

Prevalence and factors associated with enacted TB-related stigma in South Africa: A national cross-sectional household-based survey

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PRESENTER : Dr Vuyelwa Mehlomakulu

Human Sciences Research Council

Presentation outline

- Introduction
- Aims and Objectives
- Methodology
- Results
- Conclusions

Introduction

- South Africa (SA) is among the top 30 countries with a high burden of tuberculosis (TB), with a prevalence 737 (95% CI 580-890) per 100,000 in 2018
- These statistics make TB a significant public health concern in the country.

Introduction

- The stigma related to TB poses challenges to TB control efforts as it leads to delayed health-seeking behaviour, reduces treatment compliance, and negatively impacts TB treatment adherence and outcomes.
- It is also a barrier to reaching the World Health Organization (WHO) End TB goal of eliminating TB by 2050
- Only a few studies have specifically focused on TB-related stigma in South Africa.

Aim and objectives

- Aim
 - To explore enacted TB-related stigma in South Africa
- Objectives
 - To determine the prevalence of enacted TB-related stigma amongst men and women 15 years and above in South Africa
 - To explore the associated predictive factors of enacted TB-related stigma amongst men and women 15 years and above in South Africa

Enacted stigma defined

- Enacted (or experienced) TB-related stigma is defined as behaviours directly experienced by a person diagnosed with TB.

Ethics

- Ethical considerations
 - The survey protocol was approved by the HSRC Research Ethics Committee (REC 4/18/11/15). It was also approved by the U.S. Centers for Disease Control and Prevention (CDC).

Data source

- The study utilised secondary data from the 2017 South African National HIV Prevalence, Incidence and Behaviour Survey, a nationally representative population-based household.

Methods used in the original study

- The data were collected using a complex multistage-stratified cluster sampling design.
- 1000 small area layers (SAL) were randomly sampled across the country.
- A systematic random sample of 15 households was sampled within each SAL.

Measures

The primary outcome measure of the enacted TB-related stigma was based on questions relating to attitudes towards people who had been diagnosed with TB as listed below

When you fell sick with TB, were you teased, insulted, or sworn at?

When you fell sick with TB, were you gossiped about?

Independent variables

Age groups in years (15-24, 25-49, 50+)

sex (Male, Female)

Race groups (Black African, Other)

Marital status (Married, Never Married)

Educational level (No education/Primary, Secondary, Tertiary),

Employment status (Employed, Not employed), and

Locality type (Urban, Rural informal/Tribal areas, Rural/Farms).

Weighting

- Data were weighted and benchmarked to the 2017 mid-year population in South Africa.
- Weighted data were analysed using STATA 15 software.

Analysis

- Descriptive statistics summarized socio-demographic characteristics and enacted TB-related stigma.
 - Chi-squared test to compare categorical variables at $p < 0.05$

Analysis

- The relationship between enacted TB-related stigma prevalence and selected socio-demographic factors was assessed using a multivariate backward stepwise generalized linear model
 - Adjusted odds ratios (AORs) with 95% confidence intervals (CI) and a p-value of ≤ 0.05 were used to determine the level of statistical significance.

Sample characteristics

Variables	n	%
Sex		
Male	818	49.1
Female	1189	50.9
Age in years		
15-24	190	7.6
25-49	1152	63.3
50+	665	29.1
Race groups		
African	1673	86.3
Other	334	13.7
Marital status		
Married	496	30.1
Never married	1227	69.9
Education level		
no education/Primary	515	29.2
Secondary	991	65
Tertiary	95	5.8
Employment status		
Unemployed	1456	71.5
Employes	522	28.5

Study sample had 2007 participants

Locality type		
Urban	1107	66.4
Rural informal (tribal areas)	718	29.5
Rural (farms)	182	4.1
Province		
Western Cape	175	13.2
Eastern Cape	281	21.2
Northern Cape	127	2.3
Free State	120	7.1
KwaZulu-Natal	629	18
North-West	151	7.6
Gauteng	270	19.1
Mpumalanga	174	5.4
Limpopo	80	6.1



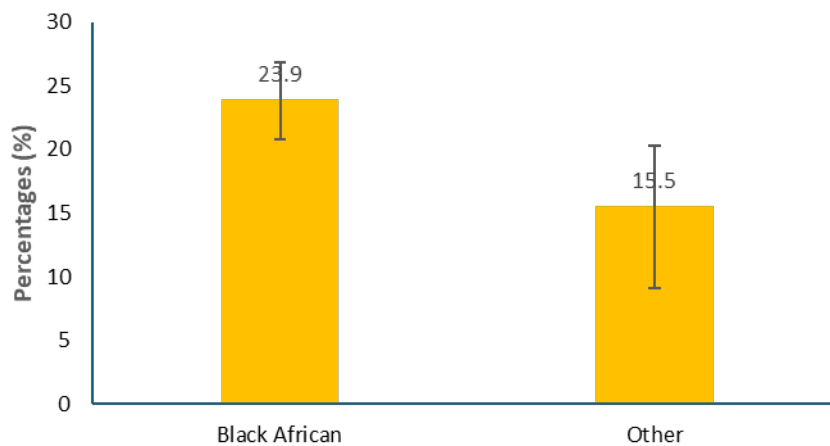
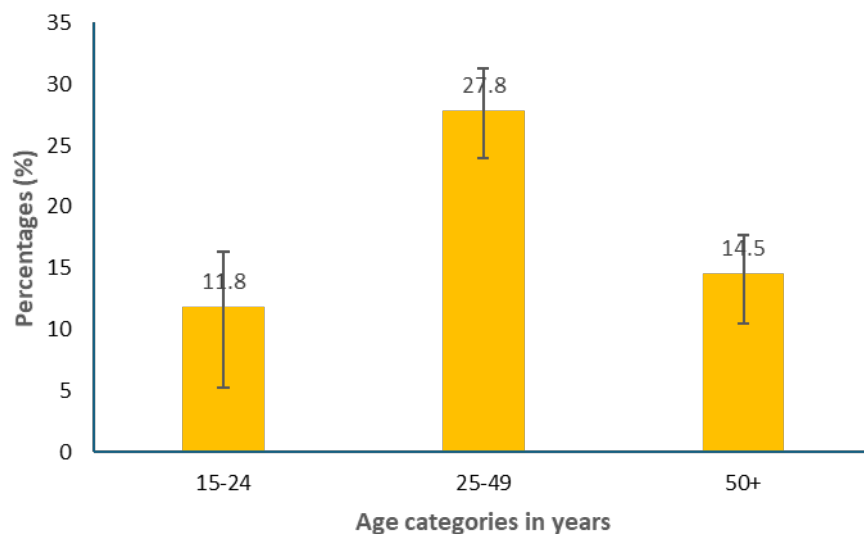
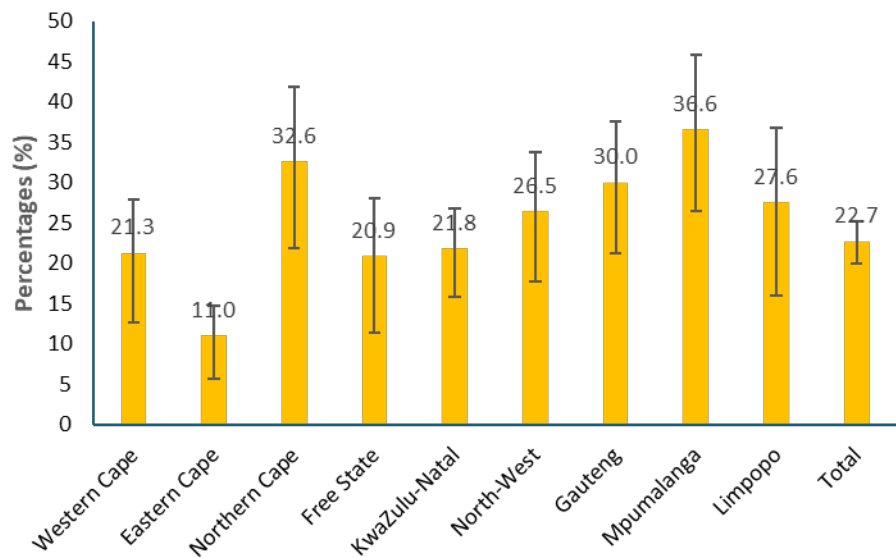
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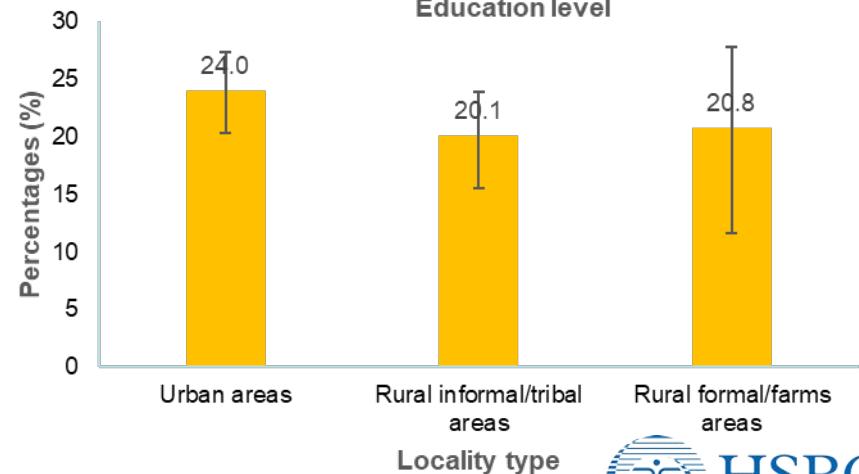
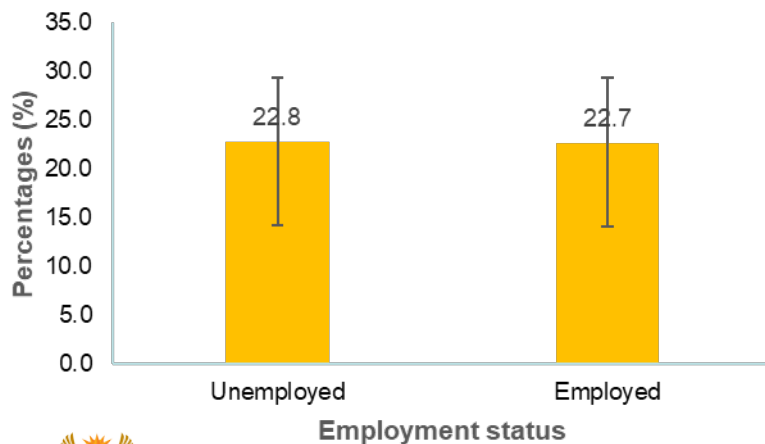
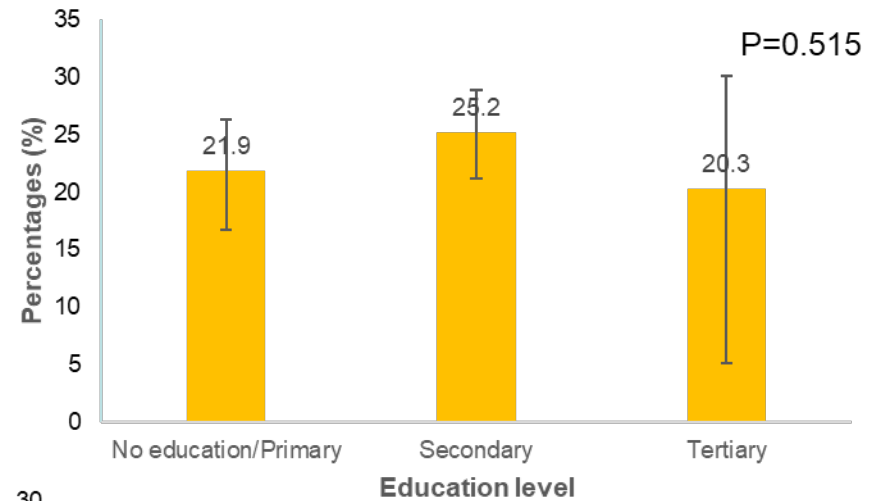
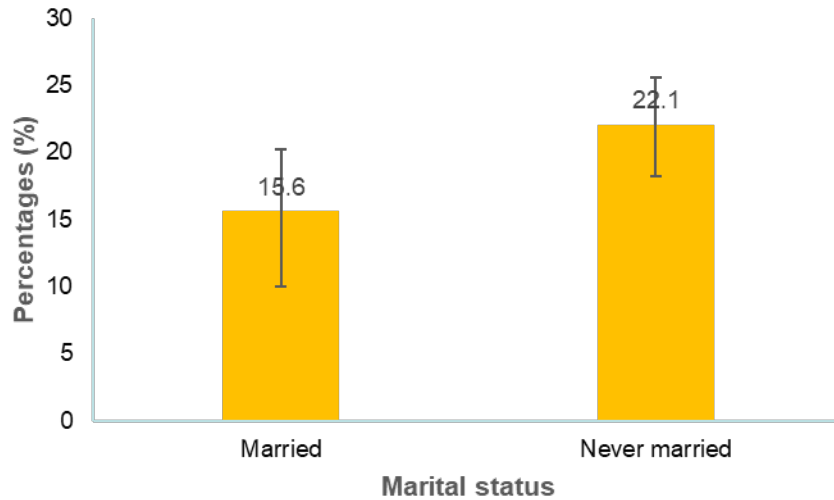


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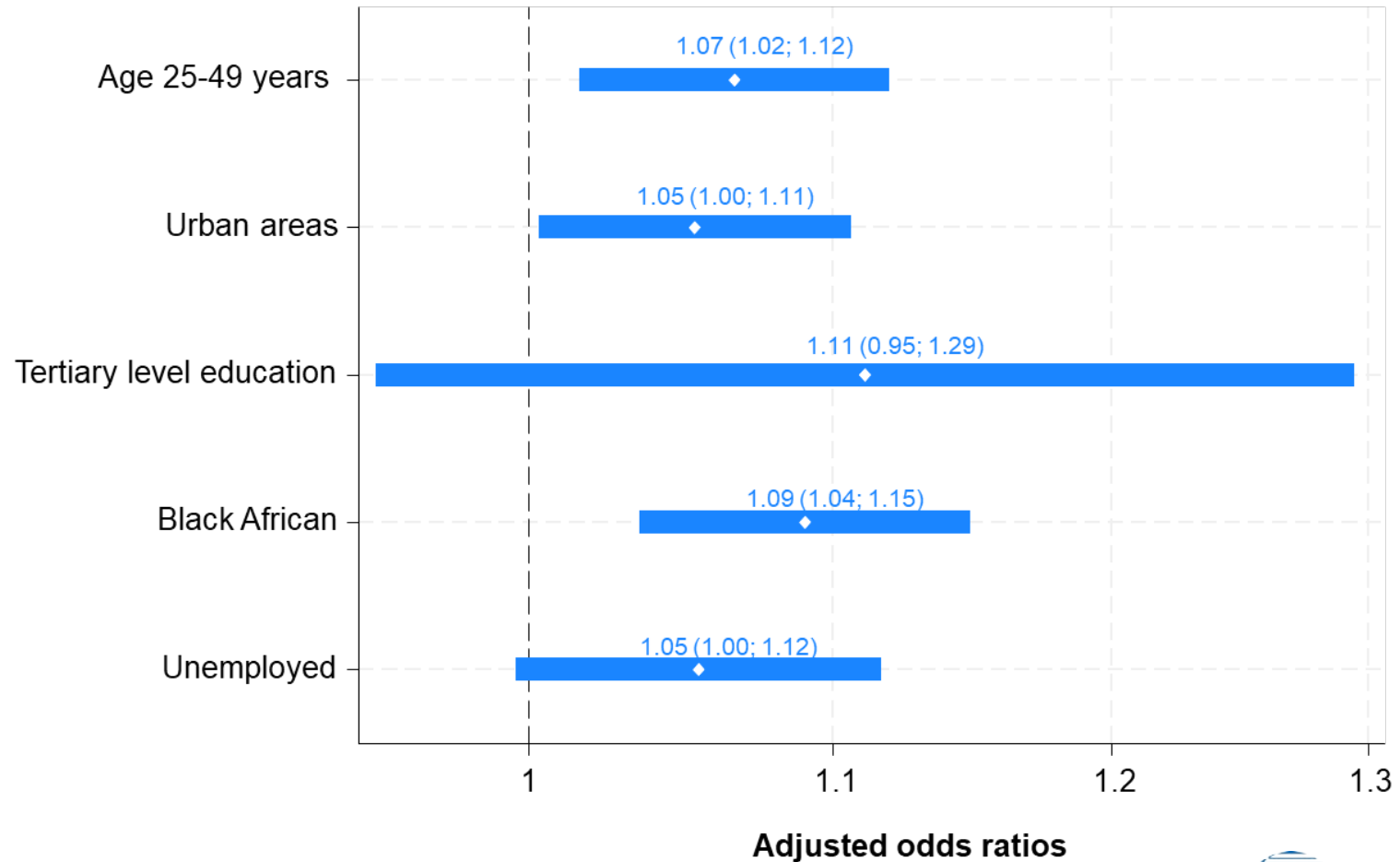
Association between enacted TB-related stigma prevalence



Association between enacted TB-related stigma prevalence



Adjusted model



Discussion

- The findings revealed that more than a quarter of youth and adults aged 15 years and older experienced enacted TB-related stigma in SA (22.7% (95%: 20.2-25.5))

Discussion

- The prevalence and model estimates suggest a need for tailored interventions to reduce TB-related stigma among:
 - The middle-age
 - The Black African population group
 - Those residing in urban areas
 - Prioritizing the Mpumalanga, Northern Cape and GP province

Study Limitations

- The study relied on self-reported data
- Prone to recall and social desirability bias
- Cross-sectional design findings cannot be used to infer causality
- Limited to assessing associations between TB-related stigma and selected covariates
- The analysis also be limited by other unobserved or unmeasured confounders
- The level of non-response and /or missingness linked to TB stigma-related questions reduced the study sample and power of the analysis

Concluding Remarks

- This study adds to the scarce literature on enacted TB-related stigma in SA
- The population-based cross-sectional design allows for the generalisability of the findings to the population of interest in the country

Concluding Remarks

- The findings suggest a need for age, race and province-specific targeted interventions to reduce enacted TB-related stigma
- This could include:
 - More TB-related education in provinces such as Mpumalanga to increase knowledge, especially with the relationship between HIV and TB as Mpumalanga is also one of the provinces with higher HIV prevalence
- Finally, there is a need for TB-stigma-specific population-based surveys to inform stigma-reduction strategies and national TB responses



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Thank You



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