

## ABSTRACT

A cross-sectional mixed method study was conducted between October to December, 2014 to find out the factors influencing adherence to anti-tuberculosis (TB) treatment among TB/HIV co-infected patients attending the TB clinic at Mingalardon specialist hospital. Altogether 170 TB/HIV co-infected patients under anti TB treatment were interviewed by using the pre-tested structured questionnaire. Their adherence level to treatment was assessed by using the multi-method adherence measurement tool. In depth interviews were carried out among 12 TB/HIV co-infected patients. The study found 127 adherers (74.7%) among TB/HIV co-infected patients. It was found significant associations between adherence and current marital status ( $p = 0.025$ ) and occupation of respondents ( $p = 0.002$ ). The mean score of overall knowledge about TB was ( $8.51 \pm 2.48$ ) and significantly related to education level ( $p < 0.001$ ). Other findings are misbeliefs in causes of TB such as smoking, poor knowledge on TB symptoms, wrong dose of anti TB drugs and attitude towards side effects while taking drugs. Most of the respondents did not realize the importance of MDR-TB as a consequence of taking anti TB drugs irregularly. Among the adherers, more patients had positive attitudes towards the health staff at that hospital compared to those with non- adherence. The commonest barriers for treatment continuation reported were financial (80.4%), transportation (47%) and social problems (9.8%). Significant associations were found between treatment adherence and travel time to get anti TB ( $p = 0.017$ ) and transportation cost ( $p < 0.001$ ). Most of the respondents suggested for solving transportation barriers, providing nutritional support and adequate home based care. It was concluded that TB treatment adherence among TB/HIV co-infected patients is satisfactory and it may be due to free health care services including sputum examination and anti TB drugs, positive attitudes toward the health staff and availability of anti-retroviral therapy (ART) for eligible patients at that hospital. It is recommended to provide proper counseling and health education related to TB, ensure family support, reinforce community home based care activities and decentralization of delivering anti TB drugs together with ART for optimal adherence of patients. Health staff should pay special attention to the points on cause, mode of transmission, symptoms, correct dose and duration of treatment, side effects, possible consequences of incomplete treatment and infection control when they give health education about TB and pre-treatment counseling to the patients.