

Family planning methods among women in a vaginal microbicide feasibility study in rural KwaZulu Natal, South Africa.

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Background

- Family planning affects women's health and lives, and depends on a variety of socio-demographic and cultural factors.
- Many South African women either choose not to use family planning or are not able to negotiate FP use with their sexual partners, and are at increased risk for unwanted pregnancies.
- The Africa Centre is 1 of 6 sites in the Microbicides Development Programme (MDP) network, conducting a randomized double-blind placebo-controlled phase III clinical trial to evaluate the safety and efficacy of PRO 2000/5 microbicide gel in reducing the risk of vaginally acquired HIV infection.

Study Objectives

- In preparation for the MDP trial, the centre conducted a feasibility study from June 2003 to December 2004 in rural KwaZulu-Natal, South Africa to assess acceptability of study procedures, ability to recruit & retain women, and measure HIV incidence and HIV and STI prevalence.
- This analysis of feasibility study data has 3 primary aims:
 - Determine prevalence of contraceptive use among women screened for the Microbicide Feasibility Study (MFS);
 - Identify socio-demographic determinants of contraceptive use and method choice;
 - Investigate changes in contraceptive use during the MFS.

Methodology

- Women were recruited from family planning and immunization clinics.
- 888 women were screened and 449 enrolled in the study.
- Enrolled women were asked to attend follow-up visits 2 weeks after enrollment and then at 3-monthly intervals for a period of up to 12 months.
- Demographic information was collected at screening visit. Detailed information on use of family planning methods was collected at screening and all follow-up visits.
- At each study visit women received safer sex counselling, and were offered free family planning services and free condoms.
- Data analysis was conducted using Stata v.8.

Outcome Variables

(1) Current contraceptive use:

- YES: Any modern method (sterilization, IUCD, pills, injectables, barrier methods)
- NO: No method or unreliable method (rhythm/calendar method, withdrawal, herbs, Quinine, other)

(2) Primary contraceptive method:

- Invasive methods: Female/male sterilization, IUCD
- Oral methods: Pills
- Injectable methods: Depo-provera, Nur-isterate injection
- Barrier methods: Male/female condom, foam/jelly/spermicide, diaphragm

Predictors of contraceptive use

- Among 861 screened sexually active women with information on all univariate significant predictors, multiple logistic regression was used to evaluate predictors of modern contraceptive use.
- 466 (54%) women reported using a modern contraceptive method.

Table 1: Multivariable predictors of FP use (n=861)

Independent variable	Adjusted OR* [95% CI]	P > χ^2
Age 40+ (ref age 15-19)	0.38 [0.17-0.83]	0.008
Completed secondary education (ref <5 yrs)	1.64 [1.05-2.56]	0.051
Employed (ref unemployed)	1.65 [1.18-2.31]	0.003
Married (ref single)	1.64 [1.01-2.68]	0.054
Bread expenditure >R20/mo (ref <R20/mo)	1.58 [1.07-2.32]	0.020
Number of live births (ref 0 births)		<0.001
1	2.67 [1.56-4.55]	
2-3	3.17 [1.76-5.70]	
4+	4.45 [2.14-9.26]	

*adjusted for clinic at recruitment

Predictors of contraceptive method choice

- Among 466 screened sexually active women using contraception, multiple multinomial logistic regression was used to evaluate predictors of primary contraceptive method choice.
- Primary contraceptive methods included injectables (30%), condoms (12%), sterilization (6%) and pills (4%).

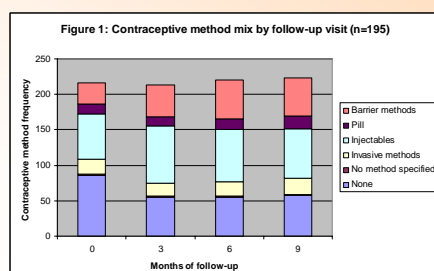
Table 2: Multivariable predictors of FP method use (n=466) (ref injectables)

Independent variable	Adjusted OR* [95% CI]			P > χ^2
	Condoms (n=107)	Pills (n=38)	Sterilization (n=55)	
Age 35+ (ref age 15-24)	1.75 [0.68-4.46]	3.57 [1.05-12.19]	13.59 [2.73-67.54]	<0.001
Completed secondary education (ref <5 yrs)	2.77 [1.24-6.17]	2.21 [0.75-6.58]	0.87 [0.33-2.27]	0.085
Married (ref single)	0.44 [0.15-1.26]	0.67 [0.21-2.10]	1.77 [0.83-3.79]	0.020
2+ live births (ref <2 births)	0.40 [0.22-0.73]	0.93 [0.38-2.32]	9.95 [1.23-80.62]	<0.001

*adjusted for clinic at recruitment

Longitudinal changes in contraceptive use

- Changes in contraceptive use were investigated for 195 enrolled women attending 3, 6 and 9-month follow-up visits.
- Contraceptive use increased significantly from 56% to 70% and condom use from 15% to 28% over 9 months.



Conclusions

- In a sexually active population in rural KwaZulu-Natal not intending pregnancy, half of women were using modern contraception. The majority were using injectable contraceptives.
- Multivariable analyses revealed significantly higher current contraceptive use among women married, multiparous, employed full/part-time, and with secondary education. Women aged 40+ were significantly less likely to be using contraception.
- Age, marital status, education level and parity were associated with different contraceptive method choices.
- Among 195 women followed longitudinally, contraceptive use, especially condom use, increased significantly over 9 months. This may reflect repeated safer sex counselling.
- Family planning clinics and microbicide trials may use information about predictors of contraceptive use to tailor counselling.