Health Services Quality and Public Satisfaction: Public Accountability of Basic Health Care System in Pakistan

Syed Ammad

Assistant Professor / Research Economist, Applied Economics Research Centre (AERC)

Khadija Malik Bari

PhD; Assistant Professor, Department of Economics and Finance, Institute of Business Administration, Karachi. kbari@iba.edu.pk

Syed Muhammad Zia

Assistant Professor, Business Administration Department, Federal Urdu University, Karachi, Pakistan. syedmzia@gmail.com

Abstract

Good quality health care promotes well-being among individuals, societies and communities and expenditure on improving public health care services is a part of long term strategies of almost all governments around the world. Public satisfaction with any product or service is a major indicator of its effectiveness. This study highlights the efficiency of basic health care units through the subjective measure of public satisfaction, and the impact of behavioral variables on public satisfaction. These explanatory variables can be classified as employment status, wealth, demographic factors, social connectivity and access to basic health care units. The results show that 45 percent of the rural households are dissatisfied; which is an indication that in rural areas these units are not working properly due to non-availability of staff and facilities. The results for educational status reveal that the likelihood of satisfaction for educated households is higher. However, the households who have television were 33% less satisfied than who do not have television, even though access to technology is linked to higher levels of satisfaction. The study results show a strong negative effect of distance from basic health care units on public satisfaction. Assessing the reasons for dissatisfaction, the survey data highlights that 38 percent of the households are dissatisfied because the health care center is too far, 33 percent mentioned insufficiency of health facilities in these centers and 12 percent stated shortage of staff as the reason for dissatisfaction. In Pakistan health spending is barely 1 percent of GDP and this glaring lack of facilities demands more investment in this sector.

Keywords: Social Accountability, Public Satisfaction, Health Care, Social Awareness
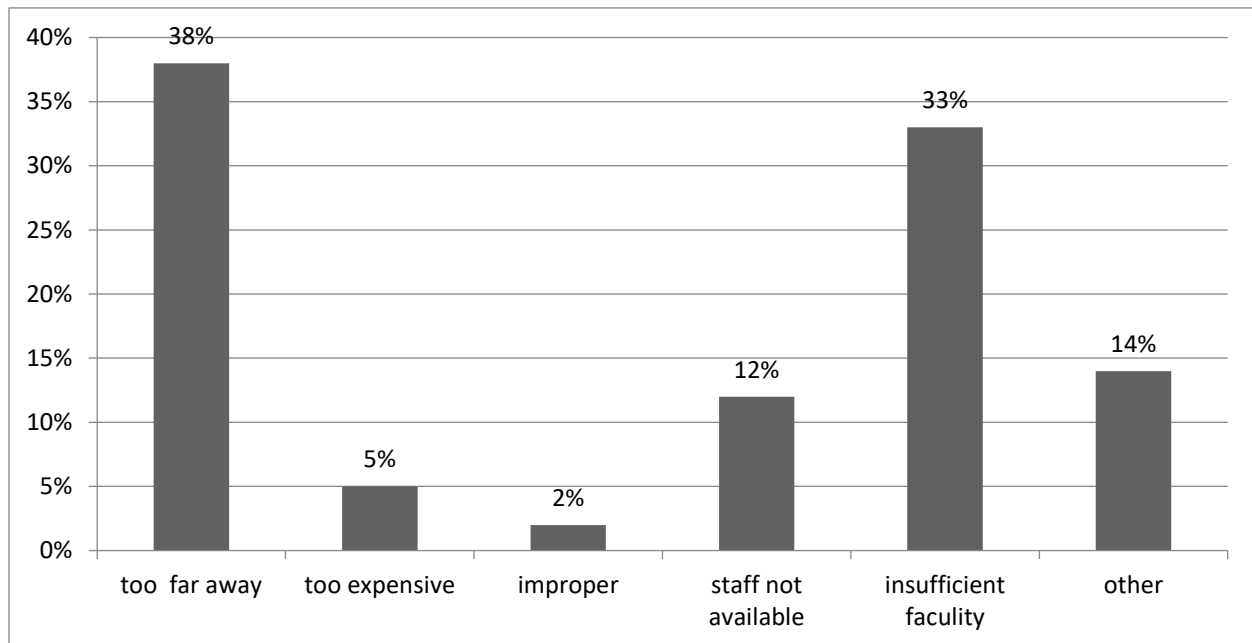
Introduction

Public health care is the most rudimentary and crucial service that any country can provide to its citizens. Good quality health care promotes well-being among individuals, societies and communities and expenditure on improving public health care services is a part of long term strategies of almost all governments around the world. The quality of public health care services can be gauged through public accountability in this field by not only measuring performance against indicators such as availability of doctors, paramedical staff, numbers of beds, immunization and diarrhea but also through public satisfaction that can enable researchers and practitioners to gauge the credibility of macro level socio-economic indicators and other governance issues.

Public satisfaction with any product or service is a major indicator of its effectiveness as Gaventa & McGee (2010) in their study mentioned Social accountability relates to "community-based initiatives" proposed to develop better transparency and access to information which empower citizens to hold the state and its mediator accountable. Malena et al. (2004) argued that social accountability in the perspective of "good governance", strengthens the citizens' rights and makes them capable to hold authorities and public service providers accountable. Some other authors mention it as "demand-side effort of good governance", which explains how communities can demand for improved services in sectors (like health and education) from governments, service providers and state actors (Agarwal et al., 2009). However, the effectiveness of social accountability depends on; how public services are initiated and implemented and this mechanism helps to improve competence and performance of governments as well as politicians (Bukenya et al., 2012). Social accountability not only enables citizens to raise their voice for basic rights but also holds the government accountable.

The gratification and contentment on the part of the customer is the ultimate objective in the provision of all kinds of services. However public satisfaction is seemingly difficult to achieve particularly in the case of public health care (Ma and Sood, 2008). In developing countries like Pakistan this is a deeper rooted phenomenon. Even though health care is a basic human right and citizens are entitled to it irrespective of age, gender and social status but the provision of adequate and competent health care services has been a constant challenge for the successively weak government authorities. The provision of health care is a challenging task worldwide particularly for developing countries like Pakistan. Access to health care is rarely equitable and is influenced by factors such as financial viability and the attempts by public health workers to extract profits from customers (Chan & Twinn, 2003). The government weaknesses lie in the poor standard of services and the inability of the government to respond to customer demands. This creates many barriers in the provision of public health services which ultimately compounds to create public dissatisfaction.

Public satisfaction with health services is a phenomenon based on expectations and perceptions. It is influenced by multiple factors the absence or presence of any of which can drastically alter public satisfaction. In Pakistan, survey data shows that 57 percent of the households are dissatisfied with basic public health services and the reason for this dissatisfaction varies among households. Figure 1 shows that 38 percent of the households are dissatisfied because the health care center is too far, 33 percent mentioned insufficiency of health facilities in these centers and 12 percent stated shortage of staff as the reason for dissatisfaction.

Figure 1

Malik Bari & Syed
Muhammad Zia

Reasons of Dissatisfaction

Furthermore, public satisfaction with health services cannot remain constant and changes over time with the addition or removal of facilities and services. A few researches have attempted to measure public satisfaction but the results have not been conclusive (Blendon et al., 2003; Figueras et al., 2004). Satisfaction can be defined as the customer's opinion and response or even judgment regarding the product or the service. Different researches have investigated satisfaction with health services in different ways. Research by Lee et al. (1998) and Kim and Park, (2002) used measures such as quality of medical care, access to hospitals and hospital reliability as factors affecting satisfaction.

Research by Ugurluoglu et al (2019) investigating individual's satisfaction with health care services in Turkey found that ease of securing appointment, costs of examinations and analyses, inadequate number of medical professionals, medicine prices, queuing, cleanliness and attitudes of caregivers had an impact on public satisfaction. Securing an appointment with the doctor was identified as one of the most important factors affecting satisfaction as that is the first point of contact of between the individual and the health system (Khan, Hussainy, Iqbal, 2017). The cost of examinations and analyses was also found to be very important as it influences the individual's ability to access the health system. Another research conducted by Ali et al (2015) in the context of Qatar identified that gender, nationality, income and age were significantly correlated with satisfaction. It was found that people who were non-nationals and females in particular had greater levels of satisfaction with the health system. Similarly, Al Qadire and Alkhalaileh (2017) in their study of public satisfaction determinant sin Jordan found that more educated people and those who visited health facilities regularly reported lower satisfaction with health services.

Researches by Oliver (1997) and Yoon et al. (2004) put forward the expectancy disconfirmation theory which posits that customers already have predefined expectations and perceptions of the service and the judgment that is formulated depends to a large extent on whether the actual services can satisfy those expectations and deliver accordingly (Van, 2004). Expectation varies from one individual to another and depends on the information that is available to the citizens Khan et al. (2017). At times people with greater information are better informed of availability of the services and therefore are able to enjoy better services leading to greater fulfillment of expectations.

Expectancy disconfirmation theory is not the only way of determining public satisfaction. In fact, researchers argue that Public satisfaction can be measured through numerous factors. These factors include aspects such as demographic characteristics of the subject, socio economic characteristics and health status of the citizens. Furthermore, the cost of the services is also an important factor in determining public satisfaction. Public satisfaction has also been found to depend on whether or not the people of a country trust their government. Research conducted in the three Balkan countries of Macedonia, Bulgaria and Serbia on predictors of patient satisfaction found that trust, satisfaction with the attention of doctors and satisfaction with the results of the treatment were top three indicators of patient satisfaction, Iqbal H et al (2021). The problems that the patient's experience such as long waiting times and other administrative issues work to create dissatisfaction among the public however it has been pointed out that the dissatisfaction is not with the health care services rather with the organization of the health system and its delivery (Lazarevik and Kasapinov 2015).

Research by Lee et al. (2009) explored the determinants of public health satisfaction with National health insurance in South Korea. The results affirm that the type of residence, cost benefit ratio, health status of the respondents are some of the determinants other than demographic and socio economic indicators that influence satisfaction with Korean national health insurance. Park et al. (2016) also investigated the public satisfaction with the health care system performance in South Korea. The factors explored included access to care, cost of care and quality of care. Of these quality of care was found to be the most important for satisfaction. Another research by Jiang et al. (2009) investigated customer satisfaction with public health services in China. They identified corruption within the ranks as having significant negative impact on public satisfaction. On the other hand, the research reveals that greater affordability and better qualified doctors increase the chance that citizens will be more satisfied with health services.

A number of researches use customer satisfaction as a tool to measure the efficiency of health services (Yu, 2006; Nascimento and Cousineau, 2005). A number of different approaches are used to assess customer satisfaction. These include the Davis Consumer Emergency Care Satisfaction Scale which investigates the effectiveness of care in the emergency department (Hackman & Wageman 2007), the UKU Consumer Satisfaction Rating Scale (Ivarsson and Malm, 2007). Other than this the 5 point Likert scale has also been used as well as recording and evaluation of customer experiences in a qualitative format. However as expected results differ depending on the tools and approaches used and in order to ensure comparability researches that make use of similar methods must be picked to avoid biases (Samson 2001).

Many factors have been identified that contribute to customer satisfaction of health care services. These include accessibility of doctors, the availability of specialists, the behavior and attitude of the doctors and health care staff, the structure of the hospital or clinic facilities, the after care and

the timings during which services are available. The socio economic characteristics and demographic characteristics of the customers influence the way they relate to and perceive these factors. Age, social status, family size all affect the preset notions and expectations that they have from health care services. Rosenheck et al. (1997) identified that older and less educated people are more easily satisfied as compared to the younger and more educated lot.

In case of Ghana, a study by Nketiah-Amponsah and Hiemenz (2009) found that customers are seen to be more satisfied with the quality and services of private health care providers. The satisfaction rate for private health care is 12 percent higher for private services as opposed to public health care. If these results are generalized across developing and emerging economies, it implies that public health care services need to be drastically improved and brought at least in line with the standard of private health care services. Another research by Adekanye et al. (2013) found that patient satisfaction at a medical center in Nigeria was very high. This was attributed to improvement in waiting times, satisfactory hospital environment and ambience. Assessing public satisfaction with health care services is crucial because it provides feedback for health care professionals and paves ways for improvement and advancement in this critical industry. There are other ways in which quality of health care can be assessed. These include waiting times, patient throughput and other health care statistics but public satisfaction has been seen to be the most important indicator of quality and determines the extent to which the customers are actually satisfied and also helps in determining the actual utilization of the healthcare services.

Munro and Duckett (2016) test theories about the satisfaction of health care systems in China. According to this research satisfaction is strongly associated with the extent of insurance coverage and the personal ability of the customer to meet health care costs. These factors were identified as carrying more weight as opposed to social and demographic characteristics. Using the results of this research public satisfaction can be improved by improving insurance coverage. Similarly research by Onyeneho et al. (2016) in South East Nigeria identifies that improving satisfaction with public health services requires creating a friendlier atmosphere in the health care sector by training health workers to be more approachable and responsive. Also targeted attempts at improving the affordability of the medication can be major determinants that can work to improve public satisfaction with health care services. Perception and expectation from the health care service is an important determinant of satisfaction in fact more important than availability because the customer may not be satisfied even if the service is widely available (Roberts et al., 2004). Perception and affordability are more likely to determine utilization and satisfaction. For this purpose, the behavior of the medical staff should be culturally compliant and in line with what the people associate to be ethical and responsive behavior according to the cultural norms of the society (Singh et al., 1999).

This research has important implication for practitioners and policy makers. Raising the standard of health services is an important government objective and the results of this research facilitates in understanding the deficiencies in the health system. The study results highlight the performance of the basic health care units(BHU) with critical reasoning of dissatisfaction. Furthermore, it highlights the socio-economic factors which effect public perception. This will help in the development of better policies and procedures at both the macro and the micro level. Although small scale gradual improvements are taking place in the health sector, a research like this can provide direction to those changes and improvements. Reforms in the health care sector can take these results into account and the new systems that are implemented should take into account public satisfaction with the services both in terms of their organization, delivery and

Syed Ammad, Khadija Malik Bari & Syed Muhammad Zia

quality. This research and others like this can assist in the identification of deficient areas that can be followed by strong intervention and allocation of resources for the provision of these facilities.

The remainder of the study is organized as follows: the second part discusses the methodology, the third part presents the results and discussion, the fourth part elucidates the sensitivity analysis while conclusion and recommendations are drawn in the fifth section.

Methodology

In this study representative data for the entire country was taken from the Pakistan Social and Living Standard (PSLM) survey 2014-15. This data set contains numbers for 78635 households across Pakistan; however, after necessary screening those households that had no idea about basic health care services were removed. The selected sample that is utilized for the analysis has 55347 households. The dependent variable is satisfaction with basic health units' (B.H.U) services, which is the response of the households' regarding the surveyed question "whether they are satisfied with the basic health services or not". This response is recorded in Yes/No in a binary form 0 for unsatisfied and 1 for satisfied. This households' satisfaction depends on several factors, however for this analysis we divided these factors into 5 dimensions i.e. i.e. demographic factors, employment status, wealth, social connectivity and access, where all this information is related to household heads.

The demographic dimension contains basic information about the household heads', such as gender; 1 for male, age, region; 1 for rural, family size, education and an interactive term of region*education is also incorporated; which distinguishes the behavior of educated rural household from urban households. The next dimension employment status is based on the variables unemployed which are 1 for unemployed and 0 otherwise. Another variable; paid employment for measuring employment types is also incorporated; this variable is also a dummy variable which is 1 if the household head is a paid employee and 0 otherwise. Furthermore, two more interactive variables the interaction of unemployment with education (Unemployed*Education) and paid employment and education (Paid_employed*Education) are also incorporated in this dimension. In order to gauge the wealth effect; households' reported income is incorporated as a proxy of wealth. Social connectivity is measured through availability of television, computer/tablet/laptops and mobile phone. The last dimension, access to healthcare services, is examined through the distance between houses and basic health service providing units by measuring the commuting time.

In order to separate the impact of different socio-economic dimensions, and for the sake of robustness, we formulated 8different models using different combination of different variables from each dimension. The estimated results of these independent models may be sensitive in presence of other variables thereby a sensitivity analysis is performed using a new set of 6 models; where each successive model is a cumulative model in which new variables, based on new dimension, are incorporated. Model1 comprises all demographic variables; the next models 2 & 3 are based on the employment dimension. In model 4 a new variable of income is incorporated. While in model 5 we added the variable which measure the access to technology and social connectivity. Lastly in model6 a new variable distance from BHU is added, for access to basic health care services.

Econometrical Model

The explained variable for this study, public satisfaction, is a dichotomous variable therefore we employed the logistic regression model (Logit) model, where the shape of the outcome variable is a nonlinear s-shaped curve (Cathy, 2006).

The modeling for this unobserved household satisfaction takes the following form

$$Z_i^* = x_i'\beta + u_i \quad \text{-------------------- (1)}$$

This formulation defines that Z_i^* is linearly related to x_i, and x_i' is the vector of explanatory variables, β is the vector of coefficients and u_i is the error term.

The observed outcome variable is determined by whether Z_i^* exceeds the threshold value:

$$Z_i = \begin{cases} 1 \ if \ Z_i^* > 0 \\ 0 \ if \ Z_i^* < 0 \end{cases} \quad \text{-------------------(2)}$$

Using equation 1 and 2 following probability distribution is formulated:

$$P(Z_i = 1 | x_i', \beta) = P(Z_i^* > 0) = P(x_i'\beta + u_i > 0) = 1 - F_u(-x_i'\beta) \quad \text{-------------- (3)}$$

The likelihood function for estimating the equation 3 can be formulated as:

$$L(\beta) = \sum_{i=0}^{n} y_i \log(1 - F(-x_i'\beta)) + (1 - y_i) \log(F(-x_i'\beta)) \quad \text{-------------------- (4)}$$

The estimated coefficients of likelihood function can be transformed into the marginal effect as mentioned in equation 5.

$$\frac{\partial E(Z_i/x_i,\beta)}{\partial x_{ij}} = f(-x_i'\beta)\beta_j \quad \text{-------------------- (5)}$$

These likelihood coefficients may also be interpreted in terms of the odds ratio, probability of success divided by probability of failure, which make interpretation more logical.

Results and Discussion

The estimated logistic odd ratios are mentioned in the Table1 and Table 2; where the explanatory variables are divided into 5 different set of socio-economic factors i.e. demographic characteristics, employment status, income level, social connectivity and awareness and access. These odd ratios may have the value equal to 1; which indicates that likelihood of occurrence(success) of any event is equal to non-occurrence (failure) of that event, if it is less than 1; it indicates a negative impact or low chances of occurrence of any event, if it is greater than 1; it indicates a positive impact or high chances of occurrence of any event.

The study results reveal in able-1; column 2, that the demographic variable region shows that likelihood of satisfaction from basic health units (BHU) is 25percent lower for rural households. The male household heads are less likely to be satisfied as compare to female household heads. The coefficient of age and family size is significant; however, their impact is uncertain since

both are equal to 1. In order to check the impact of education on rural households, an interactive term rural*education has been used; which is highly significant indicating that rural educated households are 3percent more satisfied than less educated households. The employment status also effects the satisfaction of households; as it provides more opportunities and domestic peace which increases satisfaction. The results show that the chances of satisfaction of unemployed households are 30percent less than employed households. In order to check the impact of education on unemployed households' satisfaction an interactive term is also incorporated into the model, however this term is insignificant. In the next model household heads are divided into two categories; paid employment and others which comprises unemployed, self-employed and owner of a business. The results of this variable show that the chances of satisfaction of households in paid employment are 8percent higher than others. However, these results are not consistent as in next model we added an interaction of paid employment and education, this new variable reverted the behavior of the paid employment variable as it becomes negative, the odd ratio is less than 1, while the interactive term shows that education may increase the satisfaction of paid employees and likelihood of satisfaction of educated paid employees is 15percent higher than less educated paid employees. The income model shows that the high income will increase the likelihood of satisfaction by 9 percent.

Considering the importance of social connectivity and awareness in perception building three variables i.e. does the household have television, mobile phone and computer/laptop/tablet are incorporated as a proxy for social networking and use of technology. The study results show that the likelihood of satisfaction for households with television 33percent lower, similarly the role of cell phone is negative, as it reduces the chances of satisfaction. However, the coefficient of technology or having a pc is insignificant. Finally, the last model based on access to BHU units, shows that higher distance reduces the chances of satisfaction.

Sensitivity Analysis

The results of the sensitivity analysis are presented in Table 2; which also endorses the results of the first fold analysis. Here from model-1 to model-5 all the demographic variables endorse all the relationships of the primary analysis. However, in the consolidated model-6 only the family size and the interactive term of region and education is significant with same positive magnitude, indicating that the likelihood of satisfaction of a rural household with higher education level will be 7percent higher, while the family size odd ratios is approximately equal to 1 indicating equal chances of being satisfied or dissatisfied. The employment status models-2 & 3 show that just paid employment variable is significant in all the models except the final cumulative model-6, with the same positive chance of being satisfied. Income variable is insignificant in two models while it's significant in one model, even the sign is negative in these cases, which is against the primary analysis. The results of social connectivity and awareness model-5 are similar to the primary analysis results as the availability of television variable (T.V) has same significant negative effect. The effect of having computer/laptop/tablets is also positive in the combined models and interestingly it is significant, the last variable of this dimension i.e. cell phone/Phone has different signs; it is significant in one model and insignificant in the other model, which shows inconsistent behavior of this variable. The distance variable has the same negative effect as mentioned in model-6. This sensitivity analysis endorses all the relationship except the behavior of income and access to mobile phone.

Table 1:

Role of Socio-economics factors in Public Satisfaction regarding Services of Basic Health Care Units

Impact of Demographic factors on households Satisfaction		Impact of Employment Status on households Satisfaction					Impact of Income on households Satisfaction		Impact of Social connection and Technology on households Satisfaction		Impact of Access of Health services on households Satisfaction	
Regressor	Odds Ratio	Regressor	Odds Ratio	Odds Ratio	Odds Ratio	Odds Ratio	Regressor	Odds Ratio	Regressor	Odds Ratio	Regressor	Odds Ratio
Region	0.743 [0.000]	**Unemployed**	0.704 [0.012]	0.550 [0.045]			**Income**	1.092 [0.000]	**TV**	0.671 [0.000]	**Distance**	0.687 [0.000]
Gender	0.896 [0.001]	**Unemployed*Education**		1.141 [0.346]					**PC**	1.043 [0.328]		
Age	1.003 [0.000]	**Paid_employed**			1.083 [0.000]	0.850 [0.000]			**Mobile/Phone**	0.959 [0.097]		
Education	1.001 [0.903]	**Paid_employed *Education**				1.154 [0.000]						
Rural*Education	1.032 [0.000]											
Family Size	1.008 [0.004]											
_cons	0.833 [0.009]		0.754 [0.000]	0.754 [0.000]	0.732 [0.000]	0.732 [0.000]		0.675 [0.000]		1.373 [0.000]		1.697 [0.000]

[] is the p-values based on robust standard error.

Table 2:
Role of Socio-economics factors in Public Satisfaction regarding Services of Basic Health Care Units

Household Health Service Satisfaction(yes=1)	Demographic	Employment status		Income	Social Connectivity/Awareness	Access of Health Services
	Model1	Model2	Model3	Model4	Model5	Model6
Region	0.742 [0.000]	0.742 [0.000]	0.746 [0.000]	0.747 [0.000]	0.800 [0.005]	1.058 [0.478]
Gender	0.896 [0.001]	0.896 [0.001]	0.880 [0.000]	0.879 [0.000]	0.933 [0.041]	0.972 [0.407]
Age	1.003 [0.000]	1.003 [0.000]	1.003 [0.000]	1.003 [0.000]	1.001 [0.045]	1.000 [0.782]
Education	1.001 [0.875]	1.001 [0.876]	1.000 [0.992]	1.000 [0.954]	1.003 [0.931]	1.018 [0.609]
Rural*Education	1.032 [0.000]	1.032 [0.000]	1.033 [0.000]	1.032 [0.000]	1.115 [0.003]	1.073 [0.053]
Family Size	1.008 [0.004]	1.008 [0.004]	1.009 [0.002]	1.009 [0.002]	1.008 [0.005]	1.014 [0.000]
Unemployed	0.660 [0.003]	0.650 [0.153]				
Unemployed*Education		1.007 [0.959]				
Paid_employed			1.068 [0.072]	1.065 [0.086]	1.074 [0.000]	1.029 [0.136]
Paid_employed*Education			1.001 [0.97]	1.002 [0.923]		
Income				0.989 [0.581]	0.952 [0.018]	0.969 [0.134]
TV					0.693 [0.000]	0.835 [0.000]
PC					1.104 [0.028]	1.201 [0.000]
Phone					0.984 [0.525]	1.068 [0.012]
Distance of BHU unit						0.720 [0.000]
_cons	0.834 [0.01]	0.834 [0.01]	0.806 [0.002]	0.814 [0.005]	1.172 [0.241]	1.124 [0.391]

[] is the p-values based on robust standard error.

Conclusion and Recommendations

Provision of public health care is the most rudimentary and crucial service that any country can provide to its citizens, the better the public facilities the higher the public satisfaction. The quality of public health care services can be gauged through public accountability in this field by not only measuring performance against indicators such as availability of doctors, paramedical staff, numbers of beds, immunization and diarrhea but also through public satisfaction that can enable researchers and practitioners to gauge the credibility of macro level socio-economic indicators and other governance issues. This study highlights the efficiency of basic health care units through the subjective measure of public satisfaction, and the impact of behavioral variables on satisfaction which are divided into five dimension i.e. demographic factors, employment status, wealth, social connectivity and access.

The analysis of the behavioral determinant of public satisfaction helps to identify other factors which are important in public image building and accountability. The empirical findings show that 45 percent of the rural households are dissatisfied; which is an indication that in rural areas these units are not working properly due to non-availability of staff and facilities. This is an important issue in Pakistan and also one of the reasons why people always prefer to live in big cities and avoid rural areas except for very low income classes who cannot afford to migrate, or have some land that binds them to stay there. In order to resolve this, issue the government should focus on the provision of basic facilities in rural areas, and also commit public sectors employees to serve in their own district.

The results of educational status are considerably important, as in all the cases the likelihood of satisfaction for educated households is higher, whether they are unemployed or living in rural areas. These findings strongly recommend that widespread education is required to make people healthy and more satisfied with public health services, as the common psychic problem of less/un-educated people is the reliance on self-medication and avoidance of hospitals. When they do consult doctors it is too late and the disease has often spread to a great extent resulting in either disability or death, which obviously make them dissatisfied.

Social connectivity and awareness is also a challenge, as it increases accountability. The study results show that the likelihood of satisfaction for those households, who have television, is 33percent lower. In this situation where there is growing network of private television channels, government hospitals must be careful. The usage of technology i.e. access to computer, lap top and tablets play a positive role in increasing public satisfaction as it provides the opportunity of online consultation to people. However, in Pakistan only educated people have these facilities and education is therefore a vital factor associated with public satisfaction regarding basic health care services. The study results show a strong negative effect of distance from basic health care units on public satisfaction. Assessing the reasons for dissatisfaction, the survey data highlights that 38 percent of the households are dissatisfied because the health care center is too far, 33 percent mentioned insufficiency of health facilities in these centers and 12 percent stated shortage of staff as the reason for dissatisfaction. In Pakistan health spending is barely 1 percent of GDP and this glaring lack of facilities demands more investment in this sector.

References

Adekanye, A. O., Adefemi, S. A., Okuku, A. G., Onawola, K. A., Adeleke, I. T., & James, J. A. (2013). Patients' satisfaction with the healthcare services at a north central Nigerian tertiary hospital. *Niger J Med*, *22*(3), 218-24.

Agarwal, S, Heltberg, R, & Diachok, M (2009), Scaling-Up Social Accountability in World Bank Operations. World Bank, Washington, D.C. Viewed

Ali, F. M. H., Nikoloski, Z., & Reka, H. (2015). Satisfaction and responsiveness with health-care services in Qatar—evidence from a survey. *Health Policy*, *119*(11), 1499-1505.

Al Qadire, M., & Alkhalaileh, M. (2017). Determinants of public satisfaction and perception of national healthcare services availability in Jordan: A patient survey. *Journal of Advances in Medicine and Medical Research*, 1-10.

Blendon RJ, Schoen C, DesRoches C, Osborn R, Zapert K. (2003). Common concerns amid diverse systems: health care experiences in five countries. Health Affairs (Millwood)22(3): 106–121.

Bukenya, B, Hickey, S, & King, S (2012), Understanding the Role of Context in Shaping Social Accountability Interventions: Towards an Evidence-Based Approach: Institute for Development Policy and Management, University of Manchester.

Cathy Lawson, a. D. (2006). Logistic Regression Analysis of Customer Satisfaction Data. Quality and Reliability Engineering International, 971–984.

Chan S. & Twinn S. (2003) Satisfaction with child health services in the non-government sector of Hong Kong: consumer evaluation. Nursing and Health Sciences 5, 165 –173.

Figueras J, Saltman RB, Busse R, Dubois HFW. (2004). Patterns and performance in social health insurance systems. InSocial Health Insurance Systems in Western Europe, Salt man RB, Busse R, Figueras J (eds). Open University Press: Berkshire.

Footman, K., Roberts, B., Mills, A., Richardson, E., and McKe, M. (2013). Public satisfaction as a measure of health system performance: a study of nine countries in the former Soviet Union. Health Policy 112, 62–69. doi: 10.1016/j.healthpol.2013.03.004

Gaventa, J, & McGee, R. (2010), 'The Impact of Accountability and Transparency Initiatives' Development Policy Review, Vol 31, Issue Supplement 1, pp. s3-s28.

Hackman, J. R., & Wageman, R. (2007). Asking the right questions about leadership. American Psychologist, 62, 43-47.

Iqbal, H., Riaz, K., Khan K & Hussain, S.K (2021). Impact of workplace spirituality on employee attitudes and engagements. Pakistan Business Review 23(1),92-114

Ivarsson, B., & Malm, U. (2007). Self-reported consumer satisfaction in mental health services: validation of a self-rating version of the UKU-Consumer Satisfaction Rating

Scale. Nordic journal of psychiatry, 61(3), 194–200. https://doi.org/10.1080/08039480701352488

Jiang, L., Gan, C., Kao, B., Zhang, Y., Zhang, H., & Cai, L. (2009). Consumer satisfaction with public health care in China. Journal of Social Sciences, 5(3), 223-235,

Khan, k., Hussainy, S.K., & Iqbal, Y. (2017). Cause effect, and remdies in conflict management the Sout East Asian Journal of Management

Khan., Hussainy, S.K., Khan, A. (2017). The applications, advantages and challenges in the implementation of HRIS in Pakistan perspective, VINE Journal of Information and Knowledge Management Systems.

Kim DW, Park CM. (2002). An analysis of determinants of quality of public health service and satisfaction of customer. Local Government Studies 14(4): 1–20 (Korean).

Lazarevik, V., & Kasapinov, B. (2015). Predictors of patients' satisfaction with health care services in three Balkan countries (Macedonia, Bulgaria and Serbia): a cross country survey. *Acta Informatica Medica*, *23*(1), 53.

Lee, S-y, Suh NK, Song J-K. (2009). Determinants of public satisfaction with the National Health Insurance in South Korea. International Journal of Health Planning and Management 2009; 24:131–46.

Lee SH, Kim JI, Cho WH, Lee JJ. (1998). A study on the patient satisfaction survey at the general hospital in Korea. Journal of Korean Society of Quality Assurance in Health Care 5(1): 7–18 (in Korean).

Ma S, Sood N. (2008), A Comparison of the Health Systems in China and India. Rand Corporation: CA, USA.

Malena, C, Forster, R, & Singh, J (2004), Social Accountability: An Introduction to the Concept and Emerging Practive', Social Development Papers, Participation and Civic Engagement. Paper No. 76. The World Bank, Washington DC.

Munro, N., & Duckett, J. (2016). Explaining public satisfaction with health-care systems: Findings from a nationwide survey in China. Health Expectations, 19(3), 654–666. doi.org/10.1111/hex.12429

Nascimento, L.M., Cousineau, M.R. An Evaluation of Independent Consumer Assistance Centers on Problem Resolution and User Satisfaction: the Consumer Perspective (2005). Journal of Community Health 30, 89–106. doi.org/10.1007/s10900-004-1094-8

Nketiah-Amponsah Edward and Ulrich Hiemenz.(2009), Determinants of consumer satisfaction of health care in ghana: does choice of health care provider matter? Global Journal of Health Science, 1(2):p50.

Oliver R. (1997). Satisfaction: A Behavioral Perspective on the Consumer. Irwin McGraw-Hill: New York.

Onyeneho, N. G., Amazigo, U. V., Njepuome, N. A., Nwaorgu, O. C., & Okeibunor, J. C. (2016). Perception and utilization of public health services in Southeast Nigeria: Implication for health care in communities with different degrees of urbanization. International Journal for Equity in Health, 15(1). https://doi.org/10.1186/s12939-016-0294-z

Park, K., Park, J., Kwon, Y. D., Kang, Y., & Noh, J. W. (2016). Public satisfaction with the healthcare system performance in South Korea: Universal healthcare system. *Health Policy*, *120*(6), 621-629.

Roberts, M. J., W. Hsiao, P. Berman, and M. R. Reich, (2004). Getting Health Reform Right: A Guide to Improving Performance and Equity, New York: Oxford University Press.

Rosenheck, R., Wilson, N. J., & Meterko, M. (1997). Influence of patient and hospital factors on consumer satisfaction with inpatient mental health treatment. Psychiatric Services, 48(12), 1553–1561

Samson, M. R. (2001). Healing Cambodia's Health System. ADB review-Vol. 33, no. 2, 24-25.

Singh, H., Haqq, E. D., & Mustapha, N. (1999). Patients' perception and satisfaction with health care professionals at primary care facilities in Trinidad and Tobago. Bulletin of the World Health Organization, 77(4), 356.

Uğurluoğlu, Ö., Ürek, D., & Demir, İ. B. (2019). Evaluation of individuals' satisfaction with health care services in Turkey. *Health Policy and Technology*, *8*(1), 24-29.

Van Ryzin GC. (2004). Expectations, performance, and citizen satisfaction with urban services. Journal of Policy Analysis and Management 23(3): 433–448.

Yoon SJ, Kong BC, Kim KS. (2004). An analysis of main policy: Korea Institute of Public Administration.

Yu, J., Pressoir, G., Briggs, W. H., Vroh Bi, I., Yamasaki, M., Doebley, J. F., McMullen, M. D., Gaut, B. S., Nielsen, D. M., Holland, J. B., Kresovich, S., & Buckler, E. S. (2006). A unified mixed-model method for association mapping that accounts for multiple levels of relatedness. Nature genetics, 38(2), 203–208. https://doi.org/10.1038/ng1702