Health seeking and perceived causes of tuberculosis among patients in Manila, Philippines

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Summary

Inefficient case finding is an important stumbling block to successful control of tuberculosis (TB). Multiple health seeking may account for delayed case finding. Health-seeking behaviour, health seeking delay, perceived causes, and perceived quality of care related to TB were studied in interviews with 319 sputum smear-positive TB patients. The patients were treated in 22 governmental health centres of Malabon, a municipality of Metro Manila, Philippines. Only 29% of the respondents had gone first to a health centre after onset of TB-related symptoms, and more than half (53%) had initially consulted a private doctor. A chest X-ray was obtained for nearly everyone (97%). Two thirds of the patients (66%) had received a prescription for drugs, and 29% had purchased and taken anti-TB drugs for at least three weeks before they came to a governmental health centre. Concerning community interactions, 36% said they knew at least one person who had been treated for TB without success. The health seeking delay after symptom onset was relatively short – 64% of the respondents said they went to a health facility within 1 month. Case studies illustrate the rationale for health seeking and explain delayed initiation of appropriate treatment for many patients. Findings underscore the need for and indicate approaches to health communication for improved control of TB. Our findings from interview narratives also suggest that improved interpersonal skills of health centre staff and co-ordination between the private doctors and the health centres may substantially improve services for TB patients.

keywords pulmonary tuberculosis, health seeking, health providers, perceived causes of TB, Philippines

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Introduction

Control strategies for TB involve two components: case finding and case holding. Currently, active case finding, i.e. attempts to screen populations at large or to target specific populations, is much less widely used than passive case finding (i.e. only those who come to the health facilities are screened and diagnosed) (Murray 1994). Effective control requires case finding at an early stage of illness, both for the welfare of the patient and to minimize spread of the disease and development of drug resistance. Also, the case finding process should entail no more than minimal financial costs for the patient. Most TB patients are poor, and any money they may be required to spend for diagnosis and case finding may ultimately compromise case holding, that is, their ability to remain in treatment.

Many people with symptoms of tuberculosis first approach a private doctor (Valeza et al. 1991; Pathania et al. 1997). A process of multiple and varied help seeking that may be called ‘shopping’ for diagnosis and treatment thereby begins. Typically, poor patients end up in public health services, mainly because they cannot pay for prolonged care in the private sector (Nair et al. 1997). Moving from one provider to another often delays the diagnosis and the start of treatment, and thus increases the likelihood of developing multi-drug resistant TB, and it often involves considerable costs to patients. Several reasons may lead to this ‘shopping’: (i) the felt need of the patients to explore alternative providers, especially when symptoms persist or re-appear; (ii) lack of trust in the public health services; (iii) suboptimal health services, and (iv) financial constraints that require patients to shift from more expensive providers they see initially to others they can afford.

A body of literature documents how effective health seeking and case finding are influenced by the health system, community, family, and other personal issues (Rubel & Garro
1992; Pathania et al. 1997). Personal issues include the ways people experience their symptoms and illness, perceived causes and experiences with the health care system. A survey among TB patients of public health centres of Malabon, a municipality in Metro Manila, Philippines, examined these factors, considering how they may contribute to multiple health seeking and delayed treatment. The respondents’ experiences and perceptions about TB, their health-seeking behaviour, health-seeking delay and possible determinants of this delay were established. Two case studies illustrate how these factors operate.

In 1997, the rate of TB cases registered in the health centres of Malabon was 325 per 100 000 inhabitants. There was a functional TB program operating but the DOTS strategy (Directly Observed Treatment, Short-course; the widely promoted strategy to control TB, now being used in more than 100 countries) (WHO 1998) had not yet been implemented. Twenty-three governmental health centres operate in Malabon, all of them offering TB services. At the time of the study, three of these health centres had laboratory facilities for sputum examination, and there were six teams of health workers engaged in active case finding and sputum microscopy in the low-income areas of Malabon.

**Methodology**

Patients were surveyed in Malabon, an urban municipality of Metro Manila with approximately 360 000 inhabitants in 1996. A total of 812 sputum smear-positive (sm +) patients who were registered in the records of 22 of the 23 health centres between 1 January 1996 and 31 July 1997 were identified. One health centre did not have sm+ patients during the study period. Finding these former patients, however, proved to be difficult; only 319 (39%) could be found and interviewed.

A semi-structured interview, which included questionnaire items for self-report, was administered to former patients in their home at a point 1–16 months after the end of treatment. This interview-questionnaire of 131 questions, written in the Filipino language (known locally as Tagalog), was developed through a process of peer review and pre-testing. Experience of the first author (CA), who had already spent four years residing in impoverished urban areas of Metro Manila and was fluent in Tagalog, facilitated the development and administration of the research instrument. Culturally appropriate interactions with respondents, informed by extensive local experience of the principal investigator (CA) and the other interviewers, helped to ensure honest responses and valid data.

Sixty-one questions were self-administered. The remaining questions were answered in an interview at a subsequent visit to the respondents. We decided upon this approach because answering the entire questionnaire in an interview would have required about 50 min, and we were reluctant to come to people’s homes and request this much time for an interview. We also expected that some of the more personal questions would be answered more honestly if the respondent could complete the questionnaire in the absence of the interviewer. Questions for self-report were closed and simple (e.g. marital status, number of people in the patient’s household), and they were self-administered. Other questions that required more careful explanation were administered by an interviewer. Twelve questions were open-ended. Interviewers administered the entire interview to patients who had difficulty reading (approximately five patients) or understanding the self-report questions, or who preferred having an interviewer (approximately 50% of the sample).

The interview included questions regarding the patient (e.g. marital status, education, socio-economic status). It also inquired about the emotional impact of having TB, about perceived quality of care received in the health centres and details about case finding and case holding. Perceived causes of tuberculosis were also explored. Consequently, the patients were asked to explain in general why someone may get TB ('health beliefs'), and they were also asked how they acquired TB in their own particular case ('explanatory models of one’s own illness episode'). For the general case, they were asked to classify 13 presented potential causes into ‘definite causes’, “probable causes” or ‘not causes’ of TB. These potential causes were selected from a review of the literature and through ethnographically sensitive interaction with urban poor residents and TB patients over an extended time. Regarding causes of TB patients’ own illness, only eight potential causes were presented to the respondents and the possible answers were ‘yes’ or ‘no’. Some causes that were included among response options for the question about why someone may get TB – such as drying sweat on the back, sleeplessness, and exposure to dust or chemicals – were not presented in this item regarding patients’ own illness.

All data derived from the questionnaires were processed using the Epi Info software package (version 6.04, USD Inc., Stone Mountain, GA, USA).

**Results**

**The sample**

Among the respondents 70% were male, 80% were between 20 and 60 years of age, and 87% considered themselves to be poor. About a quarter of the sample (27%) reported having previously had TB, and so for them, the interview was not dealing with their first personal experience with TB.

What people know or perceive about TB when they are not yet affected is an important determinant of their health seeking. TB was found to be a well-known disease. Nearly
everyone (84%) knew somebody who had had TB, and a quarter of the sample (27%) had a close friend or relative with the disease. A few more (28%) reported that when they first came for treatment, there was someone else with TB in their household. More than half (52%) knew someone who had died of it, and many knew people who had been in treatment, either successfully (57%) or unsuccessfully (36%).

Table 1 indicates respondents’ ideas about the perceived dangerousness and risk of acquiring TB before becoming ill with TB. Approximately 20% of the respondents had considered TB to be only slightly dangerous or a harmless disease and 15% did not consider themselves vulnerable to TB.

Seventeen percent stated not to have known or to have been unsure whether their condition could be treated effectively (be it with drugs of Western medicine or in other ways).

Perceived causes

Perceived causes help to explain the meaning of a problem, whether it is considered a medical problem or a particular disease, and the implications based on cultural, familial, and personal background. Perceived causes may influence health seeking behaviour and treatment delay. Figure 1 presents the perceived causes of TB in general. The responses are summarized in order of the frequency of reports as definite or possible. Sweat drying on one’s back, followed by smoking, microbes, and drinking alcohol were the most frequently reported definite or possible causes of TB in general. A higher proportion of men than women considered ‘often smoking’ to be a definite or probable cause for someone getting TB (94% of the men vs. 86% of the women; $\chi^2 = 5.5, P = 0.02$). Sex differences among respondents reporting ‘often drinking alcohol’ were similar; 94% of the men and 84% of the women considered this to be a definite or probable cause for getting TB ($\chi^2 = 7.3, P = 0.007$). On the other hand, fewer men than women reported fatigue or overwork to be a definite or probable cause for acquiring TB (80% of the men vs. 91% of the women; $\chi^2 = 5.3, P = 0.02$).

A subgroup of 216 patients were asked about the spread of TB, and notably, 12% did not recognize it to be contagious: 7% said it was not, and 5% said it was ‘rather not’ contagious.

Figure 2 summarizes perceived causes reported by patients to explain how they themselves acquired TB. Sixty-two percent of the respondents gave more than one answer. Many emphasised a moral aspect of vulnerability: vices and hard

| Perceived dangerousness of TB and perceived risk of acquiring TB ($n = 319$) |
|---|---|---|
| Dangerousness of TB | Number | Percentage |
| Really dangerous | 177 | 55% |
| Quite dangerous | 75 | 24% |
| Slightly dangerous | 18 | 6% |
| Not dangerous | 44 | 14% |
| Don’t know | 5 | 2% |
| Perceived risk of acquiring TB | Number | Percentage |
| Could get TB easily | 144 | 45% |
| May get TB | 114 | 36% |
| Probably would not get TB | 30 | 9% |
| Definitely would not get TB | 19 | 6% |
| Don’t know | 12 | 4% |

Figure 1 Perceived causes of TB in general ($n = 319$).
work were mentioned much more frequently than mechanistic causes, such as person-to-person transmission.

Self-blame appeared to play a role among men. They were more likely than women to report ‘vices’ as the perceived cause of their own TB (64% vs. 12%; $\chi^2 = 72.7, P < 0.0001$). On the other hand, men were less likely than women to identify hard work as the cause for their own TB (44% vs. 57%; $\chi^2 = 4.6, P = 0.03$), as they did for explaining the causes of TB generally.

Health seeking

About two-thirds of patients (69%) had been told by someone to have a medical check-up for their symptoms. This advice came from a spouse (18%) or a relative or someone else in their household for 59% of the sample. Table 2 indicates that in many cases (53%) a private doctor was the first health care provider approached for treatment. Less than one third of the respondents first approached a health centre.

Only nine respondents (3%) reported consulting a traditional healer (albularyo) first, although three additional respondents mentioned they saw a traditional healer at a later point.

Almost two thirds of the respondents (63%) stated that before they were sick with TB, they had never been to the health centre (HC). Forty-five percent of those patients who had used the HC before falling sick with TB went to the HC first after initial symptoms of TB, compared with only 19% of those who had not yet used the HC when they fell sick with TB ($\chi^2 = 24.6, P < 0.0001$).

According to guidelines for TB control in the Philippines, the HCs should not routinely request X-rays. However, 97.5% of the respondents – all of them with a record of being smear-positive – stated they had a chest X-ray; only eight patients did not have the unnecessary X-ray. Since none of the HCs has X-ray equipment, this means that all but eight patients went to at least two health care providers for diagnostic procedures.

The following case study indicates that impolite health centre personnel may be an important reason for consulting private doctors. It also indicates that for many patients and health care providers, chest X-rays may be preferable to sputum examinations.

**Case study 1: health worker’s attitudes and diagnostic priorities**

Bong (a pseudonym), a single man from a squatter area who had had TB twice in the past seven years, developed symptoms suggesting TB. One morning he coughed up blood-streaked sputum, and later that same morning he presented the sputum sample to the nearby health centre to have it examined. They didn’t accept it, however, and told
him to come back the following day. This he did, bringing his blood-streaked sputum sample from the previous day and another early morning sputum sample of the current day. The health worker received him rudely, asking, ‘Why do you bring a sputum sample?’ After Bong explained, the health worker accepted only one of the samples, and with obvious disgust she smeared some of it on a slide, holding the slide far away from her. Bong was discouraged. When he returned to the health centre, he was told that his sputum sample was negative. He was not told to give a second sputum sample, but was advised to get a chest X-ray.

Consulting a private doctor was more likely to result in a diagnosis on the spot. The diagnosis was made at the clinic for 94% of the 170 patients who first went to a private doctor, but only for 84% of those who first went to the HC (\(\chi^2 = 6.0, P = 0.01\)). Among those initially not diagnosed at the HC, the diagnosis was made by a private doctor or at a hospital.

The cost of treatment was not considered appropriately for many patients. Two thirds of the patients (66%) received a prescription for drugs; 21% of these 209 persons receiving prescriptions said they had not been told by their private doctor or at the hospital that anti-TB medication was available free of charge in the HCs. In our total sample, 57% \((n = 182)\) reported purchasing anti-TB drugs before they came to the HC, and 29% had been taking them for at least three weeks before they came to the HC. These 182 patients were nevertheless smear-positive when they underwent sputum microscopy at the HC. Table 3 provides additional details.

### Delayed health seeking

The delay from first awareness of symptoms to beginning treatment is a matter of considerable public health interest. Table 4 summarizes the lag time from reported symptom onset to first health seeking at a health care facility. The median lag time was one month, and the interquartile range was half a month to two months. Twenty percent of the 302 respondents had had symptoms for at least three months before they approached a health facility.

The emotional impact of TB on health-seeking delay was considered. Reactions such as sadness, fear of dying, guilt, embarrassment, and loss of self-esteem were not associated with increased health-seeking delay. Among those who felt ostracised because of their TB, however, 41% had had a lag time longer than four weeks, compared with only 29% for those who did not say they felt ostracised \((\chi^2 = 3.9, P = 0.05)\).

### Table 3 Duration of TB treatment before coming to the health centre \((n = 319)\)

<table>
<thead>
<tr>
<th>Weeks of prior treatment</th>
<th>Number</th>
<th>Percentage</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 4 months</td>
<td>6</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>3–4 months</td>
<td>13</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Approximately 2 months</td>
<td>18</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>3–4 weeks</td>
<td>56</td>
<td>18%</td>
<td>29%</td>
</tr>
<tr>
<td>1–2 weeks</td>
<td>61</td>
<td>19%</td>
<td>48%</td>
</tr>
<tr>
<td>Less than one week</td>
<td>28</td>
<td>9%</td>
<td>57%</td>
</tr>
<tr>
<td>None</td>
<td>137</td>
<td>43%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 4 Lag time from onset of symptoms to first health seeking \((n = 302*)\)

<table>
<thead>
<tr>
<th>Lag time (health seeking delay)</th>
<th>Number</th>
<th>Percentage (of 302)</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 6 months</td>
<td>25</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>5–6 months</td>
<td>16</td>
<td>5%</td>
<td>14%</td>
</tr>
<tr>
<td>3–4 months</td>
<td>20</td>
<td>7%</td>
<td>20%</td>
</tr>
<tr>
<td>1–2 months</td>
<td>35</td>
<td>12%</td>
<td>32%</td>
</tr>
<tr>
<td>½–1 month</td>
<td>90</td>
<td>30%</td>
<td>62%</td>
</tr>
<tr>
<td>Up to half a month</td>
<td>116</td>
<td>38%</td>
<td>100%</td>
</tr>
</tbody>
</table>

* Seventeen respondents are not included (11 respondents did not have symptoms and for six respondents the degree of delay was not clear).
Case Study 2: ‘Shopping’ for health care by a dissatisfied health centre patient

Juan (a pseudonym) is 48-year-old, married, and ill with a new case of TB. When he was troubled by chest symptoms he purchased antipyretics and amoxicillin without consulting a health care provider. After approximately three weeks of unremitting symptoms he went to a HC where his sputum was examined. Although the HC records showed he had a positive sputum smear, Juan said no one told him the results of his sputum examination. The HC, which had run out of anti-TB drugs when Juan came for help, asked Juan to get an X-ray. Juan bought drugs for two months, but it is not known what kind of anti-TB drugs he bought. Then he went to a private doctor for an X-ray, which was positive for TB. Juan was given a prescription and bought the prescribed drugs. Although he could go back to work one month after starting to take these drugs, he could no longer afford to purchase them after three months.

Juan mentioned he was discouraged at the HC because often there was no physician present, and he was told to come back the next day. He also felt the HC staff had not given him sufficient information or an adequate explanation of his condition. At the time of interview Juan felt his TB was clearly not yet healed.

Discussion

One fifth of the patients had symptoms for at least three months before they approached a health facility. The median lag time from symptom onset to starting treatment was only four weeks, but this figure is somewhat misleading because a certain proportion of the respondents was found through active case finding. Because records are unreliable, the precise number of these patients is unknown, and although the median lag time underestimates the problem, the magnitude of this underestimate is unclear. Treatment delays in our study are similar to those of a previous study in the Philippines (Valeza et al. 1991), which found 32% of 180 urban respondents had a delay of at least two months (compared to 30% in this study), and 16% had a delay of at least six months (compared to 12% in this study).

Our study did not show a relationship between any perceived causes of TB and delayed health seeking, and the role of several other anticipated predictors of delayed health seeking remained unsubstantiated. These included the idea that TB is not dangerous, not feeling personally at risk, and lack of awareness of person-to-person transmission. The absence of such relationships is consistent with studies suggesting that fear does not necessarily motivate health seeking (Leventhal 1965, cited in Toledo et al. 1979). The tendency to minimize the severity and dangerousness of TB may also reflect a coping mechanism, rather than long-standing ideas about the disease or a lack of information. Consequently, health educational efforts should not overstate or over-dramatize the issue, as this could reinforce stigma and denial, thereby further delaying help seeking.

Our data showing 29% of respondents went first to the HC, compared with 53% who went first to a private doctor, is similar to previous studies in the Philippines. A study by Valeza et al. (1991) in several other regions of the country

Table 5

<table>
<thead>
<tr>
<th>Reasons for delay</th>
<th>Persons reporting</th>
<th>Percentage (of 228)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illness considered harmless</td>
<td>135</td>
<td>59%</td>
</tr>
<tr>
<td>Lack of money</td>
<td>51</td>
<td>22%</td>
</tr>
<tr>
<td>Symptomatic person was working</td>
<td>16</td>
<td>7%</td>
</tr>
<tr>
<td>Self-treatment considered sufficient</td>
<td>9</td>
<td>4%</td>
</tr>
<tr>
<td>Other reasons</td>
<td>29</td>
<td>13%</td>
</tr>
</tbody>
</table>

* Those patients with a short delay were not asked. There were 228 patients who were asked and gave an answer. A patient could mention more than one reason.

Among other possible determinants of health seeking delay, we examined perceived dangerousness of TB and perceived susceptibility when not yet sick with TB, and knowing at least one person who was treated unsuccessfully for TB. None of these three factors were associated with health-seeking delay. We also examined the perceived causes of TB and none of them were associated with health-seeking delay, neither perceived causes for TB in general, nor perceived causes of patients’ own illness.

Among eight additional factors that were considered (age, sex, marital status, self-perceived impoverishment, having or not having been at the HC before getting sick with TB, degree of education, employment status, and having or not having TB for the first time), only marital status was significantly associated with health-seeking delay. Among those without a marital partner only 24% had a lag time longer than four weeks, compared with 36% for those with a marital partner ($\chi^2 = 4.3, P = 0.04$).

The patients were asked what they felt contributed to the delay. The two most frequent responses were that the symptoms were considered harmless and the cost of medical care was too high (Table 5).

Difficulty staying in treatment appears to result from dissatisfaction with care and the search for acceptable alternatives. The experience of the following patient indicates how the perceived inferior quality of care may motivate patients to seek other providers.

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Our data showing 29% of respondents went first to the HC, compared with 53% who went first to a private doctor, is similar to previous studies in the Philippines. A study by Valeza et al. (1991) in several other regions of the country
found that 52% of 571 TB patients had also approached a private doctor first. Several factors may explain the use of services other than public health centres first: people expect private providers to be more effective, more easily accessible, more sympathetic and more likely to respect privacy than governmental health care providers (Pathania et al. 1997). They appear to maintain this view despite contradictory evidence, as was found in India where research showed a large number of private providers offer poor services for TB patients (Uplekar & Shepard 1991; Uplekar & Rangan 1996). It is not just that private practitioners are perceived as better. There is also a lack of awareness that HCs even provide services for TB, or an overall low regard based on the poor reputation of HCs.

Our findings support these explanations and raise additional questions: almost half of the patients who had used the HC for something else before falling sick with TB went to the HC first when they sought help for symptoms of TB, compared with only one-fifth of those who had not used the HC before their TB illness. Prior use encouraged, rather than discouraged, further use. Could this be taken as evidence that HCs are better liked than their reputation suggests? A study examining that question in India found that people generally ascribed a poor attitude to HC staff. However, when Indian TB patients who had used both the private and the public sector providers were asked to compare the two, they said the behaviour of the public doctors was better (Uplekar & Rangan 1996).

It seems the way most health providers, public and private, relate to their patients needs to be improved. The study by Uplekar and Rangan showed health education was a low priority for providers and received little more than scant attention. Patients received only 'a series of across-the-desk instructions, which the patient could rarely comprehend.' (Uplekar & Rangan 1996). In South America as well, research in Cali, Colombia, revealed that the communication skills of most health workers were also poor (Jaramillo 1998).

Recognition of the importance of the quality of initial patient counselling needs to become a higher priority. Anecdotal evidence indicates that there are health providers whose TB patients all complete treatment (Sumartojo 1993). An empathic and respectful style of listening and interacting with patients is essential. This enables patients to speak frankly, which in turn helps the health care provider to appreciate the problems that confront their patients. Giving priority to such values in the clinical interaction engenders mutual respect that contributes to development of an effective therapeutic alliance, especially important to support the six-month-long course of treatment for TB. Patients and clinicians who consider each other as partners with a shared goal, to cure TB, are more likely to foster a clinical relationship conducive to effective treatment. Although it is easy to find examples of troubled doctor–patient relationships, identifying solutions is more challenging (Rubel & Garro 1992; Zwarenstein 1999). Nevertheless, there are success stories (see, e.g. Sten et al. 1997), and it is important to learn from them.

Another reason why private doctors are so attractive may be that for chest-related symptoms patients want an X-ray, and many private doctors rely heavily on chest X-rays. For example, data from Korea show that 75% of 224 cases diagnosed with tuberculosis in facilities other than health centres relied exclusively on X-ray findings (Mori et al. 1992).

The cost of case finding to patients is often considerable. A study in rural Africa found that approximately half the monetary costs and majority of the time lost from work and other social costs are incurred before diagnosis (Saunderson 1995). A study in Thailand found the prediagnostic out-of-pocket expenditures to be similar or higher than the postdiagnostic out-of-pocket expenditures (Kamolratanakul et al. 1999). Ways to reduce these costs are needed. It is crucial that the case-finding process entails only minimal expenses for the patient so that she or he can bear the cost of treatment that follows. Minimal case-finding expenses not only reduce financial barriers to treatment; they also facilitate a positive attitude towards the health provider. Other benefits of efficient case finding include reduced transmission of the TB bacilli, less likely development of drug resistance, less physical and mental suffering; and reduced likelihood of incomplete recovery.

Most TB patients buy the prescribed anti-TB drugs when they come from the private doctor. Buying anti-TB medication, rather than receiving it free at the HC, not only aggravates the financial hardships of the poor, it often results in incomplete and/or irregular intake of drugs (Nichter 1994). Better public–private collaboration and innovative approaches to improving interactions between the public and private health providers need to be developed (Brugha & Zwi 1999). Policy should be implemented that requires private doctors to refer patients who lack the financial means to complete treatment on their own. A reliable supply of high-quality anti-TB drugs in the health centres is of course essential for such a policy to be effective.

Several factors may have compromised the validity of our data. Since patients were interviewed 1–16 months after the end of treatment, recall bias may have been a factor. Only 39% of the 812 known sm+ TB patients could be found and interviewed. Many patients moved back to the province, and inadequate addresses for others in the health centre records made it impossible to find them. Consequently, there may have been a selection bias. This was probably less of a factor than the low percentage indicates, because many of the patients came from rural areas, and they were likely to have been in Malabon only for their treatment. Consequently, we reached a larger proportion of the affected persons residing in...
Malabon. Only 10 former patients declined to be interviewed; thus, refusal to be interviewed constitutes only a minimal potential bias.

Our findings clarify important aspects of treatment delay for TB in the Philippines and relevant issues in the doctor–patient relationship that require attention for improved TB control. With the implementation of DOTS and consideration of alternative strategies for implementing control measures, it is hoped that these insights may be useful and that they may form policy in the Philippines and comparable regions.

Conclusion

The urgent need to foster co-ordination and collaboration between the private and the public health providers is clear. In addition, several findings of this study suggest that improved health communication is an important supporting element in case finding, both general information about TB, perhaps making better use of television and radio, and tactful individual health communication in health facilities.

This study found that the family plays an important role in health seeking. This is as expected in the Philippines where the family remains an important source of support. Health communication to promote health and prevent illness should be conveyed to more than one person in the family. Our finding that 28% of respondents reported someone else with TB in their household when they themselves came for a medical check-up underscores the importance of ‘family-based’ health communication. Encouraging the public to always be accompanied by a family member when seeking health care and enabling community health workers to adequately convey health communication messages to the families in their houses are two approaches to strengthen family-based health communication. Two kinds of educational materials may act as an enabler: culturally sensitive materials that the health worker can give to the patients, and materials for the health workers themselves. The latter was produced in the Philippines: so-called cue cards were developed for the health providers dealing with TB patients. These cue cards contained the key words of the 10 essential messages that need to be conveyed to TB patients (Valeza et al. 1990).

Overuse and inappropriate use of X-rays, and failure to examine sputa in accordance with current policy, indicate the need to update skills and practice of private practitioners and HC staff.

Clearly, health communications alone are insufficient for adequate control of TB. They cannot reduce lag time to treatment unless health services are available, affordable, and acceptable. There is no substitute for competent, efficient and patient-orientated personnel who effectively engage patients in a productive treatment alliance, and of course, medicines must be readily available. Efforts to promote the DOTS strategy must account for the human aspect of clinical interactions. The technical and organizational aspects of TB control should not detract from appreciation of the human aspects of treatment and control strategies.

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