

CONDOM USE DETERMINANTS AMONG SMEAR POSITIVE TUBERCULOSIS PATIENTS IN THREE SOUTH AFRICAN PROVINCES

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BACKGROUND

- HIV prevalence has gradually increased among newly diagnosed tuberculosis (TB) patients in South Africa, from 44% in 2006¹ to 73% in 2008².
- The high rate of HIV infections among TB patients calls for urgent HIV reduction interventions in this population.
- A study by Zachariah et. al³ has shown that TB patients are prone to risky sexual behaviour including unprotected sex.
- Since most HIV infections in South Africa are sexually transmitted², there is a need to encourage sexual behaviour change among TB patients as an HIV prevention measure.
- In a South African study, condom use among all TB patients was reported at 42.7%⁴.
- While condom use is one of the effective means of HIV prevention among sexually active people, there is insufficient research on condom use and factors that motivate condom use among TB patients in South Africa.

STUDY AIM

The aim of this study was to determine condom use (at last sexual intercourse) prevalence and associated factors in a sample of 4900 TB patients from three South African provinces.

METHODS

Study design and setting

A cross-sectional survey was conducted among smear-positive TB patients in 3 districts that had the highest TB caseload from 3 provinces in South Africa. The districts were, Siyanda in the Northern Cape Province, Nelson Mandela Metro in the Eastern Cape Province, and eThekweni in KwaZulu-Natal Province.

Measures

- **Socioeconomic characteristics:** A researcher-designed questionnaire was used to record information on participants' age, gender, educational level, marital status, income, employment status, etc.
- **Other characteristics:** TB treatment status, HIV status and antiretroviral treatment was assessed by self-report and from medical file information. Partner HIV status and duration on TB medication were also self-reported.

Results

- All participants were confirmed smear-positive TB patients and most were first time infections (81.6%) and almost 74% had been on anti-TB treatment for 5 weeks or more. The majority were, aged 25 to 49 years (69.7%), men (54.5%), not married (78.4%), Black Africans (84.6%) (72.3%), and had not completed grade 12.
- Over half (55%) of the participants reported using condoms at last sexual intercourse while only 36.5% reported always using condoms.
- In the bivariate analysis, condom use at last sex was associated with being younger (18-24 years old), not married, having grade 12 or more, HIV positive status, and being on ARV treatment.
- Finally, the multivariate analysis showed that (see table 1) being younger, not married, having grade 12 and more, and being on ARV treatment, were associated with condom use at last sex among TB patients.

Table 1: Factors associated with condom use among Tb patients

Characteristics	UOR (95% CI)	p-value	AOR (95% CI)	p-value
18 to 24 yrs (Ref)	1		1	
25 to 49	0.873 (0.738 - 1.031)	0.110	0.87 (0.704 - 1.082)	0.215
50 & above	0.382 (0.302 - 0.483)	0.000	0.543 (0.402 - 0.733)	0.000
Male	1			
Female	1.09 (0.959 - 1.224)	0.196		
Not Married	1		1	
Married	0.711 (0.613 - 0.824)	0.000	0.82 (0.689 - 0.984)	0.033
Less than Grade 12 (Ref)	1		1	
Grade 12	1.465 (1.272 - 1.687)	0.000	1.47 (1.230 - 1.747)	0.000
More than Grade 12	2.105 (1.435 - 3.087)	0.000	1.92 (1.225 - 3.007)	0.004
New Tb patient	1			
Retreatment Tb patient	1.013 (0.830 - 1.237)	0.897		
HIV negative	1		1	
HIV positive	1.262 (1.104 - 1.442)	0.001	1.07 (0.898 - 1.272)	0.454
Partner HIV negative	1			
Partner HIV positive	0.87 (0.726 - 1.031)	0.106		
On ARVs	1		1	
Not on ARVs	0.583 (0.494 - 0.689)	0.000	0.622 (0.515 - 0.750)	0.000
On Tb treatment				
0 - 4 weeks	1			
5 and more weeks	0.914 (.0795 - 1.051)	0.205		

DISCUSSION

- The study results suggest that lack of condom use among TB patients is associated with people who are older, married, have lower educational levels, and who are not on ARV treatment.
- Older participants in this study were more likely to report lack of condom use compared to the youth aged 18-24 years. Similarly, some studies have suggested lack of condom use among older people^{5,6,7}. South African youth have been targeted with massive HIV prevention campaigns by organizations such as loveLife over the years and it is possible that younger people have internalized such messages, resulting in greater awareness of the benefits of HIV prevention methods such as condom use.
- Similar to the suggested study results, other studies showed that lower levels of education were associated with lack of condom use^{5,6}. Lack of condom use by married people in this study is consistent with findings from previous studies^{8,9}. This might be because there is some trust built among people in such relationships leading to decisions to use condoms occasionally or stop altogether.
- It was interesting to note that TB patients who were not on ARV treatment were more likely to use condoms and this needs further investigation.

CONCLUSION

The low proportions of condom use among TB patients needs to be improved. Intensive condom use promotion strategies should be utilized among populations with such low condom use proportions, focusing more on TB patients who are older, married, with lower educational qualifications, and those who are not on ARV treatment.

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