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**ASSESSMENT OF WILLING TO PAY FOR CONSULTANCY FOR DIAGNOSTIC  
SERVICES IN SKBZ AL-NAHYAN MEDICAL COMPLEX, QUETTA, PAKISTAN**

**NAZIR AHMED<sup>\*1</sup> AND NOMAN UL HAQ<sup>2</sup>**

**1:** M. Phil. candidate, Faculty of Pharmacy and Health Sciences, University of Baluchistan,  
Quetta, Pakistan

**2:** Faculty of Pharmacy and Health Sciences, University of Baluchistan, Quetta, Pakistan

**\*Corresponding Author: Nazir Ahmed: MPhil candidate, Faculty of Pharmacy and Health  
Sciences, University of Baluchistan, Quetta, Pakistan, E Mail: [nazir.ahmed1101@gmail.com](mailto:nazir.ahmed1101@gmail.com)**

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**ABSTRACT**

**Objective** The aim of the study was to the WTP for diagnostic services to in and out patient of the hospital.

**Method:** A cross sectional descriptive questioner based study was conducted. Patients attending SKBZ Al-Nahyan Medical Complex for regular medical check-up were targeted for data collection. A total of 746 patients were contacted. Data was described descriptively by SPSS v 20.0.

**Results:** For single diagnostic test, 339 (44.4%) of the respondents were willing to pay Rs.50 (US \$ 0.5) followed by 232 (30.4%) to pay Rs.100 (US \$ 1.0). Whereas the willingness to pay for consultancy, 351 (45.9%) of the respondents were willing to pay Rs.100 (Us \$ 1.0) followed by 231 (30.2%) willing to pay Rs.200 (US \$ 2.0). Willingness to pay for consultancy for more than one diagnostic tests was Rs.300 (Us \$3.0) while willingness to pay for consultancy for more than one diagnostic test was Rs.500 (US \$ 5.0). Willingness to pay for complete diagnostic was Rs.1000 (Us \$ 10.0). The willingness to pay for maximum amount for complete diagnostic test was Rs.1000 (US \$ 10.0).

**Conclusion:** The study indicates that the respondents have willingness to pay for maximum amount of money for diagnostic tests and it was significantly higher than current token amount of received from the in/out patients.

**Keywords:** SKBZ Al-Nahyan Medical Complex, Quetta, Pakistan

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**INTRODUCTION**

The major issues of the most of the third world is how best to deliver health care to the majority, most of whom are poor, rural and inaccessible. However for the conveyance of healthcare services defined policies can have significant impact [1-6].

Willingness to pay (WTP) on Contingent valuation is an indication of the monetary value of commodity or services, which as a concept has been used widely for policy pronouncements in the field of health.

Willingness to pay for any goods or services are significant premise, which is important for analysis from the theoretical as well as policy prospective. According to the basic tenant of consumer behaviour, subject desire for the consumption of a commodity become an objective want, only if the consumer exhibits sufficient willingness to pay for the commodity as well as possesses sufficient ability to pay for it. Ascertaining willingness to pay in the population is also important for judging the potential for introduction of user charges and other such revenue rising for cost sharing mechanisms for these services [7].

In many parts of the world, plans to restructure sectors such as health are being implemented within a macroeconomic environment, which emphasizes the limitations of government and the financial responsibilities of the individual citizen.

Any change in the allocative principles of the health sector has both costs and benefits. Cost-sharing and a more market-type system may contribute to better care by encouraging quality-based competition among providers [5]. However, financial contribution systems have diverse effects: they generate revenue from patients who judge the service to be worthwhile at the going price; and they divert patients who cannot pay, or who judge the services less desirable than some alternative, to other sources of care.

When considering the concept of financial contribution systems a distinction between net and gross yield needs to be made, with consideration to additional costs incurred, for example that of collecting the fees. This also relates to what cost-sharing is used for and how the schedules should be set (flat fees, differentiated fees, fees per episode or per item of service, prepayment versus payment at time of use, and so on).

Pakistan is one of numerous states, which collectively tolerates 95% of the load of transferable diseases. TB, Malaria, Hepatitis and Polio are amongst the top lethal disease for Pakistani youth and adults. Pakistan is graded 5th out of 22 on the list of high-burden TB countries [8]. Due to scarce nature of resources, majority of expenses are shaped as out of pocket.

Therefore, the objective of this study is assessment of willing to pay for Hospital and consultancy for diagnostic services in SKBZ Al-Nayyan Medical Complex, Quetta.

## MATERIAL AND METHOD

### Study design and settings

A cross sectional descriptive questioner based study. This Research study has been conducted at SKBZ Al-Nahyan Medical Complex Hospital which is a tertiary care 225 bedded hospital situated at Mastung Road Quetta and its avenue of 11 districts of Baluchistan Province, it has various departments/Units i.e. General Surgery, Gastroenterology, Nephrology/Dialysis Unit, Gynaecology/Obstetrics Unit, Paediatric and ENT unit. It is a gift from H.H Sheikh Khalifa Bin Zayyed Al-Nayyan to the people of Baluchistan, Pakistan. It has the most sophisticated Bio-Medical equipment's in the entire Province.

### Sample technique and time frame

In sampling technique contingent Valuation Method was adopted for willingness to pay. Sampling has been done on in and out patients of Shaikh Khalifa Bin Zayyed Medical Complex Hospital only and as per the convenience only. The study was evolved from September 2015 to February 2016 a six month period study.

### Statistical analysis

SPSS v 20.0 was used for data analysis and data was described descriptively to attain the objectives of the research.

## RESULTS

The willingness to pay for consultancy for single diagnostic test is shown in Table 1. Most respondents (n=399, 44.4%) were willing to pay Rs.50 (US \$ 0.5) followed by 232 (30.4%) were willing to pay Rs.100 (US \$ 1.0) while 48 (6.3%) were not willing to pay for single diagnostic test.

Whereas the willingness to pay for consultancy of single diagnostic test, 351 (45.9%) were willing to pay Rs.100 (US \$ 1.0) while 231 (30.2%) were willing to pay Rs. 200 (US \$ 2.0). one hundred and twenty four (16.2%) were willing to pay Rs500. (US \$ 5.) and 58 (7.6%) were not willing to pay for consultancy.

In terms of willingness to pay for consultancy for than one diagnostic tests, (n= 335, 43.8%) were willing to pay Rs 300 (Us \$ 3.0) followed by 186 (24.3%) to pay Rs.700 (US \$ 7.0). One hundred and seventy (22.3%) were willing to pay Rs. 1000 (US \$ 10.0) and 73 (9.6%) were not willing to pay for such services.

For willingness to pay for consultancy of more than one diagnostic test, 393 (51.4%) of the respondents were willing to pay Rs.500 (US \$ 5.0) followed by 178 (23.3%)

were willing to pay Rs.1000 (US \$ 10.0). Eight two (107%) were willing to pay Rs. 1500 (US \$ 15.0) and 111 (14.5%) were not willing to answer the question.

Whereas the willingness to pay for complete diagnostic test, 372 (48.7%) were willing to pay Rs.1000 (US \$ 10.0) followed by (n=244, 31.9%) were willing to pay Rs.1200 (US \$ 12.0). Thirty seven (4.8%) were willing to pay Rs 1500 (US\$

15.0) while 111 (14.5%) were not willing to pay for such services.

Whereas the willingness to pay for maximum amount for complete diagnostic consultation, 359 (47.0%) were willing to pay Rs.1000 (US\$ 10.0) followed by 192 (25.1%) to pay Rs.1200 (Us \$ 12.0). One hundred and nineteen (15.6%) were willing to pay Rs1500 (US \$ 15.0) and 94 (12.3%) were not willing to pay for the services (Table 1).

**Table 1: Willingness to pay for diagnostic and consultative services**

	Rs. 50	Rs. 100	Rs. 300	Not willing
What amount would you pay for a single diagnostic test?	339 (44.4%)	232 (30.4%)	145 (19.0%)	48 (6.3%)
	Rs. 100	Rs. 200	Rs. 500	Not willing
What maximum amount can you pay for a single diagnostic test?	351 (45.9%)	231 (30.2%)	124 (16.2%)	58 (7.6%)
	Rs. 300	Rs. 700	Rs. 1000	Not willing
What amount would you like to pay for more than one diagnostic tests?	335 (43.8%)	186 (24.3%)	170 (22.3%)	73 (9.6%)
	Rs. 500	Rs. 1000	Rs. 1500	Not willing
What maximum amount would you like to pay for more than one diagnostic tests?	393 (51.4%)	178 (23.3%)	82 (10.7%)	111 (14.5%)
	Rs. 1000	Rs. 1200	Rs. 1500	Not willing
What amount would you like to pay for your complete diagnostic tests?	372 (48.7%)	244 (31.9%)	37 (4.8%)	111 (14.5%)
	Rs. 1000	Rs. 1200	Rs. 1500	Not willing
What maximum amount would you like to pay for your complete diagnostic tests?	359 (47.0%)	192 (25.1%)	119 (15.6%)	94 (12.3%)

## DISCUSSION

By considering explicitly the prospects with respect to both health and monetary consequences resulting from a decision taken by the physician, a fairly general approach to discuss diagnostic services is developed. The willingness to pay of the patient is taken to be measured by his compensating option price, evaluated with respect to the reference state without further diagnostic information. Of

particular interest are conditions governing positivity of the patient benefit, the patient's willingness to pay is derived for diagnostic services in order to take cost-benefit analysis of medical diagnosis one step further. The respondents willing to pay for single test with maximum amount showed Rs. 100 only ranged 45.9%(almost less than half of respondents), whereas for more than one diagnostic tests half of the participants only were willing to pay

Rs.500/= only, some patients come with complication that are incumbent to be diagnosed fully for their disease, for knowing the willingness to pay for the same 51.4% was found, whereas for complete diagnostic tests respondents were willing to pay maximum of thousand rupees that is 47.0%. On the contrary, a perfect diagnostic service not only provides the patient with a maximum level of expected utility but also realizes the highest option price in underdeveloped areas [9]. Whereas after extensive research only some studies has been reported for Diagnostic services, but in diagnostic services individual aspect of diagnostic and laboratory services are found in different studies.

The willingness to pay for Pharmacy Services for complete medicines where most respondents were willing to pay 25% of total amount ranged (n=221, 28.9%). Keeping in view the current study where participants are willing to pay a reasonable share amount of 25% from total amount payed for single partial dose and for complete dose of single drug participants are WTP 50% of total amount, same ranged found for complete dose of more than one medic, and for all recommended medicines from total amount 25% share can be accepted by the participants, whereas a study it was earlier found out that the

willingness to pay for out of pocket expenses ranged from \$4.02 to \$5.48 per prescription dependent on the state of disease ,it was earlier found out that willingness to pay for pharmacy services can be increased by \$ 0.87 by one minute, through this study risk of MDRs can be decreased [10] and a study conducted in three cities of Florida concluded that patients were willing to pay 20 per cent out of pocket for cognitive services provided by the pharmacists[11], whereas in present the patients were willing to pay 25 percent for pharmacy services to pharmacists, which is higher than the study conducted in flora [11]. Pharmacists can also contribute for reducing the medication related problem by giving pharmacy service [10].

## CONCLUSION

Willingness to pay for pharmacy services is an emerging domain in Pakistan in general and in province of Baluchistan in particular , in pharmacy services a pharmacist can play a key role by reducing medication related problems, morbidity and mortality among patients which ultimately benefits the patients therapeutic outcomes. Whereas it is worth mentioning here that masses need an intensive education and awareness campaigns for pharmacy services provided by the pharmacists so that benefits are be evolved.

On the contrary, a perfect diagnostic service not only provides the patient with a maximum level of expected utility but also realizes the highest option price in underdeveloped areas. The study indicates that the respondents have willingness to pay maximum amount of money for Diagnostic tests and it was significantly higher than current token amount of received from the in/out patients.

### DISCLOSURE

The authors have no conflict of interest to declare. No funding was received for this study.

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