Assessment of quality of healthcare among the elderly patients utilizing the Korle-Bu Teaching Hospital, Accra

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Abstract:
Background: Objective: To assess the quality of healthcare among elderly patients utilising the Korle-Bu Teaching Hospital.
Methods: The study was a descriptive cross-sectional survey using a sequential explanatory mixed-method approach. Simple random sampling was used to sample 361 elderly patients from seven Out-Patient Departments in the Korle-Bu Teaching Hospital. The quantitative data was analysed using One-way ANOVA to establish the bivariate relationship between the socio-demographic characteristics and quality of services. Also, generalised linear model (GLM) was used as a multivariate tool to examine the relationships between each socio-demographic factor and quality of healthcare services whilst accounting for the mutual effects of the socio-economic factors on each other. Qualitative study was conducted to obtain an in-depth understanding of the quality of healthcare services by the elderly patients attending the Korle-Bu Teaching Hospital. Thematic content analysis was used to analyse the data. The interview transcripts were read to identify emerging themes and sub-themes, and were exported into Nvivo version 11 software for data organisation.
Quantitative Results: The elderly patients who were diagnosed with four chronic conditions, they rated quality lowest, with an average of 65.5. The Chronic diseases were significantly associated with quality of healthcare (F=2.97; p=0.032). This result revealed that the greater the number of chronic diseases diagnosed, the lower the average quality ratings of the healthcare accessed by the elderly patients. There was a decreasing trend in the rating of quality of healthcare with increasing number of chronic diseases (p=0.042).
Qualitative Results: The elderly patients described the waiting time as long and stressful, and they sat on low and uncomfortable seats. The elderly stated that, the medical personnel were not friendly. Nevertheless, they described the medical personnel as skillful and knowledgeable.
Conclusion: The medical personnel were described as being skillful and knowledgeable of providing quality healthcare. The improvements in the general health of the elderly made them satisfied with healthcare. The study recommends that there is the need to review visits to the healthcare units to schedule time appointments to reduce the waiting time.
Key words: elderly, healthcare, quality

I. Introduction

The world's population is getting old and almost every nation in the world is facing an increase in the figure and percentage of the elderly persons in their population[1]. An increasing aged population is a worldwide phenomenon that affects both middle and low income countries [2]. Ghana's ageing population has increased seven fold over a fifty (50) year period from 213,477 in 1960 to 1,643,381 in 2010[3]. The current percentage of Ghanaians above 60 years is 5; this is one of the highest proportions of age 60 years category in sub-Saharan Africa [4]. The gradual ageing of the population tends to increase the total number of the elderly; and elderly who are fragile, which in turn requires an offer of care that meets their health needs[5]. As people advance in age, their health and welfare could be a challenge. Illness is unavoidable and forms an essential part of human-life[6]. The prevalence rate of chronic Non-Communicable Diseases (NCDs), neurodegenerative disorders and disability (all forms) are expected to rise among the elderly[4]. An increasing elderly populace poses several impediments to the healthcare system because the health characteristics and complexity of care necessary for the elderly differ from those required for the younger populace, and this populace merits a precise healthcare service system [7,8].

An effective and well-organised healthcare organisation is important for the survival of the elderly; such a healthcare organisation can meet the desires of present and future generations of the elderly and support them to age positively[6]. Furthermore, quality healthcare should be made available, accessible and affordable for the elderly to attain a healthy lifestyle[9, 10]. The major health conditions afflicting elderly in Accra for which they sought healthcare, were arthritis, hypertension, diabetes mellitus and cardiovascular accident[11]. With the increasing occurrence of chronic illnesses, the health system in Ghana is less ready to meet the healthcare needs of the elderly persons with little infrastructure and few specialised personnel for the elderly population[12].

It was identified that improving quality of healthcare in public hospitals in the low income nations is a key requirement to increase utilisation and sustainability of healthcare in the populace[13]. Hospitals can attain client satisfaction by providing quality healthcare, having clients' expectations and unceasing improvement in the healthcare[14, 15]. Investigators observed that the quality of healthcare delivered are not encouraging, and the variety of healthcare are limited [12]. Moreover, the delivery of quality healthcare is very important because its twin significance are to relieve suffering and improve health status for individuals[16, 17]. Whether the growing number of the elderly in Ghana is accessing quality healthcare, and satisfied with the health provided at the health facilities, is a very important issue for the Ministry of Health, Chief Executive Officers (CEOs) of health institutions and Departmental Heads of hospitals. This study aim to assess the quality of healthcare utilised by the elderly patients at the Korle-Bu Teaching Hospital in Accra.

Donabedian model was used to explain the quality of healthcare received by the elderly in this study. Donabedian outlined quality healthcare as structure, process and outcomes [18, 19]. Each component in the Donabedian model has an influence on the next component[18, 19]. These have been explained below.

Structure

The first component of the Donabedian model of quality of healthcare is structure, which refers to health personnel who provide healthcare at the health facility. For instance, health personnel comprise doctors, nurses, pharmacists and other allied health personnel. The other elements in the structure component are the hospital organisations, medicines and investigations[18, 19, 20, 21]. Patients diagnosed of chronic disease(s) would utilise the hospital because of the structure stated in the Donabedian model. The hospital has qualified consultants, specialist doctors, qualified nurses, and other qualified health personnel. A hospital has medical equipment that can be used for the patients without the patients utilising other smaller facilities for medical procedures.

Process

The second component is the process. The process in the Donabedian model denotes the activities that take place in the care of patients in the form of interpersonal and technical aspects [18, 19, 20, 21]. The interpersonal aspect involves the interpersonal relationship between the health personnel and the patients. This comprises the rules and standards regulating human beings' interactions to ethical standards specific to health, and to the patients' expectations[19, 21]. For instance, health personnel's attitude, providing information, taking decisions and asking about their preferences, getting to know the patient, being attentive, spending time with the client, psychological needs and physical support, are the interactions the medical personnel have with the patients[19, 21]. Furthermore, the interpersonal aspect is very important because it also effects the technical performance[18, 19].

The technical aspects involve the medical science and technology to maximise the balance between the benefits and the risks. The technical aspects comprise: the timeliness and exactness of medical diagnosis and the appropriate treatment administered to the patients[18, 19, 20, 21]. Also, in evaluating the quality of healthcare services in a health facility, it is important to distinguish between appropriateness and skill[19]. Appropriateness refers to the correct actions that were taken, the skill, and how the actions were provided. The procedures that the patients encounter when receiving healthcare services at the health facility gives the opportunity for them to evaluate the quality of healthcare they accessed[18].

Outcome

Quality of healthcare is assessed by the outcome. The outcome indicates whether the goals of the healthcare were attained[19]. Also the outcomes originated from the process of caring, and involved the patient having a feeling of well-being and satisfaction with the quality of healthcare provided. Figure 1 shows the conceptual framework[20].
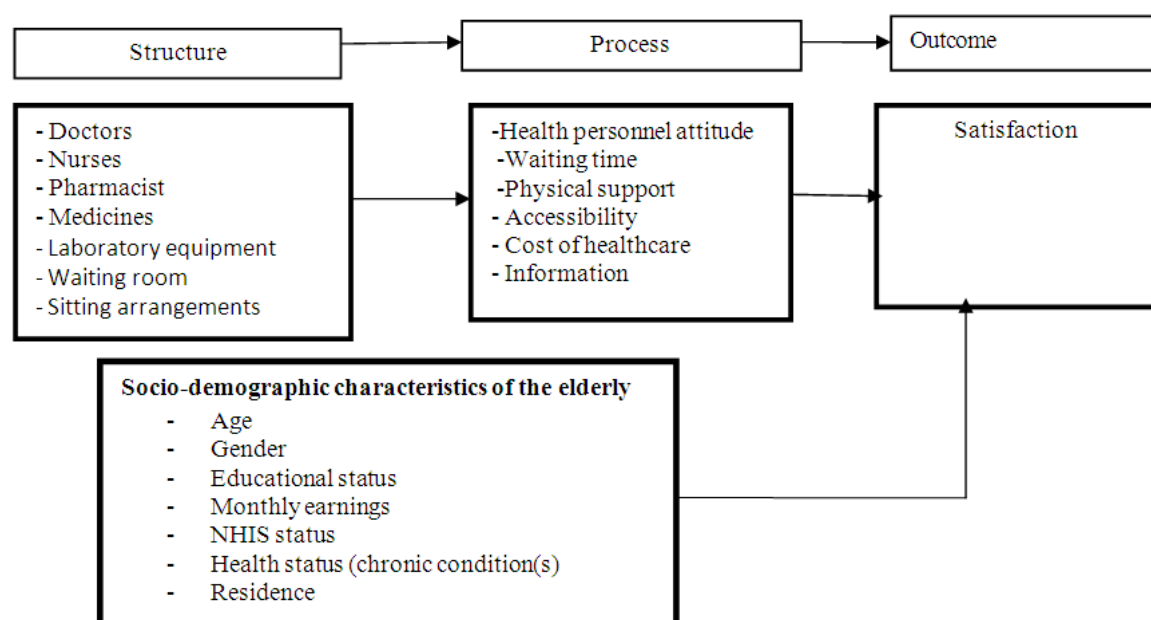
Figure 1: Conceptual Framework on Quality of Healthcare. Adapted from Donabedian (1990).

II. Material And Methods

Study Design: The study was to assess the quality of healthcare among the elderly patients utilising Korle-Bu Teaching Hospital, Accra. The study was a descriptive cross-sectional survey using a mixed-methods approach. The sequential explanatory model as used in this study began with the collection of quantitative and then qualitative data, and reporting results to present an interpretation of the findings. A large number of the elderly (361) were surveyed using structured open and closed-ended questionnaires. After the quantitative analysis was done, in-depth interviews ranging from ten to twelve participants (elderly) from each of the seven Out-Patient Departments (OPDs) were conducted for more clarifications and detailed explanations of the findings.

Study Location: The study site was the Korle-Bu Teaching Hospital. It covers an area of about 441 acres. Korle-Bu Teaching Hospital is a major national referral centre in Ghana, and the third biggest health facility in Africa[22]. The hospital, as of 2012, had over 2,000 beds, 21 clinical and diagnostic units and three 'Centres of Excellence'. These three "Centres of Excellence" are: The National Centre for Radiotherapy and Nuclear Medicine, Reconstructive Plastic Surgery and Burns Centre, and National Cardiothoracic Centre. The hospital draws a considerable number of clients from bordering countries such as Nigeria, Burkina Faso, Togo, among others. Currently, Korle-Bu Teaching Hospital (KBTH) has more than 4,000 medical and paramedical workforce with an average daily turnout of 1,500 clients, about 250 of which are hospitalised[22]. Korle-Bu Teaching Hospital has 17 departmental OPDs. These are; Polyclinic, Maternity, Medical, Child Health, Surgery, Diabetic Clinic, Gynaecology, Orthopaedic, National Cardiothoracic Centre Unit (CTU), Ophthalmology Clinic, Casualty, Ear Nose and Throat (ENT), Genito-Urinary (GU), Dental, Physiotherapy, Chest and Audiology[22]. In the year 2013, the hospital recorded new OPD cases of 110,812. Out of this number, 12,128 (11%) were clients who were 60 years and above (males - 5,362 and females - 6,766). It recorded old OPD cases of 254,575. Of these, 49,676 (19%) were clients who were 60 years and above (males - 22,371 and females - 27,305). The hospital's OPDs overall attendance for 2013 (old and new cases) of all ages was 365,387. In the case of clients who were 60 years and above, the overall attendance for 2013 was 61,804 (17%)[22]. This study used seven departmental OPDs, which had high attendance of the elderly compared with the other departmental OPDs. These OPDs were CTU, Medical, Surgical, GU, Polyclinic, Ophthalmology OPD and Diabetic Clinic. Korle-Bu Teaching Hospital was chosen for this study because it provides all the three levels of healthcare [primary, secondary and tertiary]. It is also the premier healthcare facility in Ghana. Although it provides tertiary healthcare, the departmental OPDs selected provide primary, secondary and tertiary healthcare to the elderly. In addition, studies have indicated that Ghanaian elderly clients with chronic conditions preferred utilising public health facilities[23, 24].

Study Duration: Data for the study was collected between 4th July, 2017 and 30th March, 2018.

Sample size: 361 elderly patients.

Sample size calculation: Three hundred and sixty-one elderly patients were selected for the quantitative study based on the monthly average for 2015 and 2016 at the seven selected OPDs. This number was based on sample size methods gleaned from three studies[25, 26, 27]. Seventy-six elderly patients from the seven OPDs participated in the in-depth interviews.

Subjects & selection method: Simple random sampling was employed, using the lottery method to select the participants for the quantitative study to reduce biases after they were purposefully selected. The data were collected over the course of five days (Mondays to Fridays). On each day, eligible participants were given a questionnaire to fill while they waited to see their doctors (before they were called to see their doctors). The purpose of collecting the data was explained to them in a language they understood, such as English, "Twi", "Ewe", "Ga" and "Hausa" [Ghanaian local languages] with the help of a participant information sheet. Participants who could not read or write were assisted using interviewer- administrated strategy. However, participants who could read, and write and decided to answer on their own did so using the self-administered strategy.

The duration of administration of the questionnaires was a minimum of 45 minutes to a maximum of 60 minutes. Face-to-face data collection was the method used to collect the data in the consulting rooms before the doctors arrived to consult.

Convenience sampling was used to select the elderly patients in the inclusion criteria for the qualitative study. In all, 76 elderly participants from the OPDs were interviewed with the help of the interview guide in a room at the unit as they waited to see their doctors. The duration of the interviews was from a minimum of 60 minutes to a maximum of 90 minutes. A non-directive style of interviewing was used (by adapting semi-structured form), which allowed the elderly participants to control the pacing of the interview. Permission was sought from the elderly participants to record the interviews and to write field notes. Interviewing continued until saturation of data was evident.

Inclusion criteria:
The study included persons who were Ghanaians, 60 years and above, who had attended the facility for over one month and demonstrated they were willing to participate in the study.

Exclusion criteria:
The study excluded persons who were Ghanaians, 60 years and above, who had attended the facility for over one month or over one month but were very frail, and unwilling to participate in the study.

Procedure methodology
        Dependent variables for quality of healthcare
The dependent variable used for this study was quality of healthcare. The elderly participants described the quality of healthcare received at the various OPDs. Scale of measurement was categorical (low, moderate and high).
        Independent variables for quality of healthcare
The independent variables for quality of care were: gender was classified as male and female, age was classified as < 70 years and ≥ years, marital status was classified as spouse and no spouse, educational level was classified as < secondary and ≥ secondary, monthly earnings was classified as < 500 and ≥ 500, NHI status was classified as insured and uninsured all these were measured using binary scale. Chronic disease was classified as one chronic disease and two or more chronic disease, locality was classified as Korle-Bu environs, Greater Accra Region and out-side Greater Accra Region and OPD attended was classified as primary, secondary and tertiary. These were measured using categorical scale.

Statistical analysis
        Composite score for quality of healthcare was found by the average of all the questions under quality and expressed as a percentage of five, which was the highest rank for each question. A higher score means higher quality. The scores of each of the six variables were categorised as low (0 – 49), moderate (50 – 74) and high (75 – 100)[28]. In addition, the relationships between each socio-demographic variable and quality of healthcare were done by comparing average quality index score across categories of each socio-demographic variable using one-way analysis of variance (ANOVA). One-way ANOVA was used to establish the bivariate relationship between the socio-demographic characteristics and quality of care. A generalised linear model (GLM) was also used as a multivariate tool to examine the relationships between each socio-demographic factor and quality of healthcare whilst accounting for the mutual effects of the socioeconomic factors on each other.

        Furthermore, content analysis was used to analyse the interview data. A compilation of all the words and phrases were made and similar phrases were grouped together as emerging themes. A thorough and critical look at all the themes that emerged were carried out in order to identify patterns among them (codes or themes). The data was organised for analysis by the use of Nvivo version 11.
        Component of quality healthcare services
In this sub-section, we presents the percentage of the elderly who agreed (agree and strongly agreed) to a set of quality of care based on health provider factors. Each statement had a five point Likert scale responses (strongly

disagree, disagree, neutral, agree and strongly agree) based on literature[29]. Due to the nature of the questions, the higher the percentage of the agreed items on quality of health provider factors, the lower the quality of healthcare accessed by the elderly participants. Table 1 shows the details of the percentage of the elderly who agreed to the quality of health provider factors.

Table no 1: Components of Quality of Healthcare Services

Category Health provider factors	Number (out of 361)	Percentage that agreed %	Confidence Interval 95% CI	
			Lower	*Upper*
Waiting areas are spacious and comfortable	203	56.23	51.1	61.3
There are enough consulting rooms at the unit	223	61.77	56.8	66.8
Have confidence in the doctors	334	92.52	89.8	95.2
Have confidence in the nurses	310	85.87	82.3	89.5
There are enough nurses at the unit	208	57.62	52.5	62.7
There are enough doctors at the unit	176	48.75	43.6	53.9
You are able to access your medication at the unit	137	37.95	32.9	43.0
You are able to go to other units to perform investigation	238	65.93	61.0	70.8
The unit is accessible	282	78.12	73.9	82.4
The waiting time at the unit is excellent	65	18.01	14.0	22.0
The waiting list is excellent at the unit	54	14.96	11.3	18.6
The doctors involve you in decisions concerning your treatment	320	88.64	85.4	91.9
The doctors listen carefully to you and then writes	341	94.46	92.1	96.8
Pharmacist gives clear instructions about drugs	322	89.20	86.0	92.4
The OPD waiting room is conducive	237	65.65	60.8	70.5
The doctor is not responsive to your concern	320	88.64	85.4	91.9
The sitting arrangements are comfortable enough for you	213	59.00	53.9	64.1
The floor is non-slippery and well maintained	311	86.15	82.6	89.7
The furniture and fittings are well arranged to reduce possible falls or injuries	214	59.28	54.2	64.3
NHIS beneficiary is able to access healthcare services at the unit	249	68.98	64.2	73.8
NHIS beneficiary is able to have their drugs covered	117	32.41	27.6	37.2
NHIS beneficiary is able to have their investigation(s) covered	84	23.27	18.9	27.6
Nurses provided physical support to you at the unit	157	43.5	38.4	48.6
Doctors provided physical support to you at the unit	150	41.6	36.5	46.6
Family members provided physical support to you at the unit	158	43.8	38.6	48.9
Other staff members provided physical support to you at the unit	148	41.0	35.9	46.1

Background characteristics of respondents

The socio-demographic characteristics of the elderly, in frequencies and percentages for the quantitative study revealed that, more than half, 191 (53%) were below the age of 70 years. Two hundred and eighty-six, 286 (79%) were not involved in any occupational work. Majority 165 (45.7%) were diagnosed with one chronic disease, which was followed by 145 (40.2%) who were diagnosed with two chronic diseases. Moreover, 187 (52%) were accompanied to the OPDs. Most of the elderly respondents, 350 (97%) spent more than two hours on a visit at the OPDs. Furthermore, 241 (67%) had no financial assistance towards utilisation of healthcare at the KBTH. In all 70 (19.4%) of the elderly respondents journeyed from or resided in other regions in Ghana to KBTH. Table 2 shows the detailed information on the socio-demographic characteristics of the elderly respondents.

Table no 2: Socio-Demographic Characteristics of the Elderly Respondents

Factor	Categories	N	%	95% C.I.	
				Lower	**Upper**
Gender	Female	177	49.00	43.90	54.20
	Male	184	51.00	45.80	56.10
Age Categories	<70	191	52.90	47.80	58.00
	≥70	170	47.10	42.00	52.20
Level of Educational	< Secondary	225	62.30	57.20	67.20
	≥ secondary	136	37.70	32.80	42.80
Spousal Status	Spouse	203	56.20	51.10	61.30

	No Spouse	158	43.80	38.70	48.90
Monthly income	Below GH₵500.00	222	61.50	56.40	66.40
	Above GH₵500.00	139	38.50	33.60	43.60
NHI beneficiary	No	26	7.20	4.90	10.20
	Yes	335	92.80	89.80	95.10
OPD Category	Primary	91	25.20	20.90	29.90
	Secondary	219	60.70	55.60	65.60
	Tertiary	51	14.10	10.80	18.00
Chronic Conditions	One	165	45.70	40.60	50.90
	Two	145	40.20	35.20	45.30
	Three	39	10.80	7.90	14.30
	Four	12	3.30	1.80	5.60
Locality	Korle-Bu Environs	58	16.10	12.60	20.10
	Greater-Accra Region (GAR)	233	64.50	59.50	69.30
	Outside GAR	70	19.40	15.60	23.70

III. Result

The associations between socio-demographic characteristics and quality of healthcare accessed by the elderly persons who attended KBTH using Generalized Linear Model. In adjusting for the mutual effects of the variables, the elderly male respondents rated quality of healthcare on an average of 0.18, which was higher than the elderly female respondents. However, the effect was not significant (p=0.808). The results indicated that both elderly female and male participants regarded quality of healthcare to be the same. The elderly respondents who attended the secondary OPDs rated quality of healthcare on an average of 2.19, which was lower than the elderly respondents who attended the primary OPDs. The effect was significant (p=0.011). The elderly respondents who attended the tertiary OPD rated quality of healthcare on an average of 6.24, which was less than the elderly who attended the primary OPD. The effect was significant (p<0.001). This implied that the elderly respondents who utilised the primary OPD valued the quality of healthcare higher than those who attended the other OPDs. Furthermore, the elderly respondents who were diagnosed with three chronic diseases significantly rated quality of healthcare with an average of 2.79, which was less than the elderly respondents diagnosed with one chronic disease (p=0.020). This was an indication that the more chronic diseases an individual was diagnosed with, the lesser the quality of healthcare accessed.

Table no 3: Generalised Linear Model: Association between Socio-demographic Characteristics and Quality of Healthcare

	Effect	Wald Statistic	95% Cl for Effect		p-value
			Lower	Upper	
Gender Female Ref Male	0.18	0.24	-1.27	1.63	0.808
Age <70 years Ref ≥ 70 years	-0.21	-0.3	-1.62	1.19	0.765
Educational level <70 Secondary Ref ≥ 70 Secondary	-0.69	-0.88	-2.22	0.84	0.379
Marital Status Spouse Ref No spouse	-0.56	-0.72	-2.07	0.96	0.471
Monthly Earnings < GHS 500.00 Ref ≥ GHS 500.00	0.48	0.61	-1.07	2.03	0.542
NHI Status Uninsured Ref Insured	-0.78	-0.57	-3.45	1.90	0.570

OPD Attended Primary Ref Secondary Tertiary	-2.19 -6.24	-2.53 -5.2	-3.89 -8.60	-0.49 -8.60	0.011* <0.001*
Chronic Diseases One Ref Two Three Four	-1.35 -2.79 -3.80	-1.79 -2.38 -1.92	-2.84 -5.13 -7.67	0.13 -0.44 0.07	0.074 0.020* 0.054
Locality Korle-Bu environs Ref Greater-Accra Region Outside Greater-Accra Region	-0.02 -0.31	-0.02 -0.26	-1.95 - 2.68	1.90 2.05	0.982 0.794

The bivariate analysis of the association between socio-demographic characteristics and quality of healthcare showed that the elderly respondents who were married and those who were not married rated the average quality of healthcare the same 68.65. Marital status was significantly associated with quality of healthcare (F=0.995; p<0.001). The result is an indication that, the elderly persons viewed quality of healthcare the same. The elderly respondents diagnosed with one chronic disease rated the quality of healthcare the highest with an average of 69.54. In the case of the elderly respondents who were diagnosed with four chronic diseases, they rated quality lowest, with an average of 65.5. The chronic diseases were significantly associated with quality of healthcare (F=2.97; p=0.032). This result revealed that the greater the number of chronic diseases diagnosed, the lower the average quality ratings of the healthcare accessed by the elderly. There was a decreasing trend in the rating of quality of healthcare with increasing number of chronic diseases.

Furthermore the elderly respondents who attended the primary OPD rated the quality of healthcare highest, with an average of 70.9. The elderly respondents who attended the tertiary OPDs, rated the quality of healthcare lowest, with an average of 64.8. The results indicated that there was a statistically significant difference in the quality of healthcare with decreasing trend in quality and increasing level of OPD (F=14.611; p<0.001).

Tale no 4: Bivariate Analysis: Association between Socio-Demographic Characteristics and Quality of Healthcare

Factor	Categories	Quality Healthcare		F-statistic	p-value
		Mean	Std. Deviation		
Gender	Female	68.48	6.48	0.214	0.644
	Male	68.81	7.02		
Age	<70 years	68.99	6.29	1.004	0.317
	≥70 years	68.27	7.24		
Educational Level	< Secondary	69.11	6.34	2.762	0.097
	≥ Secondary	67.89	7.34		
Marital Status	Spouse	68.65	6.68	0.995	<0.001*
	No Spouse	68.65	6.86		
Monthly Earnings	<GHS 500.00	68.88	6.33	0.678	0.411
	≥GHS 500.00	68.28	7.38		
NHI Status	Uninsured	68.33	6.69	0.063	0.803
	Insured	68.68	6.77		
OPD Attended	Primary	70.90	7.01	14.611	<0.001*
	Secondary	68.62	6.38		
	Tertiary	64.75	6.13		
Chronic Disease	One	69.54	7.20	2.970	0.032*
	Two	68.41	6.31		
	Three	66.74	6.40		
	Four	65.50	4.39		

Locality	Korle-Bu Environs	68.93	7.94	0.067	0.935
	Greater-Accra Region	68.62	6.33		
	Outside Greater-Accra Region	68.51	7.14		

We engaged 76 elderly persons who participated in the in-depth interviews from the seven OPDs in KBTH. Thirty-eight of the elderly persons were married, and also thirty-eight without spouses (widows, widowers, divorced or separated). With regards to the age of the respondents, 43 elderly were above the age of 70 years and 33 were below 70 years. Only six were still working, the remaining 70 had retired from work. The elderly persons who had been diagnosed with multiple chronic conditions were 54 and those with one chronic condition were 22.

Table no 5: Socio-demographic Characteristics of Respondents

Variables	Categories	Frequency
Gender	Male	37
	Female	39
Age	< 70 years	43
	≥ 70 years	33
Marital Status	Spouse	38
	No spouse	38
Educational level	Above secondary school	28
	Below secondary school	48
Ethnicity	Akans	31
	Gas	18
	Ewes	16
	Dagombas	7
	Gonjas	4
Employment status	Retired	70
	Employed	6
Chronic Disease	One chronic	22
	Multiple Chronic Conditions	54
Residence	Korle-Bu environs	6
	Greater Accra Region	54
	Other Regions	16

The study sought to explore the elderly persons' perception of the quality of healthcare accessed at the KBTH. They described the medical personnel as skilful and knowledgeable. However, they stated that the feedback from the medical personnel were harsh, the waiting time was long and they sat on very low seats that gave them bodily pains whilst waiting for the doctors. The themes and sub-themes, which emerged under the quality of healthcare have been presented below.

Availability of skilled personnel

Competencies are expected from qualified workers. The respondents described the medical personnel at the KBTH as skilful and knowledgeable of their area of work. They explained that the doctors were able to diagnose them and treat them accordingly. In addition, the nurses educated them on their health conditions and they were skillful as well:

"The doctors are very excellent, they are knowledgeable and very skilful to detect what was wrong with me. Now I am better" (**IDI M_5 82years**).
"The nurses I see that they know what they are doing. They check my blood pressure and they tell me what it is, they educate me and ask me questions also" (**IDI F_{14} 69years**).
Waiting time
The Korle-Bu Teaching Hospital does not practise appointments with time but rather appointments with dates. The elderly persons report on the day they are to see the doctors. They complained of long waiting time:

"The waiting time is very long, stressful, tiring and I experience severe bodily pains, especially my buttocks and also develop swollen feet" (**IDI M_{70} 75years**).

"The waiting time is most often long. I wait for about four or more hours before I see the doctor. I develop back and waist pains" (**1DI F_{66} 66years**).

Medical personnel attitude

The medical personnel have been trained to listen to the patients and address their needs appropriately as they are in constant interactions with the patients at the hospital. However, what the elderly patients expected from these qualified professionals was reportedly missing in their responses to the patients. The interviewees in this study lamented that the medical personnel were harsh when responding to them. The conversation with the elderly respondents revealed that:

"Some of the medical personnel are rude and not friendly at all" **(IDI F$_5$ 74 years).**

"As for the medical personnel, majority are not the best; they do not have patience at all and do not know how to talk to us, they talk harshly to us" **(IDI M$_{30}$ 68 years).**

It was observed that, since the respondents could not measure the technical aspect of quality of healthcare, they assessed it on basis of how they were addressed by the medical personnel.

Poor seats and sitting arrangements

Most of the seats at the waiting rooms were reportedly low and uncomfortable, which made it very difficult for the elderly persons to get up, and caused bodily pains. In addition, there were no spaces for persons in wheel chairs to be located. These situations made the waiting time very stressful:

"The units have seats for able persons, but persons in wheelchairs have no location at the waiting room. The person wheeling me [children], have to stand till I have seen the doctor and ready to go home. I am placed on the corridor or any available place" **(IDI M$_{18}$ 70 years).**
"The seats are very low and it is very difficult getting up from them. The spaces between the seats are small that passing through is very difficult" **(IDIF$_1$ 65years).**

IV. Discussion

The discussion of the findings are related to existing literature and explained based on the Donabedian model.

Waiting room

From the Donabedian model[18], the hospital organisation forms part of the structure in measuring quality. The first component is the structure. The hospital consultation policy starts from 8.00am. Moreover, the hospital does not have an electronic appointment system, hence, this leads to the long waiting time when the elderly persons arrive early. Furthermore, there was no policy for the elderly to be given preferential treatment in seeing the doctors, all patients were treated equally. The elderly in the study complained bitterly that the elderly persons who reported late were usually seen earlier than those who reported earlier.

The elderly persons in this study explained that they sat on uncomfortable seats that caused them bodily discomforts and some of them developed swelling of the feet. Furthermore, persons in wheel chairs have no location at the waiting room. The elderly persons reported very early at the Korle-Bu Teaching Hospital to be seen early. However, the consultation starts at 8.00am leading to prolonged sitting, swelling of the feet and bodily discomfort due to long waiting time.

Availability of skilled personnel

Quality healthcare are viewed by clients as receiving the best medical results. Thus receiving healing from the sickness and improved wellbeing. Other clients also viewed quality healthcare as good medical findings, medical care and treatment[30]. Perceptions about quality healthcare differs from an individual to an individual. Some clients viewed quality healthcare as receiving the best results, cured from their disease, improved in their health status, receiving good results, best care and treatment and getting fast, proper and precise diagnosis and treatment[30]. In this study the findings the elderly indicated that the doctors and nurses were skilful and knowledgeable of their duties leading to an improvement in their health. Also the quantitative findings revealed that persons who were married and the unmarried regarded the quality of healthcare to be the same. The findings of the study indicated that the doctors and nurses were skilful and knowledgeable of their duties leading to an improvement in the health of the elderly persons. The Korle-Bu Teaching Hospital has qualified doctors from the medical doctors to consultants, and also qualified nurses from the registered nurses to the Deputy Director of Nursing Service (DDNS). In addition, the hospital has specialised doctors and nurses in different medical fields. The Donabedian model presents resources that are used to provide healthcare; for instance, medical specialties, medical equipment and hospital procedures to deliver quality healthcare to patients[21]. The availability of qualified specialist medical personnel and the equipment used in caring for the elderly led to improvement of the health of the elderly respondents. Clients have higher hope about the quality healthcare when they are about to receive medical treatment[31]. This situation was experienced by the elderly

clients at the Korle-Bu Teaching Hospital. They observed that, their ailment(s) was/were diagnosed and the appropriate treatment were provided leading to an improvement in their health.

Health personal attitude

The second component of Donabedian's model is process[18, 19]. The process involves the interaction between the patients and the medical personnel such as communication, performing various diagnostic investigations, physical examinations, and receiving nursing care[21]. In this study, the communication between the medical personnel and the elderly persons was not friendly but rather harsh. The harsh response would reduce the quality of healthcare services accessed by the elderly persons at the facility.

Different types of dialects are spoken in Ghana; and because the Korle-Bu Teaching Hospital is a referral hospital, most patients being referred from other regional hospitals may not be able to speak the English Language or the common dialect [Twi] spoken in Ghana or "Ga" spoken in the city of Accra, mostly spoken around the Korle-Bu environs. Some of the medical personnel may not know how to communicate with these elderly persons in their local vernacular. These difficulties led to a language barrier when using healthcare services. Some investigators noted that health workers were not friendly to the elderly, which was a barrier for the elderly persons in Nigeria[32]. In Ghana, some investigators established that there were substantial cases of maltreatment of patients by health service providers[33]. Similarly, it was observed that, in Brazil, the elderly persons complained of the fact that health personnel asked quick questions without identifying their needs[5].

These findings in the Ghanaian premier health facility (a teaching hospital) has implications for quality as well as health literacy. It is imperative that the health professionals are taken through workshops to inculcate in them the need to act responsibly in their interactions with the elderly. Given their age, frailty and possibly low literacy levels, it behoves the medical personnel, especially nurses and doctors to be patient with the elderly; explaining everything to them in simple, clear language for easy understanding.

V. Conclusion

This study used self-reported data. One-way analysis of variance and Generalised Linear Model were used to examine the socio-demographic characteristics and quality of healthcare. Thematic content analysis was used to analyse the qualitative data. The study described the quality of healthcare accessed by the elderly utilising Korle-Bu Teaching Hospital. The qualitative findings described the medical personnel at the Korle-Bu Teaching Hospital as skilful and knowledgeable of their area of work but the quantitative results revealed that, there was a decreased trend in the quality of healthcare received by the elderly patients, which were related to an increased number of chronic diseases.

References

[1].   United Nations. World Population Ageing. New York, Department of Economic and Social Affairs/Population Division; 2015. Report No.: ST/ESA/SER.A/390. Retrieved 2nd May, 2018.
[2].   Aikins Ad-G, Apt NA. Aging in Ghana: Setting Priorities for Research, Intervention and Policy. Ghana Studies. 2016;19(1):35-45. *DOI:https://doi.org/10.1353/ghs.2016.0002.*
[3].   World Health Organization. Ghana country assessment report on ageing and health. Switzerland; 2014. ISBN 978 92 4 150733 2.
[4].   Ghana Statistical Service. 2010 Population & Housing Census Report, the elderly in Ghana. July 2013.
[5].   Lubenow JAM, Barrêto AJR, de Almeida NJ, Oliveira SA. Access for the Elderly to Primary Health Care Services: an Integrative Review. International Archives of Medicine. 2016;9(1):1-13. doi: 10.3823/1917.
[6].   Saeed BII, Louis M, Aidoo EN, Nsowah-Nuamah NN, Yawson AE, Zhao X. Socio-economic inequalities and healthcare utilization in Ghana. International Journal of Business and Social Research. 2013;3(1):54-63.
[7].   Beard JR, Officer A, Araujo de Carvalho I, Sadana R, Pot AM, Michael J-P, et al. The world report on ageing and health: a policy framework for healthy ageing. Lancet. 2016;387(2145-54). http://dx.doi.org/10.1016/.
[8].   Chen LK. Towards elder-friendly outpatient services. Journal of the Chinese Medical Association. 2012;75(12):617-8. http://dx.doi.org/10.1016/j.jcma.2012.08.017.
[9].   Kumar K, Shukla A, Singh A, Ram F, Kowal P. Association between wealth and health among older adults in rural China and India. The Journal of the Economics of Ageing. 2016. http://dx.doi.org/10.1016/j.jeoa.2016.02.002.
[10].   Lindmeier, C. (2014).Ageing well" must be a global priority [press release]. 7th July 2017.
[11].   Ayernor P. Diseases of ageing in Ghana. Ghana Medical Journal. 2012; 46(2):18-22.
[12].   Fonta CL, Nonvignon J, Aikins M, Nwosu E, Aryeetey GC. Predictors of self-reported health among the elderly in Ghana: a cross sectional study. BMC Geriatrics. 2017;17(1):171. DOI 10.1186/s12877-017-0560-y.
[13].   Khamis K, Njau B. Patients' level of satisfaction on quality of health care at Mwananyamala hospital in Dar es Salaam, Tanzania. *BMC* Health Services Research. 2014;14(1):400. http://www.biomedcentral.com/1472-6963/14/400.
[14].   Chakraborty R, Majumdar A. Measuring consumer satisfaction in health care sector: The applicability of servqual. Researchers World. 2011;2(4):149-60. E-ISSN 2229-4686 ■ ISSN 2231-4172.
[15].   Zineldin M. The quality of health care and patient satisfaction. Internal Journal of Health Care Quality Assurance. 2006; 19:60-92.
[16].   Bowers MR, Kiefe CI. Measuring health-care quality; Comparing and contrasting the medical and the marketing approaches. American Journal of Medical Quality. 2002;17(4):136.
[17].   Büyüközkan G, Çifçi G, Güleryüz S. Strategic analysis of healthcare service quality using fuzzy AHP methodology. Expert Systems with Applications. 2011;38(8):9407-24.
[18].   Donabedian A. The seven pillars of quality. Archives of Pathology & Laboratory Medicine. 1990;113(11):1115-8.
[19].   Ibn El Haj H, Lamrini M, Rais N. Quality of care between Donabedian model and ISO9001V2008. International Journal for Quality Research. 2013;7(1):17-30.

[20]. McCance TV. Caring in nursing practice: the development of a conceptual framework. Research and theory for nursing practice. 2003;17(2):101-16.
[21]. Nuckols TK, Escarce JJ, Asch SM. The effects of quality of care on costs: a conceptual framework. The Milbank Memorial Fund Quarterly 2013;91(2):316-53.
[22]. Korle-Bu Teaching Hospital. 2016 Annual Report. 2016.
[23]. Awoke MA, Negin J, Moller J, Farell P, Yawson AE, Biritwum RB, et al. Predictors of public and private healthcare utilization and associated health system responsiveness among older adults in Ghana. Global health action. 2017;10(1):1301723.
[24]. Saeed BII, Oduro SD, Ebenezer AMF, Zhao X. Determinants of healthcare utilization among the ageing population in Ghana. International Journal of Business and Social Science. 2012;3(24):66-77.
[25]. Araoye MO. 'Subject Selection' Research Methodology with Statistics for Health and Social Sciences. 1st ed. Nigeria: Nathadex Publishers; 2004.
[26]. Cochran WG. Sampling Techniques. 3rd ed ed. New York: John Wiley & Sons; 1977.
[27]. Gay L, Airasian P. Educational research: Consequences for analysis and applications. Upper Saddle River, NJ: Pearson; 2003.
[28]. Thanavanh B, Harun-Or-Rashid M, Kasuya H, Sakamoto J. Knowledge, attitudes and practices regarding HIV/AIDS among male high school students in Lao People's Democratic Republic. Journal of the International AIDS Society. 2013;16(17387):1-7.
[29]. Jamous RM, Sweileh WM, Taha ASE-DA, Zyoud SeH. Beliefs about medicines and self-reported adherence among patients with chronic illness: a study in Palestine. Journal of family medicine and primary care. 2014;3(3):224.
[30]. Mosadeghrad MA. Healthcare service quality: Towards a broad definition. International journal of health care quality assurance. 2013;26(3):203-19.
[31]. Abuosi AA, Atinga RA. Service quality in healthcare institutions: establishing the gaps for policy action. International journal of health care quality assurance. 2013;26(5):481-92.
[32]. Chukwudi ON, Uyilewhoma IM, Ebi EJ, Kalu OO, Iyamba EE. Determinants of Health Services Utilization among the Elderly in Calabar Municipality, Cross River State, Nigeria. European Journal of Preventive Medicine. 2015;3(5)(129-136).
[33]. Addo IY, Gyamfuah IA. Determinants of Healthcare facilities and Services Utilisation among the Aged: Evidence from Yamoransa in Ghana. American Scientific Research Journal for Engineering, Technology and Sciences (ASRJETS). 2014;8 (1)(42-55).