bear eloquent testimony to this fact. The research further noted that public health facilities cover a much broader part of the society and must comply with the patient's expectations in delivering quality services. The private care providers are only slightly better in terms of the facilities but the exploitative cost of the treatment is a deterrent for a common person, where nearly one third of population fall below poverty line. All these concerns make the assessment of patient's satisfaction with public health system even more important.

2. Literature Review

The studies on the determinants of patient satisfaction with outpatient curative services have been carried out by several researchers. For example Tateke *et al.*, (2012) investigated this phenomenon using a comparative cross sectional study for both public and private hospitals in Addis Ababa and their conclusion was that although patients at private hospitals were more satisfied than those at public hospitals, five of the predictors of patient satisfaction were common to both settings. They suggested the need to improve the competencies of the employees particularly health professionals to win the interests of clients and have a physical structure that better fits the expectations of patients. According to the Quality Improvement report for the US Department of Health and Human Services (2011), quality improvement in the health care services demands for a systematic and continuous action that can lead to measurable improvement in the health status of targeted patients. It is recommended in the report that patient needs and expectations require services that are designed with; (1) systems that affect patient access; (2) care provision that is evidence based; (3) cater for patient safety; (4) support patient engagement; (5) coordinate with other parts of the larger health care system; and (6) have cultural competence including assessing health literacy of patients, patient centered communication and linguistically appropriate care. Similarly, the study by Aldaqal *et al.*, (2012) on the determinants of patient satisfaction at the surgical ward at a hospital in Saudi Arabia documented that of the three service quality dimensions that influence patient satisfaction at the surgical ward, client quality is the most important dimension that receives most attention because it is concerned with how satisfied clients are with care.

It has been also documented by Chompikul *et al.*, (2007) that the quality of OPD services in health facilities is still wanting and they proposed an urgent need to improve the discipline of health care workers, provide training programs and continuing education that can enable them to keep up with updated knowledge, technology and modern work practices. The health care services should be continually improved by the health facilities because it is the basic service. According to Forkan & Dhaka, (2011) a service received by different customers of outpatient department

(OPD) creates opportunity for the hospital to demonstrate its competence in providing all the other inpatient services.

In the same vein, Acharyulu, Ramaiah (2011) observed that outpatient department is the first point of contact in the Hospital. It is the shop window of the hospital. The service quality provided by this department would make or unmake the hospital image. Therefore, a quality OPD service is most likely to improve the perception of the patients and their attendants about the hospital. In today's healthcare competitive environment it is very important to provide OPD services with quality and elegance.

3. Methodology

All patients who visited Iganga Hospital during the study period were the source population of this study. The method employed in selecting the sample was systematic random sampling which enabled us to select those individual who would qualify to provide us with useful information. Using this method, patients were identified at the different selected units of the hospital. Critical ill patients were not interviewed directly unless they had a caretaker who was willing to respond. Parents or caregivers of children were interviewed concerning their children. In the final analysis, only 71 respondents returned completed questionnaires.

The self administrative questionnaire was used with a Likert scale in which respondents reported the degree to which they agree with various statements i.e. 5 = Strongly Agree to 1 = Strongly Disagree. The questionnaire was developed in English and translated in the local language to ensure grasp of content and consistency.

The reliability of the questionnaire was ascertained using Cronbach's Alpha coefficient. The coefficient for this questionnaire was 0.9324 which demonstrated that the questionnaire was reliable for use.

4. Analysis

In order to determine the relationship between outpatient curative services and the eleven variables under study, a correlation matrix was developed and the results are indicated in table 1.

Table 1: Correlation matrix for the different study variables in health care

	1	2	3	4	5	6	7	8	9	10	11	12
1. Child health services	-											
2. Maternal health services	.551**	-										
3. STI/HIV/AIDS services	.433**	.425**	-									
4. Tuberculosis services	.467**	.564**	.482**	-								
5. Patient care	.562**	.571**	.415**	.437**	-							
6. Supervision	.374**	.460**	.349**	.409**	.471**	-						
7. Equipment, drugs and facilities	.437**	.494**	.460**	.521**	.559**	.516**	-					
8. Infrastructure	.199	.281*	.255*	.393**	.426**	.464**	.617**	-				
9. Availability of specialists	.270*	.189	.318**	.146	.446**	.269*	.380**	.396**	-			
10. Staff training and development	.078	.237*	.131	.283*	.296**	.060	.312**	.398**	.448**	-		
11. Sanitation facilities	.223	.173	.209	.163	.471**	.249*	.318**	.526**	.529**	.535**	-	
12. Outpatient curative services	.466**	.420**	.304**	.510**	.607**	.459**	.422**	.463**	.191	.289*	.317**	-

The analysis in table 1 reveals significant associations between Outpatient curative services and the rest of the

variables. It is noted that outpatient curative services are significantly influenced by the availability of child health

services ($r = .466^{**}$, $p < 0.0001$). This means that one of the way in which a hospital can significantly attract the attention of the community is through the way it offers its child health care services. The child health care services were measured by the extent to which the hospital has the capacity to maintain regular immunization services and has the equipments and supplies to assess the sick children and also has a monitoring mechanism to prevent and minimize child illness. The findings here stress the confidence with which parents seek child health services from the hospital. Secondly, there is a significant association between outpatient curative services and maternal health services ($r = .420^{**}$, $p < 0.0001$). This implies that a referral hospital is expected to have significant outpatient services that help in offering maternal health services. The items in the questionnaire asked respondents the extent to which there are normal delivery services available; whether there are medicines and supplies for complicated deliveries; and whether doctors are available to handle birth related complications. It was also noted through descriptive statistics that a high number (90.2%) agreed that there is regular assessment and counseling of antenatal clients and similarly, 67.6% of the respondents agreed that there is an emergency maternal transportation system available although they complain that the fees for delivery are not user friendly and fair. Therefore, a referral hospital is expected to have quality maternity services in place.

Thirdly, as indicated in table 1, there is a significant correlation between outpatient curative services and STI/HIV/AIDS services ($r = .304^{**}$, $p < 0.010$) as well as tuberculosis services ($r = .510^{**}$, $p < 0.0001$). One explanation here could be that most people who seek treatment for STI/HIV/AIDS attach significant importance on the services offered by the outpatient department.

Further analysis of the correlation matrix reveals that there are also significant associations between outpatient curative services and the general care given to patients ($r = .607^{**}$, $p < 0.0001$) and with the quality of supervision ($r = .459^{**}$, $p < 0.0001$) as well as availability of equipment, drugs and facilities ($r = .422^{**}$, $p < 0.0001$) including the availability of physical infrastructure ($r = .463^{**}$, $p < 0.0001$). This implies that referral hospitals are expected to have outpatient curative services with adequate equipment, drugs, facilities, physical infrastructure compounded with quality supervision.

Equally important, the table reveals that there is significant associations between outpatient curative services and staff training and development ($r = .289^{*}$, $p < 0.014$). Outpatient curative services also significantly associated with the quality and availability of sanitation facilities ($r = .317^{**}$, $p < 0.007$). This implies that for a referral hospital like the one investigated in this study to offer continuous quality services within this modern era of new medicines and equipment, there is need for continuous staff training and development. This will ensure capacity development of not only the doctors but the nurses and other staff. Similarly, sanitation facilities in terms of waste disposal mechanisms, enough toilets for the hospital staff and for the patients, incinerators, bathrooms and the like should be available as investigated in this study.

Results of multiple regression analysis

In order to find out the determinants of outpatient curative services that directly influence the dependent variable, a multiple regression analysis was performed using outpatient curative services as the dependent variable. It was hypothesized that there is a positive and significant influence of the eleven variables on outpatient curative services. The hypothesized model can be summarized as follows;

$$OPD = \beta_0 + \beta_1 CH + \beta_2 MH + \beta_3 HIV + \beta_4 TS + \beta_5 P/C + \beta_6 SUP + \beta_7 EQ + \beta_8 INF + \beta_9 SDR + \beta_{10} TRN + \beta_{11} SAN + \epsilon$$

Where:

- OPD = Outpatient curative services
- CH = Child health services
- MH = Maternal health services
- HIV = STI/HIV/AIDS services
- TS = Tuberculosis services
- P/C = Patient care
- SUP = Supervision
- EQ = Equipment, drugs and facilities
- INF = Infrastructure
- SDR = Availability of specialists
- TRN = Staff training and development
- SAN = Sanitation facilities

As indicated in table 2, the significant determinants of outpatient curative services for a referral hospital is patient care with [$\beta = .426$, $t = 3.107$, $p < 0.003$]. While Anova results indicated that all the variables in the study had a main effect on outpatient curative services [$F = 6.078$, $p < 0.0001$], it is only patient care in the regression model that is the ultimate representative of all the other variables studies here. The finding here therefore implies that patient care would involve offering all the other services as investigated in this study to the satisfaction of the patient. Put another way, the image of a referral hospital is determined by how it offers in the outpatient department. It is this department that describes the functions of a referral hospital and hence reflecting its image. This explains why most people in Uganda complain about referral hospitals especially when they have patients who deserve quick emergency attention but get disappointed when treatment services or drugs are difficult to come by.

Table 2: Regression Model in Outpatient curative services

Variable	Predicted sign	β	t-value	p-value
Intercept	++	7.068E-02	.126	.900
Child health services	+	.196	1.606	.114
Maternal health services	+	-.108	-0.834	.408
STI/HIV/AIDS services	+	-.015	-0.132	.895
Tuberculosis services	+	.202	1.603	.114
Supervision	+	.173	1.472	.146
Equipment, drugs and facilities	+	-.145	-1.046	.300
Infrastructure	+	.226	1.657	.103
Availability of specialists	+	-.207	-1.711	.092
Staff training and development	+	.156	1.385	.171
Sanitation facilities	+	.000	.002	.998
Patient care	+	.426	3.107	.003

5. Discussion

This study's findings provide general and specific insights into the nature and the state of operation of outpatient health care services in Uganda. A lot of complaints have been registered in different referral hospitals concerning the services they offer in this area. The research here therefore confirms that the image of a referral hospital lies in its services offered by the outpatient department. Therefore there is need for hospital administrators to design revival strategies that can make these services to only conform but exceed customer expectations. Joshi (2009) suggests that in order to improve services in the outpatient departments, there is need to develop periodical patient satisfaction surveys, institute a monitoring of Entry to Exit Time for both patients and staff, establishing the time taken by doctors and other workers in their chambers, time taken for the investigations and for the issue of medicines. It is also suggested that there is need for monitoring the OPD workload as well as evaluating the adequacy of infrastructure given the services therein. This research adds that there is need to evaluate the overall hospital performance and provide standard benchmarks and quality control mechanisms for inspection, safety and conformance purposes.

According to Shaw (2003), hospitals need significant and positive incentives to provide timely, accurate and complete services to the patients who seek treatment. This will help motivate the professionals who work in upcountry hospitals and ensure that rigorous discipline and responsibility is instilled in this crucial sector.

Similarly, the suggestion by Patrickson and Maddern (1996), concerning staffing levels and the need for enough funding to hospitals should be considered. Therefore there is need for governments to look into the budgeting and financial controls in all hospitals so as to ensure that there is frugality in the management of hospital resources. In the same vein, Okiria *et al.*, (2016) found out that the problem might not only be availability of drugs per se but the inventory management practices and lack of an effective supply chain that is responsible for the lack of drugs in public hospitals. They suggest the need to improve ordering practices and monitoring of essential drugs in public hospitals in Uganda. The findings here therefore commend some of these strategies as key to assisting public hospital managers to improve service delivery within their areas of jurisdiction.

6. Conclusion

The study documents the correlates of outpatient health care services in public hospitals in Uganda. It is emphasized in the study findings here that referral hospitals should be well equipped with enough drugs and other facilities to handle key services to do with child health care, maternal health, STI/HIV/AIDS, tuberculosis and the like. In order to do so, there should be enough physical infrastructure, sufficient doctors and other specialists as well as attractive and quality sanitation facilities. The government should plan to have all these aspects in place and restore the public image and hope that these hospitals are the ultimate places when the others fail to handle patients at their local or rural location.

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