

Influence of personal barriers in accessing primary health care Services on performance of healthcare center and client's satisfaction

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Abstract:

Background: Nearly 51.6% percentages of people of Tamilnadu are living in rural areas where they are underserved in healthcare services. Many factors have been listed out by academic researchers, of which barriers of individuals quietly differ among the gender, location, and financial status, cultural and social background. Carlio et al. suggested approaching accessibility barriers from an individual point of view. **Objectives:** The present study examines the influence of personal barriers of the user on performance of primary health care centers and on client's satisfaction of primary health care services. **Design:** Cuddalore district is divided into thirteen Medical health blocks to cater the medical needs in the district. All those who access the primary health services are taken as study population. Out of them, 60 respondents from each block are selected for data collection. After screening the data recorded, 666 respondents were considered as sample respondents. **Settings:** A well structured questionnaire was circulated to record their opinion on personal barriers and how it affects their accessibility, performance and client's satisfaction. Five point likert scales was used to express the magnitude of barriers and its effects. **Results:** The R^2 value of 0.568 that personal barriers influence 56.8 percent of the performance of healthcare units. The calculated β value of behavioral barriers (0.107), Awareness Barriers (0.105), Cultural Barriers (0.105), Accessibility Barriers (0.261) and Social Barriers (0.259) are validated by t- test .All these barriers significantly influence the performance of primary health care center. R^2 value of 0.319 that personal barriers influence 31.9% percent on the client satisfaction of healthcare services. The calculated β value of behavioral barriers (0.136), Awareness Barriers (0.433) and financial Barriers (0.203), is validated by t- test .They are strongly influencing the satisfaction on health care services. However the cultural Barriers (-0.048) and social barriers (-0.005) have no influence on client's satisfaction at 1% level of significance. **Conclusion:** Behavioral and awareness barriers are having a strong influence on performance of healthcare centers and client's satisfaction. Hence the government must bring awareness programmes to educate the people on availability services and make high trust on primary health care centers and on service quality. Behavioral aspects of individuals have to be changed through VHN/ASHA. The Change is a start from the individual is very essential to bring the people into the inclusive health care sector.

Key words: Public health care services, Health care personal barriers, individual barriers, accessibility barriers, Performance of health care unit, Primary health center, client satisfaction

Introduction:

Half of the population of India lives in 115,029 villages of which 17,089 villages are located in Tamilnadu. Nearly 51.60 percent of people of Tamilnadu are living in rural areas where they are underserved in healthcare services. Many factors have been listed out by academic researchers, of which barriers of individuals quietly differ among the gender, location, and financial status, cultural and social background. Carlio et al. suggested approaching accessibility barriers from an individual point of view. They found that respondents were experiencing some sort of challenges in accessing health care services. Poverty is the main criteria to access healthcare services. Economically weakened population has only choice to get treatment from primary health center. The weather conditions affect safe travel to the provider center. In rural areas, transportation facilities and linking roads to nearby urban areas influence the ability of accessing health care services. Apart from this, barriers on the provider side, such as lack of infrastructure, availability of some services, and quality of health care professionals. The language and cultural differences were identified as barriers. Though health services are provided at free of cost, some sort of amount is needed to access health services. Expenses of transport, companion expenses, and food and stay expenses were met out of pocket. Lack of income and employment force them to avoid health care services or postpone it for some time. Many rural people are not aware of the availability of services in primary health care centers and they believe public services are inferior in quality and not trustworthy. They are not able to access services available due to multiple reasons and barriers. Women in certain cultures are not allowed to go out to avail services. When they access primary health centers and avail quality services, their satisfaction on service may be higher. All the primary health centers are funded by the government out of a taxable amount. So it is essential to examine the performance of primary healthcare centers and to see the services are provided at satisfactory level and at what level the personal barriers influence performance of health care centers and on satisfaction.

Review of Literature

. As for rural areas concerned, geographical, limited availability of qualified doctors and financial barriers limit the visits to the doctors for their health care needs. Lack of medical practitioners, travelling distance, early closure of rural hospitals, lower funding in rural areas were experienced by agricultural workers. Elderly were under-used health service due to suspicion, Lack of awareness,

greater reliance on family and financial barriers. Low use of mental health care services witnessed in rural areas by low level of education, conservative rural culture, cost of the services and distance from service location (Denise M. Lishner et al.). While examining the problems in accessing health care, majority respondents including rural residents agreed long waiting times to see a doctor leads to dissatisfaction with the system, availability of service and towards the providers. The economic condition of the people decides the doctor to see and number of visits to the hospital. Number of visits to the doctor by poor people was lesser than non-poor. Economic condition influences the health care delivery system, receiving the care service and satisfaction (Lu Ann Aday 1976).

Tim Ensor and Stephanie cooper (2004) had examined how the demand side factors affect people from obtaining treatment. Lack of convenient working hours make them lose work on the part of patients and companions who accompany them. Financial barriers interact with other barriers such as transport; number of visits and choice of the hospital drag them from availing medical services. Not knowing the seriousness of the health problem, financial cost and lack of information on availability of service are three major reasons for not seeking health care service. Getting permission, difficulty in getting admission and attitude of the service provider are affecting least level to avail health care services. All these are having a negative impact on performance of Health care units. The efficiency aspects of the Health care system on reproductive health care services. Any Changes made in the doctor leads to a 30% change in utilization health service. Para medical staff play an important role than doctors, they affect the utilization of services by 47% .Population density has increased utilization of service considerably. Consumption of service inversely varies with family size. Quality of care is an important barrier in accessing and utilization of services (AmlanMajumder, V.Upadhyay 2004).

An image of health care units heavily depends on overall satisfaction on health care services. The results revealed insured patients are more satisfied than non-insured. Waiting time, Friendliness of staff and consultation process were key variables for their overall satisfaction. Interpersonal relationships are a very important variable for patient satisfaction. Patient's satisfaction was higher in Private hospital care than those attending public hospital. Consultation process, friendliness of staff and waiting time are key factors of satisfaction (AmaP.Fenny, Ulrika Enemark et.al, 2014).The factors associated with pregnant women's satisfaction on antenatal care services at government facilities are perception of quality, availability of equipment, clinic hours, privacy, and treatment facilitation were significantly associated with satisfaction. Out of pocket expenditure was negatively associated with satisfaction (DubiriJ.Onyeajam, SudhaXirasagar 2018).Clients showed overall satisfaction related to diagnostic services, explanation about medicines, health care facility surrounding environment and behavior of doctors and staff towards clients. Higher level satisfaction reported by middle age group clients, elderly, low education, small size household, house wife and risky health status clients. There was a positive association between overall satisfaction with health insurance schemes among housewives, clients with risk health status and economically unsound households and negative association existed among businessmen and family. (Abdur Razzaque Sarkar et.al 2018)

Rationale of the Study

The rationale for the present study stems from the need of investigating the Satisfaction of clients (Consumer) on Health care services to be provided in the Primary Health Care centers. In these processes the behavior of both the Physicians and Patients are to be measured. In public sector hospitals, there are numerous patients, heavy workloads for staff, and a work environment where physicians/doctors can behave rudely. To some extent, the patient's confronted with misunderstanding the doctor's work leads to a problem in accessing the health care services. Keeping this view, the study has been conducted. Further the earlier studies showed that patients expect to have a comfortable and warm interaction with a physician. In some studies, it has been conducted to measure patient satisfaction with healthcare services in general, but no study was conducted to assess patient satisfaction in the primary health care unit.

The main reason for choosing these services is that no previous study has been conducted regarding these services at the village area. There is a considerable gap in existing literature regarding this evaluation of patient satisfaction, which has been often ignored in the Primary Health care unit. The current study is specifically useful for the assessment of the health care system through the primary health care unit, specifically healthcare personal barriers such as Behavioral barriers, Awareness Barriers, financial barriers, Cultural Barriers, Accessibility barriers and social barriers on performance of healthcare units and consumer satisfaction. The plan of this paper is after discussing the rationale of the present study; stating the main objective of the study, introducing the variables, the conceptual model developed and hypotheses derived from the model and the results, followed by discussion.

Objective of the study: The main objectives were framed after careful analysis of literature and professionals of health care hospitals.

1. To examine the influence of personal barriers of the clients on performance of primary health care center
2. To explore the influence of personal barriers on client's satisfaction of primary health care services.

Variables considered for the Study

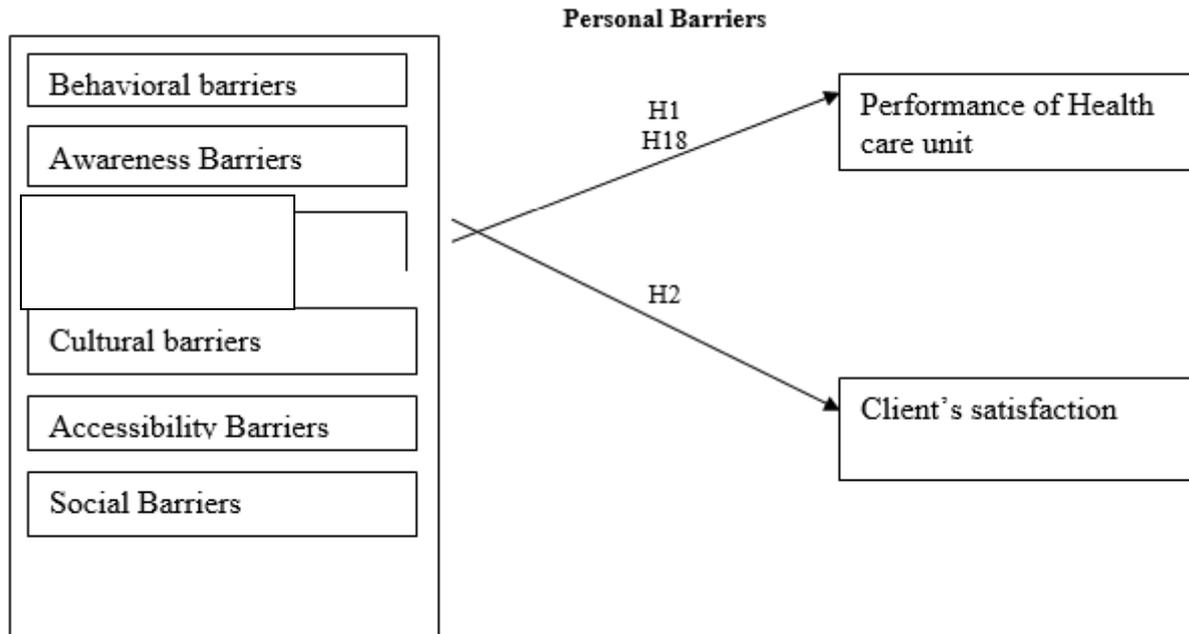
Accessibility of health care services depends on demand side factors (barriers of individuals) and supply side factors (barriers in infrastructure and human resources). Individual barriers are identified in six domains. These six independent Variables such as Behavioral barriers, awareness barriers, financial barriers, cultural barriers, social barriers and accessibility barriers are considered as independent variables. All these variables were studied to examine their influence on health care centers and client satisfaction. Performance of primary health centers and clients satisfaction is taken as dependent and outcome variables. These six independent variables have a direct relationship in keeping people away from accessing health care services. When all six variables are at a minimum level, lead the rural people to access it for their health needs. The performance of health units depends on utilization of health care. When the health units perform well, users become satisfied with the service provided. Examining the influence of health care personal barriers on performance of health care units and client satisfaction is vital and throws light to policy makers. The relationship was tested with the help of 63 indicators classified under six variables.

Conceptual model

Researchers had identified after a careful study of articles related to Health care system barriers. Common and unique Health care system barriers are availability of Service on time, quality of services, availability of Medicines and availability of equipment. Several aspects of each barrier and its dimension are taken for constructing conceptual models. In this model the relationship between health system barriers and healthcare unit performance and customer satisfaction are examined. Further, the role of hospital reputation as a moderation is also studied.

The conceptual model is presented in Figure1.

Figure 1: Conceptual Model



Hypotheses

H₀₁: There is no influence of personal barriers (‘behavioral barriers’, ‘awareness barriers’, ‘financial barriers’, ‘cultural barriers’, ‘accessibility barriers’ and ‘social barriers’) on performance of healthcare units.

H₀₂: There is no influence of personal barriers (‘behavioral barriers’, ‘awareness barriers’, ‘financial barriers’, ‘cultural barriers’, ‘accessibility barriers’ and ‘social barriers’) on client’s satisfaction towards healthcare services.

Methodology:

Cuddalore district is the most polluted urban area and it is surrounded by numerous industries emitting very dangerous gas and polluted air. It has given a lot of health issues to the people. To cater the medical need, thirteen Medical health blocks were created in the district. All those who access the primary health services are taken as study population. Out of them, 60 respondents from each block are selected for data collection. Health care System barriers identified from the reviews are availability of equipment, availability of medicines, availability of health services and quality of services. A well structured questionnaire was circulated to record their opinion on personal barriers and how it affects performance of primary health centres. Five point likert scales were used to express the magnitude of barriers and its effects. In this research, the data was collected from 666 respondents accessing primary healthcare centres in Cuddalore district.

A carefully crafted survey instrument was constructed and data was collected personally by visiting various primary healthcare centers located in Cuddalore district, Tamil Nadu. It took nearly six months to collect the data. Since the data was very sensitive, some respondents have refused to participate in the survey. However, we assured anonymity of the data and results, and were able to motivate the respondents. In this research, Conceptual models have been developed to understand the effect of different health care system barriers and each model is unique in the sense it focuses on type of barriers and its effects on performance and consumer satisfaction.

Results of Analysis and discussion

Accessing health care services depends on many constraints. It is grouped into personal barriers and organizational barriers. Barriers rose from the Health care system and professional people are organization oriented and it will happen when the client enters the health care units. But the personal barriers happen in home and raise obstacles to go and avail health care services. Barriers relating to behavior of individuals to illness, awareness level, financial position, culture and social background of the individual and barriers in accessing the services are concern individual oriented. It may differ from person to person, gender and location from primary health centers. In the research, the personal barriers are classified into six factors such as ‘behavioral barriers’, ‘awareness barriers’, ‘financial barriers’, ‘cultural barriers’, ‘accessibility barriers’ and ‘social barriers’ are considered as influencers (independent variables). Performance of the healthcare unit was considered as a dependent variable. To test the influence, a hypothesis is constructed. To identify the influence of personal barriers on performance of healthcare unit, multiple regression analysis was employed

H₀₁: There is no influence of personal barriers (‘behavioral barriers’, ‘awareness barriers’, ‘financial barriers’, ‘cultural barriers’, ‘accessibility barriers’ and ‘social barriers’) on performance of healthcare units.

Table-1 exhibits the influence of personal barriers on performance of healthcare unit.

**Table 1: Influence of personal barriers on performance of healthcare unit
Model Summary**

Independent Variable	Dependent Variable	R	R Square	Adjusted R Square	F Value	p Value
Behavioral Barriers, Awareness Barriers, Financial Barriers, Cultural Barriers, Accessibility Barriers and Social Barriers	Performance of Healthcare Unit	0.753	0.568	0.564	144.252	0.001

Source: Primary Data

The model summary table shows that, the R^2 is the amount of variation in the performance of healthcare units that can be explained by the personal barriers ('behavioral barriers', 'awareness barriers', 'financial barriers', 'cultural barriers', 'accessibility barriers' and 'social barriers'). The R^2 value of 0.568 that personal barriers influence 56.8 percent of the performance of healthcare units. The F-value established that factors of personal barriers statistically predict the performance of healthcare units. The F value is 144.252 and the p-value is 0.001. These results revealed the regression model is a good fit. The beta (β) value is computed to assess the strength of the relationship between personal barriers and performance of healthcare units. The standardized co-efficient beta value is given in the following table

Table 2: Coefficients

S.No.	Personal Barriers	Unstandardized Coefficients		Standardized Coefficients	t Value	p Value
		B	SE	Beta		
	Constant	0.293	0.090		3.246	0.001
1	Behavioral Barriers	0.138	0.051	0.107	2.724	0.007
2	Awareness Barriers	0.134	0.045	0.105	2.968	0.003
3	Financial Barriers	0.060	0.054	0.056	1.117	0.264
4	Cultural Barriers	0.095	0.039	0.105	2.438	0.015
5	Accessibility Barriers	0.231	0.047	0.261	4.962	0.000
6	Social Barriers	0.239	0.045	0.259	5.270	0.000

Source: Primary Data

Based on standardized beta value and p value hypothesis were tested. The calculated β value of behavioral barriers (0.107), Awareness Barriers (0.105), Cultural Barriers (0.105), Accessibility Barriers (0.261) and Social Barriers (0.259) are validated by t-test. The result t-test value is statistically significant at one percent level. The null hypotheses are rejected and the alternative hypotheses are accepted. Hence, it is found that there is influence of personal barriers (Behavioral, Awareness, Accessibility, Cultural and social Barriers) on performance of healthcare units in Cuddalore district. However the financial barriers have no influence on performance of health care centers. Its beta value is 0.056 which is not significant at 1% level.

Table 3: Influence of personal barriers on client satisfaction- Model Summary

Independent Variable	Dependent Variable	R	R Square	Adjusted R Square	F Value	p Value
Behavioral Barriers, Awareness Barriers, Financial Barriers, Cultural Barriers, Accessibility Barriers and Social Barriers	Client Satisfaction	0.565	0.319	0.313	51.392	0.001

Source: Primary Data

The model summary table shows that, the R^2 is the amount of variation in the performance of healthcare units that can be explained by the personal barriers ('behavioral barriers', 'awareness barriers', 'financial barriers', 'cultural barriers', 'accessibility barriers' and 'social barriers'). The R^2 value of 0.319 that personal barriers influence 31.9% percent on the client satisfaction of healthcare services. The F-value established that factors of personal barriers statistically predict the performance of healthcare units. The F value is 51.392 and the p-value is 0.001. These results revealed the regression model is a good fit. T-test was applied to test the validity of the hypothesis framed and examined the influence of personal barriers on client's satisfaction.

H₀₂: There is no influence of personal barriers ('behavioral barriers', 'awareness barriers', 'financial barriers', 'cultural barriers', 'accessibility barriers' and 'social barriers') on client's satisfaction towards healthcare services.

The beta (β) value is computed to assess the strength of the relationship between personal barriers and satisfaction of healthcare services. The standardized co-efficient beta value is given in the following table

Table 4: Coefficients

S.No.	Personal Barriers	Unstandardized Coefficients		Standardized Coefficients	t Value	p Value
		B	SE	Beta		
	Constant	0.875	0.099		8.859	0.000
1	Behavioral Barriers	0.154	0.056	0.136	2.769	0.006
2	Awareness Barriers	0.483	0.049	0.433	9.785	0.000
3	Financial Barriers	0.189	0.059	0.203	3.207	0.001
4	Cultural Barriers	-0.038	0.043	-0.048	-0.894	0.372
5	Accessibility Barriers	-0.168	0.051	-0.218	-3.307	0.001
6	Social Barriers	0.000	0.050	0.000	-0.005	0.996

Source: Primary Data

Based on standardized beta value and p value hypothesis were tested. The calculated β value of behavioral barriers (0.136), Awareness Barriers (0.433) and financial Barriers (0.203), is validated by t- test .The result t-test value is statistically significant at one percent level. The null hypotheses are rejected and the alternative hypotheses are accepted. Hence, it is found that there is influence of personal barriers (Behavioral, Awareness, and financial barriers) on client satisfaction of healthcare services in Cuddalore district. But Accessibility barriers have a negative beta value (-0.218) with significant p value(0.001). It is inferred that accessibility barriers (--.208) negatively influence the client satisfaction. However the and cultural Barriers (-0.048) and social barriers (-0.005) have no influence on client's satisfaction at 1% level of significance. It is noted that cultural and social barriers show a negative effect on client's satisfaction.

Conclusion:

The present study has focused on barriers in accessing health care services and its influence on performance of health care centers and on client's satisfaction. Multiple regression coefficient and p value throw the light on influence of personal barriers (behavioral, awareness, financial, cultural, social and accessibility barriers) on performance of health care units and clients satisfaction. Multiple regression coefficient and significance P values throw a light on the relationship between influence of personal barriers (behavioral, awareness, financial, cultural, social and accessibility barriers) on performance of health care units and clients satisfaction. It is concluded that all variables have to be considered important for accessing the public health care service from primary health centers. Among the barriers, Behavioral and awareness barriers are having a strong influence on performance and client's satisfaction. Hence the government must bring awareness programmes to educate the people on availability services and make high trust on primary health care centers and on service quality. Behavioural aspects of individuals have to be changed through VHN/ASHA in rural areas. The Change will a start from the individual is very essential to bring the people in inclusive health care sector.

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