Gender and socio-cultural determinants of delay to diagnosis of TB in Bangladesh, India and Malawi

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SUMMARY

SETTING: Tuberculosis (TB) control programmes in Bangladesh, India and Malawi.

OBJECTIVE: To compare the interval from symptom onset to diagnosis of TB for men and women, and to assess socio-cultural and gender-related features of illness explaining diagnostic delay.

DESIGN: Semi-structured Explanatory Model Interview Catalogue (EMIC) interviews were administered to 100 or more patients at each site, assessing categories of distress, perceived causes and help seeking. Based on time from initial symptoms to diagnosis of TB, patients were classified with problem delay (>90 days), timely diagnosis (≤30 days) or moderate delay. EMIC interview data were analysed to explain problem delay.

RESULTS: The median interval from symptom onset to diagnosis was longest in India and shortest in Malawi.

With adjustment for confounding, female sex (Bangladesh), and status of married woman (India) and housewife (Malawi) were associated with problem delay. Prominent non-specific symptoms—chest pain (Bangladesh) and breathlessness (Malawi)—were also significant. Cough in India, widely associated with TB, was associated with timely diagnosis. Sanitation as a perceived cause linked to poor urban conditions was associated with delayed diagnosis in India. Specific prior help seeking with circuitous referral patterns was identified.

CONCLUSION: The study identified gender- and illness-related features of diagnostic delay. Further research distinguishing patient and provider delay is needed.

KEY WORDS: tuberculosis; gender; diagnostic delay; cultural epidemiology; DOTS treatment

DESPITE heightened global and national efforts to achieve case detection and treatment targets for pulmonary tuberculosis (TB) control, delays to effective diagnosis and treatment initiation persist. They are often attributed to issues of accessibility of health services,[1,2] socio-economic and socio-cultural factors[3,4] and health system weaknesses.[5–7] Delayed initiation of treatment may worsen the disease among symptomatic individuals, increase the risk of death due to TB and raise transmission within the community.[8] However, because the determinants and effects of delayed disease recognition have been difficult to study, planning for TB control has not yet adequately considered the clinical and public health significance of timely diagnosis and treatment initiation and the socio-cultural determinants of this problem.

Evidence from multiple settings indicates that diagnostic delay may differ for men and women, and therefore questions about the nature, determinants and effects of delayed time to disease recognition are relevant to gender-sensitive TB control. Studies have shown that factors such as TB-related stigma[9] and female sex[10–14] are associated with delays and circuitous help seeking,[10,15] low regard for public health care services,[16] and with the use of less-qualified practitioners.[6,7,10,17,18] Clarifying the role of socio-cultural and behavioural barriers to delayed diagnosis of TB and identifying their determinants, including those that may be features of gender and the social and cultural dimensions of illness, can be expected to strengthen effective case detection with timely diagnosis, as required for disease control.

Although the World Health Organization (WHO) advises smear microscopy for patients who have experienced a cough of 3 weeks or more, questions exist about what constitutes adequate and problem time intervals to recognition of TB. Prior studies have investigated mean and median patient, provider and total delays, often with reference to health system factors and socio-demographic variables, considering sex differences.[2,4,6,7,13,16,18–24] However, few studies have investigated socio-cultural and behavioural factors as determinants of the time interval to a diagnosis of TB beyond descriptive ethnographic accounts. This study used a cultural epidemiological approach to identify the role of gender and illness-related socio-cultural

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determinants of problem delay with reference to the interval from symptom onset to diagnosis of TB. Local patterns of TB-related experience, meaning and behaviour were considered in a cross-site analysis of a multi-country study of gender and tuberculosis in TB control programmes of three high-burden settings.

METHODS

Study setting

The three study sites were located in low-income countries with a high burden of TB and well-functioning programmes for TB control. The Bangladesh programme operated exclusively in rural clinics; the sites in Malawi and India were both urban. In Bangladesh, the study was conducted in 10 rural subdistricts (*upazila*s) of the Bangladesh Rural Advancement Committee (BRAC) TB control programme, covering a population of approximately 2.5 million people. Operating as a non-governmental organisation (NGO) in partnership with the Bangladesh National TB Control Programme (NTP), BRAC has health centres, like those of this study, in designated regions of the country. BRAC-trained female volunteers work as community health workers, known as *shastho shebikas*.

Chennai, India's fourth largest city, with a population of 4.2 million, was the site of the India study, where the Tuberculosis Research Centre conducted the study in tuberculosis units of 10 health centres, five of which also included family welfare clinics providing maternal and child health (MCH) services. Tuberculosis control in government-run facilities has followed the guidelines of the Revised National Tuberculosis Control Programme (RNTCP) since 1999. Treatment is given three times a week and is observed in the clinics.

In Malawi, the study was conducted in the urban capital, Lilongwe. TB diagnosis and treatment in Malawi is integrated with other district health activities. In addition to the public health system, free TB diagnosis and treatment are offered through a network of non-profit mission health facilities that provide 40% of Malawi's health care services. In urban areas, a small number of private-for-profit health facilities are also associated with the NTP. Other private allopathic practitioners provide care for TB outside the context of the NTP in Malawi.

Instrument

Semi-structured explanatory model interviews with a common core structure were developed in a project workshop of investigators from all sites. These EMIC (Explanatory Model Interview Catalogue) interviews provide a framework for studying cultural epidemiology that is adapted for disease- and site-specific features of illness. Prior ethnographic research informed the construction of questions and categories for coding categories of distress, perceived causes and help seeking. The prominence of coded categories was based on whether responses identifying that category were reported spontaneously in response to an open question or only in response to probing for that category. If a category was identified as most important among all reported categories, this contributed further to its prominence. This instrument also assessed the interval from symptom onset to diagnosis by asking patients how long after first experiencing TB-related symptoms they were diagnosed with tuberculosis. Responses were recorded in the manner in which they were reported, in days, weeks, months or years, and converted to days for analysis.

Design

Approximately 100 patients from each site were interviewed in their local language with the EMIC interview. Patients in the clinical samples at each of the three sites were selected to achieve a nearly equal balance of men and women.

Data analysis

Categorical and numeric data from the EMIC interviews were double-entered and cleaned using Epi Info (Centers for Disease Control and Prevention, Atlanta, GA, USA, version 6.04). Cross-site statistical analysis was performed using SAS (Statistical Analysis Software Institute, Cary, NC, USA) software. The analysis compared the median interval from symptom onset to diagnosis for men and women at each site and across sites. Based on the WHO recommendation to seek help for respiratory symptoms that persist for three or more weeks, and approaches to analysis used in other studies,[19,20,24] patients were classified with respect to their timely presentation ($\leqslant$30 days), moderate delay (31–90 days) or problem delay (>90 days). The percentages of men and women in each category were compared at each site and across sites.

The analysis focused on gender- and illness-related determinants of problem delay. After crude analysis, explanatory variables from EMIC interviews were analysed and adjusted in a multivariate logistic regression model, considering socio-demographics and the prominence of categories of distress, perceived causes and prior help seeking. The role of gender as an effect modifier was considered by creating interaction variables for female sex with male sex as baseline. For the logistic model, explanatory variables were considered based on preselection for an association with $P < 0.30$ in the crude analysis; forward selection retained variables in the model with $P < 0.15$, based on χ^2 score. Positive adjusted estimates indicate an association between the explanatory variable and problem delay. The analysis was repeated for cultural epidemiological variables after grouping them thematically.

Narrative data were transcribed during the interview by a data collector and translated into English

Table 1 Sample characteristics (%)

	Bangladesh			India			Malawi		
	Men (n = 52)	Women (n = 50)	Total (n = 102)	Men (n = 66)	Women (n = 61)	Total (n = 127)	Women (n = 50)	Men (n = 50)	Total (n = 100)
Religion									
Hindu	11.5	14.0	12.7	81.8	77.0	79.5	0	0	0
Muslim	88.5	86.0	87.3	7.6	13.1	10.2	8.0	12.0	10.0
Christian	0	0	0	10.6	9.8	10.2	92.0	82.0	87.0
Other	0	0	0	0	0	0	0	6.0	3.0
Marital status									
Never married	3.8	12.0	7.8	27.3	26.2	26.8	14.0	32.0	23.0
Married	94.2	72.0	83.3	69.7	59.0	64.6	46.0	34.0	40.0
Separated, divorced, widowed	1.9	16.0	8.8	3.0	14.8	8.7	18.0	10.0	14.0
Remarried	0	0	0	0	0	0	22.0	24.0	23.0
Occupation									
Nil	13.5	16.0	14.7	4.5	18.0	11.0	6.0	12.0	9.0
Student	1.9	8.0	4.9	0	0	0	0	0	0
Housewife	0	68.0	33.3	0	39.3	18.9	20.0	0	10.0
Unskilled labour	7.7	6.0	6.9	19.7	11.5	15.7	2.0	16.0	9.0
Skilled labour	9.6	0	4.9	45.5	14.8	30.7	2.0	28.0	15.0
Trade/business	19.2	2.0	10.8	7.6	9.8	8.7	44.0	22.0	33.0
Other	19.2	0	9.8	22.7	6.6	15.0	18.0	16.0	17.0
Farmer	28.8	0	14.7	0	0	0	8.0	6.0	7.0

at all sites. MAXqda software for qualitative data analysis (Verbi Software, Marburg, Germany) was used to code these narrative data with reference to EMIC interview items. Key selection variables (e.g., problem delay or timely diagnosis, reported categories of distress and perceived causes) were imported from the quantitative data set to select records of particular interest. Qualitative analysis clarified the nature of coded variables and the structural and dynamic features of the relationship for explanatory variables associated with problem delay.

RESULTS

Sample characteristics

Among the patients interviewed, most were married, and they were mainly Muslim in Bangladesh, Hindu in India and Christian Protestant in Malawi (Table 1). A majority of women in Bangladesh and India identified themselves as housewives, but women in Malawi were more typically employed in trade or business.

Many of the men in urban India and Malawi were employed as skilled labourers, and in rural Bangladesh more men identified themselves as farmers. About half the patients in Bangladesh reported no formal schooling (53.9%; 48.1% of men and 60.0% of women), compared with 10% or less in India and Malawi.

Diagnostic delay across sites

The median delay to diagnosis at each site was 60 days in Bangladesh, 74 days in India and 33.5 days in Malawi ($P = 0.03$, for further details see Weiss et al.[25]). The shortest reported time to diagnosis at each site was 1 day in Bangladesh and 3 days in both India and Malawi. The longest reported delay at each site was 335 days in Bangladesh, 2 years in India and 7 years in Malawi. At each site, the patient representing the minimum time to delay was male and the patient representing the maximum time to delay was female.

The highest percentage of patients with problem delay was in India and the highest percentage with a timely diagnosis was in Malawi (Figure). In Bangla-
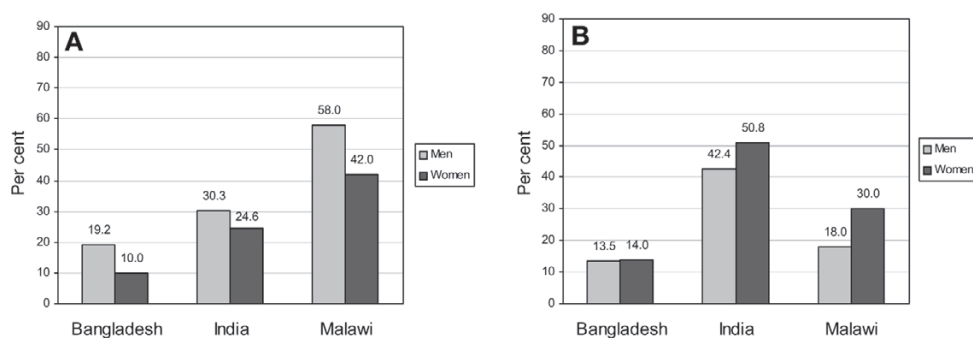

Figure Comparison of men and women for **A**) timely diagnosis (=30 days) and **B**) problem delay to diagnosis (>90 days) at three sites.

Table 2 Crude analysis of variables and interactions with female sex associated with problem delay to diagnosis (>90 days)

Explanatory variables*	Bangladesh				India				Malawi			
	Main variable		Interaction		Main variable		Interaction		Main variable		Interaction	
	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value
Demographics												
No occupation									1.85	0.05	−14.69	0.98
Patterns of distress												
Chest pain	0.36	0.07	0.22	0.53								
Loss of appetite	0.16	0.62	−3.22	0.00								
Weakness	−0.18	0.52	−2.50	0.02	0.39	0.09	−0.44	0.21				
Other physical symptoms					0.52	0.05	−0.46	0.23				
Stigma—reduced social status									0.94	0.10	−0.57	0.54
Concern about course of illness					−0.72	0.07	0.50	0.24				
Perceived causes												
Food	0.47	0.03	−0.52	0.11								
Blood problems					1.79	0.03	−2.15	0.07				
Germs or infection									1.74	0.04	−14.62	0.97
Other					−0.26	0.12	0.52	0.05				
Help seeking												
NGO health clinic/hospital	0.67	0.08	0.30	0.72								

* Only variables with P value <0.10 shown. Interaction refers to female compared to male, with male sex as the baseline.
NGO = non-governmental organisation.

desh most patients were in the mid-range group. The Figure indicates the relative percentage of men and women at each site, but, based on crude comparison, none of these male-female differences were statistically significant.

Features of problem delay

Explanatory variables associated with problem diagnostic delay in the crude analysis with $P < 0.10$ are presented in Table 2, and those retained after adjustment with logistic regression are shown in Table 3.

Table 3 Adjusted analysis of variables and interactions with female sex associated with problem delay to diagnosis (>90 days)*

Explanatory variables	Bangladesh				India				Malawi			
	Main variable		Interaction		Main variable		Interaction		Main variable		Interaction	
	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value	Estimate	P value
Demographics												
Never married					−1.49	0.36	1.55	0.43				
Married					−2.26	0.16	4.03	0.04				
Housewife									2.76	0.04		
Patterns of distress												
Cough					−0.40	0.02						
Chest pain	0.48	0.03										
Breathlessness									0.71	0.00		
Loss of appetite	0.40	0.34	−2.47	0.02								
Weakness	−0.27	0.50	−2.23	0.14	0.25	0.32	−0.91	0.05				
Other physical symptoms					0.39	0.10						
Stigma—reduced social status									1.00	0.16		
Concern about course of illness					−0.55	0.01			−0.39	0.39	1.10	0.07
Perceived causes												
Food	0.43	0.06										
Abused drug									2.44	0.01		
Pregnancy or childbirth									−2.75	0.05		
Sanitation					1.48	0.01						
Contamination/contact									0.27	0.19		
Heat-cold/humoral	−0.50	0.84	0.93	0.72								
Help seeking												
Home remedies, self-care					0.12	0.84	−1.42	0.09				
Druggist/pharmacy for advice					0.20	0.51	1.49	0.01				
Urban government hospital									0.60	0.01		
NGO health clinic/hospital	0.75	0.12										
Private hospital	0.89	0.10										
This clinic									0.61	0.14	−1.25	0.06
Female sex	8.08	0.01			−1.68	0.38			2.68	0.16		

* Analysis of demographics, categories of distress, perceived causes and help seeking as explanatory variables for delayed diagnosis (>90 days) of TB in three sites, examining interactions with female sex. Forward selection with an entry $P < 0.15$ was used. Coefficients and P values for all variables included in each model are shown. Model fitness was assessed based on the likelihood ratio in Bangladesh ($P < 0.004$), India ($P < 0.0001$) and Malawi ($P < 0.0001$).
NGO = non-governmental organisation.

The only common cross-site determinants of problem delay were related to female sex and gender roles. Problem delay was associated with female sex in Bangladesh in the adjusted analysis but not in the crude analysis. Status of married woman (but not man) in India and occupation reported as housewife in Malawi were associated with problem delay. In the second adjusted analysis of grouped EMIC variables, female sex was a significant explanatory variable in India and Malawi. Although different explanatory variables were identified in the analyses for each site, they illustrated common themes identified in the statistical models and illness narratives related to environmental deprivation, non-specific symptoms and prior help-seeking experience characterised by particular choices and circuitous referral patterns.

Bangladesh

In Bangladesh, high reported prominence of symptomatic chest pain was associated with a delayed diagnosis of TB. Narratives suggested that many patients did not initially associate such symptoms with TB, and only when they became severe and compromised one's ability to work and earn or maintain the household did they motivate help seeking. Many women who experienced such delays reported a long and circuitous history of help seeking before coming to the BRAC clinic. The following account of a Bangladeshi woman is characteristic:

> My husband took me to a doctor who gave me medicines only for fever. I was cured from fever for 2 days after taking those medicines, but again I became sick. Then again I went to the same doctor and he gave the same medicines. I was [still] not cured from fever. I went to a doctor at Trishal bazaar. Then I bought medicines from a pharmacy for fever . . . Then I went to the hospital for a blood test but they could not detect my disease. Finally, I went to BRAC for cough test and TB was found there.

Narrative accounts indicated that a lack of control of household resources and need for their husband's permission contributed to delayed help seeking for some women. Sometimes women were also sent back to their natal homes.

> My husband told me to go to my parent's home. He refused to give me money for the cost of treatment. My neighbour did not help me that much either. Poor people always suffer if they get any disease.

In the second logistic regression model of grouped categories, the perceived causes referring to too much heat or cold (humoral balance), climate and fate or the will of God were grouped as a summary category of traditional cultural and magico-religious concepts. This category was associated with delayed diagnosis in Bangladesh (adjusted estimate = 0.51, $P = 0.01$).

India

In India, poor sanitation as a perceived cause of TB was associated with delayed diagnosis. It was regarded as a feature of poor urban conditions and related aspects of poverty. Illness narratives of such patients referred to impoverished living conditions, unclean water and insufficient food as the reasons for their TB. These causes were linked to a sense of hopelessness and an inability to improve conditions of one's life. Some patients also linked living in unhygienic places and not maintaining personal hygiene.

Among gender-specific findings associated with problem delay in India, a relationship for married women was noted above. Married women reported abandonment, isolation within the household and a lack of proper care from family members, particularly in-laws. One patient explained:

> Since I have been infected by TB, my husband neglects me and stays with his mother. My mother was with me, and after hearing about [my illness], she also went to my brother's house. These all made me feel sad about my condition. I was worried a lot.

In the second logistic regression model of thematically grouped cultural epidemiological variables, female sex was itself highly associated with problem diagnostic delay (adjusted estimate = 5.72, $P < 0.001$). The narratives of women with problem delay also reflected fears that they would transmit TB to their children. Some said that they had intentionally separated their personal items, and abstained from eating or sleeping together with children or from breast-feeding babies. Some women feared that the stigma of their own TB would affect their children's social status, and some had not disclosed their illness to their husband or other family members due to concern about the stigma of TB.

Prior use of a druggist or pharmacy was associated with problem diagnostic delay for female patients compared to males. This represented the first stage of a women's help seeking, which illness narratives indicated were linked to subsequent visits to private doctors and government hospitals before diagnosis with TB. The following account illustrates a complicated course of help seeking linked with problem diagnostic delay:

> Four months back, I had fever for 10 days. I took medicines from a pharmacist for 4 days. It didn't give me any relief. Then I had chest pain. My condition worsened. So, I went to a private doctor for 10 days. I didn't have relief. A petty shopkeeper near my house told me about the Ottari TB hospital, so I went there. All the tests were done there after 4 days. Then I came to this clinic. I was referred to this clinic from there.

In the second analysis of grouped categories, the analysis of the prominence of prior help seeking for

the group defined by traditional and magico-religious healers was associated with problem delay (adjusted estimate = 1.72, $P < 0.001$).

Malawi

Although the crude analysis indicated that a higher but non-significant percentage of women in Malawi received a timely diagnosis, occupational status as a housewife was associated with problem delay in the adjusted analysis. Prominent breathlessness, a non-specific symptom, was associated with problem delay without distinguishing men and women. With regard to prior help seeking, use of the urban hospital was associated with problem delay. Narratives suggested a reason for this, providing examples of first help at a government hospital that led to multiple circuitous referrals between government facilities for examination and testing. Difficulties confirming diagnoses were also a factor that narratives suggested might explain the association with delay, as indicated in the following account:

> I was going to Central [a government hospital] but mostly I went to Bottom [a government hospital] because I knew that I could get tested there. I have been tested twice at Bottom, and they could not find TB. I went to Bottom hospital for quite some time. I would go there, and I would get tested and I would be found negative, so I would go back home. I was doing like that since January.

The prominence of pregnancy as a perceived cause was negatively associated with problem delay for diagnosing TB.

DISCUSSION

The study has identified gender- and illness-related features of TB that explain problem delay in diagnosis. Some of these findings are cross-cutting; others show local manifestations of broadly relevant themes. Others reflect the influence of local socio-cultural features of the disease and the impact of health system diversity and the effectiveness of clinic operations. Methodologically, the study shows how empirical data from cultural research helps to explain aspects of disease control that are usually considered only with reference to ethnographic findings. Although ethnographic findings are highly relevant, they usually inform health programmes by garnering insights from local accounts, rather than analysing empirical relationships between patterns of illness experience, meaning and behaviour and programme-relevant features of disease control.

Although this report highlights gender- and illness-related features of illness that explain delays in the diagnosis of TB at the site of each study, the cross-site analysis provides additional insight and guidance. Explanatory variables were directly related to gender roles at all three sites, to the prominence of non-specific symptoms and to specific local help-seeking choices of particular types of providers in complex health systems where the process of achieving a timely diagnosis was delayed by circuitous help seeking, provider referral patterns and difficulties confirming a diagnosis.

Gender-related factors associated with delay were a cross-cutting finding in the adjusted analysis, including an association with being a woman in Bangladesh, being a married woman in India and being a housewife in Malawi. Poverty-related issues were clearest in India, where sanitation as a perceived cause of TB was associated with problem diagnostic delay, suggesting low expectations for life and health in a poor urban environment. Similar concerns were also identifiable in the narratives at the other sites.

The relevance of particular patterns of distress with respect to non-specific compared to TB-specific symptoms was also notable. Chest pain in Bangladesh and breathlessness in Malawi were positively associated with problem delay. Their prominence did not immediately suggest TB in motivating help seeking or clinical evaluation. A similar finding was indicated in the Indian study from a corollary association, which showed that higher patient priority for cough—a characteristic symptom of TB in public health messages for TB control—had a negative association with problem delay and a positive association with timely diagnosis.

The finding in Malawi that the prominence of pregnancy as a perceived cause of TB was negatively associated with problem delay suggests a related feature of symptom specificity and timely diagnosis. In the context of antenatal care, clinical symptoms of TB, which health staff recognised as unrelated to pregnancy, appear to have been more likely to be worked up and diagnosed sooner as TB. Although patients' attribution of pregnancy as the cause is biomedically incorrect, antenatal clinical care in the context of pregnancy may nevertheless reduce diagnostic delay.

Cultural ideas about the meaning of TB and the regard and use of various components of the local health system were of particular interest in this study. At the two South Asian sites, traditional medical concepts (Bangladesh) and use of indigenous traditional healers (India) were associated with problem delay. The finding suggests that patterns of help seeking and the nature of referral from healers representing traditional orientations that are alternatives to allopathic medicine were problematic for timely diagnosis. In Malawi, however, help-seeking patterns associated with problem delay suggested that problems in health system operations and referral patterns within the urban clinics were more pertinent issues than the use of alternative traditional healers.

Notwithstanding the value of these findings and the approach suggested by the study for examining socio-cultural determinants of diagnostic delay, as a clinical study the design has some limitations in answering broader questions about the behaviour of people with

TB in the community. Patients in these studies were already enrolled in a course of treatment, and people with TB who did not reach treatment at a TB clinic could not be studied. Furthermore, even though the narratives of patients in our data sets indicate the contexts of treatment delay, our design did not adequately distinguish patient delay from provider delay in the analysis of delayed diagnosis. Further research is needed to identify features and determinants of these two sources of delay as a guide to local TB control operations and community activity.[26] Although the sample size at each site was relatively moderate, they were adequate for this mixed-methods quantitative-qualitative cultural epidemiological study to yield instructive findings.

CONCLUSION

Although identifying the social and cultural determinants of timely and delayed recognition of TB presents a difficult challenge for research, our cross-site analysis of three studies has identified critical gender-, setting- and illness-related barriers to effective TB control. Findings indicate common gender-specific effects of women's gender roles that were readily discernible in each of the studies in somewhat different ways. The analysis also indicated the role of TB-specific and non-specific patient-priority symptoms, the impact of impoverished environments, cultural concepts of TB and the relevance of diversity and operations of complex health systems. Findings highlight the importance of programme awareness of site-specific help-seeking options and the importance of optimising referral patterns to reduce diagnostic delay. The cultural epidemiological approach is also likely to be useful for explaining other priorities of TB control, such as treatment adherence, determinants of default and the impact on behaviour of gender-specific features of stigma.

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──────────── **R É S U M É**

CONTEXTE : Programmes de lutte contre la tuberculose (TB) au Bangladesh, en Inde et au Malawi.
OBJECTIF : Comparer le délai entre la prise de conscience du début des symptômes et le diagnostic de la TB entre les sexes et évaluer et identifier les caractéristiques de la maladie de nature socioculturelle ou liées au sexe expliquant le délai de diagnostic.
SCHÉMA : On a interviewé 100 patients ou davantage dans chaque site en utilisant une interview semi-structurée approfondie (EMIC) recherchant les types de détresse, les causes qui en sont perçues et les comportements de recherche d'aide. On a clarifié les patients en se basant sur le délai entre les symptômes initiaux et le diagnostic de TB en trois groupes (problèmes de délai >90 jours ; diagnostic en temps utile : ≤30 jours et délai modéré). Les analyses de l'interview EMIC ont été analysées pour expliquer le problème de délai.
RÉSULTATS : Le délai médian entre le début des symptômes et le diagnostic est le plus long en Inde et le plus court au Malawi. Après ajustement pour les facteurs confondants, le sexe féminin (Bengladesh) et le statut de femme mariée (Inde) ou de femme au foyer (Malawi) sont en association avec des problèmes de délai. Les symptômes dominants non spécifiques—douleur thoracique (Bengladesh) et oppression (Malawi) sont eux aussi significatifs. En Inde, la toux, largement associée à la TB, est en association avec un diagnostic porté en temps utile. L'hygiène publique, perçue comme une cause liée aux médiocres conditions urbaines, est en association avec un délai de diagnostic en Inde. On a identifié également la rechute primaire spécifique de soins avec des types sinueux de référence.
CONCLUSION : L'étude a identifié des caractéristiques liées au sexe et à la maladie en rapport avec le délai de diagnostic. Des recherches ultérieures s'imposent au sujet de la distinction entre délai-patient et délai-pourvoyeur de soins.

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MARCO DE REFERENCIA : Los programas de control de la tuberculosis (TB) en Bangladesh, India y Malawi.
OBJETIVO : Comparar el intervalo entre el comienzo de los síntomas y el diagnóstico de la TB en los hombres y en las mujeres y evaluar las características de la enfermedad, socioculturales y relativas al género, que explican el retraso en el diagnóstico.
MÉTODO : Se entrevistaron como mínimo 100 pacientes en cada uno de los tres centros mediante una entrevista en profundidad semiestructurada (EMIC) sobre los tipos de preocupaciones, la percepción de las causas de la TB y los comportamientos de búsqueda de atención de salud. Con base en el retraso entre los primeros síntomas y el diagnóstico de TB, se clasificaron los pacientes en casos con un retraso problemático (>90 días), casos con diagnóstico oportuno (≤30 días) y casos con retraso moderado. Los resultados de las entrevistas se analizaron con el fin de explicar los retrasos problemáticos.
RESULTADOS : La mediana más prolongada del intervalo entre el comienzo de los síntomas y el diagnóstico se observó en India y la más corta en Malawi. Una vez ajustadas las variables de confusión, aparecieron como factores asociados con un retraso problemático el sexo femenino (Bangladesh), la categoría de mujer casada (India) y de ama de casa (Malawi). Fueron también significativos los síntomas inespecíficos como dolor torácico (Bangladesh) y disnea (Malawi). La tos, síntoma ampliamente relacionado con la TB, se asoció con un diagnóstico oportuno en India. También en India, la situación sanitaria, relacionada con condiciones urbanas precarias, se asoció con el retraso del diagnóstico. Se observó que la búsqueda específica de atención de salud previa al diagnóstico se caracterizaba por circuitos de remisiones múltiples.
CONCLUSIÓN : En el presente estudio se definieron las características de la enfermedad y aquellas relativas al género, que determinan el retraso en el diagnóstico de la TB. Se precisa mayor investigación a fin de diferenciar entre los retrasos dependientes del paciente y los condicionados por el proveedor de atención sanitaria.