

# Patients' Perception and Satisfaction with Waiting Time, and Facilities Available in a State Teaching Hospital Eye Clinic, Southeast, Nigeria

Nkiruka N. Okoloagu<sup>1,2</sup>, Edmund O. Ndibuagu<sup>2,3\*</sup>

<sup>1</sup>Department of Ophthalmology, College of Medicine, Enugu State University of Science & Technology (ESUT) and ESUT Teaching Hospital, Parklane, Nigeria

<sup>2</sup>Esucom Health Care Delivery Research Initiative, College of Medicine, Enugu State University of Science and Technology, Enugu, Nigeria

<sup>3</sup>Department of Community Medicine, College of Medicine, Enugu State University of Science & Technology (ESUT) and ESUT Teaching Hospital, Parklane, Nigeria

Email: [nkiruka.okoloagu@esut.edu.ng](mailto:nkiruka.okoloagu@esut.edu.ng), [\\*edmund.ndibuagu@esut.edu.ng](mailto:*edmund.ndibuagu@esut.edu.ng)

**How to cite this paper:** Okoloagu, N.N. and Ndibuagu, E.O. (2023) Patients' Perception and Satisfaction with Waiting Time, and Facilities Available in a State Teaching Hospital Eye Clinic, Southeast, Nigeria. *Health*, 15, 544-568.

<https://doi.org/10.4236/health.2023.156037>

**Received:** May 3, 2023

**Accepted:** June 26, 2023

**Published:** June 29, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

Patients' satisfaction with waiting time and the facilities in eye clinics is an important indication of the patients' assessment of the quality of service in the eye clinic. In this study, waiting time was defined as time spent from arrival to time when the patient is seen by a doctor. Some factors that affect patients' waiting time in health clinics include: healthcare setting, availability of adequate resources and personnel, efficient deployment of available resources and competence of healthcare workers, and punctuality of healthcare workers. The physical environment, comfort of patients, and level of infrastructure in the hospital also influence patients' satisfaction. This observational, descriptive, cross-sectional study was conducted among patients that attended an eye care clinic, in a tertiary hospital, and 348 respondents were interviewed. Most of the respondents were aged 40 years and above (64.4%), females (63.5%), Igbos by tribe (94.8%), married (63.2%), Christians (96.6%), and had at least a secondary level of education (78.4%). Most perceived waiting time as being very long or long (60.1%), and only 48.8 were satisfied or very satisfied with the waiting time. Most also perceived the cleanliness of the eye clinic as being clean or very clean (85.0%), and 70.7% perceived the ventilation as being adequate or very adequate. The majority reported that a health talk was given (71.6%), and 62.7% were satisfied or very satisfied with the talk. More respondents (46.8%) perceived the waiting space as very inadequate or inadequate, as against 43.4% that perceived it as adequate or very adequate. More reported that prescribed drugs were completely unavailable

---

or few available (48.0%), while 42.3% reported drugs as being reasonably or completely available. It is important that management of health facilities that offer eye care services, work towards improving patients' perception and satisfaction with services provided in the eye clinics.

## Keywords

Patients, Perception, Satisfaction, Time, Facilities

---

## 1. Introduction

Chambers 21<sup>st</sup> Century Dictionary explains satisfaction as the fulfillment of needs, desires or expectations of someone [1]. Patients' satisfaction with waiting time and the facilities in eye clinics is an important indication of the patients' assessment of the quality of service provided in the eye clinic. The level of satisfaction will determine if the patient will comply with the treatment prescribed, recommend the facility to other patients, or seek treatment in the same facility in the future [2]. Generally, healthcare services are designed to improve the health status of the population they serve [3]. Hence, services provided in the eye care facilities are aimed at improving eye health, and ultimately preventing avoidable blindness. The quality of services provided in eye care facilities contributes to the uptake of services from the facilities [4].

Some researchers consider patients' waiting time in the clinic, as the time spent from arrival to departure from the clinic, probably after having been seen by the doctor, and completing all other processes including the collection of prescribed doctors [5]. Others, however, consider waiting time as the period from arrival to the time when the patient was seen by the doctor [6] [7]. In this study, waiting time is defined as the time spent from arrival to the time when the patient is seen by a doctor in the eye clinic. Some previous studies documented that long waiting time has been a source of major dissatisfaction among patients that visit health clinics [4] [8] [9] [10]. Other factors that affect patients' waiting time in health clinics include: healthcare setting, availability of adequate resources and personnel, efficient deployment of available resources, competence of healthcare workers, and punctuality of healthcare workers [11]. Time-specific appointment for patients attending health clinics has been proven to be effective in reducing waiting time if properly implemented. The Institute of Medicine (IOM), in the United States of America, recommends that in cases where a clinic appointment is scheduled, at least 90% of the patients ought to be seen within 30 minutes of arriving at the health facility [12]. This, however, is not the situation found in most low- and middle-income countries including Nigeria, probably because of weak health systems and inadequate health personnel [13].

The physical environment, comfort of the patient, and level of infrastructure in the hospital are among the factors that influence patients' satisfaction [14] [15].

With respect to non-medical factors, some studies reported that the physical environment and amenities available in the clinics contributed the least to patients' satisfaction [16]. However, in 2002, a study in Scotland among five government hospitals found that physical comfort contributed the highest to patients' satisfaction in the clinics [17]. Paying attention to the cleanliness of the clinic, ventilation, giving health education talks, providing adequate and comfortable waiting space, and ensuring the availability of prescribed items will all contribute to patients' satisfaction. It has been documented that patients' satisfaction is an important indicator of the quality of care provided in a health facility, and thus can be used in assessing the performance of health facilities [18].

Findings from this study will provide reliable data on patients' perception and acceptance of waiting time and facilities obtainable from the eye clinics of a government-owned tertiary hospital in a low-income country. These data will be very useful in planning for the improvement of eye care services in the study health institution, and other similar health facilities. Implementation of findings from the study will ultimately contribute to the prevention of avoidable blindness, since the utilization of eye clinics will improve, as a result of more patients being satisfied with the waiting time, and facilities provided. The main objective of this study is to assess patients' perception, and satisfaction with waiting time, and facilities available in a state teaching hospital eye clinic, in Southeast, Nigeria.

## **2. Materials and Methods**

### **2.1. Study Area**

Enugu State is one of the five states that make up southeast geopolitical zone of Nigeria. The other states in the zone are; Abia, Anambra, Ebonyi, and Imo States. The state shares boundaries with Benue and Kogi States on the north, Abia and Imo States on the south, Ebonyi State on the east, and Anambra State on the west [19]. Enugu State has two public tertiary hospitals that provide specialized eye care services for the population. One is owned by the federal government, while our study site is a three hundred and twenty bedded hospital owned by the state government. The hospital runs busy outpatient eye clinic every working day of the week, with average daily patient attendance of 80, weekly attendance of 400, and monthly attendance of 1300. On each clinic day, 2 eye specialists consult, 3 nurses and 3 record staff attend to patients, and the eye clinic has dedicated eye pharmacy with one Pharmacist.

### **2.2. Study Design**

The study is of observational, descriptive, cross-sectional design.

### **2.3. Study Population**

The study was conducted among adults that presented to the eye clinics in October and November, 2022. All those healthy enough to respond to our questions, were included in our study; while the very sick patients were excluded.

## 2.4. Sampling Instrument

Interviewer-administered questionnaire, which had three sections, was used to collect information from the patients. The sections were socio-demographic, perception/satisfaction with waiting time, and perception/satisfaction with available facilities in the clinic.

## 2.5. Sample Size Calculation

The sample size was calculated with these formulae [20]:

$$n = \frac{z^2 pq}{d^2}$$

and

$$nf = \frac{n}{1 + \frac{n}{N}}$$

$n$  = Desired sample size when population is greater than 10,000;

$z$  = Standard normal deviate, usually set at 1.96, which corresponds to 95 percent confidence level (0.05 accuracy);

$p$  = Proportion in the target population estimated to have a particular characteristics. Usually put at 50% (0.5);

$q = 1.0 - p$ ;

$d$  = Degree of accuracy desired, usually set at 0.05;

$nf$  = Desired sample size when population size is less than 10,000;

$N$  = Population that is less than 10,000 from which sample will be calculated.

We calculated sample size of 334. We however added fourteen, making it up to 348. This is aimed at enhancing the reliability of the study.

The samples were selected through simple random sampling method. Balloting was used to select the respondents.

## 2.6. Sample Selection and Data Collection

Simple random sampling method was used in selecting the calculated 348 respondents. After patients had arrival on each clinic day, pieces of papers corresponding to the number of patients present were folded and the patients directed to randomly pick one. Nine patients that picked the papers written "YES" were interviewed when they were about leaving the clinic. This process commenced on October 3, 2022, and terminated on the fourth working day, of the fourth week in November 2022, when the last six patients were interviewed.

## 2.7. Data Analysis

Information from the completed questionnaire was analyzed using Statistical Package for Social Sciences (SPSS) version 23.0 for windows. The data were expressed

in frequencies and percentages.

### **3. Results**

A total of three hundred and forty eight respondents were interviewed and the information elicited analyzed.

#### **3.1. Socio-Demographic Variables**

The highest percentage of respondents (20.7%) was recorded among 50 - 59 years age group, followed by 60 - 69 years age group (17.2%), and 40 - 49 years age group (14.4%). The differences between the percentages of respondents among the other age groups were not very glaring. They were as follows; 12.6% for 30 - 39 years age group, 12.1% for those above 70 years, 11.8% for those aged 19 years and less, and 11.2% for those aged 20 - 29 years. More females (63.5%), than males (36.5%) participated in the study; and most were of Igbo tribe (94.8%). Majority were also married (63.2%), while 26.7% were single, 8.3% widowed, and 1.7% divorced or separated. Most of the respondents were of the Christian religious faith (96.6%), followed by traditional religion (2.0%), Islam (1.1%), and only 1 person (0.3%) being of the Hindu religious faith. More of the respondents (28.4%) attained tertiary education level than 25.9% with secondary education level, 24.1% with post-graduate level, 13.2% with primary level and 8.3% with no formal education. Persons who were self-employed and engaged in successful small and medium scale economic activity were classified as businessmen/women. They contributed the highest percentage of respondents (21.3%), and were followed by civil servants (19.0%), students (13.8%), retirees (12.1%), petty traders (9.5%), teachers/lecturers (9.2%), farmers (8.0%), and artisans (4.3%), in that order. Only 0.6% was unemployed, while 2.3% did not specify their occupation.

#### **3.2. Overall Perception and Satisfaction with Waiting Time**

The highest percentage of respondents (34.5%) perceived waiting time to be very long. Next was 32.2% that reported that it was moderate, 25.6% perceived waiting time as long, 6.3% responded that it was short, and only 1.4% responded that the waiting time was very short. Incidentally, 40.8% were satisfied with the waiting time, 22.1% were dissatisfied, 15.5% were uncertain about their feeling, while 13.3% were very dissatisfied, and only 8.0% very satisfied.

#### **3.3. Socio-Demographic Distribution of Respondents' Perception of Waiting Time**

Highest percentage of respondents aged 40 - 49 years (44.0%) perceived waiting time as being very long. They were followed by persons aged 60 - 69 years (38.3%), while persons aged 19 years and below (26.8%) recorded the least percentage of respondents that perceived waiting time as being very long. More percentage of respondents aged 70 years and above (33.3%) than in any other group, perceived

waiting time as being long. Respondents within the age group 60 - 69 years (20.0%) were the least group that perceived waiting time as being long. Greater percentage of respondents aged 19 years and below perceived waiting time as being moderate (36.6%) and also short (12.2%), while the least percentage of people with perception of being moderate came from the 40 - 49 years age group (26.0%). Only one person (2.0%) in the 40 - 49 age group perceived the waiting time as being short, while no respondent in the age group of 70 years and above perceived it as being short, but one of them (2.4%) believed that it was very short.

Almost equal percentage of males (33.9%) and females (34.8%) perceived waiting time as being very long. The difference between males (7.9%) and females (5.4%) that perceived waiting time as being short is also not much.

Based on educational level, the highest percentage of those that perceived waiting time as being “very long” (41.4%), and “long” (34.5%) came from the “no formal education” group, while the least percentage that perceived waiting time as “very long”, were respondents with primary education level (23.9%). Primary education level respondents were also the highest percentage that perceived waiting time as “short” (10.9%).

The percentage of teachers/lecturers (53.1%) that perceived waiting time as being very long, is higher than any other occupation. Artisans had the least percentage of respondents that perceived waiting time as being very long. None of the farmers, teachers/lecturers, artisans and the unemployed perceived waiting time as short, though one farmer (3.6%) and one artisan (6.7%) perceived waiting time as being very short.

### **3.4. Socio-Demographic Distribution of Respondents' Satisfaction with Waiting Time**

Responds aged 40 - 49 years had the highest percentage of those that were very dissatisfied (22.0%) with the waiting time, while those aged 30 - 39 years had the least percentage of those that were very dissatisfied (4.5%). More percentage of respondents in the age group of 70 years and above was dissatisfied (35.7%), while the highest percentage of satisfied persons were in the 60 - 69 years age group (53.3%). More males were both very dissatisfied (15.7%) and dissatisfied (26.0%), than females (12.2%) and (19.9%) respectively. However, more females were satisfied (45.7%) and very satisfied (8.6%); when compared to satisfied (32.3%) and very satisfied (7.1%) males. Higher percentage of persons with no formal education were both very dissatisfied (17.2%) and dissatisfied (37.9%) than any other educational level group, while those with primary level education belonged to the group with the highest percentage of those that were satisfied (45.7%). Farmers had the highest percentage of those that were “very dissatisfied” (25.0%), while the highest percentage of those that were “dissatisfied” belonged to petty traders (30.3%). Businessmen/women recorded the highest percentage of satisfied respondents (47.3%).

### 3.5. Overall Perception of Patients on Available Facilities

Majority of the respondents perceived the eye clinic as being clean or very clean (85.0%), while only 4.8% perceived it as being filthy or very filthy. Ventilation was perceived as being adequate or very adequate by 70.7%, while 21.0% perceived ventilation in the clinic as inadequate or very inadequate. Most respondents (71.6%) agreed that health talk was given while they waited to see the doctor, and 62.7% of them were satisfied or very satisfied with the quality of the health talk. The waiting space was considered adequate or very adequate by 43.4% of respondents, while 46.8% considered it inadequate or very inadequate. Some respondents (9.8%) were not certain how to assess the patients' waiting space. Some of the patients (43.4%) stated that only few of the prescribed drugs were available in the hospital. Few respondents (14.4%) stated that prescribed drugs were completely available.

### 3.6. Socio-Demographic Distribution of Patients' Perception of Eye Clinic Cleanliness

Majority of the respondents of all age groups perceived the clinic as being clean or very clean, with each group having over 80.0% of their respondents having this perception. Less than 5.0% of respondents in each of the age groups 40 - 49 years, and 50 - 59 years perceived the clinic as being filthy or very filthy, while none of those aged 60 years and above perceived the clinic as filthy or very filthy. The 20 - 29 years age group had the highest percentage of their respondents (12.9%) perceiving the clinic as filthy or very filthy. More percentage of the females (86.9%), than males (81.9%) perceived the clinic as being clean or very clean. Perception of the clinic as being clean or very clean was highest among respondents with primary level education (91.3%), and lowest among those with no formal education (65.5%). Outside the two unemployed respondents, people in businessmen/women occupational group had the highest perception of the clinic being clean or very clean (91.9%).

### 3.7. Socio-Demographic Distribution of Patients' Perception of Eye Clinic Ventilation

Respondents in age group 60 - 69 recorded the highest perception of the clinic being adequately or very adequately ventilated (80.0%), while those in age group 40 - 49 years had the lowest perception of this (56.0%). More females (74.4%) than males (67.8%) perceived the clinic as being adequately or very adequately ventilated. Respondents with primary level education had the highest percentage of those that perceived the clinic as being adequately or very adequately ventilated (80.4%), while those with no formal education had the lowest perception of the clinic being adequately or very adequately ventilated (51.7%). Outside, the two respondents that were unemployed, those who were businessmen/women had the highest perception of the clinic being adequately or very adequately ventilated (79.8%).



### 3.8. Socio-Demographic Distribution of Patients' Satisfaction with Health Talk

Reasonable percentage of respondents across all the age groups gave no response to the question on how satisfied they were with the health talk given in the clinic. The percentages of no response ranged from 43.9% recorded for those aged 19 years and below, to 16.7% for the 60 - 69 year age group. This 60 - 69 year, and 50 - 59 year age groups had the highest percentage of those that were satisfied or very satisfied (75% each); while those in 19 years and below age group recorded lowest on this positive response. Up to 32.3% male respondents gave no response to the question on satisfaction with health talk, while 26.2% of females also did not respond. Slightly more percentage of female respondents (65.2%) than males (58.3%), were satisfied or very satisfied with the health talk given. Persons with primary level education had the highest percentage of respondents that were satisfied or very satisfied (69.6%), with the health talk. On the other hand, respondents with tertiary education level had the lowest percentage score on being satisfied or very satisfied (58.6%) with the health talk. Students had the highest rate of no response (37.5%), when compared with other occupations. Except for the unemployed two respondents, farmers recorded the highest percentage of those that were satisfied, or very satisfied (71.4%) with the health talk, while students had the lowest percentage of those that were satisfied or very satisfied (56.2%).

### 3.9. Socio-Demographic Distribution of Patients' Perception of the Waiting Space

Highest percentage of respondents that perceived the waiting space as adequate or very adequate (54.5%) came from the 30 - 39 years age group, while the lowest percentage of those that perceived it as adequate or very adequate were in the 40 - 49 years age group (32.0%). Slightly more percentage of females (44.8%), than males (40.9%) perceived the waiting space as adequate or very adequate. More percentage of respondents in primary education level, than in any other educational level group perceived the waiting space as adequate or very adequate (56.5%), while the lowest percentage of respondents in any educational group with positive perception of the waiting space were in the tertiary education level (35.3%). Businessmen/women had the highest percentage of respondents that perceived the waiting space as adequate or very adequate (51.4%). Those in the petty traders' occupational group had the least positive perception of 33.4%.

### 3.10. Socio-Demographic Distribution of Patients' Perception of the Availability of Drugs

None of the age groups had up to 50.0% of their respondents perceiving prescribed drugs as being reasonably or completely available. Only 30 - 39 years age group had good perception of drugs being available (59.1%). Also none of the sexes had up to 44% perception of drugs being reasonably or completely available. However, 45.7% of males had perception of few drugs being available, while



42.1% females stated that few drugs were available. Only respondents in primary education level had up to 50.0% of respondents perceiving drugs as being reasonably or completely available. Good percentage of respondents in post-graduate education level (54.8%) however stated that few drugs were available. None of the occupational groups had up to 50.0% of their respondents perceiving drugs as being reasonably or completely available. However, 59.1% of civil servants and 50.0% of farmers had perception of few drugs being available.

#### 4. Discussion

Patients' satisfaction studies are commonly designed to gauge the level of happiness or contentment; patients have with different aspects of health services provided by the healthcare providers. Their perception of these different aspects, are also indications of how pleased they are with the health services. This study involving three hundred and forty eight patients that attended eye clinic in a tertiary health institution; specifically assessed their perception and satisfaction with the time they spent, waiting to be seen by the doctor, and their perception of the cleanliness of the clinic, ventilation, quality of health talk given, adequacy of the waiting space, and availability of prescribed drugs.

There were reasonably more females (63.5%) than males (36.5%) that participated in the study (**Table 1**). This probably could be because females naturally exhibit more health seeking behaviour [21], hence majority of the patients that present at the eye clinic are females. Similar sex distribution of respondents was noted in a similar study conducted in a general outpatient department of a tertiary health institution in Northern Nigeria; where 62.5% of respondents were females, and 37.5% males [22]. Those with tertiary level educational qualification had the highest number of respondents, though the differences were not much; when compared to those with secondary and post-graduate educational level qualifications (**Table 1**). Enugu municipal, which is the capital territory of the state, has many tertiary educational level institutions that afford many residents of the town, opportunity to acquire tertiary level education, even on part-time basis. Majority of the patients that attend this teaching hospital's eye clinic are drawn from inhabitants of Enugu metropolis.

Obviously, more patients perceived waiting time, before seeing the doctor as very long or long (60.1%), while large number (32.2%) believed the waiting time was moderate; and only 7.7% perceived waiting time as short or very short (**Table 2**). Certain factors such as comfort of the clinic waiting environment and friendliness of the health workers could influence perception of waiting time. For instance, if the waiting area is air-conditioned, and the patients are made to wait a little longer during a hot season, they might not perceive the time as being long. Certain studies also found that provision of music, newspapers, films and other things that entertain and keep patients busy, improve their perception of waiting time [23]. These facilities were not available in the eye clinic of our study hospital. Some researchers found that patients' perception of waiting time as

**Table 1.** Socio-demographic variables of respondents.

S/N	Variables	Frequency (n = 348)	Percent (% = 100)
<b>1.</b>	<b>Age (At Last Birthday)</b>		
	19 Years and Below	41	11.8
	20 - 29	39	11.2
	30 - 39	44	12.6
	40 - 49	50	14.4
	50 - 59	72	20.7
	60 - 69	60	17.2
	70 and Above	42	12.1
<b>2.</b>	<b>Sex</b>		
	Male	127	36.5
	Female	221	63.5
<b>3.</b>	<b>Tribe</b>		
	Igbo	330	94.8
	Yoruba	10	2.9
	Hausa	5	1.4
	Others	3	0.9
<b>4.</b>	<b>Marital Status</b>		
	Married	220	63.2
	Single	93	26.7
	Divorced/Separated	6	1.7
	Widowed	29	8.3
<b>5.</b>	<b>Religion</b>		
	Christian	336	96.6
	Muslim	4	1.1
	Traditional Religion	7	2.0
	Others	1	0.3
<b>6.</b>	<b>Education</b>		
	No Formal Education	29	8.3
	Primary Level	46	13.2
	Secondary Level	90	25.9
	Tertiary Level	99	28.4
	Post-graduate Level	84	24.1

**Continued**

<b>7. Occupation</b>		
Farmer	28	8.0
Teacher/Lecturer	32	9.2
Businessman/Woman	74	21.3
Petty Trader	33	9.5
Civil Servant	66	19.0
Artisan	15	4.3
Retiree	42	12.1
Student	48	13.8
Unemployed	2	0.6
Others	8	2.3

**Table 2.** Overall perception and satisfaction with waiting time.

S/N	Variables	Frequency (n = 348)	Percent (% = 100)
1.	<b>What is your perception of time spent, from your arrival here, to the time you were attended to by a medical doctor?</b>		
	Very Long	120	34.5
	Long	89	25.6
	Moderate	112	32.2
	Short	22	6.3
	Very Short	5	1.4
2.	<b>How satisfied are you with the time spent before being seen by a medical doctor?</b>		
	Very Dissatisfied	47	13.5
	Dissatisfied	77	22.1
	Uncertain	54	15.5
	Satisfied	142	40.8
	Very Satisfied	28	8.0

being long is a barrier to obtaining healthcare services [24]. Though respondents who were satisfied or very satisfied with waiting time in this study were slightly below average (48.8%), surprisingly they were still more than those that were dissatisfied or very dissatisfied (35.6%). One would have thought that perception of the length of time spent before being seen by a doctor would have directly correlated to satisfaction level. This is not the case in this study where 60.1% of respondents perceived the waiting time as very long or long, and only 35.6% are

dissatisfied or very dissatisfied with it. Probably more research work will be required to identify other factors that could make some patients who perceive waiting time as being long or very long, still being satisfied with the long waiting time.

Several studies had documented long waiting time as a major cause of dissatisfaction of patients in clinics [4] [9] [10]. A study conducted in the general outpatient department of same hospital as our study site, revealed dissatisfaction level of 30.3% [7], which is comparable with the 35.6% found in current study (Table 2). In a study comparing patients' satisfaction with eye care and family medicine services in a primary health centre, conducted in another state in Nigeria, and published in 2021; only 17.2% of respondents were dissatisfied with waiting time [25], compared to our finding of 35.6%. Generally, in Nigeria, primary healthcare centres are patronized more by persons in the lower socio-economic group, while those in higher socio-economic group tend to patronize tertiary and private health facilities more. Persons in lower socio-economic level appear to be more patient, and tolerant of long waiting time. Apparently, significantly more people (54.1%) when compared to our finding, were dissatisfied with waiting time; in a study on "Patients' Satisfaction and Associated Factors among Adult Outpatient Ophthalmic Service Users at University of Gondar Comprehensive Specialized Hospital Tertiary Eye Care and Training Center, Northwest Ethiopia" in 2020 [26]. It is possible that the waiting time at the Ethiopian facility was significantly longer than that of our study facility. Factors such as more patients, fewer health workers, and uncomfortable clinic environment could have given rise to the higher dissatisfaction percentage recorded in the Ethiopian study. Again in an assessment of patients' satisfaction in outpatient department of an eye care hospital in India, in 2020; 30.0% of the patients were not satisfied with the time taken to reach the doctor [27]. This is slightly better than our finding of 35.6%, but the 70.0% satisfaction level with the waiting time recorded in that same study is a lot better than our finding of 48.8% satisfaction level. It is possible that there were more health workers and more comfortable clinic environment in the cited Indian study, when compared to our own situation.

Majority of respondents (70.0%) that perceived the waiting time as being very long or long, fell into the 40 - 49 years age range. Only 4.0% of respondents within this age range perceived waiting time as being short or very short (Table 3). This could be as a result of persons in this age range being a good percentage of those actively involved in economic activities aimed at providing for other people; hence there may have tendency of being impatient and more conscious of time. The sex of the respondents appeared not to have had any reasonable effect on their perception of time spent before being attended to by a medical doctor. Almost equal percentage of males (60.7%), and females (59.7%) perceived waiting time as very long or long. Curiously, those with no formal education recorded the highest perception of waiting time as being very long or long

**Table 3.** Socio-demographic distribution of respondents' perception of waiting time.

Variables	What is your perception of the time you spent, from the time you arrived here to the time you were seen by a medical doctor?				
	Very Long	Long	Moderate	Short	Very Short
<b>Age (At Last Birthday)</b>					
19 Years and Below	11 (26.8%)	10 (24.4%)	15 (36.6%)	5 (12.2%)	0 (0.0%)
20 - 29	14 (35.9%)	11 (28.2%)	13 (33.3%)	1 (2.6%)	0 (0.0%)
30 - 39	13 (29.5%)	11 (25.0%)	15 (34.1%)	4 (9.1%)	1 (2.3%)
40 - 49	22 (44.0%)	13 (26.0%)	13 (26.0%)	1 (2.0%)	1 (2.0%)
50 - 59	23 (31.9%)	18 (25.0%)	25 (34.7%)	6 (8.3%)	0 (0.0%)
60 - 69	23 (38.3%)	12 (20.0%)	18 (30.0%)	5 (8.3%)	2 (3.3%)
70 and Above	14 (33.3%)	14 (33.3%)	13 (31.0%)	0 (0.0%)	1 (2.4%)
<b>Sex</b>					
Male	43 (33.9%)	34 (26.8%)	39 (30.7%)	10 (7.9%)	1 (0.8%)
Female	77 (34.8%)	55 (24.9%)	73 (33.0%)	12 (5.4%)	4 (1.8%)
<b>Education</b>					
No Formal Education	12 (41.4%)	10 (34.5%)	6 (20.7%)	1 (3.4%)	0 (0.0%)
Primary Level	11 (23.9%)	12 (26.1%)	17 (37.0%)	5 (10.9%)	1 (2.2%)
Secondary Level	33 (36.7%)	20 (22.2%)	28 (31.1%)	8 (8.9%)	1 (1.1%)
Tertiary Level	35 (35.4%)	23 (23.2%)	36 (36.4%)	3 (3.0%)	2 (2.0%)
Post-graduate Level	29 (34.5%)	24 (28.6%)	25 (29.8%)	5 (6.0%)	1 (1.2%)
<b>Occupation</b>					
Farmer	14 (50.0%)	7 (25.0%)	6 (21.4%)	0 (0.0%)	1 (3.6%)
Teacher/Lecturer	17 (53.1%)	7 (21.9%)	8 (25.0%)	0 (0.0%)	0 (0.0%)
Businessman/Woman	25 (33.8%)	11 (14.9%)	27 (36.5%)	8 (10.8%)	3 (4.1%)
Petty Trader	14 (42.4%)	8 (24.2%)	10 (30.3%)	1 (3.0%)	0 (0.0%)
Civil Servant	21 (31.8%)	18 (27.3%)	25 (37.9%)	2 (3.0%)	0 (0.0%)
Artisan	3 (20.0%)	5 (33.3%)	6 (40.0%)	0 (0.0%)	1 (6.7%)
Retiree	10 (23.8%)	14 (33.3%)	13 (31.0%)	5 (11.9%)	0 (0.0%)
Student	13 (27.1%)	16 (33.3%)	13 (27.1%)	6 (12.5%)	0 (0.0%)
Unemployed	1 (50.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Others	2 (25.0%)	2 (25.0%)	4 (50.0%)	0 (0.0%)	0 (0.0%)

(75.9%). One would have thought that since they probably belong to the lowest socio-economic group, they would have been more patient and tolerant of long waiting time. Certain factors peculiar to this group could have led to this. More research work is probably needed to identify these factors. More research work will also probably be required to identify factors that accounted for farmers (75.0%), and teachers/lecturers (75.0%) having more respondents perceiving waiting time as very long or long.

Respondents that were 60 - 69 years of age recorded the highest percentage of those that were satisfied or very satisfied with waiting time before seeing the doctor (66.6%) (Table 4). Sixty years being the retirement age in Nigeria, implies that respondents in this group, who were civil servants must have retired and no longer in a hurry to go back to their previous work places, hence were not worried about the time spent before seeing the doctor. Civil servants had the second largest percentage of respondents (19.0%, while businessmen/women had highest percentage of respondents (21.3%) (Table 1). Businessmen/women who are

**Table 4.** Socio-demographic distribution of respondents' satisfaction with waiting time.

Variables	How satisfied are you with the time spent before being seen by a medical doctor?				
	Very Dissatisfied	Dissatisfied	Uncertain	Satisfied	Very Satisfied
<b>Age (At Last Birthday)</b>					
19 Years and Less	5 (12.2%)	11 (26.8%)	6 (14.6%)	15 (36.6%)	4 (9.8%)
20 - 29	5 (12.8%)	8 (20.5%)	3 (7.7%)	19 (48.7%)	4 (10.3%)
30 - 39	2 (4.5%)	11 (25.0%)	14 (31.8%)	15 (34.1%)	2 (4.5%)
40 - 49	11 (22.0%)	6 (12.0%)	9 (18.0%)	20 (40.0%)	4 (8.0%)
50 - 59	9 (12.5%)	17 (23.6%)	12 (16.7%)	30 (41.7%)	4 (5.6%)
60 - 69	7 (11.7%)	9 (15.0%)	4 (6.7%)	32 (53.3%)	8 (13.3%)
70 and Above	8 (19.0%)	15 (35.7%)	6 (14.3%)	11 (26.2%)	2 (4.8%)
<b>Sex</b>					
Male	20 (15.7%)	33 (26.0%)	24 (18.9%)	41 (32.3%)	9 (7.1%)
Female	27 (12.2%)	44 (19.9%)	30 (13.6%)	101 (45.7%)	19 (8.6%)
<b>Education</b>					
No formal Education	5 (17.2%)	11 (37.9%)	3 (10.3%)	9 (31.0%)	1 (3.4%)
Primary Level	7 (15.2%)	3 (6.5%)	9 (19.6%)	21 (45.7%)	6 (13.0%)
Secondary Level	10 (11.1%)	20 (22.2%)	10 (11.1%)	38 (42.2%)	12 (13.3%)
Tertiary Level	12 (12.1%)	25 (25.3%)	18 (18.2%)	39 (39.4%)	5 (5.1%)
Post-graduate Level	13 (15.5%)	18 (21.4%)	14 (16.7%)	35 (41.7%)	4 (4.8%)
<b>Occupation</b>					
Farmer	7 (25.0%)	6 (21.4%)	2 (7.1%)	10 (35.7%)	3 (10.7%)
Teacher/Lecturer	5 (15.6%)	8 (25.0%)	5 (15.6%)	14 (43.8%)	0 (0.0%)
Businessman/Woman	12 (16.2%)	9 (12.2%)	11 (14.9%)	35 (47.3%)	7 (9.5%)
Petty Trader	3 (9.1%)	10 (30.3%)	5 (15.2%)	13 (39.4%)	2 (6.1%)
Civil Servant	8 (12.1%)	17 (25.8%)	12 (18.2%)	25 (37.9%)	4 (6.1%)
Artisan	1 (6.7%)	3 (20.0%)	1 (6.7%)	7 (46.7%)	3 (20.0%)
Retiree	6 (14.3%)	10 (23.8%)	6 (14.3%)	17 (40.5%)	3 (7.1%)
Student	4 (8.3%)	13 (27.1%)	7 (14.6%)	19 (40.5%)	5 (10.4%)
Unemployed	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)	1 (50.0%)
Others	1 (12.5%)	1 (12.5%)	4 (50.0%)	2 (25.0%)	0 (0.0%)

60 years and above, usually have younger ones who effectively assist them in running the business, hence they also might be relaxed in the eye clinic, and not in a hurry to leave. Females generally tend to be more patient than males, hence more percentage of females (54.3%) were satisfied/very satisfied with the waiting time, when compared to 39.4% recorded by males (**Table 4**). Greater percentage of respondents with primary level of education (58.7%) being satisfied/very satisfied could also require further research work to identify factors that contributed to this finding. As per the effect of occupation of the respondents on satisfaction level, those that were artisans appeared to have recorded the highest satisfaction level of 66.7%. This is probably deceptive since artisans constituted only 4.3% of the respondents (**Table 1**). Businessmen/women (56.8%) possibly could be seen to have contributed the highest percentage of respondents who were satisfied/very satisfied with the waiting time (**Table 4**). This finding correlates with our earlier assertion that businessmen/women who were aged 60 years and above, could have contributed in respondents aged 60 - 69 years recording the highest satisfaction percentage.

Overall, most of the respondents (85.0%) perceiving the cleanliness of the eye clinic as clean/very clean (**Table 5**), is an indication that most of them possibly considered the clinic environment conducive, and consequently were more tolerant of extended waiting time. In a similar study conducted in the same research area as ours in 2014, but in a Federal government health facility, very high satisfaction level with cleanliness of the clinic environment (93.8%) was recorded [28]. The apparently, implied cleaner clinic environment in this 2014 study, could have been because our study facility belongs to state government, hence with possibly lower resources for keeping the environment clean. The perception of respondents in our study, of the cleanliness of clinic environment is slightly better than the finding of 80.0% satisfactory clinic environment in Susrut Eye Hospital, Nanded Maharashtra, India in 2020 [27]. Also, in India, a poorer result of 64.2% of respondents perceiving the cleanliness of the environment as excellent or good was recorded. Further research work could possibly throw more light into factors that account for the poorer perception of the eye clinic environment in India.

Clear majority of respondents (70.7%), perceiving ventilation in the clinic as being adequate or very adequate (**Table 5**), is again a pointer to the rating of the clinic as comfortable and possibly conducive for patients to wait, before being attended to by the doctor. Health talk being given to patients during the time they were waiting to see a doctor has been noted to imply a possible beneficial way of improving the perception of waiting time by patients [11]. Though 71.6% of respondents in our study agreed that they received health talk during their waiting period; giving health talk during every clinic day could have improved the perception of the waiting time for the respondents. More than half (62.7%) of the respondents were satisfied or very satisfied with the quality of health talk delivered, but as high as 37.3% being very dissatisfied, dissatisfied, uncertain



**Table 5.** Perception of patients on available facilities.

S/N	Variables	Frequency (n = 348)	Percent (% = 100)
<b>1.</b>	<b>What is your perception of the cleanliness of this eye clinic?</b>		
	Very Filthy	5	1.4
	Filthy	12	3.4
	Uncertain	35	10.1
	Clean	187	53.7
	Very Clean	109	31.3
<b>2.</b>	<b>What is your perception of the ventilation of this eye clinic?</b>		
	Very Inadequate	16	4.6
	Inadequate	57	16.4
	Uncertain	29	8.3
	Adequate	182	52.3
	Very Adequate	64	18.4
<b>3</b>	<b>Was there any health talk given while you were in the waiting area?</b>		
	Yes	249	71.6
	No	99	28.4
<b>4.</b>	<b>If yes, how satisfied were you with the quality of the talk?</b>		
	Very Dissatisfied	10	2.9
	Dissatisfied	4	1.1
	Uncertain	17	4.9
	Satisfied	120	34.5
	Very Satisfied	98	28.2
	No Responses	99	28.4
<b>5.</b>	<b>What is your perception of the waiting space provided?</b>		
	Very Inadequate	45	12.9
	Inadequate	118	33.9
	Uncertain	34	9.8
	Adequate	129	37.1
	Very Adequate	22	6.3
<b>6.</b>	<b>About prescribed drugs?</b>		
	Completely Unavailable	16	4.6
	Few Available	151	43.4
	Uncertain	34	9.8
	Reasonably Available	97	27.9
	Completely Available	50	14.4

about how to rate the health talk, or not responding at all; seems to suggest that the quality of the health talk needs improvement. More respondents (46.8%) perceived the clinic waiting space as very inadequate or inadequate, as against 43.4% that perceived the space as adequate or very adequate (Table 5). This probably contributed to the number of respondents that were dissatisfied with the facilities provided in the clinic. Fewer respondents (42.3%) agreed that prescribed drugs were reasonably or completely available in the hospital, as against 48.0% that stated that prescribed drugs were completely unavailable or only few were available (Table 5). It is important that health facilities endeavour to provide almost all medications prescribed for patients, since the quality of drugs procured through health facilities are mostly more genuine than drugs procured outside health facilities; especially in low and middle income countries.

Age and sex socio-demographic characteristics did not seem to have had any reasonable effect on patients' perception of cleanliness of the study eye clinic, since over 80.0% of all age groups and sexes perceived the clinic as being clean or very clean (Table 6). The finding of more percentage of respondents with no formal education (13.7%), than any other educational group; perceiving the clinic as very filthy or filthy is surprising. While over 80.0% of respondents from the other educational level groups perceived the clinic as being clean or very clean, only 65.5% of those with no formal education had the same perception. One would have believed that persons with no formal education belong to the lower socio-economic class, and hence would have lower standards for assessing cleanliness of an environment. The finding in this study, with respect to perception of persons with no formal education on the cleanliness of the clinic is not in keeping with this thinking. Further research work is probably required to unravel this. Again, occupation of respondents did not appear to have had any reasonable effect on perception of the cleanliness of the clinic, since over 70.0% of persons in each occupational group perceived the clinic as being clean or very clean; but another curious finding is the highest percentage of petty traders (15.2%) when compared to the other occupations, perceiving the clinic as being filthy (Table 6).

The finding that respondents aged 60 - 69 years had the highest percentage of positive perception of eye clinic ventilation (80.0%), while those aged 40 - 49 years had the highest negative perception (32.0%) (Table 7); could be because the older age group respondents are probably retired if they were civil servants, and hence might not be routinely staying in better ventilated environments such as offices; as might be the case with respondents in the younger age group. Conducting a Focus Group discussion for the respondents, would have helped in confirming this assertion. The difference in perception among the sexes, about the ventilation of the clinic is not very obvious. Curiously again, respondents without any formal education reported the highest percentage of those that perceived ventilation of the clinic as very inadequate or inadequate (41.3%), and reported the least positive perception of ventilation of the clinic (51.7%) (Table 7). Though interviewer-administered questionnaire was used for this study, it is

**Table 6.** Socio-demographic distribution of patients' perception of eye clinic cleanliness.

Variables	How do you perceive the cleanliness of this eye clinic?				
	Very Filthy	Filthy	Uncertain	Clean	Very Clean
<b>Age (At Last Birthday)</b>					
19 Years and Below	1 (2.4%)	3 (7.3%)	4 (9.8%)	21 (51.2%)	12 (29.3%)
20 - 29	1 (2.6%)	4 (10.3%)	1 (2.6%)	24 (61.5%)	9 (23.1%)
30 - 39	0 (0.0%)	3 (6.8%)	4 (9.1%)	25 (56.8%)	12 (27.3%)
40 - 49	1 (2.0%)	1 (2.0%)	6 (12.0%)	27 (54.0%)	15 (30.0%)
50 - 59	2 (2.8%)	1 (1.4%)	6 (8.3%)	41 (56.9%)	22 (30.6%)
60 - 69	0 (0.0%)	0 (0.0%)	6 (10.0%)	26 (43.3%)	28 (46.7%)
70 and Above	0 (0.0%)	0 (0.0%)	8 (19.0%)	23 (54.8%)	11 (26.2%)
<b>Sex</b>					
Male	3 (2.4%)	6 (4.7%)	14 (11.0%)	71 (55.9%)	33 (26.0%)
Female	2 (0.9%)	6 (2.7%)	21 (9.5%)	116 (52.5%)	76 (34.4%)
<b>Education</b>					
No Formal Education	1 (3.4%)	3 (10.3%)	6 (20.7%)	13 (44.8%)	6 (20.7%)
Primary Level	0 (0.0%)	0 (0.0%)	4 (8.7%)	19 (41.3%)	23 (50.0%)
Secondary Level	1 (1.1%)	2 (2.2%)	7 (7.8%)	45 (50.0%)	35 (38.9%)
Tertiary Level	2 (2.0%)	6 (6.1%)	9 (9.1%)	55 (55.6%)	27 (27.3%)
Post-graduate Level	1 (1.2%)	1 (1.2%)	9 (10.7%)	55 (65.5%)	18 (21.4%)
<b>Occupation</b>					
Farmer	0 (0.0%)	0 (0.0%)	4 (14.3%)	14 (50.0%)	10 (35.7%)
Teacher/Lecturer	0 (0.0%)	2 (6.3%)	6 (18.8%)	19 (59.4%)	5 (15.6%)
Businessman/Woman	2 (2.7%)	0 (0.0%)	4 (5.4%)	37 (50.0%)	31 (41.9%)
Petty Trader	0 (0.0%)	5 (15.2%)	4 (12.1%)	15 (45.5%)	9 (27.3%)
Civil Servant	1 (1.5%)	1 (1.5%)	5 (7.6%)	42 (63.6%)	17 (25.8%)
Artisan	1 (6.7%)	0 (0.0%)	2 (13.3%)	6 (40.0%)	6 (40.0%)
Retiree	0 (0.0%)	0 (0.0%)	6 (14.3%)	19 (45.2%)	17 (40.5%)
Student	1 (2.1%)	4 (8.3%)	4 (8.3%)	27 (56.3%)	12 (25.0%)
Unemployed	0 (0.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)	1 (50.0%)
Others	0 (0.0%)	0 (0.0%)	0 (0.0%)	7 (87.5%)	1 (12.5%)

possible that research assistants were unable to adequately explain the questions to illiterate respondents, making it possible for them to give responses they never intended. Outside respondents that had no formal education, perception of adequacy of the clinic ventilation revealed a pattern of educational level of respondents being negatively co-related with their perception. For instance, those with post-graduate qualification had the least positive perception of ventilation being adequate or very adequate (65.5%), and the highest negative perception of ventilation being very inadequate or inadequate (25.0%) (Table 7). In this study,

**Table 7.** Socio-demographic distribution of patients' perception of eye clinic ventilation.

Variables	How do you perceive the ventilation of the eye clinic?				
	Very Inadequate	Inadequate	Uncertain	Adequate	Very Adequate
<b>Age (At Last Birthday)</b>					
19 Years and Less	3 (7.3%)	6 (14.6%)	3 (7.3%)	18 (43.9%)	11 (26.8%)
20 - 29	3 (7.7%)	5 (12.8%)	5 (12.8%)	21 (53.8%)	5 (12.8%)
30 - 39	1 (2.3%)	9 (20.5%)	3 (6.8%)	26 (59.1%)	5 (11.4%)
40 - 49	3 (6.0%)	13 (26.0%)	6 (12.0%)	16 (32.0%)	12 (24.0%)
50 - 59	4 (5.6%)	11 (15.3%)	2 (2.8%)	41 (56.9%)	14 (19.4%)
60 - 69	2 (3.3%)	4 (6.7%)	6 (10.0%)	35 (58.3%)	13 (21.7%)
70 and Above	0 (0.0%)	9 (21.4%)	4 (9.5%)	25 (59.5%)	4 (9.5%)
<b>Sex</b>					
Male	6 (4.7%)	25 (19.7%)	10 (7.9%)	67 (52.8%)	19 (15.0%)
Female	10 (4.5%)	32 (14.5%)	19 (8.6%)	115 (52.0%)	45 (20.4%)
<b>Education</b>					
No Formal Education	1 (3.4%)	11 (37.9%)	2 (6.9%)	9 (31.0%)	6 (20.7%)
Primary Level	2 (4.3%)	1 (2.2%)	6 (13.0%)	6 (58.7%)	10 (21.7%)
Secondary Level	3 (3.3%)	13 (14.4%)	4 (4.4%)	45 (50.0%)	25 (27.8%)
Tertiary Level	4 (4.0%)	17 (17.2%)	9 (9.1%)	55 (55.6%)	14 (14.1%)
Post-graduate Level	6 (7.1%)	15 (17.9%)	8 (9.5%)	46 (54.8%)	9 (10.7%)
<b>Occupation</b>					
Farmer	1 (3.6%)	5 (17.9%)	1 (3.6%)	14 (50.0%)	7 (25.0%)
Teacher/Lecturer	3 (9.4%)	3 (9.4%)	1 (3.1%)	22 (68.8%)	3 (9.4%)
Businessman/Woman	3 (4.1%)	5 (6.8%)	7 (9.5%)	40 (54.1%)	19 (25.7%)
Petty Trader	1 (3.0%)	10 (30.3%)	4 (12.1%)	13 (39.4%)	5 (15.2%)
Civil Servant	5 (7.6%)	15 (22.7%)	5 (7.6%)	29 (43.9%)	12 (18.2%)
Artisan	0 (0.0%)	1 (6.7%)	3 (20.0%)	8 (53.3%)	3 (20.0%)
Retiree	1 (2.4%)	7 (16.7%)	4 (9.5%)	25 (59.5%)	5 (11.9%)
Student	2 (4.2%)	10 (20.8%)	2 (4.2%)	24 (50.0%)	10 (20.8%)
Unemployed	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)
Others	0 (0.0%)	1 (12.5%)	2 (25.0%)	5 (62.5%)	0 (0.0%)

no clear pattern of perception can be associated with the occupation of respondents.

Though many respondents chose not to respond to the question on how satisfied they were with the health talks delivered at the eye clinic (as high as 43.9% among respondents aged 19 years and less); those aged 50 to 69 years were more satisfied or very satisfied with health talk they received (75.0%) (Table 8). They were followed by those aged 40 - 49 years (60.0%). This could be because they

**Table 8.** Socio-demographic distribution of patients' satisfaction with health talk.

Variables	How satisfied were you with the health talk given?					
	Very Dissatisfied	Dissatisfied	Uncertain	Satisfied	Very Satisfied	No Responses
<b>Age (At Last Birthday)</b>						
19 Years and Less	2 (4.9%)	1 (2.4%)	0 (0.0%)	12 (29.3%)	8 (19.5%)	18 (43.9%)
20 - 29	0 (0.0%)	0 (0.0%)	3 (7.7%)	15 (38.5%)	7 (17.9%)	14 (35.9%)
30 - 39	3 (6.8%)	0 (0.0%)	2 (4.5%)	12 (27.3%)	10 (22.7%)	17 (38.6%)
40 - 49	2 (4.0%)	1 (2.0%)	4 (8.0%)	14 (28.0%)	16 (32.0%)	13 (26.0%)
50 - 59	1 (1.4%)	1 (1.4%)	1 (1.4%)	34 (47.2%)	20 (27.8%)	15 (20.8%)
60 - 69	1 (1.7%)	0 (0.0%)	4 (6.7%)	22 (36.7%)	23 (38.3%)	10 (16.7%)
70 and Above	1 (2.4%)	1 (2.4%)	3 (7.1%)	11 (26.2%)	14 (33.3%)	12 (28.6%)
<b>Sex</b>						
Male	2 (1.6%)	3 (2.4%)	7 (5.5%)	42 (33.1%)	32 (25.2%)	41 (32.3%)
Female	8 (3.6%)	1 (0.5%)	10 (4.5%)	78 (35.3%)	66 (29.9%)	58 (26.2%)
<b>Education</b>						
No Formal Education	2 (6.9%)	0 (0.0%)	3 (10.3%)	10 (34.5%)	10 (34.5%)	4 (13.8%)
Primary Level	1 (2.2%)	1 (2.2%)	1 (2.2%)	16 (34.8%)	16 (34.8%)	11 (23.9%)
Secondary Level	5 (5.6%)	1 (1.1%)	1 (1.1%)	28 (31.1%)	28 (31.1%)	27 (30.0%)
Tertiary Level	1 (1.0%)	0 (0.0%)	8 (8.1%)	37 (37.4%)	21 (21.2%)	32 (32.3%)
Post-graduate Level	1 (1.2%)	2 (2.4%)	4 (4.8%)	29 (34.5%)	23 (27.4%)	25 (29.8%)
<b>Occupation</b>						
Farmer	1 (3.6%)	0 (0.0%)	2 (7.1%)	11 (39.3%)	9 (32.1%)	5 (17.9%)
Teacher/Lecturer	2 (6.3%)	0 (0.0%)	2 (6.3%)	15 (46.9%)	4 (12.5%)	9 (28.1%)
Businessman/Woman	3 (4.1%)	1 (1.4%)	4 (5.4%)	22 (29.7%)	21 (28.4%)	23 (31.1%)
Petty Trader	2 (6.1%)	0 (0.0%)	2 (6.1%)	13 (39.4%)	6 (18.2%)	10 (30.3%)
Civil Servant	0 (0.0%)	2 (3.0%)	2 (3.0%)	23 (34.8%)	22 (33.3%)	17 (25.8%)
Artisan	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (26.7%)	6 (40.0%)	5 (33.3%)
Retiree	1 (2.4%)	1 (2.4%)	3 (7.1%)	11 (26.2%)	17 (40.5%)	9 (21.4%)
Student	1 (2.1%)	0 (0.0%)	2 (4.2%)	17 (35.4%)	10 (20.8%)	18 (37.5%)
Unemployed	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (100.0%)	0 (0.0%)
Others	0 (0.0%)	0 (0.0%)	0 (0.0%)	4 (50.0%)	1 (12.5%)	3 (37.5%)

were more mature, and appreciated the importance of health information that might help in prolonging their lives; hence they probably paid more attention during the talks. More females (65.2%) being more satisfied or very satisfied than males (58.3%), with health talks could be as a result of females generally having better health seeking behaviour than males [21].

This study did not reveal any clear pattern of effect of age on perception of adequacy of the waiting space. However, more percentage of male respondents

**Table 9.** Socio-demographic distribution of patients' perception of the waiting space.

Variables	What is your perception of the waiting space provided?				
	Very Inadequate	Inadequate	Uncertain	Adequate	Very Adequate
<b>Age (At Last Birthday)</b>					
19 Years and Less	3 (7.3%)	16 (39.0%)	3 (7.3%)	17 (41.5%)	2 (4.9%)
20 - 29	5 (12.8%)	8 (20.5%)	7 (17.9%)	18 (46.2%)	1 (2.6%)
30 - 39	6 (13.6%)	11 (25.0%)	3 (6.8%)	21 (47.7%)	3 (6.8%)
40 - 49	11 (22.0%)	17 (34.0%)	6 (12.0%)	13 (26.0%)	3 (6.0%)
50 - 59	7 (9.7%)	28 (38.9%)	5 (6.9%)	26 (36.1%)	6 (8.3%)
60 - 69	7 (11.7%)	16 (26.7%)	8 (13.3%)	24 (40.0%)	5 (8.3%)
70 and Above	6 (14.3%)	22 (52.4%)	2 (4.8%)	10 (23.8%)	2 (4.8%)
<b>Sex</b>					
Male	11 (8.7%)	51 (40.2%)	13 (10.2%)	47 (37.0%)	5 (3.9%)
Female	34 (15.4%)	67 (30.3%)	21 (9.5%)	82 (37.1%)	17 (7.7%)
<b>Education</b>					
No Formal Education	2 (6.9%)	13 (44.8%)	3 (10.3%)	7 (24.1%)	4 (13.8%)
Primary Level	5 (10.9%)	7 (15.2%)	8 (17.4%)	20 (43.5%)	6 (13.0%)
Secondary Level	6 (6.7%)	27 (30.0%)	8 (8.9%)	42 (46.7%)	7 (7.8%)
Tertiary Level	17 (17.2%)	36 (36.4%)	11 (11.1%)	32 (32.3%)	3 (3.0%)
Post-graduate Level	15 (17.9%)	35 (41.7%)	4 (4.8%)	28 (33.3%)	2 (2.4%)
<b>Occupation</b>					
Farmer	2 (7.1%)	9 (32.1%)	5 (17.9%)	8 (28.6%)	4 (14.3%)
Teacher/Lecturer	8 (25.0%)	11 (34.4%)	2 (6.3%)	10 (31.3%)	1 (3.1%)
Businessman/Woman	8 (10.8%)	19 (25.7%)	9 (12.2%)	33 (44.6%)	5 (6.8%)
Petty Trader	3 (9.1%)	13 (39.4%)	6 (18.2%)	9 (27.3%)	2 (6.1%)
Civil Servant	9 (13.6%)	26 (39.4%)	2 (3.0%)	24 (36.4%)	5 (7.6%)
Artisan	2 (13.3%)	6 (40.0%)	1 (6.7%)	5 (33.3%)	1 (6.7%)
Retiree	6 (14.3%)	17 (40.5%)	3 (7.1%)	14 (33.3%)	2 (4.8%)
Student	6 (12.5%)	15 (31.3%)	3 (6.3%)	22 (45.8%)	2 (4.2%)
Unemployed	1 (50.0%)	0 (0.0%)	0 (0.0%)	1 (50.0%)	0 (0.0%)
Others	0 (0.0%)	2 (25.0%)	3 (37.5%)	3 (37.5%)	0 (0.0%)

(48.9%) than females (45.7%) perceived the waiting space as being very inadequate or inadequate, while higher percentage of females (44.8%) as against 40.9% recorded by males, perceived the waiting space as adequate or very adequate (Table 9). It is possible that some traits such as understanding, modesty, cooperativeness and supportiveness usually said to be associated more with females [29] would have played some roles in making the females report more positive perception of the waiting space than males. This thinking however requires

**Table 10.** Socio-demographic distribution of patients' perception of the availability of drugs.

Variables	Availability of Prescribed Drugs				
	Completely Unavailable	Few Available	Uncertain	Reasonably Available	Completely Available
<b>Age (At Last Birthday)</b>					
19 Years and Less	2 (4.9%)	14 (34.1%)	7 (17.1%)	13 (31.7%)	5 (12.2%)
20 - 29	4 (10.3%)	12 (30.8%)	5 (12.8%)	8 (20.5%)	10 (25.6%)
30 - 39	0 (0.0%)	26 (59.1%)	1 (2.3%)	10 (22.7%)	7 (15.9%)
40 - 49	2 (4.0%)	23 (46.0%)	4 (8.0%)	15 (30.0%)	6 (12.0%)
50 - 59	7 (9.7%)	31 (43.1%)	4 (5.6%)	21 (29.2%)	9 (12.5%)
60 - 69	1 (1.7%)	26 (43.3%)	4 (6.7%)	18 (30.0%)	11 (18.3%)
70 and Above	0 (0.0%)	19 (45.2%)	9 (21.4%)	12 (28.6%)	2 (4.8%)
<b>Sex</b>					
Male	4 (3.1%)	58 (45.7%)	14 (11.0%)	35 (27.6%)	16 (12.6%)
Female	12 (5.4%)	93 (42.1%)	20 (9.0%)	62 (28.1%)	34 (15.4%)
<b>Education</b>					
No Formal Education	0 (0.0%)	12 (41.4%)	3 (10.3%)	9 (31.0%)	5 (17.2%)
Primary Level	0 (0.0%)	19 (41.3%)	4 (8.7%)	17 (37.0%)	6 (13.0%)
Secondary Level	7 (7.8%)	34 (37.8%)	10 (11.1%)	22 (24.4%)	17 (18.9%)
Tertiary Level	6 (6.1%)	40 (40.4%)	13 (13.1%)	29 (29.3%)	11 (11.1%)
Post-graduate Level	3 (3.6%)	46 (54.8%)	4 (4.8%)	20 (23.8%)	11 (13.1%)
<b>Occupation</b>					
Farmer	0 (0.0%)	14 (50.0%)	2 (7.1%)	8 (28.6%)	4 (14.3%)
Teacher/Lecturer	2 (6.3%)	13 (40.6%)	4 (12.5%)	8 (25.0%)	5 (15.6%)
Businessman/Woman	4 (5.4%)	27 (36.5%)	7 (9.5%)	26 (35.1%)	10 (13.5%)
Petty Trader	1 (3.0%)	12 (36.4%)	5 (15.2%)	8 (24.2%)	7 (21.2%)
Civil Servant	1 (1.5%)	39 (59.1%)	0 (0.0%)	15 (22.7%)	11 (16.7%)
Artisan	0 (0.0%)	6 (40.0%)	4 (26.7%)	3 (20.0%)	2 (13.3%)
Retiree	1 (2.4%)	19 (45.2%)	5 (11.9%)	14 (33.3%)	3 (7.1%)
Student	6 (12.5%)	17 (35.4%)	6 (12.5%)	12 (25.0%)	7 (14.6%)
Unemployed	1 (50.0%)	1 (50.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Others	0 (0.0%)	3 (37.5%)	1 (12.5%)	3 (37.5%)	1 (12.5%)

further research to confirm it. Outside respondents with no formal education, perception of the waiting space as very inadequate or inadequate increased with educational level of respondents. Respondents with post-graduate level of education reported 59.6% negative perception, while those with primary level education reported 26.1% negative perception (Table 9). This could imply that expect-



tations of adequate clinic waiting space increase with higher educational level of respondents. This can be said to have been collaborated by the finding, that teachers/lecturers also reported the highest level of negative perception of the clinic waiting space (59.4%) (**Table 9**).

There is no clear pattern of the effect of age and occupation on patients' perception of availability of prescribed drugs. None of the groupings based on age, sex, and occupation had positive perception score of up to 50.0%. However, only respondents that had primary level education scored 50.0% in perception of prescribed drugs being reasonably or completely available. This positive perception tended to be decreasing as one moved from primary level to secondary level (43.3%), to tertiary level (40.4%) and finally to post-graduate level (36.9%) (**Table 10**). It could then be inferred that under the same eye clinic conditions, patients' positive perception of availability of prescribed drugs decreased with increasing education level of the patient. Further research work is however needed to authenticate this hypothesis, and also determine factors that could be contributing to this.

### **Limitation**

This study was conducted as a quantitative study using only interviewer- administered questionnaire. The response of a patient to levels of perception or satisfaction with some issues that arose in the questionnaire, could have been influenced by his/her parochial understanding of the issues. The patient possibly could have opted for another perception or satisfaction level, if the discussion involved other patients who could have been useful in volunteering more information on the issues. Validating the findings in this research with Focus Group Discussion, which is a qualitative study design, would have made the findings more reliable.

### **5. Conclusions**

This study revealed that most of the respondents perceived waiting time as being very long or long, while less than 50.0% were satisfied or very satisfied with the waiting time. The cleanliness and ventilation of the clinic were also considered good, and majority was satisfied with the health talk given. The clinic waiting space was largely considered very inadequate or inadequate. Prescribed drugs were mostly reported to be completely unavailable or only a few available.

It is very important that the management of this study health facility, and other facilities that offer eye care services, make determined efforts to address the issues, which negatively affect patients' perception and satisfaction with eye care services provided in these facilities. This will enhance the provision of more qualitative eye care services to the population.

### **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

## References

- [1] Robinson, M. and Davidson, G. (1999) Chambers 21st Century Dictionary. Chambers Harrap Publishers Ltd., Edinburgh.
- [2] Ibang, A.A., Nkanga, D.G., Asana, U.E., Duke, R.E., Etim, B.A., Nkanga, E.D., *et al* (2017) Patients Satisfaction with Eye Care Services in University of Calabar Teaching Hospital. *International Archives of Integrated Medicine*, **4**, 110-118.
- [3] Park, K. (2013) Park's Textbook of Preventive and Social Medicine. 22nd Edition, M/S Banarsidas Bhanot Publishers, Jabalpur.
- [4] Ziaei, H., Katibeh, M., Eskandari, A., Mirzadeh, M., Rabbanikhah, Z. and Javadi, M.A. (2011) Determinants of Patient Satisfaction with Ophthalmic Services. *BMC Research Notes*, **4**, Article No. 7. <https://doi.org/10.1186/1756-0500-4-7>
- [5] Dinesh, T.A., Sign, S., Nair, P. and Remya, T.R. (2013) Reducing Waiting Time in Outpatient Services of a Large University Teaching Hospital. *Management in Health*, **17**, 31-37.
- [6] Rossiter, C.E. and Reynolds, F.A. (1968) Automatic Monitoring of the Time Waited in an Outpatient Clinic. *Medical Care*, **1**, 218-225. <https://doi.org/10.1097/00005650-196310000-00004>
- [7] Ndibuagu, E.O., Omotowo, B.I. and Chime, O.H. (2020) Patients Satisfaction with Waiting Time and Attitude of Health Workers in the General Outpatient Department of a State Teaching Hospital, Enugu State, Nigeria. *International Journal of Tropical Disease and Health*, **41**, 1-10. <https://doi.org/10.9734/ijtdh/2020/v41i830304>
- [8] Sudhan, A., Khandekar, R., Deveragonda, S., Devi, S., Jain, B.K., Sachan, R., *et al* (2011) Patient Satisfaction Regarding Eye Care Services at Tertiary Hospital of Central India. *Oman Journal of Ophthalmology*, **4**, 73-76. <https://doi.org/10.4103/0974-620X.83657>
- [9] Ademola- Popoola, D.S., Akande, T.M. and Idris, A. (2005) Patients' Assessment of Quality of Eye Care in a Nigerian Teaching Hospital. *Nigerian Postgraduate Medical Journal*, **12**, 145-148. <https://doi.org/10.4103/1117-1936.175271>
- [10] Iliyasu, Z., Abubakar, I.S., Abubakar, S., Lawan, U.M. and Gajida, A.U. (2010) Patients' Satisfaction with Services Obtained from Aminu Kano Teaching Hospital, Northern Nigeria. *Nigerian Journal of Clinical Practice*, **13**, 371-378.
- [11] Bamgboye, E.A. (1994) Long Waiting Outpatients: Target Audience for Health Education. *Patient Education and Counseling*, **23**, 49-54. [https://doi.org/10.1016/S0738-3991\(05\)80021-7](https://doi.org/10.1016/S0738-3991(05)80021-7)
- [12] O'Malley, M.S., Fletcher, S.W., Fletcher, R.H. and Earp, J.A. (1983) Measuring Patient Waiting Time in a Practice Setting: A Comparison of Methods. *The Journal of Ambulatory Care Management*, **6**, 20-27. <https://doi.org/10.1097/00004479-198308000-00006>
- [13] Ajayi, I.O. (2002) Patients' Waiting Time at an Outpatient Clinic in Nigeria—Can It Be Put to Better Use? *Patient Education and Counseling*, **47**, 121-126. [https://doi.org/10.1016/S0738-3991\(01\)00183-5](https://doi.org/10.1016/S0738-3991(01)00183-5)
- [14] Affi, O.P., Oppong, D.K. and Oppong, I. (2018) Assessing Patient Satisfaction and Some Related Factors in the Kasena Nankana District-Ghana. *International Journal of Scientific & Technology Research*, **7**, 116-120.
- [15] Baalbaki, I., Ahmed, Z., Pashtenko, V. and Makarem, S. (2008) Patient Satisfaction with Healthcare Delivery Systems. *International Journal of Pharmaceutical and Healthcare Marketing*, **2**, 47-62. <https://doi.org/10.1108/17506120810865424>
- [16] Choi, K., Lee, H., Kim, C. and Lee, S. (2005) The Service Quality Dimensions and

- Patient Satisfaction Relationships in South Korea: Comparisons Across Gender, Age and Types of Service. *Journal of Services Marketing*, **19**, 140-149. <https://doi.org/10.1108/08876040510596812>
- [17] Jenkinson, C., Coulter, A., Bruster, S., Richards, N. and Chandola, T. (2003) Patients' Experience and Satisfaction with Health Care: Results of a Questionnaire Study of Specific Aspects of Care. *Quality Safety Health Care*, **11**, 335-339. <https://doi.org/10.1136/qhc.11.4.335>
- [18] Zaslavsky, A.M., Beaulieu, N.D., Landon, B.E. and Cleary, P.D. (2000) Dimensions of Consumer-Assessed Quality of Medicare Managed-Care Health Plans. *Medical Care*, **38**, 162-174. <https://doi.org/10.1097/00005650-200002000-00006>
- [19] Wikipedia. [https://en.wikipedia.org/wiki/Enugu\\_State](https://en.wikipedia.org/wiki/Enugu_State)
- [20] Araoye, M.O. (2003) Research Methodology with Statistics for Health and Social Sciences. Nathadex Publishers, Ilorin.
- [21] Aniebue, N. (2008) Introduction to Medical Sociology. Institute for Development Studies, University of Nigeria, Enugu Campus, Enugu.
- [22] Oche, M.O. and Adamu, H. (2013) Determinants of Patient Waiting Time in the General Outpatient Department of a Tertiary Health Institution in North Western Nigeria. *Annals of Medical and Health Sciences Research*, **3**, 588-592. <https://doi.org/10.4103/2141-9248.122123>
- [23] Liang, C.C. (2016) Queueing Management and Improving Customer Experience: Empirical Evidence Regarding Enjoyable Queues. *Journal of Consumer Marketing*, **33**, 257-268. <https://doi.org/10.1108/JCM-07-2014-1073>
- [24] Fernandes, C.M., Daya, M.R., Barry, S. and Palmer, N. (1994) Emergency Department Patients Who Leave without Seeing a Physician: The Toronto Hospital Experience. *Annals of Emergency Medicine*, **24**, 1092-1096. [https://doi.org/10.1016/S0196-0644\(94\)70238-1](https://doi.org/10.1016/S0196-0644(94)70238-1)
- [25] Betiku, A.O., Folashade, A.B., Aribaba, O.T., Jagun, O.O. and Oduyoye, O.O. (2021) Comparison of Patients' Satisfaction with Eye Care and Family Medicine Services at a Primary Health Centre in Ogun State, Nigeria. *The International Journal of Community Medicine and Public Health*, **8**, 5687-5695. <https://doi.org/10.18203/2394-6040.ijcmph20214554>
- [26] Lorato, M., Hussen, M. and Tegegne, M. (2020) Patients Satisfaction and Associated Factors among Adult Outpatient Ophthalmic Service Users at University of Gondar Comprehensive Specialized Hospital Tertiary Eye Care and Training Center, North-west Ethiopia, 2020: An Institution-Based Cross-Sectional Study. Research Square. <https://doi.org/10.21203/rs.3.rs-114801/v1>
- [27] Dudhamal, V.B., Solanke, P., Berad, A. and Sadanandam, V. (2020) An Assessment of Patients Satisfaction in Outpatient Department of an Eye Care Hospital. *European Journal of Molecular & Clinical Medicine*, **7**, 5486-5493.
- [28] Ezegwui, I.R., Okoye, O.I., Aghaji, A.E., Okoye, O. and Oguego, N. (2014) Patients' Satisfaction with Eye Care Services in a Nigerian Teaching Hospital. *Nigerian Journal of Clinical Practice*, **17**, 585-588. <https://doi.org/10.4103/1119-3077.141423>
- [29] <https://en.wikipedia.org/wiki/Femininity#:~:text=Traits%20such%20as%20nurturance%2C%20sensitivity,been%20cited%20as%20stereotypically%20feminine>