Trends in Medical Research

ISSN 1819-3587

Academic Journals Inc.

www.academicjournals.com

Trends in Medical Research 2 (4): 199-203, 2007
ISSN 1819-3587

Survey of the Health Facilities Available for Handling Cases of Tuberculosis in the Rural Areas Around Sokoto Metropolis

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Abstract: A survey of health facilities available for handling cases of tuberculosis within rural communities around Sokoto metropolis was carried out in the year 2006. A structured questionnaire was designed for the variables and administered to 13 health centers comprising; two dispensaries, four primary health centers, four government clinics and three private clinics. Only 4(30.8%) of the health centers have facilities for management of the cases which include personnel and drugs. Community Health Officers were found to be the health personnel involved in the provision of health services. There was no person specially trained for handling tuberculosis cases in all the health centers. The length of experience of the health personnel ranged from 10 to 35 years with majority of them (38.5%) having an experience of less than 10 years. Even though, 4 (30.8%) out of the 13 centers kept records of cases of tuberculosis, none of the health centers have any diagnostic facility. A yearly average of 67 cases was recorded per center. About 30.7% patients were recorded to have completed their treatment, 7.7% were referred, 15.5% died while 46.1% defaulted. Most centers (84.6%) are involved in BCG vaccination of children when presented. The study has brought to the fore that the health centers which serve as rural based primary health care can be said to be inadequate for the management of the cases and therefore need improvements.

Key words: Survey, health facilities, tuberculosis, Sokoto metropolis

INTRODUCTION

Tuberculosis care, a clinical function consisting of diagnosis and treatment of persons with the disease, is the core of tuberculosis control, which is a public health function comprising preventive interventions, monitoring and surveillance, as well as incorporating diagnosis and treatment (Philip *et al*., 2006). A successful tuberculosis control programme should be able to answer three key questions: what proportion of cases has been identified? How quickly have cases been identified? And what proportion of patients has successfully completed treatment? Case-finding, an important element of the DOTS strategy, is influenced by individual (care-seeking behavior), social (access to health care) and biomedical (diagnostic capability) factors. Improved diagnostic setting (better diagnostic tests and well trained staff) and procedures may yield little increase in case- finding without mechanisms to improve access to these services (Shargie *et al*., 2006). There are three broad mechanisms through which tuberculosis care is delivered: public sector tuberculosis control programmes, private sector practitioners having formal links to public sector programmes (the public-private mix) and private providers having no connection with formal activities (Philip *et al*., 2006). In a resource poor setting like Nigeria the public sector through the rural health facilities are expected to play a major role in the control of infectious diseases.

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This study reports on the availability of facilities for the management of tuberculosis in health centers in Sokoto.

MATERIALS AND METHODS

Area of Study

Sokoto State is situated in the northwestern part of Nigeria. Like most old Nigerian cities, Sokoto city is growing at alarming rate. The core city area presents a pressure of very intensive land use with building crammed together. Often lacks essential amenities such as motorable access roads, adequate provision of water and electricity. Open space for recreational purposes are invariably absent in such environment, the room occupancy ratio is usually high and together with other elements of environmental degradation, there occur high risks to the health of the inhabitants (Junaidu *et al*., 1998).

Data Collection

In order to standardize data collection on the study variables, a structured questionnaire was designed and administered to 13 health centers comprising: two dispensaries, four primary health centers, four government clinics and three private clinics located in different parts of the Sokoto metropolis. Information required includes quality of health personnel, years of experience (of the health personnel) in health services, availability of records, availability of facilities for diagnosis and treatment of tuberculosis, staff trained for testing tuberculosis, engagement in contact tracing, mode of patient review, sources of anti tuberculosis drugs to the rural health centers. Descriptive statistics was used to analyze the data, using frequency and percentage.

RESULTS

Following the survey of health facilities available within the rural communities of Sokoto, a total of 13 health centers responded to the questionnaire administered as in Table 1 and 2.

Table 1 shows a break down of the facilities, which are made up of two dispensaries, four primary health centers, four government clinics and three private clinics.

The distribution of the facilities for the diagnosis of tuberculosis is shown in Table 2. Only 4 (30.8%) of the health centers have such facilities.

The qualification of the health personnel involved in the provision of health services in the centers studied showed that most of them (38.5%) were Community Health personnel (Table 3).

The experiences of the personnel involved in handling cases of tuberculosis are shown in Table 4. The length of experience ranged from 10 to 35 years with majority of them (38.5%) having an experience of only 10 years.

The records of cases encountered at the centers are shown in Table 5. Only 4(30.8%) out of the 13 centers kept records of cases of tuberculosis. From the centers that kept records, it was found that from 1996 to 2000, a total of 336 cases were recorded giving a yearly average of 67 cases. Out of this number, only 103(30.7%) patients were recorded to have completed their treatment, 26(7.7%) were referred, 52(15.5%) died while 155(46.1%) defaulted.

Table 6 shows the availability of vaccination facilities in the centers that responded. It was found out that most centers (84.6%) used to be involved in BCG vaccination irregularly as the vaccine is not always available and storage facilities are lacking.

Table 7 shows the sources of drugs and their regularity to the rural communities. The sources of drugs seem to be from the government with no other agency helping. No non-governmental organizations are actually involved in the fight against tuberculosis within the study area.

Table 1: Distribution of respondent health facilities in rural communities in Sokoto

Facility	Frequency	Percentage
Dispensary	2	15.4
P.H.C.	4	30.8
Government Clinic	4	30.8
Private Clinic	3	23.0
Total	13	100.0

Table 2: Availability of facilities for diagnosis of tuberculosis in rural communities

Diagnosis facility	Frequency	Percentage
Available	4	30.8
Not available	9	69.2
Total	13	100.0

Table 3: Distribution of personnel involved in provision of health services in the rural communities

Status	Frequency	Percentage
Staff nurse	4	30.8
Doctors	3	23.1
CHO	5	38.5
Auxiliary	1	7.6
Total	13	100.0

Table 4: Years of experiences of personnel involved in provision of health services in rural community

Years of experience	Frequency	Percentage
10-15	5	38.5
16-20	3	23.1
21-25	2	15.4
26-30	2	15.4
31-50	1	7.6
Total	13	100.0

Table 5: Records of cases recorded in the four rural health centers between 1996 and 2000

Cases	1996	1997	1998	1999	2000	Total
No of completed treatment	25	24	23	7	24	103
No. of defaulted of cases	27	27	35	30	36	155
No. of referred cases	5	5	6	5	5	26
No dead	9	11	12	9	11	52
Total cases	66	67	76	51	76	336

Table 6: Availability of facilities for vaccination in rural health centers

No. of centers	Vaccination facilities (%)	No vaccination facilities (%)
13	11 (84.6)	2 (15.3)

Table 7: Sources of drug supply to the rural health centers

Supply of drug	Yes	No
Regular	0	13
Complete dose	0	13
Free drug	13	0
NGOs	0	13
Government	13	0

DISCUSSION

The philosophy and principles of primary health care advocates for comprehensive provision of integrated health services for attainment of health for all by the year 2000 and beyond (Anonymous, 1998). The realization of this noble goal depends on proper standardization of primary health centers to provide optimum health care services to all people, irrespective of their age, gender or geographical location. In Nigeria, since the inception of primary health many health facilities

were constructed and equipped without recourse to any standards. This has no doubt undermined the development of primary health care and created serious vacuum towards assessment and assurance of quality of care in the country (Roemer and Anguilar, 1998). A lot of efforts have been made to ensure that public health facilities are fully equipped to provide qualitative and quantitative services (Ekunwe, 1996).

This study shows that there were only few health facilities in the study area and they were not specifically established for handling tuberculosis, but for general health care delivery. As it is noticeable in any developing society, this leads to delay in tracing or inability to trace cases of tuberculosis with eventual death of such patients without being diagnosed and or treated. In the developing world, many people with tuberculosis live and die without the disease ever being diagnosed or face delay in diagnosis and treatment (Pronyk *et al*., 2001, 2004). Studies from sub-Saharan Africa have reported delays in case- finding ranging from 50 to 180 days (Salaniponi *et al*., 2000; Wandwalo and Morkv, 2000; Madebo and Lindtjorn, 1999; Demissie *et al*., 2000).

The effective way to control the disease currently is through the use of BCG vaccine, which is currently in practice in the state. This is usually administered by all the centers at day 1 of the birth of a child. In Sokoto state, it forms one of the primary responsibilities of the health centers. Although, it was found out that most centers (84.6%) used to be involved in BCG vaccination, this is actually irregularly, as the vaccine is not always available and storage facilities are lacking.

Only 4 (30.8%) of the health centers have such facilities for handling cases of tuberculosis. Patients are therefore diagnosed based on clinical signs of cough and emaciation and labored breathing. It was evident that there is no person specially trained for handling tuberculosis cases in the area surveyed. These same personnel also provide services for tuberculosis patients. The experiences of the health personnel involved in rendering services for tuberculosis, are not only limited to cases of tuberculosis but rather they are post graduation experiences. Those that are very experienced are very few and render inadequate effective services.

Only few of the 13 centers kept records of cases of tuberculosis. From the centers that kept records, it was found that from 1996 to 2000, a total of 336 cases were recorded giving a yearly average of 67 cases. Out of this number, only about 30% of patients completed their treatment while about 50% defaulted.

Of the two institutions rendering tertiary health services in the Sokoto metropolis, the state owned specialist hospital was found to provide more suitable areas of study because of the wide range of patients referred to it from all over the state. Whereas the state specialist hospital undertakes diagnostic tests, provides hospitalization for patients in very critical situations, the federal owned teaching hospital, even though apparently more sophisticated, accessibility to common man limits its full utilization.

In our series, all the centers acknowledged the fact that drugs are given free, all responded that the supply of the drugs is often very irregular such that most patients cannot get their full doses unless they opt to buy more from outside the health centers. The findings of a special project designed to provide drugs for tuberculosis showed that these drugs are in short supply and that patients either abandon their therapy or the few that have money will resort to purchasing them. Subsequently, a lot of the patients abscond and abandon the treatment either due to poor finance or distance. The sources of drugs seem to be from the government with no other agency helping. No non-governmental organizations are actually involved in the fight against tuberculosis within the study area.

There is limited information about the adequacy of tuberculosis care delivered by practitioners outside formal programmes, but evidence suggests that the poor quality of care delivered by non-programme providers hampers global tuberculosis control efforts (Upleker *et al*., 2001). A global situation assessment reported by WHO showed that clinicians who work in the private sector often deviate from standard, internationally recommended tuberculosis management practices (Upleker and Sheppard, 1999; Olle-Goig *et al*., 1999; Shah *et al*., 2003).

CONCLUSION

In conclusion, this study has demonstrated that nationally developed standards can be used to assess the health facilities available for handling the cases of tuberculosis. The study has brought to the fore that only very few of the health centers have such facilities for handling cases of tuberculosis. It is therefore, recommended that a high standard care is essential to restore the health of individuals with tuberculosis, to prevent the disease in their families and others with whom they come into contact and to protect the health of communities.

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