



Learning to use the one-sized SILCS Diaphragm in South Africa: Improvements after 5 uses

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INTRODUCTION

The SILCS Diaphragm is a single-size, reusable contraceptive developed through a user-centered process to be easy to use and comfortable for both partners. The innovative design eliminates the need for a pelvic exam to assess which size diaphragm a woman can wear.

If used in conjunction with an effective microbicide gel, the SILCS diaphragm and gel could protect from both unintended pregnancy and HIV/STIs, thus having the potential to be a multipurpose prevention technology (MPT) with additional health value.

AIM

To assess the ability of women in a public-sector setting in South Africa to successfully fit and learn to use the SILCS diaphragm with placebo gel, and to evaluate changes in ease-of-use and reported problems over the first 5 uses.

METHOD

This study was a randomized, crossover trial among 115 women in Durban, South Africa, designed to assess the acceptability and preferences for the SILCS diaphragm (Figure 1) used for gel delivery compared to gel delivery from a prefilled applicator. Hydroxyethylcellulose (HEC) gel, an inert formulation used as a placebo control in microbicide clinical trials,¹ was used in this study. The data analysed here are limited to the SILCS gel delivery arm.

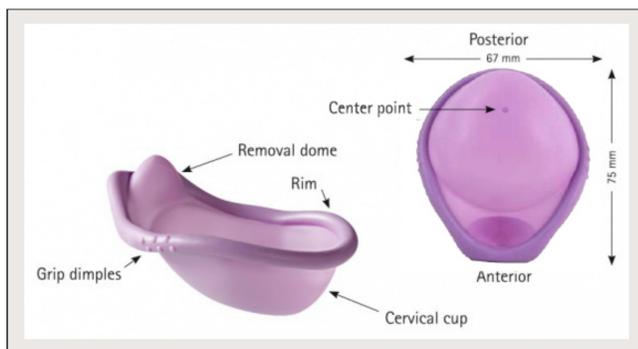


Figure 1. SILCS diaphragm

Literate, sexually active, non-pregnant women, 18–45 years old, in a monogamous relationship for at least 6 months, using a non barrier method of contraception were eligible to participate in the study.

Women used the SILCS with placebo gel applied directly to the device during five separate sex acts. Confidence about inserting/using the SILCS, and perception about ease of use and acceptability were evaluated after one and five uses. Women also completed a coital log after each sex act with the SILCS or gel applicator, for five uses each.

RESULTS

A total of 115 women, aged 18–44, were enrolled and 106 (92%) completed the study. Only four women were unable to fit the SILCS after training.

Demographic information is reported in Table 1. Study participants were on average 26 years of age, and most had one child. All participants identified themselves as black South African, with the majority (72.2%) having completed secondary school. Over half of participants were unemployed (57.4%), and most (83.5%) were not married nor living with their current partner.

	Mean	Min	Max
Age	26.7	18	44
Number of children	1.4	0	4
N = 115 %			
With which group do you identify			
Black	115	100	
Education (Grade)			
Secondary incomplete	32	27.8	
Completed secondary	83	72.2	
Primary Occupation			
Unemployed	66	57.4	
Unskilled labour	21	18.3	
Student	19	16.5	
Skilled labour/office	9	7.8	
Current relationship			
Married and living together	4	3.5	
Not married living together	15	13	
Not married not living together	96	83.5	

Table 1: Study participant's demographic information

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RESULTS (2)

Figure 2 shows ease of use and reported problems. Ease of insertion improved over time, with 72% reporting that the SILCS was easy to insert at first use, compared to 87% reporting ease of insertion at fifth use. Most (83%) also felt comfortable after 2–3 insertions.

Experience of gel leakage before sex reduced from 14.2% to 5.7% and leakage after sex declined from 2.8% at first use to 1.9% at fifth use.

Women's confidence of correct placement increased from 76.4% to 80.2% after five uses.

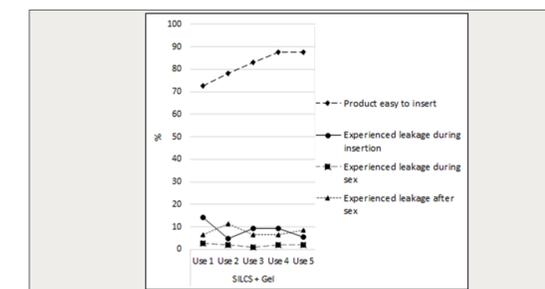


Figure 2: Ease of use and reported problems

CONCLUSIONS

These results show that with short-term training and counseling women can learn to fit and use the SILCS Diaphragm with gel — even when women have never used a diaphragm before. Within the first five uses, confidence and ease of use increased, and the number of reported of problems decreased.

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