



Karolinska Institutet

Department of Public Health Sciences, Global Health, Karolinska Institutet

UPTAKE OF HIV TESTING:

Assessing the impact of a Home-Based intervention in rural South Africa

Academic Thesis

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ABSTRACT

Background: Despite the introduction of HIV counselling and testing (HCT) methods about 30 years ago, HIV testing uptake remains low in most high HIV prevalence settings. To date, knowledge of status still remains a critical approach in the fight against HIV and a first step to prevention, access to care, treatment, and support. Home-based HIV counselling and testing (HBHCT) is a novel approach that may complement the long-standing approaches for delivering HIV testing.

Main Aim: To assess the impact of an HBHCT intervention on the uptake of HIV testing in a rural community in KwaZulu-Natal province, South Africa, using a pragmatic cluster randomised control trial design.

Methods: All 4 research studies (Paper I-IV) were sub-studies of a cluster randomised control trial called Good Start HBHCT. The studies were conducted in rural Umzimkhulu sub-district. The intervention was HBHCT offered by trained lay counsellors to all adults residing in the intervention clusters (8 communities). In the control arm (8 communities) people accessed the standard of care (mainly clinic based HIV testing). The primary outcome measured in the trial was uptake of HIV testing. A baseline survey was conducted prior to the intervention in all 16 community clusters to measure uptake of HIV testing using an interviewer administered questionnaire (Paper I). Post-intervention, the same questionnaire (with additional questions on secondary outcomes) was administered (Paper II). In-depth qualitative interviews were conducted with couples who tested and received results together during the intervention (Paper III). We also conducted a cost-effectiveness analysis to compare the HBHCT approach versus clinic HCT (Paper IV).

Results: The reported uptake of previous HIV testing among 5821 participants in 16 community clusters was 32% at baseline. Women reported higher testing rates than men, 39% versus 17% respectively (Paper I). The HBHCT intervention increased testing rates from 32% to 69% in the intervention arm, while a smaller increase was observed in the control arm, from 31% to 47% (Paper II). People who received HBHCT had a higher likelihood of having tested compared to those in the control arm, (PR 1.54, 95% CI: 1.32-1.81). The prevalence of couple HIV counselling and testing was about twice as high in the intervention arm as it was in the control arm (PR 2.24, 95% CI: 1.49-3.03). The intervention had a significant effect on some secondary outcomes; notably, a protective effect against having more than one sexual partner in the past three months, which was 55% lower in the intervention arm (Paper II). For couples tested together, mutual knowledge of status challenged their relationships in different ways, depending on HIV status and gender. For discordant and concordant positive couples, the HIV status confirmed suspicions of infidelity, while negative couples were happy and regained trust. Concordant positive couples expected their positive status. Men reported that knowledge of status was an incentive to change their behaviour (Paper III). The economic evaluation demonstrated that HBHCT was more cost-effective in increasing uptake of HCT. The average cost per client was \$29 for HBHCT compared to \$38 for HCT in the clinic (Paper IV).

Conclusions: HBHCT increased HIV counselling and testing and encouraged couple HCT. In addition to increasing HCT uptake, HBHCT was more cost-effective. The intervention also had protective effects on HIV risk behaviour. Thus, the findings provided evidence for wider implementation of the HBHCT approach.

Key words: HIV counselling and testing, home-based, cost-effectiveness, South Africa