

Abstract

In recent years, the trend of tuberculosis occurrence has increased year by year in the world. The highest death rate of infectious disease is tuberculosis in Taiwan. WHO proposed warning and asked each country to keep watch for the epidemic situation of tuberculosis. However, the treatment of TB needed patients to take medicine continuously. Previous researches pointed out that the compliance of taking medicine is the key of successful treatment for TB. If the patients didn't follow physicians' advice and broke off the treatment, it not only failed treatments, but also might cause multidrug resistance (MDR). The influence factors for patients' compliance included demographics, health and illness percept, treatment cost, treatment effect, drug side effect, and the satisfaction of treatment process. The other important factors also included the time needed for treatment, the kinds and the complication of medicine. This study would like to investigate the key factors of cured treatment for TB patients.

The study used CDC dataset of TB patients that included all nationwide TB cases. Proportional random sampling was used to select TB patients who were registered in CDC from June to November 2001. Using the structured questionnaire, public health nursing instructors interviewed TB patients by phone to collect data. There were total 550 valid questionnaires to be collected. Descriptive statistics was used to summarize variables such as demographics, the relative factors of health satisfaction and health percept. χ^2 statistics was applied to test the independent of two category variables. In addition, survival analysis with Cox proportional hazards model was used to analyze the significant factors that influenced the treatment outcome for TB patients who have been treated for 12 months and 18 months, and estimated the hazard ratios.

The results showed that personal willpower and family support were the key factors for TB patients to cure their TB disease. The factors -"feel uncomfortable after taking medicines" and "feel recovery" were the two keys for TB patients who could not be cured. In addition, the most perplexed issue was "drug side effect" for all of the TB patients during their treatments. For the patients' satisfaction with TB treatment, patients who had more understanding the causes of TB disease and the way of taking medicine, felt much helpful from public health nurse's visits, satisfied with treatment effect, and satisfied with physician's manner and attitude would feel more satisfied. Patients who stopped taking medicine more than two months during treatment had lower satisfaction.

According to the survival analysis, the older people had a lower cure rate during 12 months treatment period. Patients with higher income had a higher cure rate. Patients living in nursing institutes also had a higher cure rate than those living with family. For the 18 months treatment period, male had a lower cure rate than female. When patients were more satisfied with physician's treatment, they had a higher cure rate. Patients who had the experience of changing hospitals or stopping taking medicine during treatment had lower cure rates.

Finally, based on the study results, this study has some recommendations for health policy decision makers as follows: (1) The knowledge about the infectious gateway of TB and the time needed for treatment should be emphasized to TB patients through health education. (2) The method of DOTs should be adopted or enhanced. (3) Local public health nurses should increase their concerns and

contacts to TB patients. The recommendations for the hospitals or physicians are the following: (1) The treatment status of TB patients should be tracked periodically. (2) Physicians should continuously give patients psychological supports for treatment. (3) Physicians should encourage patients' families to support the TB patients during the treatment.

Keywords: Tuberculosis; Cure rate; Cured factors; Satisfaction; Survival analysis