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Patient satisfaction towards health care services provided in Training Centres of a Tertiary Care Hospital in Kanchipuram District, Tamil Nadu

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ABSTRACT

Background: Health care expenses are on an increasing trend, affecting mostly the poor and vulnerable groups. Satisfied patients are more likely to follow medical advice and treatment instructions. Patient satisfaction is thus a crucial indicator to assess the health care quality.

Objectives: 1. To assess the patient satisfaction towards health care services provided at training centres of a tertiary care hospital. 2. To study the factors influencing patient satisfaction.

Material and Methods: A cross sectional study was conducted among 170 patients attending health training centres of a tertiary care hospital in Kanchipuram District over a period of 3 months (October – December, 2022). Data was collected using pretested semi- structured questionnaire by personal interview method and analyzed using SPSS version 20. Association between variables was calculated by chi-square test with 5% level of significance.

Results: Of the total 170 study participants, 53.5% were females. Majority of the patients (32.9%) belonged to the age group 30-45 years and 31.2% were illiterates. It was revealed that 78.2% of the patients were satisfied with the health care services.

Conclusion: Majority of the patients were satisfied with the treatment received at the health training centres of the tertiary care hospital. However, certain factors were influencing the patient satisfaction like distance from home, waiting time for consultation, information on disease condition and waiting time for buying drugs.

Keywords: *Health care services, Health training centres, Patient satisfaction*

1. INTRODUCTION

Healthcare costs are rising globally, disproportionately impacting poor and vulnerable populations. In developing countries such as India, various health agencies provide free basic medical assistance to the general public. However, the utilization of these healthcare services remains suboptimal despite their availability[1].

According to the Constitution of India, health is a state responsibility. The delivery of healthcare services in India is structured at three levels: primary, secondary, and tertiary. Government hospitals offer care that is both affordable and accessible to all citizens, irrespective of socioeconomic status. Primary-level hospital services play a crucial and complementary role in supporting the secondary and tertiary healthcare systems[2].

Patient care is recognized as the cornerstone of a high-quality healthcare system. Among the various determinants of patient outcomes, quality of care significantly influences satisfaction. There is a strong correlation between patients' perception of healthcare quality and their level of satisfaction. Healthcare providers must understand patients' expectations to effectively meet their needs and operate a successful healthcare facility[3].

Patient satisfaction is a multidimensional concept, as individual perceptions and opinions about healthcare experiences vary. These aspects may include the doctor's behavior and technical competence, the quality of information provided, ease of access, effectiveness, efficiency, and relevance of the care delivered. Notably, the doctor's behavior is often considered the most influential factor, as it can significantly impact patients' ratings of all other elements of care. A recent study from a tertiary government hospital in India reported patient satisfaction levels ranging from 70% to 80%[4].

Satisfied patients are more likely to adhere to medical advice and treatment plans. Patient satisfaction reflects how patients evaluate the quality of their healthcare experiences and is increasingly used in healthcare surveys as an indicator of care quality[5].

Infrastructure and manpower vary considerably between private and public hospitals across most Indian states. High-quality care should be delivered promptly and equitably, as it is a fundamental patient right. In countries where the government provides free or subsidized healthcare services, evidence suggests that utilization rates are higher among economically disadvantaged populations[6].

In light of these considerations, the present study was conducted to assess healthcare quality and identify factors hindering the utilization of healthcare services. Analyzing patient satisfaction is essential for evaluating the performance, effectiveness, and accessibility of medical services.

2. OBJECTIVES

1. To assess the patient satisfaction towards health care services provided at Training Centres of a Tertiary Care Hospital
2. To study the factors influencing patient satisfaction

3. MATERIALS AND METHODS

A cross-sectional study was conducted over a period of three months, from October to December 2022, in the Health Training Centres (Urban Health Training Centre, Anna Nagar and Rural Health Training Centre, Pulipakkam) affiliated with a tertiary care hospital in Kanchipuram District, Tamil Nadu. The study population included patients attending these centres during the study period. The sample size was calculated based on the findings of a previous study by Rushender et al[3], which reported a 71.2% prevalence of patient satisfaction with healthcare services. Using this prevalence and an absolute precision of 7%, the sample size was determined using the formula $n=4pq/d^2$, where p is 71.2 and q is 28.8, resulting in a required sample size of 170.

Simple random sampling was used to select participants for the study. Each day, the list of patients visiting the health training centres was obtained from the outpatient department register. Eligible patients are those aged over 18 yearsof age and willing to participate were included while seriously ill, pregnant or lactating women were excluded. They were assigned a unique identification number and then a set of random numbers was then generated using a random number table or computer software, and the patients corresponding to those numbers were selected for participation. This procedure was repeated daily until the target sample size of 170 was reached, ensuring that every eligible patient had an equal and unbiased chance of being selected.

Data were collected using a pre-tested, semi-structured questionnaire administered through face-to-face interviews. The questionnaire included sections on socio-demographic characteristics, healthcare service utilization, and patient satisfaction. Patient satisfaction was measured using a Likert scale, and based on the scores, participants were categorized as satisfied or unsatisfied. The collected data were entered and analyzed using Statistical Package for Social Sciences version 20. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize the data. The chi-square test was used to assess the association between variables, with a p-value of less than 0.05 considered statistically significant.

Ethical clearance was obtained from the Institutional Ethics Committee of Karpaga Vinayaga Institute of Medical Sciences and Research Centre, Kanchipuram, Tamil Nadu (IEC Ref. No: KIMS/PG/2019/55). Written informed consent was obtained from all study participants before data collection.

4. RESULTS

The mean age of the study participants was 45.89 ± 15.56. It was observed that 54(31.76%) study participants belonged to age group 30-45 years and 91(53.53) were females. Majority 91(58.2%) and 71(41.8%) were residing in rural areas and unemployed by occupation respectively. It was found that 53 (31.2%) were illiterates while 44(25.9%) were educated till secondary, 33(19.4%) till primary, 22(12.9%) were graduates and 18(10.6%) till higher secondary. Most of the study participants, 125(73.5%) were married and lived in nuclear families. It was observed that 72(42.4%) belonged to lower class while 7(4.1%) belonged to upper class. (Table 1)

Table 1 Socio demographic details of the study participants (n=170)

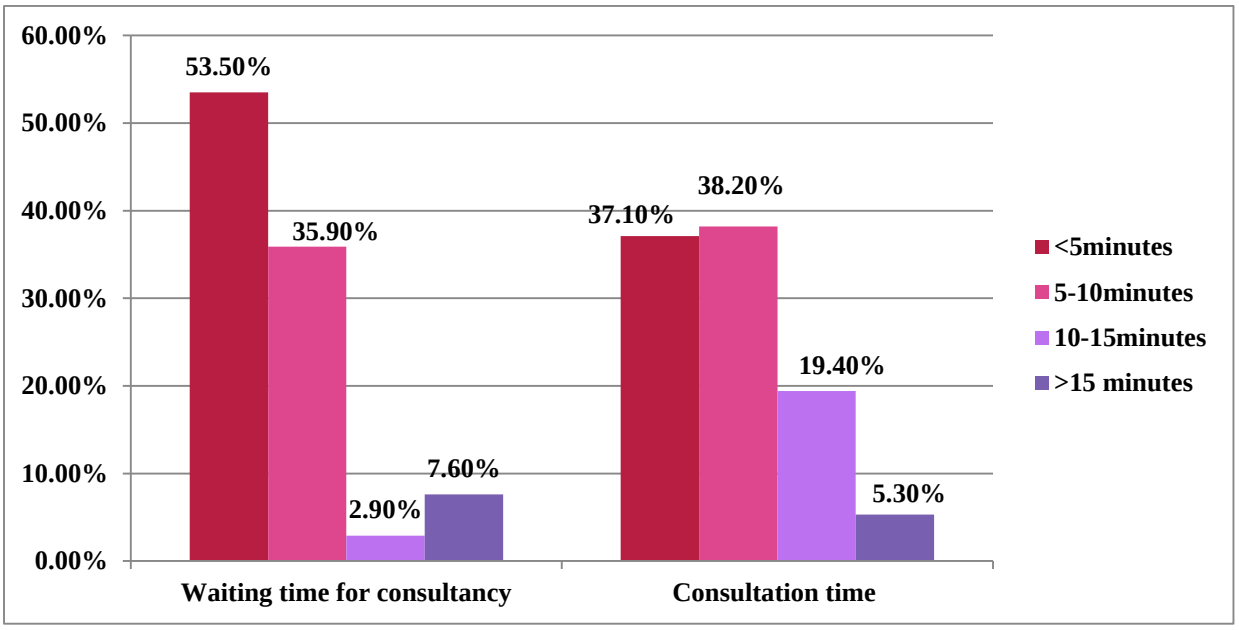
Variable	Category	Frequency (n)	Percentage (%)
Age (in years)	18–30	38	22.35
	30–45	54	31.76
	45–60	44	25.88
	>60	34	20.00
Gender	Male	79	46.47
	Female	91	53.52
Residence	Urban	71	41.80
	Rural	99	58.20
Occupation	Unemployed	71	41.80
	Unskilled	37	21.80
	Semi-skilled	33	19.40
	Skilled	29	17.10
Education	Illiterate	53	31.20
	Primary	33	19.40
	Secondary	44	25.90
	Higher Secondary	18	10.60
	Graduate & Above	22	12.90
Marital Status	Married	125	73.50
	Unmarried	34	20.00
	Separated	3	1.80
	Widowed	8	4.70
Family Type	Nuclear	125	73.50
	Joint	45	26.50
Socioeconomic Status	Upper	7	4.10
	Upper Middle	16	9.40
	Middle	21	12.40
	Lower Middle	54	31.80
	Lower	72	42.40

It was noted that 109(64.1%) preferred to seek health training centers in case of illness while only 10(5.9%) preferred private

hospitals. Majority 85(50%) stated that easy accessibility was the reason to get treatment from the above mentioned health care facility.

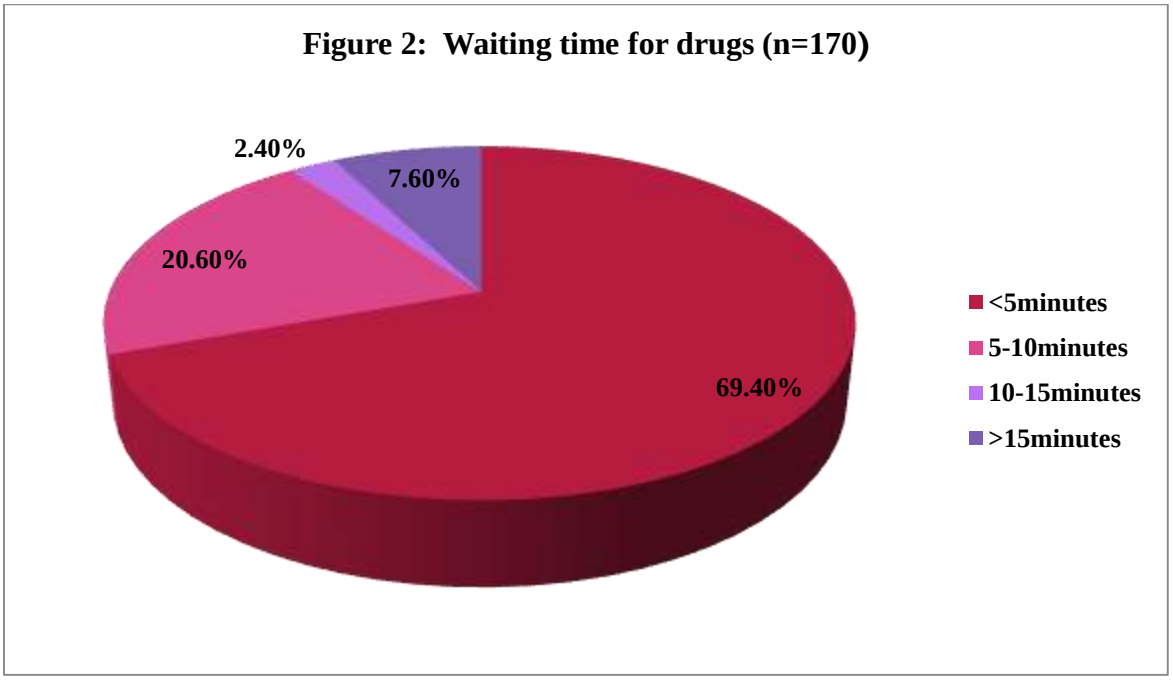
Figure 1 below describes the study participants waiting time for consultation and consultation time during their visit to health training centre. It was observed that the waiting time taken for consultation was <5 minutes for 53.50% study participants and the least, 2.90% mentioned it as 10-15 minutes. The time taken for consultation was 5-10 minutes in 38.20% study participants. However, the consultation time taken was >15 minutes for only 5.30% study participants.

Figure 1 :Waiting time for consultation and Consultation time (n=170)



The waiting time for buying drugs from pharmacy was <5minutes for 69.4% study participants, 5-10 minutes for 20.6%, 10-15 minutes for 2.40% while 7.60% had long waiting time of >15minutes. (Figure 2)

Figure 2: Waiting time for drugs (n=170)



It was observed that 48(36.09%) of the study participants in the age group of 30-45 years and 73(54.89%) females were satisfied with the health care services. Based on the residence, 73(54.89) of those who were living in rural areas were satisfied and a significant p value was obtained only for association of residence with patient satisfaction (p<0.01). It was further noted that 58(43.60) of the unemployed and 46(35.49%) of the illiterates were satisfied with the treatment services. Based on marital status, it was found that married study participants around 96(72.18%), those living in nuclear family 99(74.44%)

and 58(37.84%) who belonged to lower class (According to Modified BG Prasad classification 2024) were satisfied with the health care services provided in the health training centres. (Table 2)

Table 2 Association of socio demographic factors and patient satisfaction (n=170)

Variable	n (%)	Patient satisfaction		Chi-square value (χ^2)	*p* value
		Unsatisfied (n=37)	Satisfied (n=133)		
Age (in years)					
18-30	38	8(21.62)	28(21.050	5.82	0.81
30-45	54	8(21.62)	48(36.09)		
45-60	44	9(24.32)	35(26.31)		
>60	34	12(32.44)	22(16.55)		
Gender					
Male	79	19(51.35)	60(45.11)	4.53	0.50
Female	91	18(48.65)	73(54.89)		
Residence					
Urban	71	11(29.72)	60(45.11)	2.81	0.01
Rural	99	26(70.28)	73(54.89)		
Occupation					
Unemployed	71	13(35.14)	58(43.60)	2.22	0.52
Unskilled	37	11(29.73)	26(19.54)		
Semi- skilled	33	6(16.21)	27(20.31)		
Skilled	29	7(18.92)	22(16.55)		
Education					
Illiterate	53	7(18.91)	46(34.59)	6.72	0.15
Primary	33	12(32.43)	21(15.78)		
Secondary	44	10(27.03)	34(25.56)		
Higher secondary	18	3(8.11)	1(11.28)		
Graduate & above	22	5(13.52)	17(12.79)		
Marital status					
Married	125	29(78.37)	96(72.18)	3.27(0.35)	
Unmarried	34	8(21.63)	26(19.54)		
Separated	3	0	3(2.26)		
Widowed	8	0	8(6.02)		
Family type					
Nuclear	125	26(70.27)	99(74.44)	0.25	0.61
Joint	45	11(29.73)	34(25.56)		
Socioeconomic status					

Upper	7	1(2.70)	6(4.51)	1.56	0.81
Upper middle	16	5(13.51)	11(8.27)		
Middle	21	4(10.82)	17(12.79)		
Lower middle	54	13(35.13)	41(30.82)		
Lower	72	14(37.84)	58(43.61)		

Table 3 Association of various factors and level of patient satisfaction (n=170)

Factors	**Satisfied n(%)**	**Unsatisfied n(%)**
Distance from home	14(8.23)	156(91.76)
Waiting time for consultation	18(10.58)	152(89.41)
Consultation time	146(85.88)	24(14.11)
Information on disease condition	33(19.41)	137(80.58)
Waiting time for buying drugs	142(83.52)	28(16.47)
Availability of drugs	147(86.47)	23(13.52)
Relief of symptoms	151(88.82)	19(11.17)
Competence of doctor	157(92.35)	13(7.64)
χ^2=5.002, *p*=0.025		

It was revealed that 152(89.41%), 146(85.88%), 151(88.82%), 157(92.35%) and 142(83.52) were satisfied with the distance from home, consultation time, availability of drugs, relief of symptoms and competence of doctor and waiting time for buying drugs respectively. However, majority of the study participants were unsatisfied with factors like distance from home, waiting time for consultation, information on disease condition, waiting time for buying drugs. The association of various factors with level of patient satisfaction was found to be statistically significant (p <0.02). (Table 3)

5. DISCUSSION

The results of the study shows that majority of the respondents were satisfied with the services they had received. Of the total 170 participants, 54.53% were females unlike a study by Rushender[3] in which 53.54% were males. The mean age of study participants in the present study was 45.89 ± 15.56 and 31.76% belonged to age group 30-45years similar to a study by Saravanakumari AD (34.21%). Illiterate study participants in this study was 31.2% and 12.9% were graduates which was almost similar. Regarding the place of residence in the current study, majority belonged to rural area (58.2%) which was also similar to a study by Saravanakumari AD.[2]

The distance from home and health care services utilization has been analyzed in many studies. The distance in utilization of the health services in Ahafo-Ano south district, conducted by BuorDin mentions that the respondents were covering average distance of 5kms to access health care.[18] In another study by Saravanakumari AD et al it has been found that majority people prefer to have health care facility nearer to their villages (within 2km).[2] Thus it is observed that the utilization of health care services at PHC fell regularly with the increasing distance.

It was observed in the current study that 78.23% study participants were satisfied with the health care services provided at the health training centres similar to a study by Rushender.[2] Also, in the present study 85.88%, 83.52%, 86.47%, 88.82% and 92.35% were satisfied with the consultation time, waiting time for buying drugs, availability of drugs, relief of symptoms and competence of doctor, respectively. Consultation time with the doctor is important in order to determine the level of satisfaction. It has been stated that longer contact time has empowered patients to follow proper treatment. However, 90.1% respondents felt that the doctor gave adequate time to them.[2] On the contrary, in a stufy by Ranjeeta et al conducted in Lucknow, satisfaction regarding doctor patient communication decreased which was only 68%.[19] The behavior of paramedical health staffs and doctors was found to be satisfied (86.6%) in a study done by Syed et al[20] similar to the present study.

The present study revealed that 64.1% preferred to seek health training centers in case of illness while majority of the study subjects (70%) preferred PHC.[2] Majority (50%) stated that easy accessibility was the reason to get treatment from the above

mentioned health care facility in this study whereas, it was affordability in a study by Arshad et al.[21]

6. CONCLUSION

The study concludes that the patients are generally satisfied with health care services provided at the health training centres. Majority of the patients who visited the health care centres were from rural areas who were illiterates with low socio economic status. An attempt to assess the patient satisfaction has revealed that certain areas need corrective efforts to improve the quality of services provided. Moreover, certain factors were influencing the patient satisfaction like distance from home, waiting time for consultation, information on disease condition and waiting time for buying drugs.

7. RECOMMENDATIONS

Regular training should be provided to enhance the communication and interpersonal skills of medical trainees, along with active supervision by senior staff to ensure consistent quality of care. Patient waiting times should be minimized, and improvements should be made to infrastructure, cleanliness, and basic facilities such as seating and sanitation. A structured feedback system should be implemented to collect patient opinions, and regular satisfaction surveys should be conducted to support ongoing quality improvement in healthcare services.

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