

Adherence to TB preventive therapy in Zambia: A model for ARVs?



HM Ayles^{1,2}, H Shasulwe¹, L Lungu¹,
M Mukonka¹, K Nkhata¹, V Bond¹
P Godfrey-Faussett²

1 Zambart Project, UTH, Lusaka, Zambia

2 London School of Hygiene and Tropical Medicine, London, UK

The challenges of adherence



⌘ Long term treatment

⌘ “Well” individuals

⌘ Poverty

⌘ Stigma

TB Preventive therapy cohort

- ⌘ 10944 individuals entering VCT 1999-2001
- ⌘ 3071 HIV positive
- ⌘ 2162 enrolled in the study
- ⌘ Screened for TB and other contraindications to IPT
- ⌘ 1201 started IPT
- ⌘ Adherent at 6/12 (self reporting and pill-counting): 310 (**23.5%**)

Why was adherence so poor?



- ⌘ Focus group discussions
- ⌘ In-depth interviews with clients and counsellors
- ⌘ case control study
- ⌘ prospective cohort testing a theoretical model of adherence

Isoniazid Preventive Therapy

- ⌘ *"People are anxious to start because they want life more than anything in the world"* (HIV+ woman)
- ⌘ Prevention TB in HIV+ prevents it in the general population
- ⌘ protects HIV+ from catching their most deadly disease
- ⌘ Prolongs life
- ⌘ Boosts national economy by reducing illness and patients
- ⌘ Aids counsellor client relationship
- ⌘ Creates hunger in poor people who cannot afford to buy food
- ⌘ contributes to body weakness
- ⌘ brings different side effects
- ⌘ Not fully informed, *"taking it in ignorance"*
- ⌘ Daily intake inhibits lifestyle e.g. drinking and smoking
- ⌘ Stigma- people assume you have AIDS if you take TB treatment
- ⌘ Non-disclosure when get home

Hunger ?

- ⌘ *"I was too hungry. I had no food and no support from friends and relatives so I stopped taking PT"*
(HIV+woman)
- ⌘ regained appetite
- ⌘ the belief that TB drugs make you hungry (*"hunger in the head"*)
- ⌘ an abnormal appetite which made one eat *"four buns or half a loaf of bread"* or *"finish 25kg of mealie meal"* or *"wake up in the middle of the night needing to eat"*
- ⌘ shortage of food at home

Case control Study



- ⌘ To test the hypothesis that non-disclosure of HIV result leads to non-adherence
- ⌘ Sample-size calculated on known adherence to give 80% power of detecting a difference in non-disclosure of 30%

Study subjects



- ⌘ Case: a client who did not complete 6 months preventive therapy
- ⌘ Control: a client who has completed 6 months IPT and who started during the same period as the case
- ⌘ 48 cases and 48 controls were recruited

Outcome



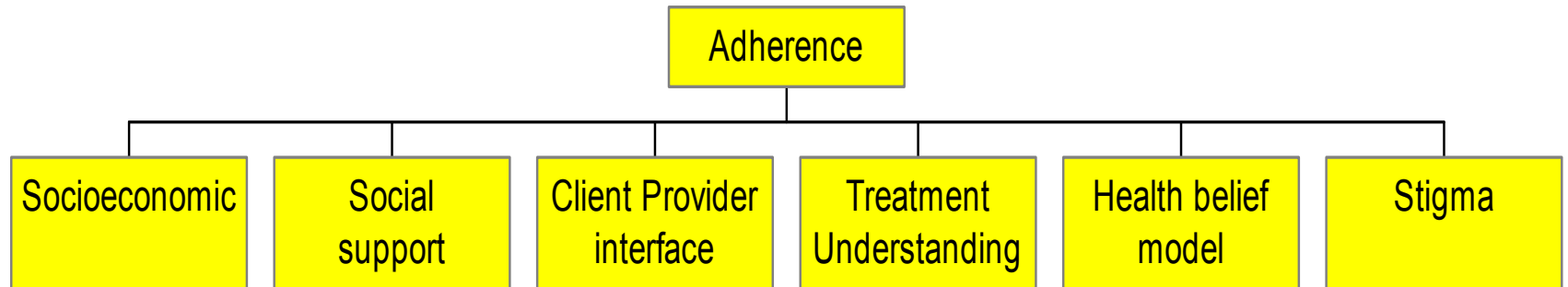
- ⌘ Factors important in multivariate logistic regression analysis:
 - ☑ Non-disclosure of HIV status 0.13 (0.15-0.69)
 - ☑ Lack of belief in effect of IPT 0.08 (0.01-0.58)

Prospective Cohort



- ⌘ To develop a theoretical model of factors predicting adherence to IPT in Lusaka
- ⌘ To follow a cohort of individuals as they start IPT to test the model

Model

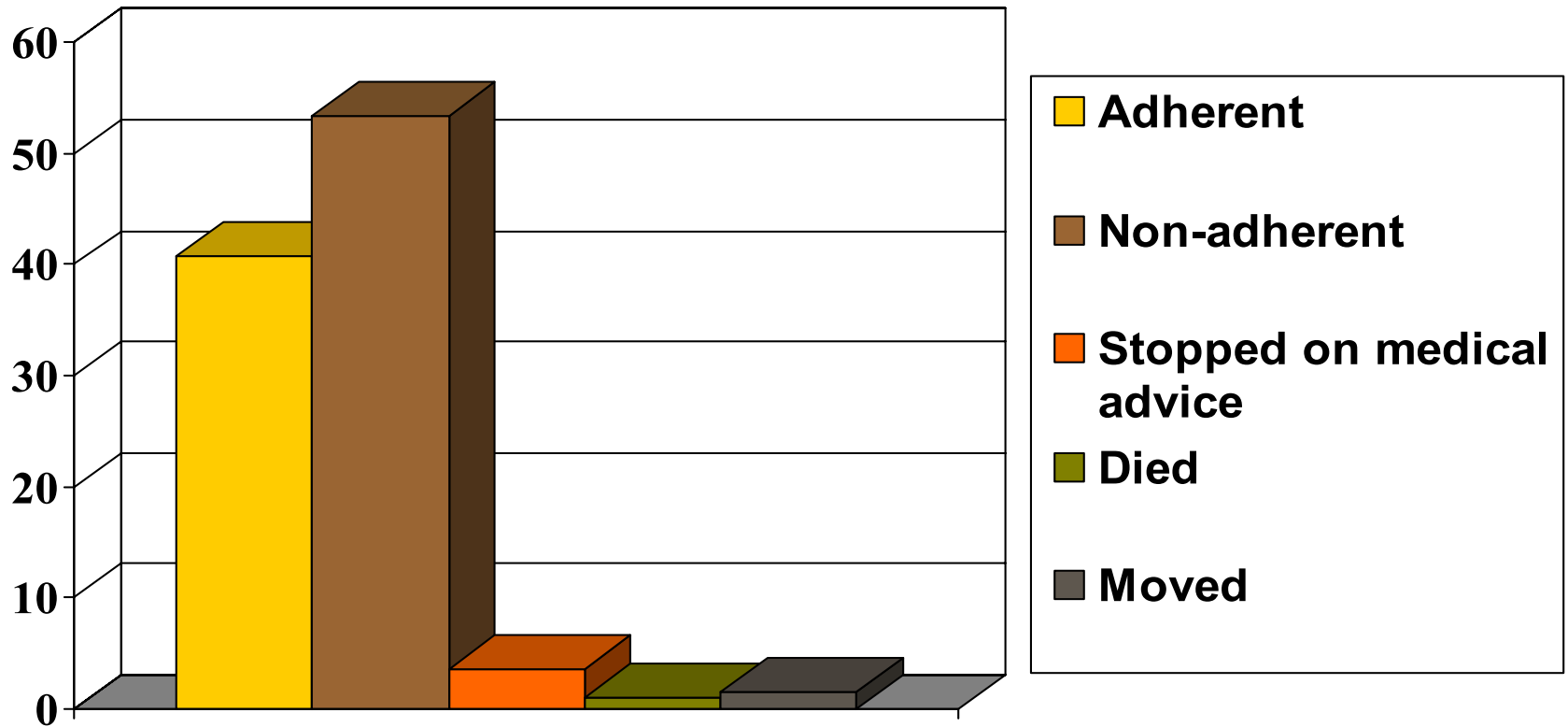


Characteristics of the Cohort



- ⌘ 221 individuals.
- ⌘ 39 % male and 61% female.
- ⌘ 69.7% were head or spouse of head of the household
- ⌘ 47.5% said that the household income was less than K250,000 (\$50)per month

Outcome after 6/12 IPT



Risk factors for non-adherence

- ⌘ Those who were mobilised were less likely to adhere than those who were referred by friends or family ($P=0.008$)
- ⌘ Those who felt that they were more at risk of TB were more likely to adhere ($P=0.03$)
- ⌘ Health belief model: Those who scored highly on the health belief model were more likely to adhere. OR 1.8 (1.02-3.17)
 $P=0.04$

Conclusions



- ⌘ The case control study suggests that if more people were able to disclose their status, then adherence to IPT would be better.
- ⌘ Referral to services by family or friends increased adherence
- ⌘ Health beliefs - value of IPT
- ⌘ ? Role of hunger or other social constraints

How does this apply to ARVs?



⌘ Similar situation: long term drugs, relatively well population, stigma, poverty, side effects, poverty.

⌘ Any answers:

☑ DOT?

☑ Household approach?

Household Counselling

- ⌘ To provide information to a family on TB and HIV
- ⌘ To facilitate shared confidentiality
- ⌘ To facilitate family support
- ⌘ To reduce stigma associated with TB and HIV



Pilot tested on 250 households of smear-positive TB

Outcomes of household approach

- ⌘ Improved adherence to TB treatment (69% cure, 8% default)
- ⌘ Improved adherence to TBPT (44% Vs. 23.5%)
- ⌘ Increased discussion about HIV within households (36.6% of adults testing for HIV, 22% couples)
- ⌘ >70% of HIV results disclosed to significant others within the households

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