

## ABSTRACT

Tuberculosis remains as a public health problem since ancient times. Delay in diagnosis of pulmonary tuberculosis can bring harmful consequences not only to the patients but also to the community. This study aims to identify the factors contributing to the delay in diagnosis since care seeking in the district of Anuradhapura.

This is a descriptive study conducted at the main chest clinic and branch chest clinics located in Anuradhapura district. Study population composed of non-institutionalized pulmonary TB patients aged more than 15 years old. During the study period, it was possible to recruit 134 eligible subjects. An interviewer administered questionnaire was used for data collection. The information obtained was cross checked with available medical records.

Mean age of the patients studied was 46.4 years (SD =14.0) and about 60% of patients interviewed were in the economically active age group (i.e. 26 to 55 years). Out of the patients studied 79% were males, 87% were Sinhalese, and 86% resided outside city limits. About 43% of patients had only primary education and 86% were unemployed or unskilled

Median health care provider delay for pulmonary TB patients studied was 36 days (mean 52 days). Out of the patients studied, 84% of patients (n = 112) experienced longer provider delay (> 10 days).

In the Bivariate analysis, following factors were found to be significantly associated with longer health care provider delay: educational level (Chi-square = 4.72, df= 2, p < 0.05), residing outside city limits (Chi-square = 12.938, df = 1, p < 0.05 and OR = 7.1, 95% CI: 2.4, 20.5), being unmarried (chi-square = 5.88, df = 1, p < 0.05), monthly family income less than rupees 10,000 (chi-square = 7.16, df = 1, p < 0.05 and OR = 0.3), having no contact history of tuberculosis (Chi-square = 12.53, df = 1, p < 0.05 and OR = 0.16) and visiting private sector providers first (Chi-square = 3.96, df = 1, p < 0.05 and OR = 0.2). Even with government providers, patients who visited

District hospitals or hospitals below that level had significantly longer provider delay than those visited higher level government hospitals (OR = 0.08).

Age (chi-square = 3.14, df = 2,  $p > 0.05$ ), sex (chi-square = 1.19, df = 1,  $p > 0.05$  and OR = 2.0, 95% CI: 0.7, 5.6), ethnicity (chi-square = 0.51, df = 1,  $p > 0.05$  and OR = 0.6, 95% CI: 0.3, 1.8), occupation (chi-square = 0.22, df = 1,  $p > 0.05$ ), mode of referral (Chi-square = 0.091, df = 1,  $p > 0.05$ ), sputum negativity (Chi-square = 2.794, df = 1,  $p > 0.05$ ) and smoking (Chi-square = 0.29; df = 2,  $p > 0.05$ ) and alcohol addiction (Chi-square = 0.39, df = 2,  $p > 0.05$ ) did not significantly associate with longer health care provider delay. There were also no statistically significant associations between provider delay and the type of symptoms present during first visit such as cough (Chi-square = 0.117, df = 1,  $p > 0.05$  and OR = 0.8), haemoptysis (Chi-square = 2.642, df = 1,  $p > 0.05$  and OR = 0.46) and fever (Chi-square = 0.704, df = 1,  $p > 0.05$  and OR = 0.65).

The main limitation of this study is the failure of recruiting adequate number of eligible subjects. However this was beyond control considering the number of patients registered in the study area over the years. Continuous medical education for health care providers, improvement of diagnostic facilities and establishment of a referral mechanism were some of the strategies recommended to reduce the provider delay.