

**AN ASSESSMENT OF THE RISK FACTORS FOR PULMONARY TUBERCULOSIS AMONG
ADULT PATIENTS SUFFERING FROM HUMAN IMMUNODEFICIENCY VIRUS ATTENDING
THE WELLNESS CLINIC AT THEMBA HOSPITAL.**

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the fulfilment of the requirements for the degree
of
Masters in Family Medicine
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DECLARATION

I, Dr. Félix Alberto Herrera Rodríguez, hereby declare that this research report is the result of my own work. It is submitted for the degree of Masters in Family Medicine to the University of Witwatersrand, in Johannesburg. It has never been submitted before for any other examination or degree at any other institution or university.

An approval from the Ethics Committee for Research on Human Subjects (Medical) was obtained with the approval number **M080416**.



Dr. Félix Alberto Herrera Rodríguez

On this 25 day of September 2013

To my wife Ariana and my two daughters, Alicia and Ariamna
with thanks for your unconditional love and support,
for believing in me and for inspiring me
to be a better human being.

It is also dedicated to my father, my mother and siblings
whose love I will always appreciate.

ABSTRACT

Background: Tuberculosis (TB) control and management, worldwide remain a huge medical and social challenge. In South Africa the data about risk factors for pulmonary tuberculosis (PTB) is limited. Therefore the assessment of risk factors for PTB is an important step to identify which risk factors are unique in every specific population context and in this way gain a better understanding of them. The overall aim of the research was to assess contributory risk factors for PTB among adult patients suffering from Human Immunodeficiency Virus attending the Wellness Clinic at Themba Hospital.

Methods: A cross sectional descriptive study was employed in this study. A total of 300 participants were interviewed one-to-one. A structured interview, using a questionnaire, was used to collect data on socio-demographic information, behavioural factors and medical history of patients in the research. Data were analysed using Stata Release 11 software. Univariate and multivariable logistic regression models were used to determine factors associated with PTB.

Results: In this study there were more female (67.0%) than male (33%) patients. The mean age of patients was 38.2 years with standard deviation (SD=10.9 years). Two thirds of the participants (69.3%) had low level educational. More than half (65.7%) of participants reported being single. The majority of participants (59.7%) were unemployed. A large proportion of the patients (63.3%) reported living in a non-overcrowded environment and (64.7%) reported living in dusty outdoor environment. The majority of the patients (75.0%) were non-smokers while most (89.7%) were non-drinkers and (52.7%) reported not to have previous medical history of PTB or treatment. More than half (65.0%) of the participants reported not to have family history of PTB. Finally being single marital status (OR=1.96; 95% CI=1.01-3.79), moderate drinker/heavy drinker (OR=3.46; 95%CI=1.56-7.69) and living in a dusty outdoor environment (OR=2.05; 95% CI=1.16-3.61) were all statistically associated with pulmonary tuberculosis in multivariable logistic regression models.

Conclusions: Single marital status, dusty outdoor environment and moderate drinker/heavy drinker were strongly associated with an increased risk of PTB. Future PTB control and prevention strategies should focus on interventions, which will ultimately reduce or limit the impact of risk factors for pulmonary tuberculosis.

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LIST OF ABBREVIATIONS

AFB: Acid- Fast Bacilli

AIDS: Acquired Immuno Deficiency Syndrome

AUD: Alcohol use disorder

BC: Before Christ

DNA: Deoxyribonucleic Acid

DOTS: Directly Observed Treatment, Short-course.

EPTB: Extra pulmonary tuberculosis

HAART: Highly Active AntiRetroviral Therapy

HIV: Human Immunodeficiency Virus

LMIC: Low and/or Middle Income Countries

LTBI: Latent Tuberculosis Bacterial Infection

PTB: Pulmonary Tuberculosis

TB: Tuberculosis

UNAIDS: Joint United Nations Programme on HIV/AIDS

WHO: World Health Organisation

