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From the Editor

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This issue has several papers from Africa, Bangladesh and the Middle East. A cross sectional descriptive study paper from Qatar aimed to assess the knowledge and practice of Qatari type 2 diabetics attending in the primary health care setting. The study revealed that the knowledge level of diabetic patients was good, particularly in those who were educated and under 30 years. Level of education was the most significant predictor of knowledge and practice regarding diabetes. Health care workers were considered the credible source of understanding diabetes.

Two papers from Nigeria discussed important community issues. The first paper from Nigeria looked at factors that affect social rehabilitation of leprosy patients discharged home. The study aimed to examine the factors that affect social rehabilitation of discharged leprosy patients in the communities. The authors stressed that Leprosy Settlements provide vocational and self-care trainings to enable patients cope with apparent financial demands and tackle real problems in a non-medical environment after discharge. The authors concluded that loneliness, lack of care and support affected rehabilitation of discharged patients. There was a general complaint that friends and relations abandoned them. There is urgent need to step up care and support for discharged patients in the communities. A cross sectional study attempted to assess the attitude of clinical medical students in Obafemi Awolowo University towards rural medical practice in Nigeria. Data was collected with the aid of semi-structured self administered questionnaire. Most students expressed preference for practice in the urban areas. The authors concluded that intense efforts should be made by all stake-holders in encouraging rural medical practice.

A paper from Bangladesh explored health care seeking behavior of people engaged in the informal sector in an urban area. The authors stressed that it is necessary to develop a tool for understanding how populations engage with health systems, rather than using health seeking behavior as a tool for describing how individuals engage with services. The implicit amplification of this objective was to identify the impact of heterogeneous socio-economic characteristics on health care seeking behavior for a group of people who are increasingly left out of the proper health care system. From this perspective the study assessed the association between several explanatory factors and health care seeking behavior. The authors concluded that educational status of household head, knowledge about service provision and perceived morbidity were the most crucial factors for probabilistic attachment of a household's health care seeking behaviors.

A study from Kuwait using an age matched case control study including 175 (50%) type 2DM and 175 (50%) non - diabetic men looked at the prevalence of erectile dysfunction. The authors detected that the prevalence of erectile dysfunction is high among Kuwaiti and non-Kuwaiti males attending primary health care. It is significantly higher in type 2 DM patients in "Qurain' and "Surra" clinic than in non-diabetic men. In addition tyey noted that the IIEF-5 is helpful in an initial evaluation of male patients with erectile dysfunction.

A paper from Libya looked at Quality of life in patients with chronic psoriasis. The author stressed that psoriasis is a major long term, recurring disease with substantial influences on the quality of life of the affected patients. The author stressed that patients with psoriasis suffer a substantial psycho-social impact with a substantial decrement in their quality of life. Therefore psoriasis has a detrimental impact on the quality of life and wellbeing. Therefore further studies should be paid more to the quality of life by offering psycho-social support incorporated medication.

A paper from Jordan looked at The Value of Needle Aspiration Biopsy for Palpable Breast Mass. A total of one hundred fifteen patients underwent needle aspiration biopsy of palpable breast masses prior to open biopsy. The authors concluded that the the value of needle aspiration biopsy lies in its ability to identify patients at high risk for malignancy. Total mastectomy cannot be recommended based on cytological findings alone. Needle aspiration biopsy has become a valuable adjunct to the evaluation of palpable breast masses. Recent reports confirm the accuracy and reliability of the technique, and some centers use a cytological diagnosis of malignancy as the major indicator for definitive therapy.

Knowledge and Practice of Type 2 Diabetic Patients Attending Primary Health Care in Qatar

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Abstract

Background: Type 2 diabetes is an increasing public health problem in the state of Qatar and has a burden on patients, their families, as well as the health care sector.

Objective: This study aimed to assess the knowledge and practice of Qatari type 2 diabetics attending in the primary health care setting.

Methods: A cross sectional descriptive study was conducted at the PHC centers in Doha. A total of 392 Qatari diabetics were selected randomly and interviewed using a structured questionnaire designed for the purpose of the study. The questionnaire included, in addition to demographic information, questions on knowledge and practice related to diabetes.

Results: The mean knowledge score of diabetics was found to be adequate, while in breaking up the knowledge scores, the possibility of diabetes prevention had the least score (49%). Self care practices, and compliance with treatment was found in 89.8% along with 73% annually assessed by an ophthalmologist, 60.5% monitoring their blood glucose at home and 52.3% practicing daily foot care.

Concerning lifestyle; 48% followed a diabetic diet, 39.3% performed regular exercise and 32.7% were monitoring their weight. There was a significant relationship between the level of education and the knowledge and practice regarding diabetes (P= 0.001), however, age and occupation were significantly associated with knowledge only. Diabetics rely on health care workers for diabetes information.

Conclusion: The knowledge level of diabetic patients was good, particularly with those who were educated and under 30 years. Level of education was the most significant predictor of knowledge and practice regarding diabetes. Health care workers were considered the credible source for understanding diabetes.

Key words: Diabetes, Knowledge, Primary care, Qatar

Introduction

Diabetes Mellitus (DM) is one of the most growing public health problems that affect many people all over the world. It is estimated that almost 80 % out of 246 million people with Diabetes type 2 (T2D) live in the developing countries.(1) The prevalence will reach 220 million by the year 2010 and by the year 2025 it is proposed it will exceed 300 million. (2,3) The prevalence of T2D diabetes in some of the Eastern Mediterranean countries, as reported by World Health Organization (WHO), is among the highest in the world. (4) Studies in the Gulf countries have shown that diabetes is taking an epidemic form and is a public health risk at national level. (5) In Saudi Arabia, Oman and Bahrain; the prevalence of diabetes was roughly estimated to approach 25% which is considered to be one of the highest rates compared to other countries in the region. (6) The prevalence of diabetes in Qatar ranges from 11% according to population based studies to around 20% in hospital based studies. (7,8)

In order to prevent mortality and complications related to diabetes, diabetic patients need to maintain a healthy lifestyle by following the proper diet, regular exercise and adherence to their treatment plan. Self-management is the cornerstone of diabetes care and patients are responsible for the day-to-day control of their diabetes. Lifestyle strategy is based on a patient centered approach through patient education as an essential part of health care for people with diabetes. (9)

Diabetes education encourages self-motivation and self-determination that extends to the process of health promotion to achieve change in behavior rather than the traditional education for diabetes that treats the patient as a receptacle for knowledge or a pot to be filled with information. (10) Diabetes Self-Management Education (DSME) is the ongoing process that aims to facilitate the knowledge, skills and ability necessary for diabetes self-care.

This current study aims to study the knowledge, attitude and practice among Qatari adults with T2D attending primary health care in order to improve diabetic patient education as a preventive measure within primary health care services.

Materials and Methods

The state of Qatar, located in the Arabian Gulf, has a surface area of approximately 11,930km(2). Estimates of the total population are around 1,450,000. Most of them live in Doha the capital of Qatar. Diabetes care is provided at primary care level through a network of 21 primary health care centers that provide preventive and curative services, while there are two hospitals providing diabetes care at secondary level.

A cross sectional descriptive study was carried out among the T2Ds attending the primary health care centers in Qatar that have specialized diabetic clinics. The study includes Qatari patients with only T2D who have registered as a diabetic for at least one year.

A total sample of 407 patients was obtained with 95 % confidence level and 5 % standard error. Two stages random sampling technique was adopted to get a representative sample from all PHC centers. Eight PHC centers out of 16 were selected. All provided specialized regular diabetic clinic appointments.

Monthly diabetic appointment lists were reviewed from each health centre. Consequently, a systematic random sampling was applied to select patients within each PHC center. A self administered questionnaire was used for data collection. The questionnaire was pre tested on a convenient sample. Test-retest reliability procedures were followed.

Data was entered and analyzed using the Statistical Package for Social Sciences (SPSS) Version 15. Frequency tables and descriptive statistics were used to determine the influence of demographic variables on knowledge, attitude and practice mean scores. Statistical significance for all analyses was defined as a p value less than 0.05.

Results

A total of 392 subjects responded and participated in the study out of 407 diabetics who met eligibility criteria, with a response rate of 96%.

Respondents' ages ranged from 18 to 82 years with a (mean± SD) of (51.1± 12.1). About one-third of the respondents (30.6%) were between 40-49 years, followed by those aged between 50-59 years (28.3%) while only (4.8%) were aged < 30 years. The study sample consisted of more females (57.1%) than males (42.9%) as shown in Table 1.

The study showed that information on diabetes was mostly obtained from health care workers (69%) followed by friends and relatives (16%) and 15% of respondents received information from media such as newspaper, television, radio, books, magazines and internet, as shown in Figure 1 (page 6).

Table 2 (page 7) shows that more than half (65.8%) of respondents had adequate knowledge about the cause of diabetes. Regarding diabetes prevention concepts among respondents; almost half (49%) of respondents were aware that diabetes could be prevented; while the rest (51%) were either not sure or didn't know. More than three quarters of the respondents (80.6%) knew that diabetes could lead to renal failure.

The results found that the mean diabetes knowledge score was higher among those who rely on health care workers (HCW) as their main source of information as illustrated by Figure 2. The difference was found to be statistically significant ($P < 0.05$).

Table 3 shows that the mean knowledge score varies according to age and the difference was found to be statistically significant ($P < 0.05$). In terms of education, it was noticed that the mean knowledge score is increasing with the level of education. The difference was found to be

Variable	Characteristics	No.	%
Age groups	<30	19	4.8
	30-39	43	11.0
	40-49	120	30.6
	50-59	111	28.3
	60-69	66	16.8
	70 +	33	8.4
Gender	Male	168	42.9
	Female	224	57.1
Occupation	Professional	26	6.6
	Business/Clerk	97	24.8
	Army	17	4.3
	Retired	85	21.7
	Student/Unemployed	8	2.0
	Housewife	159	40.6
Education	Illiterate	108	27.6
	Primary	68	17.3
	Secondary	141	35.9
	Graduate	75	19.1

Table 1: Socio-demographic characteristics of the diabetic patients

statistically significant (P<0.05). The occupation status also related to the mean knowledge score showed a considerable variation. The difference was found to be statistically significant (P<0.05).

Table 4 shows the practice of diabetic patients; more than half of the respondents (60.5%) reported that they monitor their blood glucose at home; while 34.4% did not care about having blood glucose testing at home. A percent of 39.3 of respondents performed a regular exercise for at least 30 minutes/day for 5 days a week. On the other hand, almost half (49.5%) of respondents were not regularly exercising. Weight monitoring at home was not reported in more than half of respondents (62.5%). More than half (52.3%) of respondents reported that they inspect their feet daily for signs of problems, while 38.8% ignored them. The majority of respondents (89.8%) reported that they take their diabetic medications on time. In addition, almost half (48%) of the respondents reported that they were controlling their diet. Regarding regular checking for ophthalmic disorders; more than two thirds (73%) of respondents reported that they were yearly assessed by an ophthalmologist; while 24% were not, as shown in Table 4.

Table 5 shows a statistically significant relationship was evident in the mean practice score with participant's education ($p < 0.001$) and type of occupation ($p = 0.007$).

Discussion

The study found that the overall diabetes knowledge score among participants, on diabetes causation, complications, control and prevention in addition to symptoms of hypoglycemia and self care practices, was relatively high. It is evident that an increase in diabetes knowledge scores is associated with better control of diabetes.(11,12) In addition; greater knowledge was associated with performance of self management activities.(13)

The relatively high knowledge score of diabetics achieved in the present study could be attributed to; the wealth of advice of HCWs as well as the enriched media accessed by all the population in general and by diabetics in particular. The results of this study are not unlike those that have been reported by Yun et al who found a good level of knowledge among diabetics.(14) Awareness about the major cause of diabetes in the study showed little improvement as compared to the study reported by Ambigapathy et al.(15)

The results of the present study indicate that 69% of diabetic patients rely on HCWs as the most reliable source of information on diabetes. This could be attributed to the nature of the disease as it is explained to all

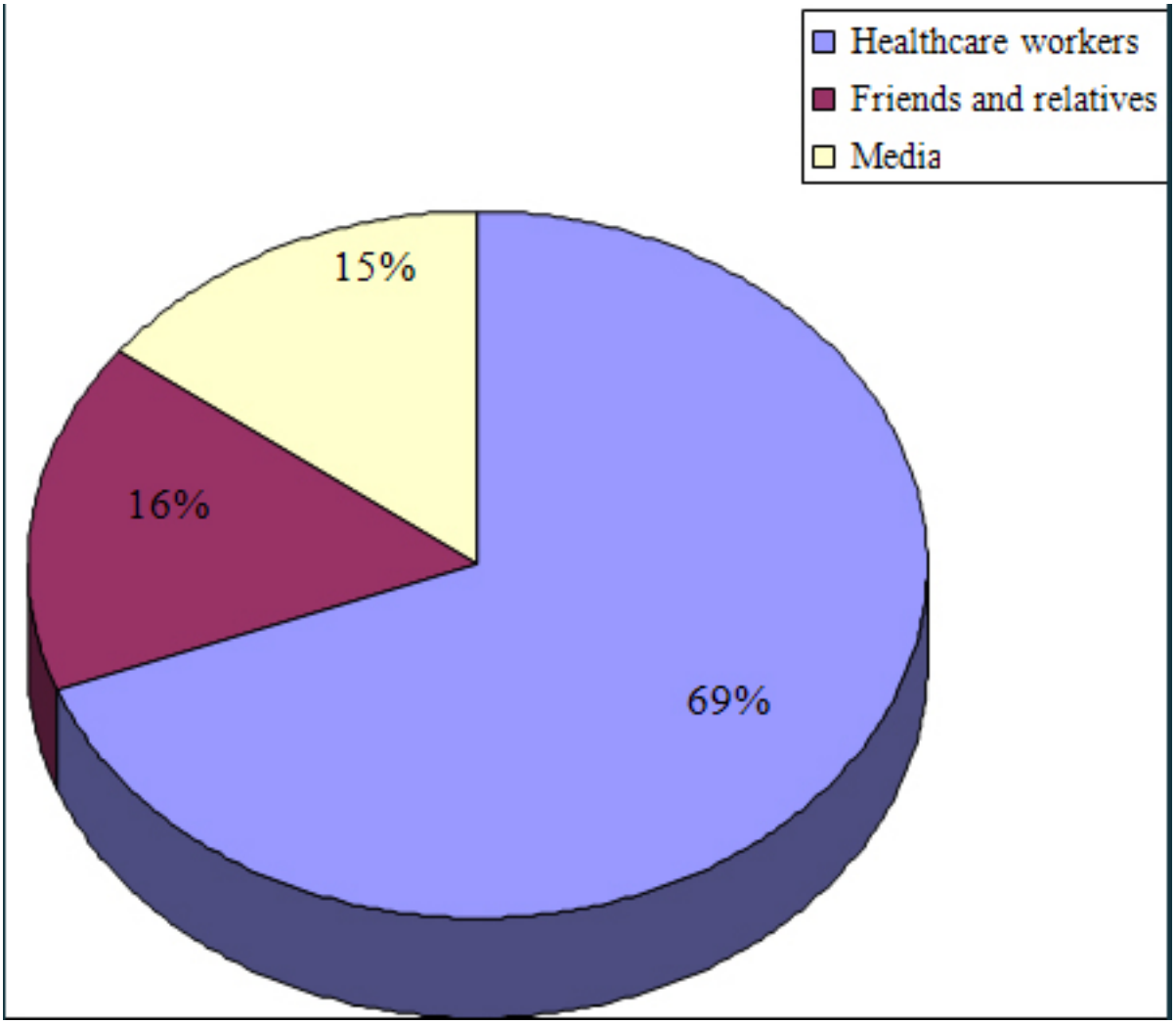
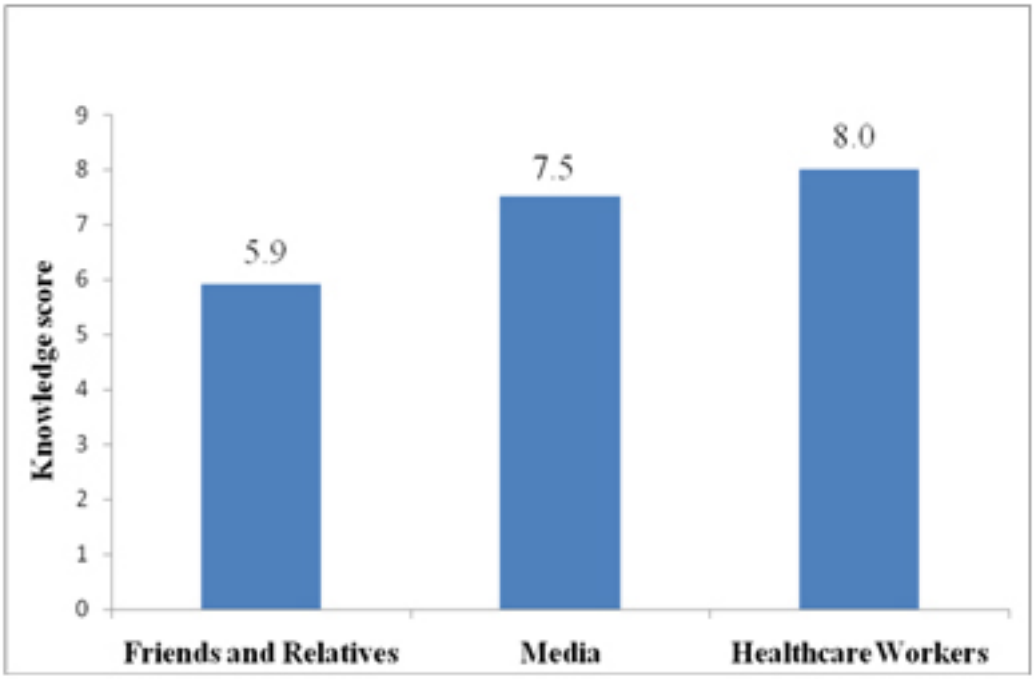


Figure 1: Respondents' main source of information about diabetes



P = 0.001

Figure 2: Relationship of source of information and knowledge of diabetes

Variables	Correct responses	
	No.	%
Major cause of diabetes is a decreased availability of insulin in the body	258	65.8
Diabetes could be avoided	192	49
Diabetes, if not well managed may lead to renal failure	316	80.6
Diabetes can cause loss of feeling in feet	312	79.6
Foot ulcers of diabetic patient take a longer time to heal	325	82.9
Weight reduction is an important factor in controlling diabetes	309	78.8
Headache, dizziness and sweating are signs of low blood sugar	317	80.9
Siblings of diabetics have a higher risk of developing diabetes than others	299	76.3
Wearing tight socks is not healthy for diabetes	299	76.3
Diabetic patients need regular eye checks	340	86.7

Table 2: Frequency distribution of participant's correct responses regarding knowledge

(Discussion continued)
the newly diagnosed diabetic patients by the health care workers at the diabetic clinic. This result is similar to what was found in studies conducted in Malaysia and Singapore, which reported a trust of diabetics on health care providers for receiving information about diabetes.(15, 16) On the other hand, findings by Tham et al showed that media was the major source of information about diabetes.(16)

In the present study, respondent's practice towards diabetic diet revealed 48% of the respondents in this study reported that they were on a diabetic diet. This result showed that dietary control was not well considered by the respondents as having a possible negative impact on glycemic control.(17,18)

Daily foot care is one of the major practices that enable diabetic patients to detect early any abnormalities in their feet and therefore prevent foot injury and the long term neuropathic complications. In the current study, 52.3% of respondents paid attention to daily inspection of their feet. This result is lower than what was found by studies conducted in China and UK.(19,20)

The majority of respondents reported that they take their diabetic medications on time. This good compliance is consistent with results achieved by a study conducted among 805 diabetic patients in Libya to assess the knowledge of diabetes and its complications that showed 27.1% of diabetics did not take treatment regularly.(21)
The present study concluded that awareness regarding diabetes prevention was deficient in more than half of respondents. Level of education was the most significant predictor of knowledge and practice regarding diabetes, while age and occupation were found to be significantly related to patient's awareness status only. HCW were the major sources of participants` information about diabetes.

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Variables		Knowledge Score		P-value
		Mean	SD	
Age groups	<30	8.8	2.1	* P= 0.003
	30-39	7.4	2.4	
	40-49	8.1	2.4	
	50-59	7.6	2.3	
	60-69	6.7	2.6	
	70+	6.8	2.6	
Gender	Male	7.3	2.7	†P= 0.064
	Female	7.8	2.3	
Education	Illiterate	6.8	2.5	* P= 0.001
	Primary	7.2	2.7	
	Secondary	8.0	2.2	
	Graduate	8.7	1.5	
Occupation	Professional	8.4	1.7	* P= 0.001
	Business /clerk	6.4	2.7	
	Army	6.9	2.5	
	Retired	7.2	2.7	
	Student/Unemployed	8.5	1.8	
	Housewife	7.4	2.3	

* P-value was calculated using one way ANOVA
† P-value was calculated using Student t-test

Table 3: Relationship of socio-demographic characteristics with knowledge

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Variables	Usually		Not doing		Sometimes	
	No.	%	No.	%	No.	%
Checks blood sugar at home	237	**60.5**	135	34.4	20	5.1
Exercise for about 30 minutes a day, at least 5 days a week	154	39.3	194	**49.5**	44	11.2
Checks body weight at home	128	32.7	245	**62.5**	19	4.8
Checks feet daily for signs of problems	205	**52.3**	152	38.8	35	8.9
Takes diabetic medications on time	352	**89.8**	22	5.6	18	4.6
Takes diabetic diet	188	**48.0**	161	41.1	43	11
Check eyes by an ophthalmologist annually	286	**73.0**	94	24.0	12	3.1

Table 4: Frequency distribution of participant's responses regarding practice

(Table 5 is on page 10)

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Variables		Practice Score		p- value
		Mean	SD	
Age group	<30	5.4	2.2	* *P=0.195*
	30-39	3.9	2.2	
	40-49	4.0	1.8	
	50-59	3.8	1.9	
	60-69	4.0	1.7	
	70+	3.5	1.6	
Gender	Male	4.0	2.1	† *P=0.505*
	Female	3.9	1.8	
Education	Illiterate	3.4	1.6	* ***P=0.001***
	Primary	3.5	1.8	
	Secondary	4.3	2.1	
	Graduate	4.8	2.0	
Occupation	Professional	4.9	1.7	* ***P=0.007***
	Business /clerk	4.3	2.2	
	Army	4.0	2.2	
	Retired	3.9	1.9	
	Student/Unemployed	5.0	2.0	
	Housewife	3.6	1.6	

* P-value was calculated using one way ANOVA
† P-value was calculated using Student t-test

Table 5: Relationship of socio-demographic characteristics with practice

The Prevalence of Erectile Dysfunction in Type 2 Diabetic and Non-Diabetic Men : A Comparative case control study

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Abstract

Objective: The aim of our study was to estimate the prevalence of erectile dysfunction among Kuwaiti and non-Kuwaiti type 2 diabetic and non-diabetic men attending "Qurain" special clinic and" Surra" family clinic" in the Ahmadi and the capital area, Kuwait.

Subjects and Method: Three hundred and fifty men aged 21 -85 years who visited "Qurain" special clinic in Ahmadi area and "Surra "clinic in the capital area in Kuwait during a period from 18/4/2007 to 5/9/2008 were included in this study.

This was an age matched case control study including 175 (50%) type 2DM and 175 (50%) non - diabetic men.

The questionnaire (including the International Index of erectile function-5) was administered to all patients. The average score of each item and the total score of 5 items were calculated and compared in each group. x2 -test was used for statistical analysis; p -value <0.05 was considered significant.

Results: The mean age for Type 2 DM patient was 48.9 years in "Qurain "clinic and 52.24 years in "Surra" clinic and non-diabetic men with age 49.05 in "Qurain" clinic and 52.8 in "Surra" clinic.

There was a statistically significant difference between diabetic and non-diabetic men in respect to the 5 domains of severity (with a P value <0.001) .

There was a statistically significant difference between type 2DM and non diabetic men with respect to nationality (p <0001), hypertension (p <0001) and DU (p <0001), IHD (p <0001) prostatic (p <0001) and past history of other diseases (p <0001).

There was a statistically significant difference between type2DM and non diabetic men with respect to tadalafil intake (p <0001) .

There was a statistically significant difference between type2 DM and non diabetic men with respect to sildenafil effect (p <0001)

Conclusion: The prevalence of erectile dysfunction is high among Kuwaiti and non-Kuwaiti males attending primary health care. It is significantly higher in type 2 DM patient in "Qurain' and "Surra" clinic than in non-diabetic men.

The IIEF-5 is helpful in an initial evaluation of male patients with erectile dysfunction.

Key words: prevalence, erectile dysfunction, Kuwait

Introduction

According to the National Institute of Health (NIH) Consensus Conference 1993, erectile dysfunction (ED) is defined as the inability to achieve and maintain an erection sufficient for satisfactory sexual performance (1,3,8,10,13,18,22). Similar to the NIH, the DSM-IV diagnostic criteria have required a persistent or recurrent inability to attain , or to maintain until completion of the sexual activity, an adequate erection (20).

Type 2 diabetes mellitus is on the rapid increase throughout the world. In the year 2000, the World Health Organization (WHO) reported that 177 million people were affected by diabetes world-wide, but by2025, this figure is projected to rise to over 300 million (21). One common complication of type 2DM is erectile dysfunction (7,10,14,20). It occurs more frequently and at an earlier age in the diabetic population than in the general population as a whole (9,19). Moreover, impotence may even be the presenting symptom of diabetes in unrecognized patients (9). Early diagnosis and treatment of ED in such men might improve the quality of life of these men (14). The etiology of ED in diabetes is multifactorial (4,20), but appears to be predominantly a result of no mediated smooth muscle relaxation due to both autonomic neuropathy and endothelial dysfunction (20). In 10-30% of the men the cause of ED has been found to be psychological (4); medical treatment with various drugs can contribute significantly (17)

It is a common problem affecting about one-third of men over the age of 40 years (6,22), it increases with age (1,2,4,9,10,11,13,16).

Evidence suggests that treatment of ED is particularly effective in patients who actively seek advice(24).

A number of specific treatments are now available, which are known to be effective in the management of ED. These include the administration of PDE5 inhibitor and apomorphine, the use of intracavernosal therapy, and non-pharmacological interventions such as vacuum devices.(22,23,24)

Objective

The aim of the study was to determine the prevalence of erectile dysfunction (ED), its severity and other sexual function domains in Kuwaiti and non Kuwaiti men with and without type 2 diabetes mellitus at two primary health care areas.

Patients and Methods

Three hundred and fifty men aged 21 -85 years who visited “Qurain” special clinic in Ahmadi area and “Surra “clinic in Capital area in Kuwait during a period from 18/4/2007 to 5/9/2008 were included in this study. They are categorized into 4 groups; group 1 related to the number of diabetic patients in “Qurain” clinic, group 2 related to the number of diabetic patients in “Surra” clinic, group 3 related to the number of control patients in “Qurain” clinic and group 4 related to the number of control patients in “Surra” clinic.

This was an age matched case control study including 175 (50%) Type 2DM and 175 (50%) non-diabetic men.

The inclusion criteria included an age of 21-85 years old, married state and a stable relationship with a wife for at least the past 6 months.

Face-to-face interviews were conducted by an experienced G.P and family physician after obtaining informed consent, based on a questionnaire that included variables on socio- demographic characteristics , lifestyle habits, past history of chronic diseases , medications of chronic diseases, any previous treatment for impotence, what was the effect and who was the advisor.

Sexual function was evaluated with the International Index of Erectile Function (IIEF) after translation to Arabic. (English and Arabic versions can be found on www.mejfm.com)

The erectile function domain of the questionnaire has also been shown to provide a reliable measure for classifying the severity of ED (5,12,16). The 6 items on the ED domain included questions concerning erection frequency, firmness, penetration, maintenance frequency, maintenance ability, and erection confidence during the last 4 weeks. Each item was based on a 5-point Likert scale, and the response to all 6 items were summed to arrive at a total EF score ranging from 1 to 30. A higher score indicated relatively better EF. Previous evaluation of the EF domain had determined an optimal cutoff score of less than 26 for those having ED (16) .

According to the NIH Consensus panel on ED domain of the International Index of Erectile Function (IIEF) for evaluation of baseline erectile function. All items are scored in 5 domains as follows: erectile function{1-30}, intercourse satisfaction{0-15}, orgasmic function{0-10}, sexual desire{2-10}, overall satisfaction{2-10}. (5,8,20) The severity of ED was further classified into the following 5 categories and scored in 5 categories; no ED (EF score,26-30), mild (EF score,22-25), mild to moderate (EF score,17-21), moderate (EF score 11-16), and severe (EF score,6-10) .(5,16,20) Each item is interpreted as severe, moderate, mild to moderate, mild and no dysfunction.

Statistical Analysis: Data were entered and analyzed with chi-squared (x) using SPSS computer program. The group with and without ED were analyzed separately. Differences with probability value <0.05 were considered significant.

Results

Table 1 shows the overall prevalence of severity of ED in “Qurain” and “Surra” clinic. It is classified into severe, moderate, mild to moderate, mild and non according to scoring algorithm for IIEF. All items are scored in 5 domains: erectile function, orgasmic function , sexual desire, intercourse satisfaction, and overall satisfaction. There was a statistically significant difference between diabetic and non-diabetic men in respect to the previous 5 domains (with a p value <0.001) .

Domain &Severity		Group 1	Group 2	Group 3	Group 4	
		n=110	n=65	n=110	n=65	P value
Erectile function	Severe	17	10	0	0	<0.001
	Moderate	22	18	7	3	
	Mild to Mod	22	7	28	11	
	Mild	36	8	55	34	
	No	13	22	20	17	
Intercourse satisfaction	Severe	24	15	4	2	<0.001
	Moderate	22	12	11	9	
	Mild to Mod	21	8	35	23	
	Mild	30	13	43	28	
	No	13	17	17	3	
Orgasmic function	Severe	24	6	1	1	<0.001
	Moderate	23	8	7	1	
	Mild to Mod	17	15	17	5	
	Mild	27	13	68	39	
	No	19	23	17	19	
Sexual desire	Severe	8	0	1	1	<0.001
	Moderate	20	10	9	1	
	Mild to Mod	34	22	28	12	
	Mild	35	15	58	42	
	No	13	18	14	9	
Overall satisfaction	Severe	24	12	4	2	<0.001
	moderate	24	15	8	11	
	Mild to Mod	18	8	39	17	
	mild	33	8	40	21	
	no	11	22	19	14	
Total score	severe	21	6	1	1	<0.001
	moderate	33	24	17	8	
	Mild to Mod	38	13	72	39	
	mild	18	22	20	17	

Table1: Prevalence of erectile dysfunction according to severity by using IIEF-5

Variable	Group 1 (n=110) N %	Group 2 (n=65) N %	Group 3 (n=110) N %	Group 4 (n=65) N %	P value
Past history of DM	110	65	0	0	<0.001
Past history of hypertension	24	33	0	0	<0.001
Past history of duodenal ulcer	0	8	0	0	<0.001
Past history of ischemic heart disease	2	7	0	0	<0.001
Past history of renal disease	1	1	0	0	.413
Past history of prostatic disease	0	4	0	0	.004
Past history of other disease	9	40	0	0	<0.001
Smoking	45	24	36	32	.218
Alcohol	5	4	9	6	.588
Treatment of chronic disease	6	16	0	0	<0.001
Treatment of impotence	23	30	14	11	<0.001

Table 2: The medical and social characteristics of the study patients according to presence of ED

Table 2 reveals the socio-demographic characteristics, life style habits, past history of chronic diseases, medication for chronic diseases, any previous treatment for impotence, data on what was the effect, and who was the advisor?

The mean age for Type 2 DM patient was 48.9 years in “Qurain” clinic and 52.24 years in “Surra” clinic and non- diabetic men with age 49.05 in “Qurain” clinic and 52.8 in “Surra” clinic.

There was a statistically significant difference between type2DM and non diabetic men with respect to nationality (p<0.001), hypertension (p <0.001) and DU (p <0.001), ischemic heart disease (p <0.001), prostatic disease (p <0.001) and past history of other diseases (p <0.001).

There was a statistically insignificant difference between type2DM and non diabetic men with respect to past history of renal disease , smoking and alcohol.

There were no cases regarding past history of psychological disease, and past history of PVD in “Qurain” and” Surra” clinic.

Table 3 shows the different treatment used for erectile dysfunction with their effects and who was the advisor.

There was a statistically significant difference between type2DM and non diabetic men with respect to tadalafil (p < 0.001).

Type of Rx received	Freq & No	Group 1 n=110	Group 2 n=65	Group 3 n=110	Group 4 n=65	P value
Sildenafil	intake	16	19	14	9	0.25
	Effect 0 Good bad	0 13 3	6 9 4	0 14 0	0 9 0	<0.001
	Advisor Dr Friend Pharmacist Wife relative	4 12 0 0 0	9 6 1 1 2	11 2 1 0 0	7 2 0 0 0	.031
Apomorphine	Intake	1	4	0	0	0.012
	Effect 0 Good bad	0 1	3 1	0 0	0 0	.400
	Advisor Dr Friend Pharmacist Wife relatives	1 0 0	1 2 1	0 0 0	0 0 0	.328
Tadalafil	intake	10	13	2	4	<0.001
	Effect 0 Good bad	0 5 5	7 4 2	0 2 0	0 4 0	.003
	Advisor Dr Friend Pharmacist Wife Relatives others	3 5 1 0 0 1	6 3 1 1 2 0	2 0 0 0 0 0	2 1 1 0 0 0	.664
Local Injection	Intake	2	0	0	0	0.199
	Effect Good	2	0	0	0	0.199
	Advisor Dr	2	0	0	0	0.199

Table 3: Frequency and number of ED treatments received

There was a statistically insignificant difference between type2DM and non diabetic men with respect to Sildenafil, apomorphine and local injection.

There were no cases regarding surgical operations in “Qurain” and” Surra” clinics.

There was a statistically significant difference between type2DM and non diabetic men with respect to Sildenafil effect ($p < 0.001$).

There was a statistically insignificant difference between type2DM and non diabetic men with respect to apomorphine effect, tadalafil effect and local injection effect.

There was a statistically insignificant difference between type2DM and non diabetic men with respect to Sildenafil advisor, apomorphine advisor and tadalafil advisor.

Conclusion

The prevalence of erectile dysfunction was significantly higher in type 2 DM patients in “Qurain” and “Surra “clinic than in non-diabetic men.

Early diagnosis and treatment of ED in such men might prevent or delay its progression and might improve the quality of life of these men.

Nationality, presence of diseases such as DM, hypertension, IHD etc, is considered statistically significant predictor for ED.

The IIEF-5 is helpful for initial evaluation of male patients with Erectile Dysfunction.

Treatment of these patients should not be limited to specialist services, as general practitioners can achieve high success rates if they manage these patients. Management however, should not be limited to the administration of tablets but should also include a comprehensive clinical assessment.

So we recommend the availability of these pharmacological agents in the pharmacy of the primary care practitioner in order to treat these cases.

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Factors that affect social rehabilitation of leprosy patients discharged home in Abia and Ebonyi States of Nigeria

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Abstract

Introduction: **This study aimed to examine the factors that affect social rehabilitation of discharged leprosy patients into the communities. Studies have shown that discharged leprosy patients have difficulty in using the skills acquired in leprosy settlements to make a living. They depend on others to carry out daily life activities. They engage in jobs that expose them to bodily damage, which ordinarily would have been avoided if they had utilized skills acquired from the settlements. Leprosy Settlements provide vocational and self-care trainings to enable patients to cope with apparent financial demands and tackle real problems in a non-medical environment after discharge. The problem discharged leprosy patients have in using these skills to function effectively in their environments remains a dilemma.**

This study is necessary because studies have shown that in developing countries including Nigeria, leprosy patients discharged home are exposed to poverty, great burden of disease, more limited opportunities to after care services, and socialization than those residents in the settlements. This is because mostly attentions of leprologists, health care workers and researchers are focused on leprosy patients resident in the settlements, to the disadvantage of those discharged home.

Materials and methods: **The study used 33 leprosy patients discharged home in Abia and Ebonyi States of Nigeria who were available during the period of study. Instruments for data collection were questionnaire, and interview guide. These were administered because the respondents were essentially those without formal education. The list of discharged patients studied, including their addresses, was collected from the settlements. Those available at the time of study were interviewed. Further, snowball-sampling method was used to identify other discharged patients living in the communities. Each discharged patient interviewed was asked to mention other discharged patients living near their vicinity. Subsequently, those mentioned were located and interviewed. Analysis of data was done with the use of simple percentages.**

Result: **A total of 33 leprosy patients discharged home was studied. This is made up of 14 discharged patients in Uzuakoli, and 19 in Ohazoara.**

Finding showed that a good number of the leprosy patients discharged home had no means of livelihood. Most of them lost the jobs they were doing after treatment. Out of 19 (57.6%) who were trading before leprosy infection, only 2 (6.3%) continued with their profession, while those who were employed in paid jobs lost their jobs. The majority of the patients 23 (69.7%) were engaged in peasant farming, while the rest, especially those with severe disabilities were not gainfully employed. On the whole, none of the patients was found begging for alms. An overwhelming number of patients 21 (63.6%) preferred to live in the settlements more than at home. The main reason given for

preferring to live in the settlements was increased opportunities for daily bread.

Conclusion: Loneliness, lack of care and support affected rehabilitation of the discharged patients. There was a general complaint that friends and relations abandoned them. There is urgent need to step up care and support for discharged patients in the communities.

Keywords: leprosy, prophylaxis, discharged patients, disability, stigma

Introduction

Leprosy (Hansen's disease) is a chronic, infectious disease of slow onset. It essentially affects peripheral nerves, and can be medically cured simply and cheaply through multi-drug therapy (MDT). Eradication of the disease worldwide is a realistic goal. The problem is that stigma associated with leprosy makes individuals marginalize leprosy patients including those treated and discharged home. As a result, discharged patients are ostracized and this ostracism prevents them from engaging in economic ventures thereby increasing their social and economic disadvantage (1,2).

Another irritating aspect of leprosy is that a diagnosis of leprosy in a family means loss of work, divorce or the end of marriage prospects, even for distant relatives (3). This is part of the reason why people labeled as "having leprosy" are often sent away and denied family roles. Thus, leprosy stigma determines attitudes and actions that affect the whole family, not just the affected individual. Leprosy infection therefore dissipates the dignity, confidence and economic well being of individuals by eroding the aspirations and opportunities of those directly and indirectly affected by the disease (4).

WHO in 2005 announced a strategic plan for eliminating leprosy as a public health problem in developing countries. The aim was to reduce prevalence of leprosy from 286 063 globally registered at the beginning of 2005 (5) to less than 1 case per 10,000 population nationally. Although the global numbers of new cases detected annually is decreasing significantly, still almost 300,000 new cases, mainly in developing countries, were identified in 2005 (6,7). The WHO strategic plan of reducing leprosy prevalence is necessary because studies have shown that over 2 million people worldwide who have visible disabilities were as a result of late treatment (8,9,10). Therefore, leprosy infection should be treated early to avoid disability and rejection (11-15).

A sad reflection on discharged leprosy patients' situation is that although from a medical perspective, the discharged leprosy patients have been declared cured after regular doses of a recognized multi-drug therapy (MTD) to clear the body from leprosy bacilli (16,17,18,19) yet the society where they live hardly considers them cured. This is particularly common with patients who have recurrent foot ulcers and nerve pains (20-22). Also the discharged patients themselves, especially those with deformities do not consider themselves as cured. They assent to people's belief that they are still infectious. Ironically, those with untreated leprosy infection but without visible deformities also isolate those who have been treated, but with deformities (23,24). There is need to examine the problems discharged patients have in re-integrating themselves in the communities when discharged home.

Materials and Methods

A cross-sectional study of discharged leprosy patients treated in Uzuakoli and Ohaozara leprosy settlements in Abia and Ebonyi States of Nigeria, respectively, was conducted. Uzuakoli and Ohaozara are the two functional leprosy settlements in the South-eastern part of Nigeria where leprosy patients are admitted, treated and discharged home. These two settlements will be interchangeably referred to as Abia and Ebonyi. The study group consisted of 33 discharged leprosy patients living in the communities. The list of discharged patients and their addresses were collected from the settlements where they were treated. This strategy helped the researchers to easily identify and interview the discharged patients available at the time of study.

Further, snowball-sampling method was used to identify other discharged patients living in the communities whose addresses were either not included by the settlements or difficult to locate. Each discharged patient interviewed was asked to mention other discharged patients living near their vicinity. Subsequently, those mentioned were located and interviewed.

Instruments for data collection were questionnaire, and interview guide. These were administered because the respondents were essentially those with no formal education.

Social rehabilitation for this study included vocational rehabilitation, which assessed the extent to which discharged leprosy patients used their newly acquired skills in vocational training to earn a livelihood, as well as other means of financial assistance that ensured their survival in the communities. Also social rehabilitation entailed investigating the extent to which friends and relations reintegrated and accepted discharged patients in social functions so as to reduce their discrimination and rejection. Analysis of data was done quantitatively.

Ethical consideration:
The consents of the Medical Officers, and Directors in charge of the settlements, as well as that of the community leaders were sought and their approvals enabled the researchers to penetrate the communities and interview the patients. The University ethics committee approved the study.

Results

Demographic characteristics:
The discharged patients studied were made up of 18 (54.5%) males and 15 (45.5%) females. Their marital statuses consisted of 15 (45.5%) married, 2 (6.1%) single, 6 (18.2%) divorced/separated and 10 (30.3%) widowed.

The ages of the discharged patients were widely distributed. The finding showed that 1 (3%) of the patients were 20-29 years, 4 (12.1%) were 30-39 years, 8 (24.2%) 40-49 years, 7 (21.2%) 50-59 years, 4 (12.1%) were 60-69 while 9 (27.2%) were 70 years and above. Their mean age was 55.8 years +_ 15.2 indicating they were considerably old.

A total of 28 (84.8%) of the patients had children while 5 (15.2%) had none. The mean number of children for these patients was 3.8 _+ 2.5.

The level of the patients' educational status showed that 21 (63.7%) of them had no formal education, 11 (33.3%) had primary school education, while 1 (3%) had postsecondary education. A total of 27 (81.8%) of the patients were Christians, while 6 (18.2%) were in traditional religion. The occupation of the patients before and after infection was explored to note the extent to which they were fully engaged after discharge. The finding showed that before infection, the majority of the patients 19 (57.6%) were trading and after infection only 2 (6.3%) went back to trading. Before infection, only 1 (3%) was farming and after infection, a good number of them 20 (62.5%) went into peasant farming. See Table 1 for further details.

From Table 1 we can see all the patients formerly working as civil or public servants lost their jobs after discharge.

Data on Domicile:
The length of time each patient stayed in the settlement before being discharged home was established. Finding showed that the patients lived in the settlements between 1-7 years with a mean stay of 3.6 years +_2.1. Additionally, findings showed that 20 (60.6%) of the patients had stayed 1-10 years at home since discharge, while 13 (39.4%) of others had stayed 11 years and above with mean stay 12.8 years +_ 12.5. Furthermore, the number of rooms the patients occupied with their family members revealed that 20 (60.6%) of the patients lived in only 1-2 rooms, while 13 (39.4%) others occupied 3-4 rooms with mean number of individuals living with the patients in a room as 4.3 +_ 3.2. Also 7 (21.2%) of the discharged patients indicated that they lived alone in the house, while 26 (78.8%) said they lived with immediate family members.

Vocational Rehabilitation
Vocational rehabilitation was noted by using questions that evoked responses on vocational training opportunities, financial support (income), and means of livelihood. The questions were scored and the obtainable scores ranged from 0-4. Higher scores indicated better vocational rehabilitation.

Vocational training opportunities:
The result of the study showed that only 6 (18.2%) of the discharged patients were trained in vocations such as shoe making, roof tiling, sewing, tailoring and welding in the settlements while the majority of others 27 (81.8%%) were not trained. Reasons for not being trained were noted. Three main reasons starting from not interested in being trained, no available vocation of choice, to not sure of patronage after training, were given by the patients. Out of 6 (18.2%) of the patients that were trained, only 1 (16.7%) indicated using the vocation (shoe making) as a means of livelihood.

Financial support (income):
The majority of the discharged patients had no meaningful income. A greater proportion of them 26 (78.8%) depended on immediate family members for financial support while only 6 (18.2%) and 1 (3%) respectively got a paltry sum of two hundred naira (N200) or two US dollars ($2.00) monthly from the Local Government and voluntary organizations as a form of financial assistance. The overwhelming number of patients 21 (63.6%) especially those with leaking ulcers, had the desire to return back to the leprosy settlements. The main reason given for preferring to live in the settlements rather than in the community was the fact that they had more opportunities for daily bread in the settlement unlike in the communities. They reported that some charity organizations donate food items and clothing, which are shared with inmates.

Social rehabilitation:
Social rehabilitation for the discharged patients was assessed using questions that elicited responses on reintegration, and

Occupation	Before	After	Total
Trading	19(57.6%)	2(6.3%)	21(31.8%)
Farming	1(3%)	20(62.5%)	21(31.8%)
Civil/Public service	3(9.1%)	0(0%)	3(4.6%)
Sewing	1(3%)	0(0%)	1(1.5%)
Shoe-making	3(9.1%)	3(9.1%)	6(9.1%)
Teaching	1(3%)	0(0%)	1(1.5%)
Mat/Basket making	2(6.1%)	0(0%)	2(3%)
Cane chair-making	2(6.1%)	0(0%)	2(3%)
Palm wine tapping	1(3%)	1(3%)	2(3%)
Unemployed	0(0%)	6(18.8%)	6(9.1%)
Total	33(100)%	33(100%)	66(100.0%)
	P = 0.000000		

Table 1: Occupation of the discharged patients before and after infection

patients' acceptance in community social functions. The questions were scored and the obtainable scores ranged from 0-11. Higher scores indicated better social rehabilitation.

Reintegration:
Discharged patients' reintegration was determined by assessing the extent to which discharged patients and others exchanged visits. See details in Table 2.

From the findings in Table 2, a good number of the discharged patients exchanged visits with friends and relations, showing that the discharged patients were well reintegrated P = 0.03. In all, large number of the patients 27 (81.8%), were visited by friends and relations while 22 (66.7%) of the patients themselves visited others. However, those who neither visited others nor others visited them indicated that they were ashamed either to be visited or to visit others in the community.

Participation in social gatherings:
The extent to which the discharged patients were allowed to take part in social gatherings with friends and relations in the community was noted. The patients' responses are shown in Table 3.

From the findings in Table 3, a good number of the discharged patients took part in various social functions.

Summary of findings on vocational and social rehabilitation

Vocational Rehabilitation
The range of scores was 1 - 4. The mean score for the patients was 2.7 + 0.70 with only 3 (9.1%) of the patients scoring up to 4. This indicates that the discharged patients were poorly rehabilitated vocationally. Age was related to vocational rehabilitation H = 11.3, P = 0.02. Mean score fell with increase in age. The highest mean score 3.000 + 0.55 was observed among patients 30-39 years indicating better vocational rehabilitation, while the least score 2.3 + 0.71 which indicates poor rehabilitation was noted among patients 70 years and above. Sex was not associated with vocational rehabilitation. Males with mean score 2.7 + 0.84 were fairly better rehabilitated than females H = 0.01 P = 0.92. Single patients had the highest mean score 3.5 + 0.71 and were better rehabilitated than the married ones with least mean score 2.5 + 0.74 H 3.4 P = 0.33.

Social rehabilitation
The range of scores in this study was 1 to 11. As high as 22 (66.7%) of the patients scored up to the cut-off point, indicating better social rehabilitation. The mean score for the patients was 6.909 + 3.195. Marital status was related to social rehabilitation. Single patients with the highest mean score 9.000 + 1.414 P = 0.023 were better socially rehabilitated than the widowed with least mean score 4.700 + 3.529 F = 3.673. Age was associated with social rehabilitation. Patients aged 30 - 39 years had the highest mean score 9.400 + 1.140 and were better socially rehabilitated than those aged 50 - 59 years mean score 4.400 + 3. 912 H = 7.347 P = 0.120. Table 4 contains the summary of the findings.

Discussion

Social rehabilitation for the discharged patients was encouraging. A good number of the discharged patients exchanged visits with others and were allowed to attend several social functions in the community. The fact that a good number of the patients, especially youths 30-39 years, were allowed to attend social functions with others suggest that they were not isolated or discriminated against in their respective communities. This could be part of the reason why they were better vocationally rehabilitated than others.

The finding that males enjoyed better social rehabilitation and participated more in social functions than females shows that males reintegrated themselves in the communities more than the females. This finding agrees with that of (7) that male leprosy patients in India are more creative and attend social functions more than the female patients. This could be because males as breadwinners and heads of the family, needed to integrate with others in order to play these roles very effectively. It is likely that the male discharged patients in this study also played their family roles effectively judging from the extent of social functions they attended.

Vocational rehabilitation for the discharged patients was poor. Out of 18.1% of the patients who were trained in vocations such as shoe-making, roof tiling, sewing, tailoring and welding, only 3% established an enterprise. Though poor vocational rehabilitation was recorded for the discharged patients, none of them reported begging for a living. In all, leprosy patients between 30 to 39 years especially males were better vocationally rehabilitated than others. This suggests that these male patients who are in their productive years, despite leprosy infection, still strive to support their families financially to avoid dependent lives. This is commendable. Poor vocational rehabilitation for the discharged is possible because only 18.9% of the discharged patients benefited from a monthly stipend of N200 ($2.00) given by the State and Local Governments of Abia State, which the beneficiaries reported was most irregular. Also the majority of the patients were engaged in subsistence farming and most likely, their farm products might not have been for sale but rather for their consumption. If the patients had produced enough quantities of farm products and sold some to the public, they could have probably raised some money for subsistence. The fact that a good number of the patients especially those with leaking ulcers opted to return back to the settlement for the sole reason of lack of daily bread at home shows the extent to which care and support are available to these patients.

Conclusion

The fact that discharged leprosy patients had poor vocational rehabilitation suggests the inability of government; leprosy settlements and other stakeholders to assist trained discharged leprosy patients in setting up enterprises for sustenance in

Visited	Friends and Relations visit patients	Patients visit friends and relations	Total
Yes	27(81.8%)	22(66.7%)	49(74.2%)
No	6(18.2%)	11(33.3%)	17(25.8%)
Total	33(100%)	33(100%)	66(100.0%)
		$X^* = 1.98$, P = 0.03	

Table 2: Reintegration of discharged patients

Ceremony	Frequency	Percentage
Engagement/Marriage		
Yes	20	60.6%
No	13	39.4%
Total	33	100%
Naming/christening		
Yes	21	63.6%
No	12	36.4%
Funeral		
Yes	21	63.6%
No	12	36.4%
Total	33	100%
Family meetings		
Yes	18	54.5%
No	15	45.5%
Total	33	100%
Church/Mosque		
Yes	19	57.6%
No	14	42.4%
Total	33	100%

Table 3 : Patients' participation in social gatherings

Types of Rehabilitation	Total score obtainable	Mean	Cut Off	No within the cut off	STD	P =value
Vocational	6	2.7	4	3(9.1%)	0.70	0.02
Social	11	6.9	7	22(66.7%)	3.2	0.12

Table 4: Summary of findings on social and vocational rehabilitation

the communities. It is therefore recommended that to reduce discharged patients' dependency on others, government, and other stakeholders should assist trained and discharged leprosy patients by providing them with tools, work materials and finance. This will enable them establish an enterprise to reduce dependency thereby make their life more meaningful.

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A Exploring Health care seeking behavior of people engaged in the informal sector in an urban area, Bangladesh: Evidence from Dhaka city

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Abstract

It is necessary to develop a tool for understanding how populations engage with health systems, rather than using health seeking behavior as a tool for describing how individuals engage with services; explicitly to make more importance of the links between health seeking behavior of the individual and wider theoretical models of the local dynamics of health systems and social participation. Under this background principal the objective of the study was to explore the health care seeking behavior of households that maintained their living by working in the informal sector of Dhaka City. The implicit amplification of this objective was to identify the impact of heterogeneous socio-economic characteristics on health care seeking behavior for a group of people who are increasingly left out of the proper health care system. From this perspective the study assessed the association between several explanatory factors and health care seeking behaviors. From the Chi-square analysis study findings show several variables have a significant relationship with dependent variables. The significant explanatory variables in terms of predisposing factors were income level, household educational status, and occupational status, number of years staying at Dhaka city and in terms of disorder characteristics were perceived morbidity, reasons for care seeking, and in terms of service characteristics knowledge about service provider, health related decision making process. Later according to multivariate stepwise binary regression analysis a predictive model was specified to identify the probabilistic attachment on household's possibility to seek health care, and found that educational status of household head, knowledge about service provision and perceived morbidity were the most crucial factors for probabilistic attachment of household's health care seeking behaviors.

Introduction

In this modern era of the 21st century, technological advances in human well-being coexist with extreme deprivation. The aggregate health scenario has the same impact witnessing the benefits of new medicines and technologies but at the same time exhibits unprecedented reversals. Life expectancies have collapsed in some of the poorest countries to half the level of the richest - attributable to the ravages of HIV/AIDS as the most threatening havoc (1). These setbacks have been accompanied by growing fears, in rich and poor countries alike, of new infectious threats such as SARS and avian influenza and "hidden" behavioral conditions such as mental disorders and domestic violence and also social unrest.

This background makes the achievement path of MDG (Millenium Development Goals) targets more skewed. More precisely if there remains the threat of spreading intra society health differences through health outcomes. One of the major concerns for developing countries like Bangladesh is the gaps in the health service provision for their populations (2). There is a maintained belief about Bangladesh that it is a homogenous society but in reality the society reveals a wide range of heterogeneity in context of wide variations in the per capita income and other socio economic characteristics. So to address the basic priority health action a proper health delivery system cannot be developed without the basic information of sickness and disease patterns for heterogeneity groups.

The urban population in Bangladesh is increasing by 6% per annum (3). By 2010, the urban population is expected to be a third of the total population and is set to rise to

87 million by 2030 (Sattar and Ahmed, 2004). Of the urban poor in Dhaka, 48% live in slums while the rest live on the streets or at their work sites. From projection it is evident that Dhaka will become the fourth largest city in the world by 2015 (5). By this time the world, including Bangladesh, hopes to achieve the goals set by millennium development agenda to specify the base of world development paths. Specifically MDG 7, Target 11 focuses on improving the lives of slum dwellers, but all MDGs are relevant in the urban context.

Urban poor provide vital contributions to economies of cities and towns. Lack of integration into mainstream city life condemns poor urban residents to reinforcing cycles of low income, abysmal living conditions, and vulnerability to crime and violence, and ill-health (6). Consistent with MDG targets the main focus is to halve the number of poor people by 2015 or in other ways improve the lifestyle of half of the prevailed poor people in every dimension of life status. But the reality is crude for Bangladesh as we find from a Household income expenditure survey in 2005 that the reduction of absolute poverty in terms of lower poverty line is very negligible for urban settings. Compared to the 2000 rate, it just decreases 0.6% in the case of the DCI method. If we look at the squared poverty gap in the CBN method the reduction is around 0.5 % (7). This is quite alarming if we take the world estimate that one out of every three city dwellers are migrants and remain poor. Though all the urban poor do not necessarily live in slums but the majority of them live in slums. So approximate that for urban populations and compare the UN-Habitat definition a “slum household” as a group of individuals living under the same roof in an urban area who lack one or more of the following: durable housing, sufficient living area, access to improved water, access to sanitation and secure tenure and access to proper health care. The persistent discrimination is the only status for urban poor. Poor quality and overcrowded shelters, lack of public services and infrastructure such as piped water, sanitation facilities, garbage collection, drainage and roads, as well as insecure land tenure impose disadvantages that increase the health and work burdens of the urban poor (5). Again these combinations create unhealthy environments and increased health risks from poor sanitation, lack of clean water, overcrowded and poorly ventilated living and working environments and from air and industrial pollution. Again from income poverty, inadequate diet reduces slum-dwellers’ resistance to disease, especially because they live in the constant presence of pathogenic micro-organisms and makes them more vulnerable to communicable diseases (1).

In this context this study tries to investigate one heterogeneous group of people’s disease pattern and care seeking behavior in Bangladesh. The effort is there to explore the health care seeking behavior of Dhaka city dwellers who comprise the major portion of the city’s population and simultaneously are inherent in the surroundings imposed by the rapid urban growth. The findings of the study will have implications on differential access to modern health care provision and will on equity considerations in health care services.

Methodology

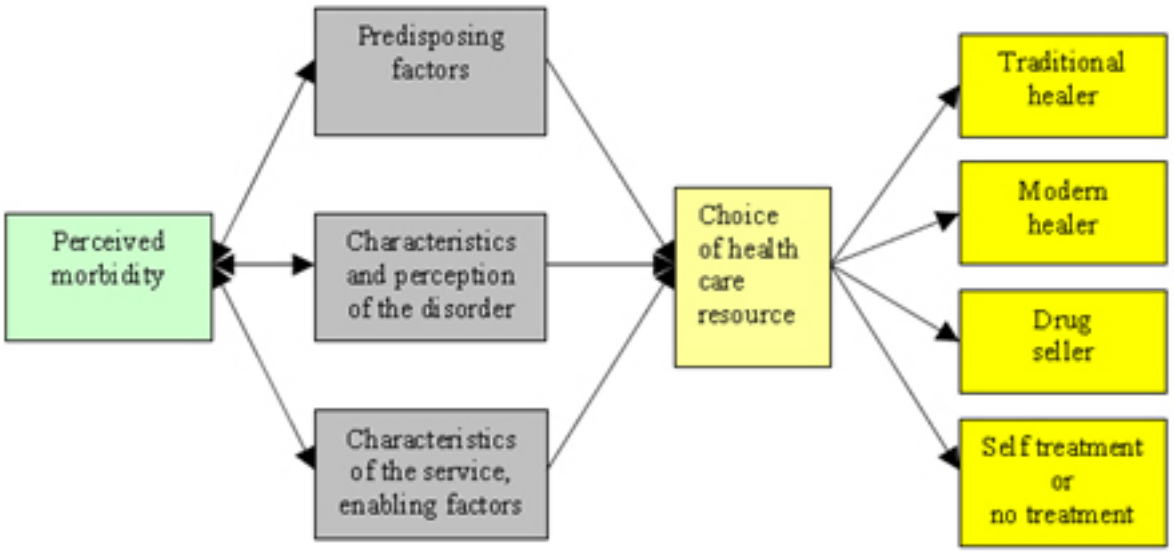
An abundance of descriptive studies on health seeking behavior, demonstrate the complexity of influences on an individual’s behavior at a given time and place. However, they focus almost exclusively on the individual as a purposive and decisive agent, and elsewhere there is a growing concern that factors promoting ‘good’ health seeking behaviors are not rooted solely in the individual, they also have a more dynamic, collective, interactive element. For instance it is easy to find some behaviors are totally correlated to household resources, for some case behavior promoting health occurs within the family. Again Household resources and assets (including income); the health and education of household members; access to water and sanitation, roads, and communication; and membership in formal and informal support networks also affect health outcomes. Simultaneously they have affects on behavior and health risks, for example, whether or not to seek health care or act in response to health information. Although it is common to treat all members of a family or household as a single unit, assuming that whatever benefits one member will benefit the entire household, it is widely acknowledged that intra-household differences in gender and age may significantly affect how decisions are made and whether a decision is beneficial for all members.

From this rationale, households were specified as the unit of analysis through which they implicitly described the individual’s health seeking behaviors from a broader view of how populations engage with health systems. In this study the variant of Andersen’s model was used (8). The Framework can be seen on page 25 (opposite).

In this model explanatory variables are affected by perceived morbidity and interactions of these factors guide the selection of health care resources (dependent variables). Under this framework it is possible to establish the correlations with good predictability among the factors and choice of health care. Below is the list of the independent and dependent variables of this study.

Data

This study was a cross-sectional descriptive study conducted in Dhaka metropolitan area. The definition of household used in the Bangladesh population census 2001 has been adopted in the present study.
This is: Person or persons having relation or not, living together and taking food from the same kitchen, is considered as a household (7,9) and further specification involved the household earning members’ engagement in the unofficial sector of underground economic activity beyond government regulation and taxation. All households confronted with this definition were considered as population to the study.



Model

Table:1 Dependent and independent variables in the study

Explanatory variables			Dependent variables
Predisposing factors	Disorder Characteristics	Service characteristics	
*Age *Sex *Marital Status *Education *Occupation *Income *Position held in household *Status of household head *Savings *No of years living in the specific area	*Morbidity Prior illness *Sufferings	*Accessibility *Decision process *Preference *Quality	**Do not seek care** **Seek care**

The national estimation shows that 84% of the households seek treatment when confronted by diseases, and in urban areas various studies revealed that the rate ranges from 86 % to 93%. So we took the weighted average of the national rate and existing slum rates. Then the following formula was used to estimate the sample size.

$$n = \frac{z^2 \times pq}{e^2}$$

Where P = .85 and q= .15 and by using 1.96 and .05 respectively for z and e's value and taking into account the 10% non response rate and 2% design effect, finally we decided on 250 households as our optimum sample size for this study.

The study area was divided into five parts of Dhaka city. As the study focuses on households involved in the informal sector in Dhaka city, to obtain the representative unbiased study population we divided Dhaka city into five parts, where the dividing principle involves selecting areas from the four sides: north, south, east and west part of the city and another area from the central part of the city. From the east side Mugdapara was selected, from the north side Uttar khan, from the south side Shampur, from the west side Mohammadpur ring road slums and from the central part Mogbazar slums, near the rail line, were selected, respectively.

In each of the study areas the voter list was used as the household list (it listed the voters with holding numbers, occupation and age), whereas in two study areas (Uttar khan and in Mohammadpur) there was no current voter list. There

Table 2 : Break down of sample households	
Name of the Study area	Sample household Unit
Mugdapara	50 household
Shampur	50 household
Mohammadpur Ring road	50 household
Uttar Khan	50 household
Moghbazar Rail line	50 household

the old voter list was used as the household list. In the case of selecting respondents' households the respective study areas were again divided into five clusters consisting of four clusters according to the four sides and one cluster from the central area. In each study area 50 households were selected as sample respondents.

For interviews, the identified households were contacted at their home. After obtaining their consent, and considering a number of factors such as scope, availability of funding, time and precision, they were interviewed using a pretested, semi-structured questionnaire. Those people who were not available for three consecutive visits and those who were not willing to participate in the study were excluded. Each interview took at least 180 minutes and 3 consecutive visits to household premises. Only the household heads were selected for response and in the case of some relevant parts of the questionnaire, spouses were asked for cross checking purposes.

Data Analysis

Data analysis was performed in two stages using SPSS 10.1 for Windows. Firstly, bivariate analysis was used to characterize socio economic differences in the health-seeking behaviours of study population. Secondly, several forward stepwise logistic regressions were run on broad categories of explanatory variables to explore a behavioral model of health care seeking behavior of the study population. To build the behavioral model the following procedures were adapted:

· In the First step the forward stepwise binary regression of predisposing factors on dependent variable was run.

· In the Second step the forward stepwise binary regression of disorder characteristics on dependent variable was run.

· In the Third step the forward stepwise binary regression of service characteristics on dependent variable was run.

· The Fourth step estimated the model specified variables coefficients.

Result

Socio-Economic Characteristics

According to the study framework three broad categories of factors were identified. Those were predisposing factors, disorder characteristics and service oriented factors. Mainly the socio-economic and demographic characteristics of the household and household members were the main determinant of predisposing factors. Study findings below are related to the major socio demographic characteristics of sample respondents and are presented in Table 3.

Among the total 250 households, 74 households were female headed and the remaining 176 households were male headed. That means 29.4% of the sample households were female headed and 70.4% sample households were male headed. These 250 households had a total 1035 population including household head and members. Among them, the female headed 74 household population was 270 and male headed 176 household population was 765. Respectively the female headed household population was 26.06% and male headed household population was 73.91%. On average the female headed households had 3.64 persons and male headed households had 4.36 persons. Jointly the average number of persons per household was 4.14.

In terms of Marital status of household head the survey finding showed that among the sample household respondents 199 household heads were married, only two household heads were unmarried, and 9 household heads were widowed. Household heads without husbands were 40. Among them abandoned women were 23, and divorced were 17. Interestingly all the households who were unmarried, widowed, divorced and abundant, were female. The two unmarried household heads were female and their ages were between 20 to 24 years. Among the household heads 79.6% were married, 9.2% household heads were abundant, 6.8% household heads were divorced, 3.6% household heads were widowed and only 0.8% household heads were unmarried. The majority of household heads were illiterate or just able to sign their name. A total 130 household heads were able to sign. 40 household heads were educated up to less than primary, 47 household heads passed primary but failed to continue up to junior levels. A total 17 household heads passed junior but ended their education before secondary level. Only 16 household heads passed secondary education and that was the highest tier. Among the household heads 52% were only able to sign their name. 16% of the household head's qualifications were less than primary, 18.8% household heads passed primary, and 6.8% passed the junior level of school but failed

Table 3: Key socio demographic characteristics of Sample household		
Socio demographic characteristics	N	%
Household characteristics		
Female headed household	74	29.4
Male headed household	176	70.4
Number of female headed household members	270	26.08
Number of male headed household members	765	73.91
Total household population	1035	100
Average number of female headed household size		3.64
Average number of male headed household size		4.36
Average number of Total household size		4.14
Total female sick persons (in last three months)	140	53.63
Total male sick persons (in last three months)	121	46.36
Sick persons from female headed household	83	31.8
Sick persons from male headed household	178	68.19
Total Sick persons (in last three months)	261	100
Marital status of Household Head		
Married	199	79.6
Unmarried	2	.8
Widowed	9	3.6
Divorced	17	6.8
Abundant	23	9.2
Educational status of household Head		
Able to sign	130	52
Less than primary	40	16
More than primary but less than junior	47	18.8
More than junior but less than secondary	17	6.8
More than secondary	16	6.4

to pass the secondary level. Only 6.4% household heads were able to pass into secondary level. At the household population age distribution the majority of the population belonged to two age groups which were 30 to 34 age cohort and 10 to 14 age cohort, where the populations were 137 and 139 respectively and the corresponding percentage was 13.42 and 13.23. But the proportion of households with older population was very low. It was only 0.19% for the over 65 age and for the 60-64 age groups the population was 0.57% of the total household population. The corresponding population number was 2 and 6. Household population age group 0-4 were not represented that much in the population, where the corresponding households population was 65 out of 1035 and it contained 6.28% of the total population.

Disease Pattern

In the case of sick persons, in the questionnaire the intention was to gather information about the last 3 months, that is, whether any person of the household was ill during that period. 140 of the female population were reported as ill whereas the corresponding male population was 121, where the female population was 53.63% and the male population was 43.63% of the total sick persons. Among the total 261 sick persons, 83 sick persons resided in female headed households and 178 sick persons resided in male headed households. That indicated that 31.8% sick persons belonged to female headed households and 68.19% sick persons belonged to male headed households. Most common diseases were dysentery, fever, tonsillitis, and headache. Together they accounted for almost two thirds of all sickness. Notable here is the diseases that were common to women. Again as a whole, women's sickness events were higher than the men's sickness events in regard to common diseases. But especially malnutrition, headache, female specific disease and skin disease can be interpreted as disease of women in the sample. The study found a total 322 people as sick, including household heads and household members. This was 31.11% of the total population.

Table 4 (next page) presents the common disease pattern of the household members. The table shows that the most common disease was Dysentery; a total of 50 household members were suffering from this disease, where the male proportion was 6.52 % of the total sick persons and female proportion

Table 4 Common Disease pattern of household member by Gender status				
Disease	Male		Female	
	N	%	N	%
Dysentery	21	6.52	29	9
Fever	19	5.90	23	7.14
Tonsillitis	14	4.34	11	3.41
Headache	12	3.72	19	5.9
Female specific disease	0	0	14	4.34
Skin disease	4	1.24	15	4.65
Malnutrition	0	0	12	3.72
Total	70	21.73	123	38.19

Table: 5 Average morbidities related to illness	
Indicator	Days
Average morbidity prior illness	4.2
Average morbidity during illness	6.1
Average morbidity after illness	3.2
Average morbidity for acute illness	33.6

Table: 6 Health care seeking behaviors among households Head				
	Male headed households		Female headed households	
	N	%	N	%
Care seeking	134	53.6	56	14.4
Not care seeking	42	16.8	18	7.2

Table: 7 Health Related Decision Making among households		
Decision process (Multiple responses include)	N	%
Household head alone makes decision	34	13.6
Household head with household members collectively make decision	146	58.4
Household head with peer discussion make decision	119	47.6
Household head with relatives make decision	97	38.8

was 9%. Secondly was fever where the corresponding male and female proportion was 5.90% and 7.14%. Then tonsillitis was common for which male and female proportions were 4.34 % and 3.41%.

Suffering of illness in respect of morbidity days has been estimated for the sample. From the estimation it was revealed that on an average every sick person suffered for 4.2 days before illness or at the onset of illness. The average morbidity days during illness for common diseases were 6.1 days and average morbidity days for after illness were 3.2. In the case of acute diseases the average morbidity days were 33.6 days which was quite lower than the national average.

Health care Seeking behavior and decision process:

Among the 250 households 190 households seek care when their members are confronted by diseases. 60 households did not seek any care. Among them 42 households were male headed and 18 households were female headed. Among the care seekers, 134 household heads were male and 56 household heads were female.

Among the household head 53.6% male household heads seek care and 16.8% male household heads did not seek care. On the other hand, 14.4 % female household heads sought care and 7.2% household heads did not seek care. Among the total female household heads 75.67% sought care and 70.52% male household heads sought care.

Health related decision making is an important dimension of health care seeking behavior. Basically it involves the accessibility criteria for health care seeking behavior. Ability to spend on care and concern about other factors are involved in this process. From the household perspective the option is far more important as the household head is usually the earning member and has the discretionary power over these decisions.

In the sample 34 household heads alone make health care related decisions which were 13.6% of the total households. In 146 household the health care related decision making process involved discussion with other members. 119 household's decision making process involved discussion with peers and 97 households involved relatives in their decision making process. The corresponding percentage in respect to total households was 58.4%, 47.6% and 38.8%.

Behavioral model based on Forward step wise regression
Forward step wise variable selection in logistic regression proceeds in the same ways as in multiple regression analysis with a model just containing constant. At each step the variable with the smallest significance level was entered into the model provided it was less than the chosen cut-off value (the default is 0.05) (10). In the first step for predisposing factors, to identify the best predictive power within the model, it proceeded through several stepwise processes. In this case among the 11 explanatory variables using chi square test of association, 4 significant variables were identified. These variables were age of the household head, educational status of household head, income level of household head, years residing in Dhaka city. Then we ran the binary logistic regression including all predisposing variables other than the significant. Then with successive steps we included the significant variables one at a time. At the fifth step, the regression on 4 significant variables all together was run.

(See Table 8 next page: Results of Hosmer and Lemeshow test of forward stepwise binary regression on explanatory variables)

From the table it is evident that as the significant variables were included, the model becomes more predictive. As the goodness-of-fit test shows that the model with good prediction produces a significant chi-square (10). So in the case of predisposing factors a model with 4 significant predisposing factors (Step 5) produces the highest chi-square values and indicates a good prediction power over the other steps. For disorder characteristics inclusion of the two variables revealed better predictive power. For service characteristics the two significant variables obtained from Pearson's chi-square are knowledge about the service provider and the decision making process. Inclusion of these two only compared to all four variables make the model more predictive as the Hosmer and Lemeshow test static shows. So up to the third step after completing the forward step wise binary regression on different categories of explanatory variables the model takes on the shape below - (see next page.)

So on the basis of Pearson's chi-square significant association and further found by forward stepwise binary regression, predisposing factors age, educational status and income level of the household head, educational status, Disorder characteristics perceived morbidity, sufferings and Service characteristics knowledge about service provider, health related decision process are specified as the predictor variables for health care seeking behavior.

(See Table 9 : Estimated value of variables included in model - page 32)

The estimated parameters measured the probability of a household that seeks care among the total sample households. That means for coefficient (beta) educational status of household head which has .624 values indicates a household head with more educational qualifications are .624 times more likely to seek care than the household head who didn't seek care. The odds ratio is more appropriate to estimate the probability. In this specified model, age of household head, sufferings, perceived morbidity, health related decision making and knowledge about service provider are important determinants of treatment choice among households that are engaged in the informal sector in Dhaka city. These explanatory variables are significant determinants of seeking any type of health care.

Discussion

In this study the effort was to explore the health care seeking behavior of a particular group of people whose main characteristics were that they lived in Dhaka city and earn their living by working in the informal sector of the city. At present most of the studies in Bangladesh context explicitly describe the attitudes, beliefs and practices that prevail among the vast population who are vulnerable and reside in rural areas in Bangladesh (11,12). So the implicit inherent characteristics for this was that they were mainly migrants from the rural areas and were somehow excluded from the main dimension of city life. In a sense they had resemblance to the slum people of city areas but at the same time they also had quite unique characteristics. Because a large portion of this people did not live in a slum rather they lived in a rented place and lived there for quite a long period, consistently for several years, as the samples' average stay in Dhaka city was 5.93 years and their average income was 3675.40 taka ($52.50). On an average they had lived in the same premises for 3.3 years. The average income rate and, duration of stay in the same premises was higher than the national average of slum people (7).

Table 8: Results of Hosmer and Lemeshow test of forward stepwise binary regression on expla

Regression on Predisposing factors				Regression on Disorder characteristics				Regression on Se characteristics	
Step	Chi-square	df	Sig.	Step	Chi-square	df	Sig.	Step	Chi-squ
1	6.612	2	.037	1	4.419	2	.232	1	5.19
2	14.701	8	.065	-	-	-	-	2	10.25
3	9.570	7	.214	-	-	-	-	-	-
4	11.031	8	.200	-	-	-	-	-	-
5	27.561	6	.649	-	-	-	-	-	-

Model

Dependent variable = **Pre disposing factor** + **Disorder characteristic** + **Service c**

Do not Seek Care =0
Seek Care =1

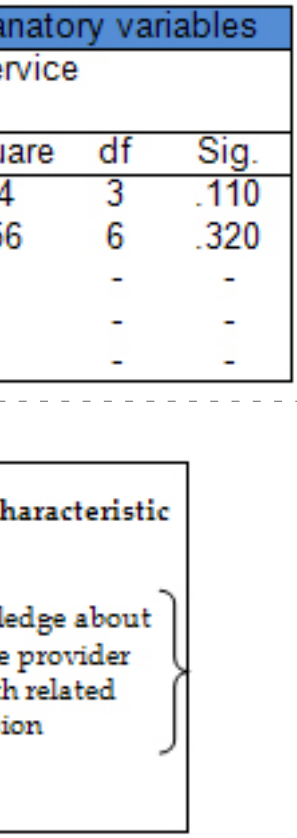
= *Age of the household head
*Educational status of household head
*Income level of Household Head
*Years residing in Dhaka city

+ *Perceived Morbidity
*sufferings

+ *Knowl
servic
* Healt
decis

One of the main objectives was to identify the disease pattern and the corresponding response of these people when they were confronted by disease. The study findings shows 76% of the total households sought care when they were confronted with disease. In case of differentiation by gender status of household head, the rate remained close to the sample average. Among the male headed households the care seeking rate was 76.13 % and in female headed households the rate was 75.67%. This was quite amazing and higher than the findings revealed in earlier studies. Earlier it was found that the probability of access of any type of health care was more for men compared to women in Bangladesh (13,14). It was found that the most common pattern of diseases were dysentery, fever, tonsillitis, and headache. Together they accounted for almost two thirds of all sickness. Notably there were some diseases that were common to women. Again as a whole women's sickness events were higher than the men's sickness events in the case of common diseases. These findings are the same as from earlier studies (2,11,15), but especially, malnutrition, headache, female specific disease and skin disease can be interpreted as disease of women from this study. A similar trend was also found in earlier studies (14). The study revealed almost one third of the population as sick persons; that was a little bit higher than the national average (14,15). In this study 15.52% of the total sick persons suffered acute diseases, which were 4.8% of the total population. Jaundice had found to be a more prevalent acute disease and exhibited interesting characteristics. In the sample 13 households sought care from traditional healers. Among them 11 households sought care for jaundice. That means for jaundice, everyone seek care through traditional healers thought of contacting other caregivers also. In this study the proportion of acute disease was less for women, 7.14% compared to men's (8.38%) but in common disease patterns the disease share for women was higher. These acute type of diseases cost more for treatment and caused more morbidity. Diseases which occurred mostly in the children were measles, pneumonia, and cold related problems. Children under 10 also suffered in a higher proportion than persons of all other ages; in such cases diseases were primarily worms, influenza. Mental illness was quite prevalent in adolescents; the prevalence was higher in the female portion. By professional attachment, the household heads who engaged bua (maid servant) were most prone to disease occurrence. This was 16.8% of total household and 22.1% for care seeking household heads. The next prone professions were day labourer, thela chalak, rickshaw puller, construction worker and garments worker.

Another contrasting finding of the study revealed the higher utilization of health care services by the female members. Studies in gender and health-seeking behavior mainly centre on the differences in access to health care between men and women due to gender inequalities (16,17). To a higher or lesser extent, inequalities exist in all societies and social classes, but in developing countries and among the poor, they are assumed to have a more negative impact on women's health. For example, different studies show an increased number of male patients who attend medical services in areas where disease rates are practically the same for both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	-	-

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sexes (12,18,19,20,21). One explanation for this is that in the sample the disease prevalence for women was higher. The disease prevalence differentials for men to women were 11.33%. It is found that on an average, every sick person suffered for 4.2 days before illness or at the onset of illness. The average morbidity days during illness for common disease were 6.1 days and average morbidity days for after illness were 3.2. In the case of acute diseases the average morbidity days were 33.6 days which was quite lower than national average (14).

Increasing urbanization in Bangladesh is not caused by the natural population growth in the urban areas in Bangladesh, rather it is an outcome of push factored rural to urban migration (5). This push factor not only imposes the 'slummization' of urbanization but also changes the heterogeneity among the life style of socio-economic groups and causes different threats, patterns and utilization scope for the health care system. Besides the private public mix of thr health system continuously diminishes their efficient public health role and provides the scope for health care market manipulation. This phenomenon flourished in the study findings.

To prevent such influence policy that strengthens the urban primary health care system is crucial and necessary. Basically health awareness, education and important aspects of health information dissemination should get priority in that system. In the urban areas the health demand estimation by policy planners is crucial as the policy planner needs to identify the exact mix of service provision for the various health care seekers and in a cost effective way. Again due to the scope of major market orientation the private resources have the tendency to follow the profit maximizing trend and those profit maximizing trends influence the utilization of imposing modern unnecessary health care services. These put pressure on public resource allocations and impose system failure. At present there are no strong catchment health systems for people in the informal sectors. They also have no scope for social security or health insurance schemes (2). From income source, they are also not very secure, rather some jobs impose health risk and hazards. So policy reform should initiate some health security oriented programmes to make the present health systems more responsive toward informal sector people.

The ultimate recommendation of this study is that it is impossible to divert the present socio economic variable determinant to reduce the problem faced by the urban population involved in informal occupation. But some positive alteration of present policy will open the opportunity and scope for the health system to address the basic needs of this group of people and will cause more proper and effective utilization of the present health system (22,23).

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Table 9 : Estimated value of variables included in model

Parameter value of Variables						
	Beta	Std. error	Sig	Odds ratio	Upper bound for odds ratio	Lower bound for odds ratio
Constant	1.106	.599	.065	.331	.102	1.070
Pre-disposing factor						
Age of household head	.278	.631	.660	1.320	.384	4.542
Educational status of household head	.624	.421	.001**	1.393	.828	4.316
Income level of household head	.282	.635	.657	.754	.217	2.617
Years residing in Dhaka city	.631	.452	.162	.532	.219	1.290
Disorder characteristics						
Sufferings	1.127	.364	.000**	3.088	1.513	6.301
Perceived morbidity	.472	.388	.002**	1.603	.749	3.429
Service Characteristics						
Health related decision making	-1.504	.670	.025*	.222	5.981E-02	.826
Knowledge about service provider	-1.876	.459	.000*	.153	6.229E-02	.377

* $P < 0.05$, ** $P < 0.01$

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Quality of life in patients with chronic psoriasis

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Abstract

Background: Psoriasis is a major long term, recurring disease with substantial influences on the quality of life of the affected patients. Those impacts vary from one patient to another. Few studies have been conducted in regard to quality of life although it has been given more attention recently.

Objective: To explore the major impact of psoriasis related quality of life.

The search strategy was conducted through the search key word "quality of life" or "wellbeing", and "psoriasis" through the e-books, e-journals including CINAHL, Scopus, Medline, PsychInfo, and English-language literature.

Conclusion: Patients with psoriasis suffer substantial psycho-social impacts with a substantial decrement in their quality of life. Therefore psoriasis has a detrimental impact on quality of life and wellbeing. Therefore further studies should be paid more to the quality of life by offering psycho-social support incorporated with medication.

Introduction

Psoriasis is a common chronic recurring skin disease that affects about 2% of the Caucasian population, with onset often around the age of 20 (Berth-Jones J., 2009). It is characterised by dry red thick silvery flaky patches with both the itch element and the pain element varying from one patient to another. It affects mostly the scalp, ears and extensor extremities. Sometimes it affects the whole body. The itch if present, induces and exacerbates the disease by Koebner phenomenon. The pain would be noticed in those psoriatic patients who have joint problems, and it is well known that psoriasis can affect the small hand joints, plus the larger joints, such as knees. Also sufferers may have pain in the pruritic area (Yosipovitch G., et al., 2000, Joel M. G., et al., 2004). What is more, psoriasis does impact on all aspects of life measures (Finlay A.Y, 1998).

A research conducted by Gupta M. A., et al., 1994, Yosipovitch G., et al., 2000, Yosipovitch G., et al., 2003, Kim, K.J., et al, 2004 and Globe D., et al., 2009 and found that itch is a major symptom in psoriasis and correlates with psoriasis severity, however some authors did not find that correlation (Bilac C, et al., 2009); also some text books indicate that itching is not a major finding in psoriasis, rather, the major impact is the physical appearance which would have a deep social impact (Korte J., 2004, Eghlileb A.M., et al., 2007, Bilaç C., et al, 2009). More interestingly; about 17% of those pruritic psoriatic patients reported pain (Bilaç C., et al, 2009). A study conducted by Gupta MA and Gupta AK, 1999 in Vancouver and found a higher rate of suicidal thoughts, and ideation in those patients complaining of itching. Itch is a subjective expression and is difficult to quantify (Majeski C.J., et al, 2007).

Also it is important to note that cultural heritage may make some difference in the perception of either itch or pain or together, as a study by Yospivitch G., et al, 2002, indicated that the Indian patients have a strong consistent association between pruritus and pain, and this was not found in the Chinese patients.

A commonly misunderstood concept is that a skin disease is not a life-threatening disease, and therefore its influence on the quality of life is underestimated by health professionals. Now skin disease is considered to be equal in importance with that of cardio-vascular disease. For example, it has been found that both eczema and psoriasis do have a deep impact on the QoL like the cardio-vascular diseases (Finlay A.Y., 1998, Choi J., and Koo Y. M., 2003, Sampogna F., et al, 2004).

From this concept, itch or pain or both, does have a major impact on the quality of life (QoL) of the patient and also on the surrounding family (Eghlileb A.M., et al., 2007, Basra M.KA. and Finlay A.Y., 2007), because the mind can control our feelings whether positively or negatively, especially in chronic conditions, and according to the reaction to the condition (Verhoeven E.W.M., et al, 2007).

Quality of life can be defined as general subjective physical and mental well-being and skin diseases can have a drastic impact on a patient's life in terms of psychological wellbeing, social functioning, and daily activities (Basra M.KA, et al, 2008).

Nowadays QOL is increasingly acknowledged to be an important measurement tool in dermatology, as it is paid more attention than ever before (Damiano A.; et al., 2002). QoL simply means all those factors that might influence a human life. It can be divided into several components; psychological, social and physical areas. It is actually a disorder of body image (dysmorphia) which is the main issue to look at (Schofield J. K., et al., 2000).

There is however scarce data about social impairment in the literature (Sofaer-Bennett B., et al., 2007), and this topic has received little attention in the pain literature (Sofaer-Bennett B., et al., 2007). This could be explained by the disengagement theory expressed by Cumming and Henry in 1961, but not anymore as we now live older and remain active longer (Sofaer-Bennett B., et al., 2007).

QoL in dermatology is measured for many reasons; such as clinical, research and appraisal, political and financial resources (Finlay A.Y., 1997). Clinicians can assess skin conditions from the management point of view, while QoL is assessed from the patient's point of view (Finlay A.Y., 1997). QoL can add to the success of the treatment applied.

The hypothesis from many previous studies stated that psychological social-wellbeing and QoL measures declined variably among those patients with different skin diseases compared with the normal population, a. nd this would adversely affect the therapeutic outcome (Verhoeven EWM, et al., 2007). It could even correlate directly but not always in one way or another with the severity of the skin condition (itch and pain) as Yosipovitch G., et al., 2004 and Globe D., et al., 2009 indicated in their study.

Since about 10 years ago, many measures have been applied, but now there is an interest in constructing a special way to measure QoL (Finlay A.Y, 1997).

It is found that physicians frequently underestimate skin disease patients, claiming for instance psoriasis is not a life-threatening problem, but the degree of psychological and social impact could be a major one (Choi J. et al., 2003). Even so Dermatologist are still fully aware that their patients lives are adversely affected by their skin conditions, and just lately attempts have been directed more towards measuring QoL in clinical practice (Finlay A.Y., 1998).

It is important to explore patients' own experiences, and deeper and prospective understanding in terms of itch and pain separately or combined, in relation to psoriasis, and how it could affect their wellbeing. In order to live a good quality of life, each of us should be itch free, and pain free as well.

Conclusion

Psoriasis is a long term medical ailment, and it could have a damaging impact on the QoL of psoriatic patients. It seems that quality of life is not taken into account and not considered seriously as it should be, as a part of medical treatment, due to the fact or assumption that most skin diseases are not life-threatening, and most dermatologists pay more attention to the cure and remission of the condition based on the physical outlook of the skin, and do not address the psycho-social impacts. The underestimation of the management of chronic itch and chronic pain seem sometimes to be problematic especially if it is a chronic disease and where it would influence a patient's life dramatically by disabling patients, and causing long term psychological trauma and a damaged life. This lack of awareness would cause patients to grieve in silence. Dermatologists seem to have their own way of approaching patients without incorporating psycho-social wellbeing. This would affect the patient-doctor relationship in terms of hopes, expectations and fulfilment. Yet, no study has attempted so far to investigate the true expression of patients' own feelings though there are many valid measurement tools invented for this matter already. It is important to conduct a thorough study and explore those stated facts in order to improve the quality of life and psoriatic patient wellbeing.

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Medical Practice in Rural Communities: Opinions and Attitudes of Clinical Medical Students in a Nigerian Tertiary Institution

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Abstract

Aim: To assess the attitude of clinical medical students in Obafemi Awolowo University towards rural medical practice in Nigeria.

Materials & Methods: This cross-sectional study was carried out between July and September 2010, among the clinical medical students (400L, 500L and 600L). 130 subjects were selected by simple random sampling from the sample frame of 800 using the Abramson winpepi program software 2004. Data was collected with the aid of semi-structured self-administered questionnaire. The data was collated and analyzed with SPSS statistical software version 15.0.1 and Microsoft Excel (2007). Cross tabulation of results was done with chi-square test and statistical significance was set at p value ≤ 0.05.

Results: The selected subjects were from the clinical classes namely 400L (N=32, 24.2%), 500L (N= 45, 35.2%) and 600L (N= 53, 40.6%). Most were males (N= 80, 60.6%) and the rest were females (N= 50, 37.9%). The majority of the respondents (95%) originated from the rural communities in their states of origin but less than 5% of them grew up in the rural communities earlier indicated. 8.5% (N=11) (p-value of 0.0001) of the respondents agreed to practice in the rural community with others indicating a preference for practice in semi-urban and urban areas. 66.1% (N=86) of the respondents would request for reposting if posted to rural communities for medical practice after graduation (p- value =0.03).

Conclusion: Most students expressed preference for practice in the urban areas. Intense efforts should be made by all stakeholders in encouraging rural medical practice.

Key words: Medical students, Attitude, Rural community, Nigeria

Introduction

Health workers are the cornerstone and drivers of health systems. (1) More than 59 million health workers are working worldwide, 4.3 million short of the total needed.(1) Shortage of doctors has been a challenge to the development of the health sector worldwide especially in Africa. Sub-Saharan Africa bears more than 24% of the global burden of disease, but has access to only 3% of the world's health workers. The dire shortage of health workers has considerably

constrained achievement of health related millennium development goals.(1)

In Nigeria, the doctor-population ratio was about 18.3 per 100,000 with 16 accredited medical schools in 2002 as compared to South Africa which had 56.3 per 100,000 with 8 medical schools and the United states of about 279 per 100,000.(2) However, a marginal increase has been noted in Nigeria with a rise in the number of accredited medical schools in 2009 to 28.(3) Nigeria has about 47,000 registered medical doctors up till August, 2010 (exclusive of dentists)(3) but some are either dead, retired, have deviated to other professions and more than 20% are in diasporas with more than 2,300 of them in the USA and Canada(2002 statistics),(2) thus, leaving less than 28,000 doctors at home to a population of about 140.5 million people (20 doctors per 100,000) of which about 60% of Nigerians are in the rural areas.(4) It is also worthy of note that the majority of the doctors are in the urban settlements with most in Lagos, Port Harcourt and Abuja and with less than 15% of them in the rural settlements.(5-7)

In 1978, the WHO launched Primary health care(8) and subsequently in 1987, it was launched in Nigeria to be the cornerstone of health policy.(9) It was aimed at ensuring provision of qualitative health care facilities more to the rural communities with the objectives of accelerating health care personnel development; and improved collection and monitoring of health data amongst other aims.(9) Despite all efforts to increase the workforce in the rural settlements where communicable and non-communicable diseases are more prevalent; the number of doctors in the rural areas is further reducing. Factors which may militate against medical practice in the rural settlements especially in the developing countries include; inadequacy of the number of doctors, very poor infrastructural facilities in the rural areas, poor remunerations and incentives, low awareness of need for rural medical practice among medical students, lack of medical schools in the rural areas, human resource mal-distribution and migration, health hazards and violence against health workers amongst others.

Medical students are the future generation of doctors and should have adequate encouragement on the need to embrace practice in the rural areas. Couper et al suggested that the exposure of students to rural health care settings and an emphasis on rural health issues during medical training positively influenced students' future choices regarding rural practice.(10)

In view of the need to stimulate the interest of doctors in practicing in rural communities in Nigeria and Africa at large, this study was designed to identify the opinions and attitudes of clinical medical students in Obafemi Awolowo University towards rural medical practice in Nigeria. It is hoped that policy implication drawn from this study shall guide policy formulators to enhance the drive for rural medical practice which would in part reduce the need for rural-urban migration among doctors and in turn reduce the pressure on the limited health facilities in urban areas.

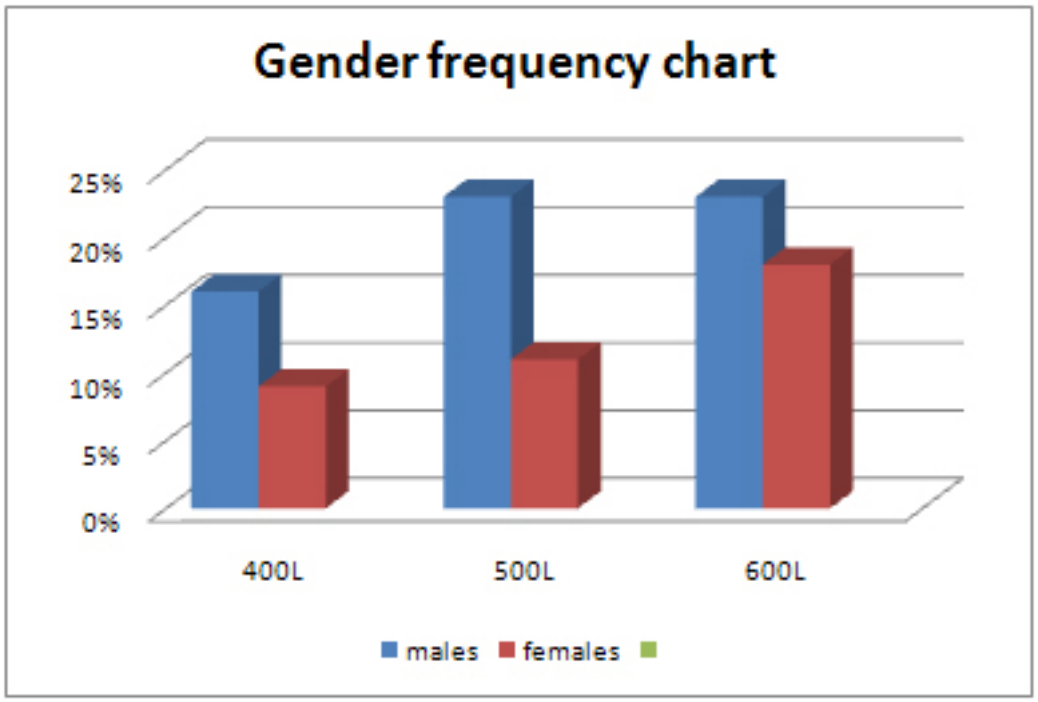
Materials and Methods

This cross-sectional study was carried out between July and September, 2010, among the clinical medical students of the Obafemi Awolowo University, Ile-Ife, Osun state. The University was established in 1962 as the University of Ife, before it was renamed in 1987 as Obafemi Awolowo University. There are about 800 medical students at the clinical wing of the college of medicine at the Obafemi Awolowo Teaching Hospital Complex. The students were in 400 level - 600 level at the time of this study. The sample subjects were selected by simple random sampling from the sample frame using the Abramson winpepi program software 2004. It comprised a sample frame of 800, a minimum acceptable difference of 0.08; assumed proportion of 0.40 (from other studies it was assumed that < 40% of medical students do not want to practice in rural environment), confidence interval of 95% and probability value of < 0.05, thus, assuming a minimum sample size of 129 subjects. Data collection was done with the aid of a semi structured self - administered questionnaire which was divided into three sections. The first section included the bio-data of the respondents, state of origin and medical school sponsorship. The second section assessed their opinions and attitudes towards rural medical practice. The third section included assessment of possible factors which may encourage rural medical practice. The data collected was collated and analyzed with the SPSS statistical software version15.0.1 and Microsoft Excel (2007). Cross tabulation of the results was done with chi-square test and statistical significance was set at p value ≤ 0.05.

Result

One hundred and thirty questionnaires were filled and all were returned during the period of this study. The selected subjects were from the clinical classes: 400L (N=32, 24.2%), 500L (N= 45, 35.2%) and 600L (N= 53, 40.6%). The ages of the respondents ranged between nineteen and thirty six years (19 - 36 years), mean age of 23.70 years and a standard deviation of 2.052. The respondents comprised males (N= 80 , 60.6%) and females (N= 50, 37.9%). The subjects were predominantly from the Yoruba tribe (N= 105, 79.5%), Igbo tribe (N=20, 15.2%), Hausa tribe (N= 2, 1.5%) and 3 students (2.3%) were from the other tribes. 95% of respondents originated from the rural communities according to their states of origin but about 2. 5% of the respondents grew up in rural communities. Sponsorship to medical school was mostly by immediate family members with support from extended families and friends in 98% of respondents while community (rural village) sponsorship was for about 1.5% of the respondents.

The attitude of respondents to practice in rural communities is



400L (N= 32, 24%), 500L (N=45, 35%), 600L (N=53, 40%)

Figure 1: Gender frequency chart

as summarized in Table I (opposite page). It shows that only 8.5% (N=11) (p-value of 0.0001) of the respondents expressed readiness to practice in the rural communities. Most; 66.1% (N=86) of respondents would request reposting if posted to rural communities for medical practice after graduation [p value 0.03].

Discussion

The age range of the subjects is within the expected age group and is comparable with another study by Van Wyk et al.(11) There were more male subjects than females, with the majority of them from the Yoruba tribe probably due to the location of the medical school. Most of the respondents hail from rural communities but never grew up in such communities nor were being sponsored through medical school by community efforts. This may account for why they are not desirous to practice in the rural communities. This finding is similar to a South African study by Van Wyk et al,(11) which showed that < 6% (Nr/N=9/146) indicated preference for rural medical practice among which volunteers were either trained via rural community scholarship but fewer respondents who grew up in rural areas volunteered to work in rural communities. A study by J. Nisker et al(12) in Canada showed about 20% of respondents preferred rural medical practice and the majority of them were on rural scholarships, although, only 20% of the Canadian population live in the rural communities. (13, 14) In Philadelphia, USA, physician Shortage Area Programme (PSAP) of Jefferson Medical College was established to address the shortage of rural primary care physicians. (15) It was noted that students who were involved in the programme were more likely to practice and remain in the rural areas compared to others.(16) Other findings showed that there was no pre-clinical community service exposure in the University's curriculum. This is however at variance with the situation in other institutions in Nigeria such as the University of Ilorin, Kwara State (a WHO collaborating centre on community health),(17) which ensures exposure to community services right from the pre-clinical classes (200 & 300L). However, Couper at al.(10) in a South African study showed that early exposure to community postings may influence a positive attitude towards rural medical practice.

The majority of the respondents expressed a desire to practice medicine after graduation as well as interest in residency training but only a few wished to practice family medicine. This finding is at variance with that of Couper et al(10) which reported that more respondents indicated interest in residency training in family medicine. The majority of the respondents indicated that governmental negligence across all levels (Federal, state & local) has contributed significantly to discouraging rural medical practice in terms of poor remunerations of medical staff in poorly equipped government hospitals, lack of community infrastructure, lack of adequate security for medical volunteers at rural communities, lack of good education, very poor access roads, amongst others. Other factors indicated by respondents included lack of access to teaching hospitals, stressful call schedules, finding employment for their partners, distance from family members, geographic isolation and lack of professional support.

	N = 32	N = 45	N = 53	
	400L	500L	600L	P-value
Experience of rural community posting	0	38(84%)	52(100%)	0.0002
Rural dwellers are more prone to Infectious diseases	28(88%)	40(89%)	49(94%)	0.00004
High Need for doctors in rural areas	30(67%)	40(89%)	50(96%)	0.00001
Practice of medicine after graduation	31(97%)	44(98%)	50(96%)	0.00002
Practice of medicine in rural areas	5(16%)	3(7%)	3(6%)	0.00001
Seek relocation on posting to a rural area for medical practice	19(59%)	22(49%)	32(62%)	0.030

Table I (frequency table showing a yes response to questions on knowledge and attitude towards rural medical practice by clinical medical students)

In Nigeria, a large percentage of the population live in rural communities despite the high movement to urban communities especially among the independent age group (18-60yrs), usually in search for better jobs, education, health system and raised standard of living amongst other things. Thus, it is essential for sustainable medical practice to be established in rural communities to cater for the health needs of the huge population. The rural areas are characterized by a culture of poverty, as most people still live barely above subsistence level.(18) The Nigerian population census statistics showed that 80.7% of Nigerians lived in the rural areas in 1963,(19) in 1985 it was 70% of an estimated total national population of approximately 100 million,(20) the figure for 1995 was 61% of 120 million(21) and that of 2006 census showed about 60% of 140.8 million people live in rural areas.(4) The torrential outflow has led to the overcrowding of most semi-urban and urban areas due to lack of space and the scarcely available infrastructure is overwhelmed. Efforts should be made to encourage rural medical postings as seen in medical students' community services and the rural posting during the one year compulsory youth service post internship for doctors in Nigeria.

Conclusion

Few respondents expressed readiness to work in rural communities after graduation. Most respondents would request reposting if posted to rural communities for medical practice after graduation.

Recommendations

- Provision of special grants and bursaries for students who choose to study medicine by Local governments.

- Encouraging early rural community service exposure for medical students especially in pre-clinical classes.

- Establishment of Government colleges and Universities in rural areas so as to enhance quicker development of such areas.

- Including family physicians as lecturers in medical training in Nigeria.

- Provision of a special salary package for doctors who practice in rural communities.

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