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WILLINGNESS TO PAY FOR MANAGEMENT OF HYPERTENSION AMONG PATIENTS IN A SOUTHWESTERN CITY OF NIGERIA

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ABSTRACT

Hypertension prevalence in Nigeria and among urban dwellers has been of concern, given the fact that almost a half of patients drop out entirely from treatment of hypertension within one year, because of personal cost and unwillingness to pay for health care service. Health program managers are in a dilemma of service delivery to low income clients and their willingness to pay. This study aims to determine the willingness of hypertensive patients to pay for medical treatment at comprehensive Health centers in the Osun central district of Osun State. The study area was the urban area of Osogbo town, Osun state, situated in the southwestern part of Nigeria. A cross sectional studies using semi-structured questionnaires were designed to access the willingness to pay of hypertensive patients visiting health care center within Osogbo town. The sampling method used was Multistage sampling technique. Statistical Package for Social Sciences (SPSS) version 17.0 was employed for data analysis. Three hundred and forty-seven questionnaires were administered within Osogbo town, Osun State with a response rate of 97%. About 91.40% of the respondents earning a monthly income less than twenty thousand Naira (< ₦20, 000). The respondents were mainly Yoruba women, illiterate with regular medical center attendance. The alternative treatments used by the patients included Herbal drugs (26.08%), religious activities (34.78%), Nutritional diet (6.95%) and physical exercise (32.17%). Lack of funds to meet the treatment cost, socioeconomic status of the patients, Level of knowledge, Patient attitude towards orthodox medicine and preference for alternative means of treatments were factors affecting the willingness to pay. This study revealed the perception of patients on hypertension and its prevention through medication and regular visit of the medical adviser. Alternative methods of treatment like herbs and nutritional diet was not as prominent, when compared to religious activities. Almost all the respondents were willing to pay for their medical treatment. Financial status, knowledge of the disease and the availability of alternative and complementary drugs were factors that affect willingness to pay. The Government should therefore improve on medical service, financing and ensure availability of drugs to encourage patients' ability and willingness to pay for services received.

KEYWORDS: Hypertension, Willingness to Pay, Ability to Pay, Health Care Services, Complementary and Alternative Medicine

INTRODUCTION

Poverty is a central theme of discourse in developing countries with a greater percentage of the world living in countries with wide income differential[1]. Within these impoverished populations, different diseases continue to blight their lives across the world, causing death of an individual every 3.6 seconds, according to the progress reports of the millennium development goals that terminated in 2015[2]. Being meek and weak in life makes these dying multitudes even more invisible in death. Nigeria as a developing country has more than two thirds living in extreme poverty with greater than 100 million people living on less than 1 dollar a day[3].

Poverty and poor health worldwide are inextricably linked. It deprived poor Nigerians of information, money or access to health services that would help prevent and treat diseases. The cost of doctor's fees on drugs and transport to health centre can be devastating. Few members of the communities in South-Western Nigeria visit hospital except for critical health cases, less than 18 % come for medical check up. In most cases, more than 48% of patients who visit clinic in a month, pay 3000 Naira ($8.6) and above to the hospital[4]. In government quest to ensure that every Nigerian has access to good health care services by subsidizing hospital bill and provision of health schemes that provide social security which guarantees timely provision of needed health service. However, it was observed that patients' willingness to pay even for the subsidized money is still a challenge and is affected by many factors. [4,5]

In southwest Nigeria, most patients of hypertension are elderly and believe, hypertension is curable with the use of both orthodox and traditional medication[6]. Patients also believe after feeling well or relieved of symptoms should stop the use of medicine, even education does not show significant influence on the compliance of some patients to purchase drugs[7, 8]. The combined effects of patients' ability and willingness to pay for treatment of the disease have resulted in most withdrawals from treatment and clinical attendance in one year. [8]

In making pricing decisions, health program managers face an equity dilemma; the problem of balancing the need for programme sustainability with the social goal of making services available to low income clients, and hence increase coverage.

Hypertension disease has stayed on the rise in Nigeria, the unwillingness to pay for the health service is a major factor that had resulted in almost one-half of patients dropping out entirely from treatment within one year.[8] The patients' drop of treatment is influenced by personal cost; to individual patient, uncontrolled symptoms of the disease and unavoidable economic burden.[7] When an individual patient refuses needed care, exclusively because of concerns about cost, the physician is confronted with a series of dilemmas that directly affect the physician-patient relationship such as compliance to treatment which has been documented to be sub-optimal (in Hypertension management) in Nigeria. The low compliance is reported to be high, especially in poor urban communities in south western Nigeria, where alternative to medical treatment can be adopted[8]. Very few researches has been done to find out factors responsible for the willingness of patients to pay for treatment in the study area with focus on chronic diseases, whereas, prevalence of hypertension is high among urban dwellers like Osogbo town as in many other urban cities in Nigeria [9-12].

This study aims to determine the willingness of hypertensive patients to pay for medical treatment at Primary Health Centres and Comprehensive Health centres in Osun central district of Osun State.

METHODOLOGY

The study area is Osogbo, the state capital of Osun State, in the south-western part of Nigeria. Health service delivery in Osun State are based on health services provided by private and government owned health facilities. There are 30 Primary Health Care (PHC) and 1 Comprehensive Health Centre (CHC) within Osogbo town. Not less than 20 patients visit PHC and CHC weekly for hypertension treatments.

Availability of alternative medicines is rampant within the city sold in shops and hawked along the street. Cross-sectional study design was employed while quantitative method was used in data collection. The study population comprises of adult hypertensive patients who have been diagnosed and have been receiving treatment for at least six months. Using Leslie fisher formula for determination of sample size for a population greater than 10,000 and a prevalence of 0.289[11], a sample size of 347 was arrive at after adjusting for non-response rate.

Osogbo city extended through 3 local government areas and has 30 PHC and 1 CHC in Osogbo city. A multistage sampling technique was used in recruiting the respondents. At Stage I, 10 PHCs providing general out-patient services including geriatric clinics were selected by simple random sampling proportionately from the PHCs. Five (5) PHCs were selected from Osogbo Local Government Area, Four (4) PHCs from Olorunda Local Government Area, One(1) PHC from Egbedore Local Government Area. At Stage II, Patients were recruited based on systematic selection at the clinics.

Data Collecting Instrument

Self-developed semi-structured questionnaires were used and it incorporates socio-demographic data of age, marital status, educational attainment, religion, socioeconomic status, financial state, employment status, medical history, alternative treatments and contingency valuation demonstrating willingness to pay. The issue of interest are mainly the willingness of respondents to pay and their alternative treatments methods. Five (5) research assistants were trained to administer the questionnaire.

Data Analysis

The questionnaires were sorted out, entered into a computer and the obtained data was analysed using Statistical Package for Social Sciences (SPSS) version 17.0. The frequencies of the responses to the question were computed and presented as percentages; the categorical variables were tested using the chi-square test. Kaiser-Meyer-Olkin measure of sampling adequacy was used to determine level of significance and to support validity of data for factor analysis. "Yes, probably" or "Yes, definitely" for a certain amount, that defines willingness to pay for that amount in the questionnaire, and will choose the maximum amount as the final value for their WTP for a treatment for a month.

Ethical issues were considered from institutional to the personal level. The participants were informed about the objectives of the study. They also had the option of choosing to participate. Consent was obtained from individual participants, who indicated their willingness to participate, having understood the details and the purpose of the study. The entire questionnaire administered was fully retrieved and analysed. Information obtained was treated as confidential.

RESULTS

Three Hundred and Forty Seven (347) questionnaires were administered with three hundred and thirty Seven (337) questionnaires correctly and completely filled giving a response rate of 97%.

Table 1 shows the socio-demographic data. The age range of the respondents was between and 35-85 years with the mean age of 64.62 ± 9.34 years. The majority of the (92.40%) of the respondents were females (92.4%), Yoruba (97.7%), have no formal education (70.3%) and earned less than twenty thousand Naira >₦20, 000 (91.4%). None of the respondents were in any form of Health Insurance.

Table 2 shows that the majority of the respondents (76.2%) has been diagnosed with high blood pressure more than 1 year ago, most of the respondents (89.70%) visit health centers regularly for medical assistance, though more than half of the respondents (56.80%) only keep regular appointments with the clinic every time. (42.30%) of the respondents seek medical advice from somewhere else, with (73.91%) of the respondents also seeking medical advice from another medical health care center. Poor service (62.63%) and strike action (23.07%) were the two main reasons given for seeking medical help from other health care centre. All the respondents had received medication to treat their hypertension at one time or the other. For all hypertensive subjects, 30.79% used alternative medications for the treatment of hypertension.

The table shows the most common alternative treatment used to control or treat hypertension. The alternative treatments used by the patients included Herbal drugs (26.08%), religious activities (34.78%), Nutritional diet (6.95%) and physical exercise (32.17%).

The set of estimations involved doing a profit analysis on whether or not hypertensive patient is willing to pay for medical treatment in health facilities, and the second involved using the sample selection procedure on the amount of the WTP. Coefficient. Interpretation showed that financial status (employed individuals in comparison to non-retired individuals), individuals who are still married and individuals with higher household income are more likely to be willing to pay for hypertensive treatment at health centres within Osogbo, while older individuals and also those using alternative treatment are less likely to be willing to pay for hypertensive treatment at health centres.

The magnitude of the coefficients showed that, if an individual is using an alternative treatment, he/she is 0.471 times less likely to be willing to pay for hypertension treatment in health centres than someone who is not, similarly, if monthly income of a hypertensive patient increases by one unit he/she is 1.602 more likely to be willing to pay for hypertension treatment in health centres than not whereas individual who is employed is 2.529 more likely to be willing to pay for his/her treatment in health centres than those who are unemployed and retired from service. For the marginal effects interpretation, individuals with one unit increase in monthly income is 47.1% more likely to be willing to pay for hypertension treatment than individual with one unit less monthly income. Also, employed individuals are 92.8%, married individual is 116.65% more likely to be willing to pay for hypertension treatment than unemployed individuals and unmarried respectively.

Before the application of factor analysis, the reliability of scale items was tested by applying Cranach's alpha. The value of which alpha value of 0.05 indicating the presence of internal consistency. Further testing the sampling, Kaiser-Meyer-Olin measure of sampling adequacy is computed which is found to be 0.594. (Approx. Chi-square = 2254.33 and significant at < 0.000) at 105 degrees of freedom which provided as well as support for the validity of data for factor analysis.

All this provided that we can proceed with factor analysis and the result of factor analysis over 15 factors shown that there are 5 key factors, which was determined by clubbing the similar variables and ignoring the rest, which majorly considers being the most affecting factors affecting hypertensive patient willingness to pay for treatments in health centres.

The table 4 shows the respective percentage of the variance of all these factors derived from factor analysis.

It is observed from table 10 that, only 5 factors have Eigen value more than one, so accordingly we proceeded with these factors. The total variance explained by factor 1, 2, 3, 4 and 5 is 16.196, 13.813, 12.945, 10.463 and 8.388 percent of variance, respectively, whereas the cumulative variance explained by all these factors is 61.805 percent and the rest of the variance is due to the factors which are beyond the scope of the study.

The Table 10 shows that each statement corresponding to the highlighted factor loading is correlated with the factor corresponding to that factor loading. Higher the factor loading, strong is the correlation between the factors and statement. On the basis of rotated component matrix the factor extraction table has been prepared which is as:

The above stated factors are in the order of the degree of importance, i.e. factor 1 is more important than factor 2; factor 2 is more important than factor 3 and so on. The factor 1 and 2 has 16.196% and 13.813 of variances which is the highest variance as compared with factor 3, 4and 5 where the % of variance is 12.945, 10.463 and 8.388. Hence it is found that lack of fund to meet the treatment cost, the socioeconomic status of the patients, level of knowledge possess by the patient, Patients' attitude towards orthodox medicine and Preference for alternative means of treatments are acting as main factors affecting hypertensive willingness to pay for treatment in health facilities.

DISCUSSIONS

There was a wide age range of respondents with hypertension which could be due to wide variation in health status of urban dwellers, however only 1 person was younger than 35 years. The majority of the respondents were women, which were due to the large turnout at health care centres. Studies in various parts of the country corroborate the low attendance to health care service provided[12, 13]

Most of the respondents are unemployed probably because of their old age or lack of education. Average income of respondents was not up to ₦ 20,000 ($57) per month, which falls below the Nigeria Bureau of Statistics poverty line of ₦54, 750 and food poverty line of ₦39, 759.49. The finding indicates that poverty does not always equate unwillingness to pay; moreover high income earners are not superior to the poor in willingness to pay [14] especially as they were not on any form of insurance scheme which would have solved the problem.

The majority of the respondents were diagnosed of high blood pressure more than a year before data collection and visit health centres regularly for medical assistance. The study was done during an industrial strike by the doctors in the state hospital and CHC centre where they free drugs are usually given. Therefore, few of the respondents attending the CHC had to attend other health care centres. The majority of the respondents believed that hypertension can be managed or possibly prevent the aggravating symptoms while few respondents do not know if the disease is preventable. And this could be a rationale for some of the respondents' willingness or reluctance to pay for treatment.

There is a wide variance perception of people with the diseases, which can be affected by their level of education, mass media, culture and available medical advice. Most of the respondents also believe that hypertension is a serious disease that can lead to complication if not well managed. A previous study among Nigerians also reported that many have the knowledge that hypertension could lead to other complications, which was influenced by their level of education or/and occupation[13, 14].

More than half do not agree with orthodox treatment effectiveness, and so, they keep taking their prescribed medication and attend clinic appointments for medical check-up and advice. These sets of people believe in the importance of clinic attendance for medical advice on the disease, especially due to their awareness and level of education. Almost all the respondents reported that they found their adopted treatment to be effective for the disease. This singular factor will encourage continuous willingness to pay for treatment as a result of the perceived good quality of care.

Most of the respondents pay between 200 and 2000 Naira for the treatment they received; this is about 10% of the total monthly earning for the majority of the respondents, who are already living below the poverty line. However, they still find amount between 200-1000 Naira a month, an amount they wouldn't mind to pay to maintain good health. Willingness to pay notwithstanding, is not synonymous to ability to pay. A large number of them are willing to forgo pets, clothing, food and ceremonies to pay for their treatment. This behaviour is also seen in previous studies, where people sell household items and livestock to pay for health care[15, 16]. Anecdotal evidences also inform that people withdraw children from education to be able to pay for health care. These are the various challenges pose by poverty and financing healthcare where there is no comprehensive health insurance for health care.

Hypertension is a chronic disease which treatment / management will have to be for life, unlike acute illnesses, especially infections and injuries which treatment is for a short and definite period. However, some of our respondents are not willing to pay for up to 3 months again while just a few feel they can still pay beyond a year for the treatment they receive. The convenience to purchase drug may be due to availability and affordability of the recommended drugs. The drugs are usually purchased in a week or 2 weeks based on physician prescription. Sometimes, prescriptions are made by family members, friends, pharmacy store owners and co-workers.

Willingness to pay for treatment is influenced by the alternative treatments, age of respondents, marital status, monthly income and financial status. Married with higher household income are likely to be willing to pay for hypertensive treatment at health centres, while older individuals using alternative treatment are less likely to be willing to pay for hypertensive treatment at health centres. Alternative treatment use is 0.471 times less likely to influence willingness to pay for hypertension treatment than someone who is not. Patient aged by a year is 0.927 less likely to be willing to pay for hypertension treatment in health centres than someone who is a year younger. An increase in age can influence unwillingness to pay for hypertensive patients. Increases in income will increase the ability and willingness to pay for hypertension treatment. The employed with regular income earners are more likely to pay for treatment than the unemployed and retired. Married patients are more likely to pay for the treatment than individuals who are single, divorced or widow.

Kaiser-Meyer-Olin further test of the sampling indicates that the sample is good enough for sampling. Moreover, the overall significance of correlation matrices has been tested with Bartlett Test. Lack of funds to meet the treatment cost can affect the willingness to pay for medical service. Treatment with appropriate medication is a key factor in the control of hypertension and reduction in associated risk of complications. Osamor and Owunmi reported in south western Nigeria that lack of funds to purchase drugs affect the compliance to medication. [17]

Socioeconomic status affects the willingness to pay of hypertensive patients. Several socioeconomic determinants, such as education and occupation, are associated with hypertension. Awareness of hypertension prevention and control, better accessibility and adherence to medical treatment influence their willingness to pay. [17] The most important barrier in control of this condition is the lack of knowledge and awareness about various aspects of hypertension as well as abilities

and willingness to pay. Level of knowledge possess by the patients on the seriousness of the disease, probable complication and ability to cure, affect the willingness to pay of patients. The availability and affordability of some effective alternative medicine reduces the willingness of patients to pay for treatment at the health care centre[18].

CONCLUSIONS

This study revealed the perception of the patient that hypertension can be managed or possibly prevent the aggravating symptoms by medication and regular visit to medical adviser. Patients are willing to pay from 200-1000 Naira monthly.

RECOMMENDATIONS

There is a need for increased awareness and knowledge about the chronicity of non-communicable diseases, so that patients will take responsibility of their health and pay whatever is necessary. Expanding the universal coverage of health insurance will go a long way to assist people, who are not able to provide cash for health care when necessary. Further research and improvement of alternative therapy is imperative, as it seems to be the preferred choice of care for many.

Table 1: Socio-Demographic Characteristics of Respondents

Variables	Classification	Frequency	Percentage (%)
Age	Mean = 64.62,		
	SD = 9.34	1	0.30
	≤40	1	0.30
	41-50	28	8.20
	51- 60	124	36.40
	61-70	117	34.30
	71-80	63	18.50
	> 80	8	
Sex	Male	24	7.60
	Female	315	92.40
Marital Status	Single	3	0.90
	Married	147	43.70
	Divorced	11	3.70
	Widow	176	51.70
Religion	Christianity	65	19.80
	Islam	260	79.60
	Traditionalist	1	0.60
Ethnicity	Yoruba	333	98.50
	Hausa/Fulani	4	1.20
	Igbo	1	0.30
Highest Level of Education	No education	234	70.30
	Primary school	81	24.30
	Secondary school	9	2.70
	Tertiary	8	2.40
Occupation	Unemployed	89	26.80
	Trader	227	68.40
	Artisan	5	1.50
	Civil servant	8	2.40
	Farmer	3	0.90

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Table 1: Contd.,			
Variables	**Classification**	**Frequency**	**Percentage (%)**
Financial State	Employed	48	15.70
	Unemployed	232	75.80
	Retired	10	3.30
	Dependent on relatives	14	4.60
	Pensioners	2	0.70
Monthly Income	Below ₦21,000	298	91.40
	₦21,000 – ₦50,000	25	7.70
	₦51,000 -- ₦100,000	3	0.90
	Above ₦100,000	0	0.00
Dependant relatives	Yes	206	62.43
	No	124	37.57
Number of Dependents	**>3**	46	22.33
	4- 5	69	33.50
	>6	91	44.17
Facility Location	Olorunda	101	33.00
	Osogbo	132	43.10
	Egbedore	73	23.90

Table 2: Medical History of the Respondents

Medical History	Classification	Frequency	Percentage (%)
How long have you been diagnosed of high blood pressure?	< 1 year	78	23.50
	1 – 2 years	108	32.50
	≥ 2 years	145	44.0s0
Do you regularly visit health centre for medical assistance?	Yes	295	89.70
	No	34	10.30
How regularly did you keep clinic appointment?	Every time	188	56.80
	Most times	76	23.00
	Sometimes	54	16.30
	Rarely	13	3.90
When was your last visit to the health Centre?	A week ago	47	14.24
	Two weeks ago	49	14.85
	A month ago	148	44.85
	3 month ago	46	13.94
	6 month ago	21	6.36
	A year ago	19	5.76
Do you receive any other medical advice from somewhere else?	Yes	138	42.30
	No	188	57.70
If yes, where do you get this medical advice?	Another public health care	90	65.2
	Use of alternative medicine	12	8.7
	Private medical health care	27	19.57
	Family medical practitioner	5	3.62
	Pharmacy store	3	2.17
	Others	1	0.73
Why do you get medical advice somewhere else?	Poor service	57	41.30
	Strike action	21	15.22
	Co-morbidity	1	0.73
	Change of location	1	0.73
	Medical advice	1	0.73
	Financial constraint	1	0.73
	Health care centre too far	9	6.52

Table 3: Contingency Valuation

Variables	Classification	Frequency	Percentage (%)
How do you find the treatment?	Effective	298	91.98
	Partial effective	23	7.10
	Not effective	3	0.93
How much do you spend on drugs monthly?	Free drugs	30	9.20
	<₦200	28	8.60
	201 – 500	83	25.40
	501 – 1000	77	23.50
	1001 – 2001	70	21.40
	2000 – 3000	30	9.20
	Above 3000	9	2.80
How much can you conveniently afford on treatment monthly?	<₦200	82	25.87
	201 – 500	101	31.87
	501 – 1000	55	17.35
	1001 – 2001	43	13.56
	2000 – 3000	21	6.62
	Above 3000	15	4.73
If drugs are sold will you be willing to pay?	Yes	308	94.50
	No	15	4.60
Are there things you are willing to forgo to purchase drugs?	Yes	111	62.5
	No	185	37.5
Things you are willing to forgo?	Pets	11	18.97
	Clothing	38	65.52
	Food	2	3.45
	Ceremony	7	12.07
Are you willing to pay for the treatment you received?	Yes	204	66.01
	No	105	33.98
How long are you willing to pay for the treatment?	1-3 months	134	46.69
	4 – 6 months	24	8.36
	7 -9 months	23	8.01
	10 – 12 months	11	3.83
	12 months and above	95	33.10
Do you consider the drug expensive?	Yes	92	29.60
	No	219	70.40
How convenient has been the purchase of drugs financially?	Not convenient	107	34.40
	Convenient	195	62.70
	Very convenient	9	2.90
How often do you purchase the drugs?	Weekly	119	40.06
	2 Weeks interval	109	36.70
	Monthly	69	23.23
Do you purchase the drugs base on your physician prescription?	Yes	245	83.30
	No	49	16.70
If No, who else prescribe the drugs for you?	Family member	15	24.50
	Friends	16	28.57
	Pharmacy store	31	42.86
	Co-workers	2	4.08
Do you have alternative treatment?	Yes	93	30.79
	No	209	69.21

Table 4: Various Forms of Alternative Therapy used by Respondents for Care of Hypertension

Alternative Treatments	Frequency	(%)
Herbal drugs	30	26.08
Spiritual activities	40	34.78
Physical exercise	37	32.17
Nutritional diet	8	6.9
Others	0	

Table 5: Determinants of the WTP Decision: The Binary Variable (1 if Yes; 0 If No)

	B	S.E.	Sig.	Exp B
Constant	1.302	2.842	0.647	3.676
Alternative treatment	-0.783	0.324	0.015*	0.471
Age	-0.076	0.038	0.046*	0.927
Sex	0.111	0.523	0.831	1.118
Education Year	0.002	0.523	0.968	1.002
Marital Status	1.1665	0.324	0.000*	3.21
Treatment Effect	-0.15	0.301	0.618	0.861
Monthly income	0.471	0.11	0.00*	1.602
Financial Status	0.928	0.399	0.02*	2.529
Occupation	-0.182	0.239	0.446	0.833
Household Dependent	0.256	0.302	0.647	3.676

*Indicates significance at the 5% level.

$$WTP = FS + \beta MS + \beta MI - \beta Age - \beta ALTr \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots eqn\ 1WTP$$

$$= 0.928FS + 1.167MS + 0.471MI - 0.076Age - 0.783ALTr \ldots \ldots \ldots \ldots \ldots \ldots\ eqn\ 2$$

Where: β= constant, FS = Financial status, MS = Marital Status, MI = Monthly income, Age = Age, ALTr = Alternative Treatment and WTP = Willing to Pay.

Table 6: The List of Variables along with their Description

Variables	Description
V_1	Using alternative treatment
V_2	Willingness to pay for hypertensive drugs
V_3	The monthly income of the patient
V_4	Financial Status of the patient
V_5	Number of Household Dependent
V_6	Is hypertension a curable disease?
V_7	Is hypertension a serious disease?
V_8	Hypertension can lead to complication
V_9	Hypertensive patient does not need to visit the clinic
V_{10}	Orthodox treatment is not effective
V_{11}	The patient can stop taking medication after some time
V_{12}	Amount spent monthly on drugs
V_{13}	Financial Conveniences of the patient
V_{14}	How long are you willing to pay for hypertensive treatment
V_{15}	The drug is expensive

Table 7: Kaiser-Meyer-Olkinmeasure of Sampling Adequacy

Drug is expensive	0.865
WTP drug	0.565
Monthly income	0.604
Financial Status	0.814
Dependent	0.845

Table 7: Contd.,	
Curable	0.549
Serious	0.524
Complication	0.542
Clinic visit	0.477
Orthodox	0.486
Treatment effect	0.686
Amount spent monthly	0.605
Conveniently	0.614
How long are you willing to pay	0.539
Alternative treatment	0.556
KMO	0.594

Table 8: The Total Variance Explained by Various Factors

	Initial Eigen Value			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %	Total	% of Variance	Cum %
1	3.017 2.057	20.112	20.112	3.017	20.112	20.112	2.429	16.196	16.196
2	1.571	13.711	33.822	2.057	13.711	33.822	2.072	13.813	30.010
3	1.497	10.472	44.294	1.571	10.472	44.294	1.942	12.945	42.955
4	1.129	9.981	54.275	1.497	9.981	54.275	1.569	10.463	53.418
5	.967	7.530	61.805	1.129	7.530	61.805	1.258	8.388	61.805
6	.919	6.444	68.249						
7	.901	6.128	74.377						
8	.745	6.006	80.384						
9	.656	4.967	85.351						
10	.592	4.372	89.723						
11	.427	3.944	93.667						
12	.338	2.848	96.515						
13	.172	2.257	98.771						
14	.012	1.146	99.917						
15		.083	100.000						

Table 9: The Rotated Component Matrix

	Components				
	1	2	3	4	5
V_1	**.606**	-.177	.019	.125	-.005
V_2	.077	**.922**	-.016	-.047	.068
V_3	**.906**	.214	.043	-.023	.094
V_4	.458	.243	-.257	-.098	.091
V_5	.177	.077	.072	.022	.406
V_6	.020	-.169	**-.743**	.033	.124
V_7	.014	-.040	**.841**	-.036	.181
V_8	-.008	-.041	**.745**	.090	.082
V_9	.083	.102	-.021	**.786**	.084
V_{10}	.035	.166	-.028	**-.849**	.063
V_{11}	.277	-.073	-.144	-.251	**.658**
V_{12}	**.902**	.221	.043	-.017	.099
V_{13}	.218	**.884**	.046	-.052	-.035
V_{14}	-.026	.415	.132	.310	.325
V_{15}	-.216	.045	.105	.172	**.675**

Extraction Method: Principal Component Analysis, **Rotation Method:** Varimax with Kaiser Normalization

Table 10: Factor Extraction Table Which S Shows the Variables in
Each Factor with Corresponding Loading and Percentage of Variance

Factors	% of Var.	Factor Interpretation	Variables Included in the Factors	Loadings
F1	16.196	Lack of fund to meet the treatment cost	V1: Drug is expensive	0.675
			V3: The monthly income of the patient	0.906
			V12: Amount spent monthly on drugs	0.920
F2	13.813	The socioeconomic status of the patients	V2: Willingness to pay for hypertensive drugs	0.922
			V13: Financial Conveniences Of the patient	0.884
F3	12.945	Level of knowledge possess by the patient	V6: Is hypertension a curable disease?	0.743
			V7: Is hypertension a serious disease?	0.841
			V8: Hypertension can lead to complication	0.745
F4	10.463	Patient attitude towards orthodox medicine	V9: Hypertensive patient do not need to visit clinic	0.786
			V10: Orthodox treatment is not effective	0.849
F5	8.388	Preference for alternative means of treatments	V11: Patient can stop taking medication after some time	0.658
			V15: Using alternative treatment	0.606

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