

Research Article

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Personal and institutional factors associated with out patients' health care services satisfaction in Mulago National Referral Hospital. Kampala, Uganda

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Abstract

Keywords

Out Patient,
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satisfaction

This study sought to establish the factors associated with patient satisfaction with out-patients health care services in Mulago National Referral Hospital, Kampala, Uganda. The study employed descriptive correlation research design. The sample size of the study was 340 patients and 6 staff from the Out Patient Department (OPD).

The study was dominated by unemployed female respondents who never attained any education, belonging to the age bracket of 18 – 28. It was noted that relevant drugs are not always present, patients have never gotten the prescribed drugs and have been instructed to purchase drugs from private pharmacies where they are relatively expensive and not affordable. Patients reported waiting for over two hours for services and sometimes not accessing health worker on top of the poor response from the health providers. However, the majority confirmed to have been relatively satisfied.

Education, gender, age, drug stock, health cost, reception time, service accessibility, and health providers had a significant association with patient satisfaction with out-patient's health care services.

It was recommended that accessibility and availability of drugs, waiting time, number of OPD units and number professionals should be considered to improve satisfaction.

Introduction and Background

Patient satisfaction is very significant for all health care institutions globally and outpatient health care has been a feature of hospitals for as long as they have existed (Wier *et al.*, 2015). It was further suggested that outpatient departments originated in the mid-seventeenth century when, at the Hotel Dieu in Paris, "Six physicians were detailed for regular sessions on Wednesdays and Saturdays, advising the poor individually and consulting together when necessary for higher health care service satisfaction among the outpatients". It was an innovation at that time which led to the inauguration of the outpatient clinic.

Servqual model theory (Zeitham *et al.*, 1990) from the early 1980s to 1998 addresses the five quality indicators such as; tangibility, reliability, responsiveness, assurance and empathy which reflects the level of satisfaction to services among consumers. In 2014, Peprah & Atarah reported the following factors as playing a critical role in the satisfaction of patients; the attitudes of nurses toward patients, the capacity to deliver prompt service without wasting time, ability to disseminate information to patients and the availability of up-to-date equipment. Others include the hospital's ability to render reliable service, the patience of the doctor to clearly explain what was wrong with patients before giving treatment, providing patients with detailed information about their medication, and attractiveness and cleanliness of the hospital.

African countries are increasingly showing interest in improving quality of health care, with emphasis on outcome as a measure of patient satisfaction to health care services (WHO 2018). The South African National Policy on Quality in Health Care published by the National Department of Health (2007) provides means of improving the quality of care in public and private sectors, sets objectives of government to assure quality and continuously improve health care by measuring the gap between standards and actual practice of health care providers. The ministry of

health in Ghana has implemented the national health quality program as the key objective to improve the quality of health care in the country and the Nigerian health ministry is improving access to quality health services by establishing a quality assurance system which will ensure that customers get necessary services to the highest level of satisfaction (Amedari M. I. *et al.*, 2021).

In East Africa, patients often express a preference for private sector services due to a perceived sense of higher quality of care compared to the public sector on metrics such as cleanliness, convenience, waiting times and friendliness of health workers (Healthcare Innovation in East Africa report, 2016). However, East African governments and multinational corporations seek to identify and evaluate novel approaches to affordable, quality healthcare to ensure that outpatients are satisfied (Healthcare Innovation in East Africa report, 2016). For example, the Rwandan private health sector is working in partnership with the public sector to improve the quality of health care delivery, have qualified health care providers, equip health facilities and steady supply of drugs and other health facilities (Mason E. 2020). Furthermore, Kenya recently in 2015 devolved their health system so that decision-making now sits at the county level, rather than at the national level. This has given healthcare innovators in the region the opportunity to engage more easily with the public sector to improve quality in the Kenyan health sector and it has promoted patients' satisfaction with the quality of health care services provided (Republic of Kenya 2018).

In Uganda, the health sector has received complaints about the poor quality of service across all health services including Maternity, Immunization, HIV counseling, and Dental services (Uganda National Health Consumers Organization 2012). These complaints have been on unethical practices, lack of physical comfort, unclean and unsafe environment, staff hostility and negligence, staff mistreating patients, gender discrimination, drug shortages, inadequate number of staffs and staff absenteeism.

Statement of the challenge

Patient satisfaction is top of mind today for most health care organizations, from hospitals to physician practices to home health care agencies globally (Wier *et al.*, 2015). But based on the Mulago Referral Hospital client satisfaction index, in 2017-2018 it was at 69% (Uganda Bureau of Statistics (UBOS) and ICF, 2018); in 2018-2019 it dropped to 46% which was below the HSDP Target 2018/19 of 71%. The Government of Uganda has made efforts to improve level of patient satisfaction including the centralization of medicine procurement and distribution through the National Medical Stores (NMS); increased funding for essential medicines and health supplies; the embossment of medicines to ensure authenticity and; establishment of the Medicines and Health Services Monitoring Unit (Uganda Bureau of Statistics (UBOS), 2021). However, the satisfaction index of patients especially out patients is still declining with a projection of less than 45% in the year 2019-2020. Therefore, this called for a study to investigate factors associated with patient's satisfaction with out-patient's health care service in Mulago National Referral Hospital. Based on evidence, the hospital administration will improve on various outpatient health service deliveries.

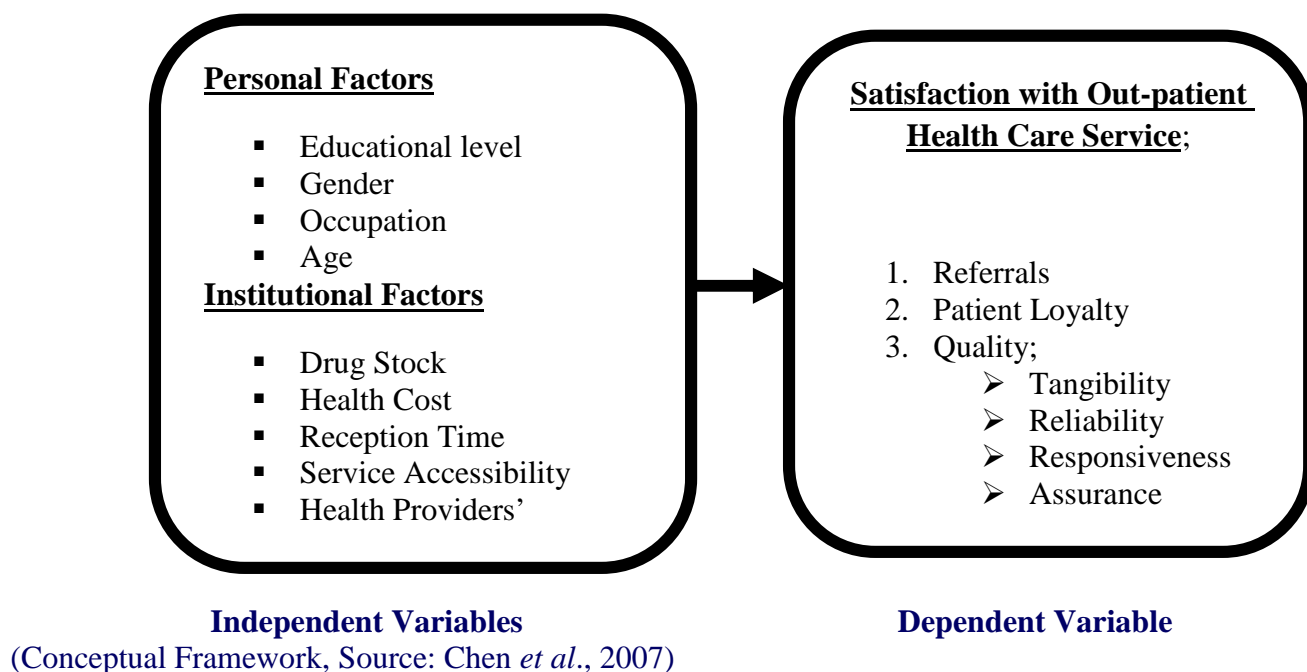
Objective

The general objective of this study was to investigate factors associated with patient satisfaction with out-patients health care services in Mulago National Referral Hospital in Kampala, Uganda. Specifically, the study:

-) Established personal and institutional factors of patient receiving out-patients health care service in this hospital in Mulago National Referral Hospital. Kampala, Uganda.
-) Determined the level of patient satisfaction with out-patients health care services in Mulago National Referral Hospital. Kampala, Uganda.
-) Established the association between factors and Patient satisfaction with out-patients health care services.

Conceptual Framework

The Chen *et al.*, (2007) conceptual framework was used in this study because it clearly illustrates the independent as well as the dependent variables and their relationship.



Literature review

Different researchers and scholars have discussed more on personal and institutional factors associated with patient satisfaction with outpatient health care services. For example, regarding education level and patient satisfaction, Jaipaul and Rosenthal (2003) states that patient satisfaction has been associated with education level of the patient. Similarly, in a study by Quintana, *et al.*, (2006), the patient satisfaction in terms of individual characteristics and hospital setting was assessed via education. In terms of occupation, Henry *et al.*, (2020) in their study reveals that there was no significant difference between the mean overall satisfaction scores with regard to patients' employment. In relation to age, Mikael (2001) carried out a study to analyze the relationship between patient satisfaction and background factors such as age and realized that patients' age is a determinant to patient's level of outpatient service satisfaction. In relation to drug stock, literature from Demiss, *et al.*, (2019) shows that patients are happy and more satisfied when they are provided with the best drugs and that there are alternatives in terms of drugs per health condition. In regard to health cost, Satish (2014) states that satisfaction with health care cost, affordability of health care expenses and health financing through insurance are the 3 most significant indicators of an individual's satisfaction with health care. In terms of reception time, Demiss, *et al.*, (2017) explains that outpatients are influenced by the waiting time or the time they spend in the reception as they are seeking for health care services with many of them unhappy when they wait for a long time before receiving health care services. In reference to service accessibility, Jaipaul and Rosenthal (2003) states that the expectations and requirements of patients are the main indicators of the quality of the programming model of the road map and proper assessment of the patient's environment variables specified. Thus, patients are happy when they or every time they receive health care services from a health facility without being referred to a different facility other than their choice in the first place. In terms of health

providers' reaction to patients, Chansky, Garner and, Raichoudhary (2013) states that the reaction or attitude of the health care provided contributes to the quality of services of health care services provided to patients (Olomi *et al.*, 2017).

However, despite the clearly provided literature by the researchers, it is not clear in terms of methodology how data was collected, ethical considerations observed, the limitations of the above studies as well as category of respondents each one of the researchers used. Secondly, the above literature is based on the studies conducted in other parts of the world other than Uganda generally and Mulago Referral Hospital in particular. Lastly, the theory used in the study was used in different studies and different settings. Hence the need to investigate factors associated with patient satisfaction with out-patient's health care service in Mulago National Referral Hospital in Kampala, Uganda.

Methods

The study used descriptive cross-sectional survey and correlational research designs guided by both quantitative and qualitative data collection methods (Amin, 2005). The descriptive research design was used to address objectives 1 and 2 of the study being descriptive, while the correlational research design was used to determine the association between institutional and personal factors associated on patient satisfaction with out-patients health care services in Mulago National Referral Hospital.

Quantitative data was collected using a questionnaire while qualitative data was collected using a key informant interview guide. The researchers further employed a correlational research design which was used to determine the extent at which the study variables influence each other.

Locale of the Study

The location of this study was Mulago National Referral Hospital in Kampala, Uganda. This

hospital was chosen as a case study because it is one of the major public health centers in Uganda where concerns have been raised on patient satisfaction among outpatients. There has been increasing cases of outpatient dissatisfaction with health care services in this Hospital (Uganda Bureau of Statistics (UBOS), 2018 and 2021). Being a National referral Hospital it also represents national level concerns.

Target Population and Sample size

The targeted population was outpatients receiving health care services in Mulago National Referral Hospital per day from six Out Patient Departments (OPDs) namely Medical, Surgical, Pediatric, Obstetric & Gynecology, Accident and Dental. Based on the records from Mulago National Referral Hospital (2019), this hospital

serves approximately 2,273 outpatients per day and each OPD’s estimated number of patients is given in Table 1 below. The aim of targeting outpatients was that they can provide quantitative data on factors associated with their satisfaction with outpatient health care services at the hospital. The study also targeted 6 Heads of Department from the six targeted OPDs who were Key Informants.

The Sample Size was calculated using Slovin’s (1960) formula and out of the target population of 2,273 the sample was determined to be 340. Kothari’s (2004) formula of proportionate allocation sampling was used to distribute the respondents from the target and sample size population in each of the 6 OPDs under this study (Table 1).

Table 1: Target Population and Sample Size

Out Patient Department (OPD)	Target Population		Sample Size	
	Outpatients	HOPD	Outpatients	HOPD
Medical OPD	519	1	78	1
Surgical OPD	172	1	26	1
Pediatric OPD	405	1	61	1
Gynecology OPD	371	1	55	1
Accident and Emergency OPD	501	1	75	1
Dental OPD	305	1	47	1
Total	2,273	6	340	6

Sampling Procedure

This study applied stratified, simple random and purposive sampling techniques. Thus, the researcher grouped the respondents into different stratus based on the outpatient departments in Mulago National Hospital as illustrated in Table 1. Thus, the respondents were placed in six groups then the researcher applied a random sampling technique to pick the outpatients as they exit the outpatient department through the use of a patient exit interview. This created confidentiality and anonymity. This method is recommended by several authors (Turner *et al.*, 2001; Hrisos *et al.*, 2009) who emphasized that it is important and

advisable to gather data from patients seeking health care services at their point of exit or after they have received the services using an exit interview method which is popular, particularly in low- and middle-income countries, because it is operationally more efficient and also allows data collection within a minimum recall period. Purposive sampling technique was used whereby only out patients exiting the department after receiving health care service answered a questionnaire as well as only the department heads in each outpatient department was interviewed as Key Informants.

Ethical Consideration

The researcher obtained approval from Mulago Hospital Institutional Review Board (IRB) and relevant consent forms and institutional letters were presented.

Covid 19 Standard Operating Procedures (SOPs) and Personal Protective Processes (PPP) were duly followed as set by the Ministry of Health, Uganda (Mutekanga D. R. 2020).

Results and Discussion

The sample size of the study was 340 patients and 6 OPD heads. However only 55.8% of the

respondents gave the information required and all the 6 OPD heads responded as Key Informants. Findings of the study are presented and discussed in line with the study objectives.

The Personal factors of out-patients receiving health care service in Mulago National Referral Hospital

The personal factors of patients receiving out-patients health care service in Mulago National Referral Hospital considered in this study were Educational level, Gender, Occupation and Age. The percentages of each of the above factors are given below in Table 2.

Table 2: Personal Factors of out-patients in Mulago National Referral Hospital

Items	Characteristics	Frequency	Percent
Educational level	Never schooled	48	25.3
	Primary	43	22.6
	Secondary	43	22.6
	Certificate	23	12.1
	Diploma	32	16.8
	Degree and Above	1	.5
Gender	Male	75	39.5
	Female	115	60.5
Occupation	Employed	50	26.3
	Self-employed	57	30.0
	Not employed	83	43.7
Age	18 – 28	122	64.2
	29 – 38	59	31.1
	39 and Above	9	4.7

N = 190

Educational Level

The results (Table 2 above) reveal that the majority (47.9%) of the respondents have attained primary and secondary level of education and below, and only 0.5% have attained degree and above level of education 1 (0.5%). This factor was considered important due to the reports by other researchers (Quintana *et al.*, 2006) and having low number of highly educated attending Government health facility in developing economies is expected because the most educated

are employed and their employees provide some level of health insurance which enables them to attend more expensive private health facilities.

Gender of the Patients

The results (Table 2) further show that the majority (60.5%) were female patients. were the majority 115 (60.5%) while male patients were only 75 (39.5%). This may imply that the views in this study were dominated by those of female patients. were the majority and their views

dominated the study findings. Other researchers have indicated that gender is not a significant predictor of patient satisfaction (Khamesh *et al.*, 2006, Kelarijan *et al.*, 2014).

Occupation of the Patient

The results from Table 2 above further show that majorities (43.7%) of patients are not employed and the self-employed were only 30.0%. The fact that majority are unemployed might imply that a large number of the respondents do not have source of income therefore expect to be treated free of charge from the government hospital. Studies by Henry *et al.*, (2020) showed that employment status was a statistically significant determinant of overall patient experience rating for quality of care.

Age of the Patient

Regarding age of the patients, the results (Table 2 above) shows that those who were in the age

bracket of 18 - 28 years dominated the study (64.2%) followed by those who were in the age bracket of 29 – 38 years (31.1%). This means the majority (95.3%) of the respondents at Mulago were adolescents and young adults.

These finding correlate with those reported by Mikael (2001) where the patient satisfaction index (PSI) score of the background factors tested, patient age had the greatest explanatory value regarding the PSI, closely followed by experiencing anxiety during admission.

Institutional factors of Mulago National Referral Hospital

The institutional factors of Mulago National Referral Hospital examined in this study were drug stock, health cost, reception time, service accessibility and health providers’ reaction. The frequencies and percentages were used to determine the level of services as perceived by the patients and this is provided in Table 3 below.

Table 3: Institutional factors of Mulago National Referral Hospital

Items	Description	Frequency	Percent
Drug Stock	Available	69	36.3
	Not available	121	63.7
Health Cost	Affordable	79	41.5
	Not Affordable	111	58.5
Reception Time	Less than Two Hours	55	28.9
	More than two hours	135	71.1
Service Accessibility	Accessible	41	21.5
	Not Accessible	149	78.5
Health Providers’ Reaction	Good	131	68.9
	Poor	59	31.1

N = 190

Drug Stock

The majority of the respondents (63.7%) reported that drugs are never available This indicates that a large number of outpatients visiting this hospital do not get the prescribed medication. This was supported by the Key informers who further reported that:

We sometimes get stock outs of medications due to delayed communication to the suppliers and even what is finally delivered is little compared to the demand. There is need for both timely and enough drugs being delivered to the Hospital. (KI 1)

The findings are in agreement with those of Demiss, *et al.*, (2019) who established that in some hospitals in Addis Ababa Ethiopia. Patient satisfaction was affected by level of availability of drugs.

Health Cost

With regard to health cost, majority of the respondents (58.5%) reported that the cost of drugs was not affordable for them. This is an important satisfaction issue and has been reported by earlier researchers (Satish P Deshpande *et al.*, 2014) that satisfaction with health care cost, affordability of health care expenses and health financing through insurance were the 3 most significant indicators of an individual's satisfaction with health care.

Reception Time

The majority of the respondents (71.1%) reporting on reception time indicated that they stay for more than two hours and that the waiting time before seeing a clinician/doctor was not satisfactory, patients were not happy with the time spent in doctor's consultation room and they take long before being worked on at the pharmacy.

The Key Informants reported that:

Some of the patients spend more time or take long before seeing the health practitioner and some are even requested to come the next day. This is due to various reasons such as availability of the health practitioners. (KI 2)

Demiss *et al.*, (2019) reported that outpatients are influenced by the waiting time when seeking for health care services with many of them unhappy when they wait for a long time before receiving health care services. This reinforces the fact that waiting time is crucial factor in outpatient satisfaction.

Service Accessibility

With respect to service accessibility, the majority of the respondents (78.5%) confirmed that services were not accessible. They further reported that Doctors, laboratory services and drugs are not always readily available.

The Key informants further confirmed this and gave some reasons why this occurs:

Sometimes services are not accessible or available at the time when they are needed by outpatients. The patient might come when the service provider is not available or is attending to many other patients. Sometimes the lack of relevant expertise also leads to unavailability of the services. (KI 3)

These findings are in agreement with earlier report by Jaipaul and Rosenthal (2003) who emphasized that the patient's expectations and requirements are the main indicators of the quality of health services at all levels.

Health Providers' Reaction

However most of the respondents (68.9%) reported that the health provider's reactions were good and the patients had good relationship with health providers and the reaction towards patient health condition was encouraging.

The key informants noted that the health workers are doing their level best but do not want to take it further since it means more time and hence costly as reported below:

"I don't believe that our health providers keep in touch with our patients for follow-up. Once the patient is attained to, it is up to him/her to keep the relationship or not. When you discuss with our health services providers, they tell you that it involves cost they don't have to sponsor that." (KI-4)

Other researchers do agree (Chansky *et al.*, 2013 and Wolf *et al.*, 2014) that health provider’s attitude contributes to the quality of services of health care services provided to patients and that patient experience (PE) evaluates what happens at the point of contact between the patient, the health provider including the manner and environment in which people are treated when they seek healthcare. All of these contribute to patient satisfaction.

Level of Patient Satisfaction with Out-Patients Health Care Service

In order to determine the level of patient satisfaction with out-patients health care service in Mulago National Referral Hospital, the following factors: loyalty, tangibility, reliability, responsiveness, assurance and empathy were used. The frequencies and percentages of these factors were used to determine the level of patient satisfaction (Table 4).

Table 4: Out-patient level of Satisfaction with Health Care Services Received

Variable	Description	Frequency	Percent
Patients Satisfaction	Satisfied	86	45.3
	Not Satisfied	104	54.7

N = 190

The findings revealed that the majority (54.7%) of the patients were not satisfied with the health care services they received at this hospital.

Key informants confirmed this in their report:

“When conversing with patients, most of them say that they cannot refer other patients to this hospital because they are not satisfied with services due to lack of customer care and poor quality of service delivery.” (KI-5).

Some Key informants further reported on patient’s loyalty towards the hospital:

“I don’t think most of our patient are loyal to our services. This is because when you ask them of the

reasons why they come to this hospital, most of them will tell you that it is because of lack of money or finances and the majority are unemployed.” (KI-6).

Association between the Factors and Patient Satisfaction with Out-patients Health Care Service

In order to establish the association between personal and institutional factors and patient satisfaction with out-patients health care services in this hospital, the chi square and binary logistic regression were used and the results are given in Table 5 below.

Table 5: Association between Personal and Institutional factors on Patient Satisfaction with Out-patients Health Care Service

Variables	Satisfaction		X ²	df	P
	Yes	No			
Education					
Never schooled	19 (38.9%)	29 (61.1%)	183.977	145	0.016
Primary	21 (48.0%)	22 (52.0%)			
Secondary	15 (35.3%)	28 (64.7%)			
Certificate	9 (41.2%)	14 (58.8%)			
Diploma	12 (38.9%)	20 (61.1%)			
Degree and above	0 (00.0%)	1 (100.0%)			
Gender					
Male	30 (40.0%)	45 (60.0%)	56.69	29	0.002
Female	45 (39.3%)	70 (60.7%)			
Occupation					
Employed	33 (66.3%)	17 (33.7%)	64.55	58	0.258
Self-employed	35 (62.1%)	22 (37.9%)			
Not employed	41 (49.7%)	42 (50.3%)			
Age					
18 – 28	53 (43.5%)	69 (56.5%)	100.06	58	0.001
29 – 38	20 (34.5%)	39 (65.5%)			
39 and Above	2 (26.7%)	7 (73.3%)			
Drug Stock					
Available	23 (33.3%)	45 (66.7%)	128.21	87	0.003
Not available	59 (48.0%)	63 (52.0%)			
Health Cost					
Not Affordable	25 (31.2%)	54 (68.8%)	207.08	162	0.000
Affordable	31 (46.7%)	36 (53.3%)			
Reception Time					
Less than two hours	25 (46.7%)	29 (53.3%)	121.22	87	0.009
More than two hours	42 (31.2%)	94 (68.8%)			
Service Accessibility					
Accessible	15 (35.7%)	26 (64.3%)	182.55	87	0.000
Not Accessible	63 (42.2%)	86 (57.8%)			
Health Provider Reaction / Attitude					
Good	35 (26.7%)	96 (73.3%)	200.17	87	0.000
Poor	25 (42.2%)	34 (57.8%)			

N = 190

Sources: Primary Data

Education

Results in Table 5 indicate that there is a significant association between education and patient satisfaction with out-patients health care service

($x^2 = 183.977, df = 145, p = 0.016$). meaning that that education is significantly associated to patient satisfaction.

These findings are supported by Jaipaul and Rosenthal, (2003) who reported that patient satisfaction is related to educational level, and that patients with higher level of education and those with least education are less satisfied. This was because those with higher education commonly have higher incomes and social status making their expectations higher; while those with low or no education are poor with no good regular income and hence expect free and good support from the government.

Gender

The results (Table 5) also indicate that there is a significant association between gender and patient satisfaction ($\chi^2 = 56.69, df = 29, p = 0.002$). However, Khamseh *et al* (2006) disagree having reported that there is little difference in the satisfaction level of women and men in Middle East (mainly of Islamic faith). So, this may be due to both cultural and geographical differences.

Occupation

The results in Table 5 further reveal that there is no significant association between occupation and patient satisfaction with out-patients health care service ($\chi^2 = 64.55, df = 58, p = 0.258$). However, earlier reports from Henry *et al* (2020) reported that employment status was a statistically significant determinant of overall patient experience rating for quality of care. This disagrees with the results in this study. This could be related to the how education is related to occupation in some countries as opposed to others.

Age

The results show that there is a significant association between age and patient satisfaction ($\chi^2 = 100.06, df = 58, p = 0.001$). Mikael (2001) who analyzed the relationship between patient satisfaction and background factors such as age agrees with the results above, and further reported that the patient satisfaction index score

(PSI) of patient age had the greatest explanatory value.

Drug Stock

Drug stock had a significant association with patient satisfaction ($\chi^2 = 128.21, df = 87, p = 0.003$). This agrees with one recent study by Demiss, *et al*, (2019) where satisfaction was affected by availability of drugs.

Health Cost

Health cost was also found to have a significant association with patient satisfaction ($\chi^2 = 207.08, df = 162, p = 0.000$). Satish *et al* (2014) reported that health care cost, affordability of health care expenses and health financing through insurance were the 3 most significant indicators of an individual's satisfaction with health care.

Reception Time

The results (Table 5) show that there is a significant association between reception time and patient satisfaction with out-patients health care service ($\chi^2 = 121.22, df = 87, p = 0.009$). Demiss. *et al*,. (2019) do agree with the results in Table 12 who reported that many outpatients are unhappy when they wait for a long time before receiving health care services.

Service Accessibility

Results also show (Table 5) that there is a significant association between service accessibility and patient satisfaction with out-patients health care service ($\chi^2 = 182.55, df = 87, p = 0.000$). Earlier Jaipaul and Rosenthal, (2003) also reported that accessibility of services is very important in patient satisfaction.

Health provider’s reaction / attitude

Findings in Table 5 indicate that there is a significant association between health providers reaction / attitude and patient satisfaction with out-patients health care service ($\chi^2 = 200.17, df = 87, p = 0.000$). These results are in agreement with earlier research by Chansky *et al.*, (2013) who reported that health provider’s attitude contributes to the quality of services of health care services provided to patients leading to patient’s satisfaction. It is also important to note that patient experience evaluates what

happens at the point of contact between the patient, the practice, and the provider, and it also captures health system responsiveness, including the manner and environment in which people are treated when they seek healthcare (Wolf *et al.*, 2014).

To establish the how the two factors: personal factors and institutional factors relate to each other on patient satisfaction, linear regression analysis was undertaken and produced the results indicated in Table 6 below.

Table 6: Relationship of the personal and institutional factors on Patient Satisfaction

Variables	Satisfaction	No Satisfaction	COR (CI 95%)	AOR (CI 95%)
Education				
Never schooled	19 (38.9%)	29 (61.1%)	2.19 (0.74-13.03)	3.78 (2.01-6.21)
Primary	21 (48.0%)	22 (52.0%)		
Secondary	15 (35.3%)	28 (64.7%)		
Certificate	9 (41.2%)	14 (58.8%)		
Diploma	12 (38.9%)	20 (61.1%)		
Degree and above	0 (00.0%)	1 (100.0%)		
Gender				
Male	30 (40.0%)	45 (60.0%)	3.28 (1.58-6.50)	3.40 (1.23 – 5.68)
Female	45 (39.3%)	70 (60.7%)		
Age				
18 – 28	53 (43.5%)	69 (56.5%)	3.197 (0.282-1.298)	2.73 (1.31 – 4.66)
29 – 38	20 (34.5%)	39 (65.5%)		
39 and Above	2 (26.7%)	7 (73.3%)		
Drug Stock				
Available	23 (33.3%)	45 (66.7%)	2.40 (1.500-3.282)	3.69 (2.32-9.71)
Not Available	59 (48.0%)	63 (52.0%)		
Health Cost				
Not Affordable	25 (31.2%)	54 (68.8%)	8.32 (1.324-13.801)	5.26 (1.351-6.441)
Affordable	31 (46.7%)	36 (53.3%)		
Reception Time				
Less than two hours	25 (46.7%)	29 (53.3%)	3.32 (1.240-7.401)	3.68 (2.12 – 14.67)
More than two hours	42 (31.2%)	94 (68.8%)		
Service Accessibility				
Accessible	15 (35.7%)	26 (64.3%)	2.27 (0.84 -12.13)	4.09 (3.02 - 7.31)
Not Accessible	63 (42.2%)	86 (57.8%)		
Health Provider				
Good	35 (26.7%)	96 (73.3%)	4.42 (1.347-8.501)	4.68 (3.22 – 15.77)
Poor	25 (42.2%)	34 (57.8%)		

N = 190

Sources: Primary Data

Table 6 above revealed that there was significant relationship between personal and institutional factors and patient satisfaction with out-patients health care service. The findings are presented in terms of satisfaction and no satisfaction. The factors that are not figured in the table in terms of Unadjusted ODD Ratios (UOR) and Adjusted ODD Ratio (AOR) at 95% CI meant that their p-values were greater than the Fishers exact p-values. They, therefore, indicate no significant association patient satisfaction with out-patients health care service.

Education of Parent/Guardian

Results in Table 6 above displayed that fewer educated patients (38.9 %) are satisfied with out-patients health care service than a big majority (61.1 %) with low education level who were not satisfied. According to this analysis, education is a significant predictor of patient satisfaction with out-patients health care service. The unadjusted odds UOR = 2.19 (0.74 - 13.03) indicated that uneducated patients were about 2 times more likely not to be satisfied with out-patients health care service, While adjusted odds AOR = 3.78 (2.01 – 6.21) for uneducated patients show more lower likelihood of patient satisfaction.

Gender

On gender, the results show that gender is a significant predictor of patient satisfaction. The unadjusted odds UOR = 3.28 (1.58 – 5.68) indicated that female patients were about 3 times more likely not to be satisfied with out-patients health care service and adjusted odds AOR = 3.40 (1.23 – 5.68) for female patients show more lower likelihood of patient satisfaction with out-patients health care service.

Age

Table 6 further shows that age was a significant predictor of patient satisfaction with out-patients health care service. The unadjusted odds UOR = 3.197 (0.282 – 1.298) indicated that young patients were about 3 times more likely not to be satisfied with out-patients health care service and

adjusted odds AOR = 2.73 (1.31 – 4.66) for young patients are bound to show more lower likelihood of patient satisfaction.

Drug Stock

Results in Table 6 on drug stock after linear regression show that drug stock was a significant predictor of patient satisfaction. The unadjusted odds UOR = 2.40 (1.500 – 3.282) indicated that patient who said no to the existence of drug in stock were about 2 times more likely not to be satisfied with out-patients health care service and adjusted odds AOR = 3.69 (2.32-9.71) for patient who said no to drug stock show more lower likelihood of patient satisfaction.

Health Cost

Health cost was found to be a significant predictor of patient satisfaction with out-patients health care service. The unadjusted odds UOR = 8.32 (1.324 – 13.801) indicated that patient who confirmed of health cost were about 8 times more likely not to be satisfied with out-patients health care service while adjusted odds AOR = 5.26 (1.351 – 6.441) show more lower likelihood of patient satisfaction with out-patients health care services.

Reception Time

Reception time was another significant predictor of patient satisfaction with out-patients health care service. The unadjusted odds UOR = 3.32 (1.240 – 7.401) indicated that patient who confirmed of no-good reception time were about 3 times more likely not to be satisfied with out-patients health care service and with adjusted odds AOR = 3.68 (2.12 – 14.67) the patients show more lower likelihood of satisfaction.

Service Accessibility

Service accessibility was established to be a significant predictor of patient satisfaction with out-patients health care service. The unadjusted odds UOR = 2.27 (0.84 – 12.13) indicated that patient who reported bad services accessibility

were about 2 times more likely not to be satisfied with out-patients health care service and adjusted odds AOR = 4.09 (3.02 – 7.31) show more lower likelihood of patient satisfaction indication.

Health Provider

The results in Table 6 also show that health providers are a significant predictor of patient satisfaction. The unadjusted odds UOR = 4.42 (1.347 – 8.501) indicated that patients who reported poor health providers were about 4 times more likely not to be satisfied with out-patients health care service and adjusted odds AOR = 4.68 (3.22 – 15.77) further show more lower likelihood of patient satisfaction.

Conclusion and Recommendations

The study established that more than half of the patients were not satisfied with the health care services they receive; education, age, drug stock, health cost, reception time, service accessibility and health providers were significant predictors of patient satisfaction with out-patients health care service while gender and occupation were not significant predictors (Table 6 above).

From the above findings it is important to improve accessibility and availability of drugs, reduce waiting time and ensuring that the health care providers offer professional services to the patients to improve the satisfaction levels of patients.

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