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Local Non-Governmental Organizations (NGOs) participation in National Tuberculosis Programme (NTP)

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Tuberculosis (TB) is one of the priority health problems in Myanmar. The objectives of this study were to identify the types of local Non-Governmental Organizations (NGOs), to determine the areas of participation in National Tuberculosis Program (NTP) and to determine the association between involvement of NGOs and achievement of NTP. A descriptive cross-sectional community-based study was conducted. Pyigyitagon, Nyaung U, Wundwin and Myingyan Townships were selected. Study period was from Nov 2006 to July 2007. For quantitative survey, 325 new sputum smear positive TB patients and 60 NGO members were studied. Focus group discussions with NGOs were done. Types of NGOs were Myanmar Maternal and Child Welfare Association (60%), Myanmar Women's Affair Federation (31%) and Red Cross (9%). Areas of participation were diagnosis (18.8%), referral of TB suspect (44.0%), provision of DOTS (12.6%), financial support (8.1%) and others (defaulter tracing, health education) (16.5%). About 33% of NGOs were good DOTS providers. The better the case detection (R square 0.9623) was observed in the townships with more NGOs participation. Strongly positive association between NGOs involvement and achievement of NTP was found. NGOs can make an important contribution by facilitating links between health services and local community.

INTRODUCTION

Effective tuberculosis (TB) treatment delivery in high-burden countries requires a multisectoral approach. The participation of local Non-Governmental Organizations (NGOs) in Directly Observed Treatment Short-course (DOTS), TB care delivery through primary health care facilities is one of the innovative ways. For TB control, the need to involve other stake-holders such as community and NGOs is not new and it was well recognized by WHO (1974), which stated; "It is important that the community should be involved in the TB program, including its leaders such as village elders, tribal chieftains, or other influential persons and the welfare organizations including the voluntary agencies and the laity" [1].

In the public health literature, there is a paucity of evidence on local NGOs involvement in community-based TB program despite there was the potential of these organizations to improve the accessibility of services [2]. Government identified local NGOs as potentially useful partners that can assist the TB program to implement DOTS. NGOs participate in the TB program by providing case finding, referral of TB suspect, DOTS provider, defaulter tracing and other social supports. This paper seeks to describe the involvement of local NGOs in TB control effort in four townships of Mandalay Division, Myanmar.

Objectives

- To identify different types of local NGOs actively participated in TB control program

- To determine the area (finding of TB suspect, diagnosis, administering TB drugs under DOTS, follow-up, defaulter tracing, social supports) of TB control actively implemented by NGOs
- To determine an association between active involvement of NGOs and achievement of NTP

MATERIALS AND METHODS

The present study was conducted in Pyigy-tagon (PGTG), Nyaung U (NU), Wundwin (WD) and Myingyan (MG) Townships, Mandalay Division, Myanmar which were chosen purposively (according to township TB patients register there was more than one hundred new sputum smear positive patients per year).

Study period

From September 2006 to August 2007

Inclusion criteria for TB patient

- New sputum smear positive patient registered in township TB campaign within one year
- Treatment completion of 6 months duration
- Both sexes
- Age above 12 years
- Pure TB case

Data collection

According to inclusion criteria, sputum smear positive adult patients with completion of treatment (n= 325) were randomly selected from patient register and list of NGOs involved in TB control was collected from township TB control team leader (n= 60) and they were interviewed with semi-structured questions by trained interviewers. The questionnaire for TB patients included type of help received from NGO, source of information about TB, health education activity and recording and keeping systems of treatment card were obtained.

In study townships, selected members of NGOs who participated in TB control were invited for face-to-face interview and focus group discussion (FGD). During survey period, some NGOs could not take part in study for interviewing because of their personal matters, however, they participated in control activity. In Myingyan township, campaign assigned family member of TB patient as DOTS provider, therefore only NGO who was family member of TB patient became provider. In other townships, not only family member but also other person can perform as provider such as NGO, health person etc.

Based on township variable such as Pyigyitagon, Nyaung U, Wundwin and Myingyan, a total of 8 FGD sessions (2 sessions in each group) were conducted with the selected NGO members. While all NGO members had experience in TB control activities, one NGO in Myingyan Township (Pyigyikhin) had also dealt with TB co-infected AIDS patients. Information relating to perceptions towards TB and NTP, NGO involvement in NTP and community perception on involvement of NGO on NTP were gathered through FGDs. Reviewing of existing records and reports of townships was conducted. All townships except Myingyan Township members of NGOs participated in TB control more than three years duration. Hence, case detection rate, treatment completion rate and cure rate were reviewed for three years duration (2003-2005) in all townships.

RESULTS

General characteristics of respondents

The general characteristics of TB patients who registered and took treatment in respective study townships are shown in Table 1.

Types of NGO

This study tried to elicit the types of NGO participating in TB control program in the study townships. Three NGOs, namely Myanmar Maternal and Child Welfare Association (MMCWA), Myanmar

Women's Affair Federation (MWAF) and Red Cross (RC) participated in TB control program. The participation of NGOs varied from townships to townships. While all the

Table 1. Age and sex distribution of TB patients by townships

Charac-teristics	Townships				Total
	PGTG	NU	WD	MG	
	No. (%)	No. (%)	No. (%)	No. (%)	
Age (Yrs)					
10-19	25(44.7)	11(21.3)	10(19.1)	9(14.9)	55(16.9)
20-29	16(21.9)	16(21.9)	21(28.8)	18(27.4)	71(21.9)
30-39	18(26.1)	15(21.2)	17(24.6)	21(27.1)	71(21.9)
40-49	12(22.4)	11(20.7)	11(20.7)	21(36.2)	55(16.9)
50-59	12(25.6)	19(41.9)	6(11.6)	9(20.9)	46(14.2)
60-69	7(34.6)	5(23.1)	3(19.2)	5(23.1)	20(6.2)
70+	0 (0)	4(4.4)	1(22.2)	2(33.4)	7(2.2)
Sex					
Male	50(23.6)	59(28.1)	41(19.5)	60(28.8)	210(64.6)
Female	38(38.8)	22(19.1)	30(26.9)	25(20.2)	115(35.4
Total %	88(27.1)	81(24.9)	71(21.8)	85(26.2)	325

PGTG = Pyigyitagon, NU =Nyaung U, WD = Wundwin
MG = Myingyan

NGO members from Nyaung U involved in TB control activities, i.e., MMCWA was 22.5%, MWAF was 36.8 % and RC was 40.7%, only MMCWA from Pyigyitagon and MWAF from Wundwin participated in TB activities respectively. However, there were no NGOs member involvement in control program in Myingyan Township because during study period found that TB campaign assigned family member as care providers who were accompanying during visit for anti-TB treatment. Therefore NGOs act as care providers who were family member of TB patient.

Areas of participation

This study tried to find out the areas of TB control program (Objective 2) such as case detection, referral, case holding or DOTS provision, and defaulter tracing by asking the TB patients how NGO was involving in TB control program (Table 2). It was noted that 165 TB patients (50.8%) responded that they got help from NGO in different aspects during TB treatment. In other words, one out of every two TB patients received help from NGO in a form of either cash or kind.

Table 2. Areas of participation by NGOs

Areas of participation	Number of NGOs	Percentage
Diagnosis	20	6.2
Referral	75	23.1
DOTS provider	49	15.1
Financial support	5	1.5
Others	16	4.9
Nil	160	49.2
Total	325	100

The respondents reported that they received other types of help from NGOs as well; namely 12.2% admitted they got help in diagnosis, 45.5% in referral, 29.7% in DOTS provider, 3% in financial support and 9.6% in other (health education concerning TB and defaulter tracing) activities. It was found that NGOs involved in each and every areas of TB control program. However, the involvement of NGO in study townships was only 50%. Nevertheless, they gave financial support to the poor.

Quality of DOTS by NGO

The study also accessed the quality of DOTS provision activity in 49 patients who mentioned receiving the help from NGO as DOTS providers according to WHO definition i.e. provider gave daily dose of anti-TB drugs to patients and watched them until they have swallowed the drugs (Table 3).

Table 3. Quality of DOTS by NGO

Quality of DOTS	No. of cases	Percentage
Provide wholesome drugs, monthly or weekly	8	16.30
Give daily dose in hand without watching the act of swallowing	25	51.00
Provision of drugs daily and Watching the act of swallowing	16	32.70
Total	49	100

Some 32.7% (16/49 TB patients) received help from NGO members acted as DOTS providers. They gave the daily dose to the patients and watched them until swallowing of drugs. However, 51% (25/49 TB patients)

said, NGO just gave the daily dose of drugs to the patients without watching the swallowing. The remaining 16.3% (8/49 TB patients) were provided with the drugs monthly or weekly without observing the swallowing. In short, only one third of NGO DOTS providers were reliable and strictly adhered to WHO criteria of DOTS provider.

Constraints of NGO members

Findings from focus group discussion revealed that distance between the residence of patients and NGO member was one of the constraints to watch the act of swallowing. The drugs were already taken by the patients by the time they arrived at patient's home, if the patient's residence was too far from them. However, NGO members strictly followed the criteria only for those patients who lived nearby.

Association between NGO participation and achievement of NTP

This study tried to find out the association between NGO participation and success of NTP (Objective 3). The indicators for the success of NTP were Case Detection Rate (CDR), Treatment Completion Rate, Cure Rate and Defaulter Rate. These secondary data were obtained from the Divisional NTP office (formerly called Zone II) and correlated with number of NGO involvement in respective townships. Among these data, only case detection rate was used to assess correlation between achievement of NTP and degree of involvement of NGO in the form of number of NGOs actively participated in TB control program (Table 4).

Table 4. Correlation between number of patients received help from NGOs and case detection rate of respective township

Townships	NGO's participation*	Case detection rate	Correlation value	P value (2-tailed)
Pyigyitagon	80.68 (71/88)	99		
Nyaung U	37.04 (30/81)	56	0.959	0.184
Wundwin	43.66 (31/71)	74		

* Numbers of patients referred by NGO divided by total detected cases in each township

The linear regression model was applied and found that the more participation of NGO members produced higher case detection rate and better achievement of TB control program.

DISCUSSION

Many Asian countries have a long experience of NGOs contribution in TB control [3, 4]. However, population and area coverages are quite different from country to country. Unlike the NGOs in our country, NGOs from India and Bangladesh are small associations representing the whole town or part of the region such as SEWA (Self Employed Women's Association), which covered city population and hospital-based REACH (Resource Group for Education and Advocacy for Community Health) covering 294 women's groups and HEED (Health Education and Economic Development) mobilizing women's group in Bangladesh.

In addition, nature of NGO involvement in TB control program is not the same in all countries. NGO in India hands over the whole process of NTP activities – diagnosis, treatment and follow-up. In other words, in India, NGO acts as NTP whereas in Myanmar, NGO supports the NTP focusing on supportive humanitarian work rather than medical activities. On the other hand, activities done by NGO in Bangladesh and Myanmar are quite similar in the areas of identification of symptomatic and referral to the diagnostic centres, direct observation of treatment DOT, default retrieval, collection of sputum sample from the symptomatic and health education about TB. However, it is more extensive in Bangladesh.

The NGO involvement in NTP is also one of the contributing factors to the achievement of NTP. Depending on the area or kind of activities involvement by NGO, the achievement was also different. in India and Bangladesh studies, NGO involved in particular area; while increase in out-patient attendance and case detection were the result of referral of symptomatic, increase in cure rate was due to monitoring of drugs consumption and defaulter retrieval. In

present study, NGO participation was more focused on referral of TB suspect (45.4%-75/165 patient), which reflected in case detection rate of 151.2% in Pyigyitagon with more NGO participation and 48.3% in Myingyan with no NGO participation. Even that, NGO in Myanmar neither receive training concerning TB nor incentive. They got only acknowledgment from the patients.

An intervention study done in Myanmar showed that by using trained MCWA as DOTS provider in study area, case detection rate and success rate were higher in study area than that of in control area [5]. Similarly, in Tamilnadu India, the whole province (with or without NGOs involvement) increased in case finding by 20%, treatment completion rate of 83% and cure rate of 82% to 93% were observed. So also, it was found that participation of NGO contributed to increase in cure rates in Bangladesh and Philippine [6].

Despite the achievement, NGO from the study area encountered with some difficulties such as overburden because of engaging with several health-related work, delaying in work commitment due to lack of monetary rewards, poor comprehensive skill due to low educational attainment, inadequate training of NGO and relatively weak system of monitoring and supervision [7, 8]. Although this finding could not be generalized for the whole country, to some extent, this indicated the need to strengthen treatment observation (DOTS provider activity) and completion of TB patients, which could not be done by health staffs alone, community as well as NGOs should participate hand in hand with health personnel.

Recommendations

- Wider NGO participation should be strengthened in TB control than present situation.
- NGO participation should be present in every township.
- Apart from MMCWA, MWAF and RC other NGOs should also partici-pate in NTP.
- Should improve and strengthen the quality DOTS provider activity more than 32% by reducing the constraints and difficulty e.g., patient and NGO ratio should be 1:1.

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