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**ABSTRACT BOOK**

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## **PC-95641-06 Tuberculosis stigmatization is associated with treatment non-adherence in impoverished areas of Peru**

C Acosta,<sup>1,2</sup> M Baldwin,<sup>1</sup> R Montoya,<sup>1,3</sup> D Onifade,<sup>1,2,4</sup>  
C M Ford,<sup>1</sup> A M Bayer,<sup>1,5</sup> R H Gilman,<sup>1,3,5</sup> C A Evans.<sup>1,2,4</sup>

<sup>1</sup>Asociacion Benefica PRISMA, Lima, Peru; <sup>2</sup>IFHAD: Innovation For Health And Development, London, UK; <sup>3</sup>Universidad Peruana Cayetano Heredia, Lima, Peru; <sup>4</sup>Wellcome Centre for Clinical Tropical Medicine & Dept of Infectious Diseases & Immunity, Imperial College London, Hammersmith Hospital Campus, London, UK; <sup>5</sup>Johns Hopkins Bloomberg School of Public Health, Baltimore, Maryland, USA.

Fax: (+1) 408.248.3551. e-mail: cacosta@stanford.edu

**Background:** Individuals with tuberculosis (TB) often suffer from social stigmatization. Consequently, TB related stigma has been implicated in delayed testing, treatment intermittency and default, which increase the risk of multidrug-resistant TB. The objective of this study was to identify predisposing demographic factors linked with TB stigmatization, and to test for associations between stigma and subsequent treatment adherence.

**Methods:** This nested cohort study involved 787 recently diagnosed TB patients and their 1466 household contacts in peri-urban shantytowns in Lima, Peru. Subjects were administered a questionnaire, which included 22 questions concerning perceptions and experiences of TB-related stigma. Linear and logistic regression,  $\chi^2$  and t-tests were used for the analysis.

**Results:** Patients who reported being stigmatized were 2.5 times more likely to be non-adherent to TB therapy ( $P < 0.01$ ). Patients experienced more stigma than their household members who did not have TB ( $P < 0.001$ ). Women were more stigmatized at home and in the community, while men were more stigmatized at work ( $P < 0.05$  for all). Greater income and education was associated with less stigmatization overall ( $P < 0.05$ ). Amongst patients who had previously had TB, men were significantly less likely to adhere to drug therapy ( $P < 0.01$ ). Patients who were lost-to-follow-up were less likely to adhere to therapy than those who completed the study. Details of results are in the table.

**Conclusions:** TB patients who suffered stigmatization were at greater risk of treatment intermittency and default from therapy in these impoverished communities. Men and women experienced TB-related

stigma in differing contexts. Stigma is a social barrier that interferes with TB treatment. Intervention efforts should therefore address this factor in targeted settings as a means of improving treatment compliance.

<b>Completed patients vs. lost to follow-up</b>					
	Lost to follow-up	Completed	OR	CI	p-value
Total	197 (100)	786 (100)			
Men	129 (65.5)	449 (57.1)	1.4	1-2	0.03
Women	68 (34.5)	337 (42.9)	0.7	0.1-1	0.03
Non-adherence during study	42 (21.3)	101 (12.8)	1.8	1.2-2.7	<0.01
<b>Adherent vs. non-adherent patients in completed group</b>					
	Adherent	Non-adherent			
Total	685 (100)	101 (100)			
TB Stigmatization	476 (69.5)	86 (85.1)	2.5	1.4-4.4	<0.01
<b>Men vs. women in completed group</b>					
	Men	Women			
Total	449 (100)	337 (100)			
Stigma at home	194 (43.2)	183 (54.3)	1.6 (a)	1.2-2.1	<0.01
Stigma in the community	216 (48.1)	195 (57.9)	1.5 (a)	1.1-2	<0.01
Stigma at work	195 (51.2)	142 (42.1)	1.4 (b)	1-1.9	<0.01
Mistreatment at home (1)	65 (14.5)	85 (25.2)	2 (a)	1.4-2.8	<0.001
Change in function at home (1)	116 (25.8)	109 (32.3)	1.4 (a)	1-1.9	<0.05
Change in function at work (1)	80 (17.8)	39 (11.6)	1.7 (b)	1.1-2.5	0.02
Previous TB	91 (20.4)	50 (14.9)	1.5 (b)	1-3.1	0.04
Non-adherence during previous TB	28 (30.8)	6 (12.0)	3 (b)	1.1-7.9	0.03
Non-adherence during study	55 (12.2)	46 (13.6)	-	-	0.6
All data n (%)					
(a) OR greater for women					
(b) OR greater for men					
(1) Outcomes attributable to TB stigmatization					