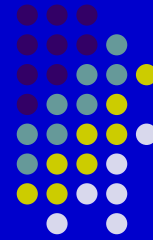


The Female Condom: Acceptability and Patterns of Use

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**So the female condom is
an effective contraceptive
and disease prophylactic.**

But will women use it?



Aims



- What do we know about short-term acceptability of the female condom?
- What are the patterns of use, especially over the longer-term?
- What are some challenges to acceptability?
 - ▶ Individual, partner, and environmental influences

Short-Term Acceptability Studies



- Tried it, liked it, willing to use in the future
- Western and developing nations
- Higher risk -- female sex workers, STI clinics & Lower risk -- family planning, general population
- Range of acceptability rates (37% to 96%)
- Qualitative data - positives and negatives

WHO, 1997, Cecil et al., 1998

Short-Term Acceptability Findings – FC Positives



- **Female initiated**
 - ▶ Enhances women’s ability to negotiate and ensure safer sex (*Ankrah & Attika, 1997; Niang, 1996; Hernández et al., 1996; Rivers, et al., 1998; Pool et al., 2000b; Gollub, 2000*).
- **Method features**
 - ▶ Polyurethane is less allergenic, stronger
- **Sexual pleasure**
 - ▶ Less restrictive for men
 - ▶ Conducts heat
 - ▶ Can be inserted before sex

Short-Term Acceptability Findings – FC Negatives



- **Aesthetic responses – It looks “weird”.**
- **Insertion and use challenges**
- **May reduce sexual pleasure - discomfort**
- **Male partner responses range from enthusiastic to rejecting**

Short-Term Acceptability Studies – Developing Nations



- **Female sex workers in China**
94% willing to use (N=165)
- **Female sex workers in Thailand**
68% satisfied (N=88)
- **Rural women in Zimbabwe**
93% liked it (N=700)

Yimin et al., 2002, Jivasak-Apimas et al., 2001, Francis-Chizororo & Natshalaga, 2003

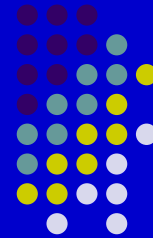
What Do We Mean By Acceptability?



Voluntary sustained use of a method in the context of alternatives *(Severy & Newcomer, 2005).*

Does adding the female condom to the method mix increase the percent of protected sex acts?

If yes, how do couples achieve this?



Studies of Longer-Term FC Use



What Is Known

EFFECTIVE INTERVENTIONS

- **Can increase % of women who use the FC**
- **Can increase the % of protected sex acts**
- **FC does not replace MC**
- **Couples with 100% protected occasions tend to mix FC and MC use**

Studies of Longer-Term FC Use



- 3 to 18 months follow-up
- **Outcomes vary**
 - ▶ Use of male and female condoms
 - ▶ Occasions - % protected (or unprotected) – MC or FC
 - ▶ Women - % with consistent MC or FC use or any unprotected occasions
- **Randomized & observational**

Studies of Longer-Term FC Use



- **Intervention Targets**
 - ▶ Female sex workers
 - ▶ STI clinic attendees
 - ▶ Women in high-prevalence areas
 - ▶ Family planning clinic attendees
- **Intervention Types**
 - ▶ Individual and couple counseling
 - ▶ Group-based
 - ▶ Structural

Studies of Longer-Term FC Use



Of 14 studies, 11 show some evidence of a positive effect of adding the female condom.

- ↑↑ = strong positive effect
- ↑ = some positive effect
- = no effect

Studies of Longer-Term FC Use



Study	Effect
Thai female sex workers – R <i>Fontanet et al. 1998</i>	↑
Kenyan plantation residents – R <i>Welsh, Feldblum et al., 2001</i>	↑
Phila. STI clinic attendees – O <i>Latka, et al., 2000, Gollub et al., 2001</i>	↑
Madagascar FSWs – O <i>Hatzell et al. unpub.</i>	↑↑
Alabama STI clinic attendees - O <i>Artz et al., 2000, Macaluso et al. 2000</i>	↑↑
R = Randomized O = Observational	↑ = positive effect ○ = no effect

Studies of Longer-Term FC Use



Study	Effect
Zambian STI clinic attendees (couples) - O <i>Musaba et al., 1998</i>	↑
US STI clinic attendees – R <i>Kalichman, et al., 1999</i>	↑
Zimbabwean FSWs – R <i>Ray et al., 2001</i>	○
Brazilian FSWs – O <i>Galvao, et al., 2002</i>	○
US family planning clinic attendees – O <i>Choi et al., 2003</i>	↑↑
R = Randomized O = Observational	↑ = positive effect ○ = no effect

Studies of Longer-Term FC Use



Study	Effect
US family planning clinic attendees – R <i>Hoffman et al., 2003</i>	○
Brazilian family planning clinic attendees – O <i>Barbosa et al., unpub.</i>	↑↑
Kenyan FSWs – O <i>Thomsen et al., unpub.</i>	↑
Phila. drug users (BestBet) – R <i>Gollub et al., unpub.</i>	↑
R = Randomized O = Observational	↑ = positive effect ○ = no effect

Alabama (USA) STI Clinic



■ Intervention

- ▶ Nurse-delivered, single counseling session
- ▶ Goal – 100% barrier protection, FC use
- ▶ Content – Insertion skills training, negotiation, partner materials

■ Method

- ▶ Observational – no control group
- ▶ 1159 women recruited from 2 STI clinics
- ▶ Monthly follow-up for 6 months

Artz et al., 2000, Macaluso et al, 2000

Results



- ↑ Female condom use
~ 25% of occasions throughout FU
- ↑ Women with consistent condom use
Baseline: 28% 6-months: 56%
~36% after estimating for dropouts
- ↑ Percent of protected sex occasions
Baseline: 40% 6-months: 67%
~50% after estimating for dropouts

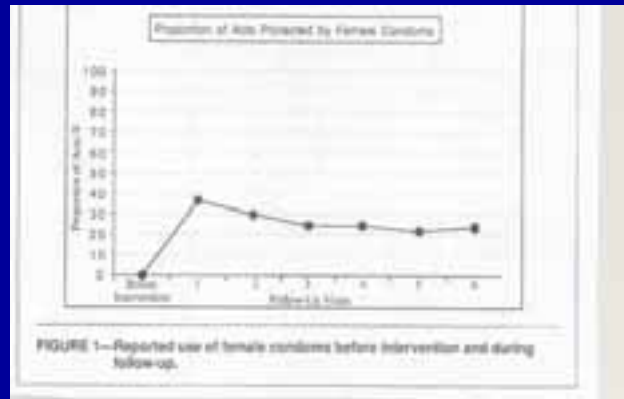
Artz et al., 2000, Macaluso et al, 2000

Results



FC Use - Proportion FC-Protected Acts

Artz et al., 2000

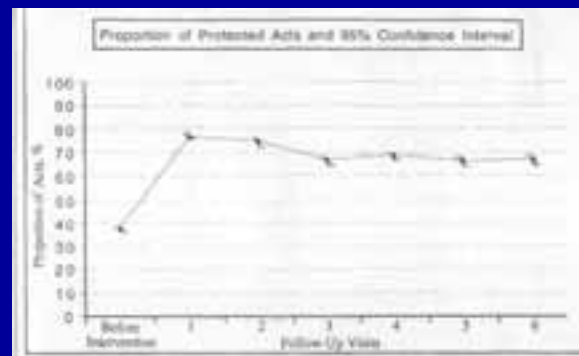


Results



Proportion Male or Female Condom Protected Acts

Artz et al., 2000



How Do Couples Increase Protection?



- **In the Alabama STI clinic study**
 - ▶ 35% of women maintained consistent condom use
 - ▶ Of these, 75% achieved this by using a mix of male and female condoms
- **Studies in STI clinics in Zambia and Philadelphia report similar findings**

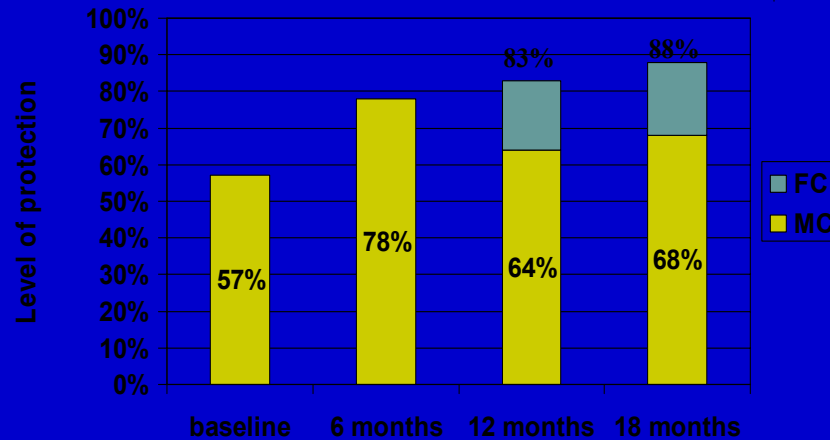
Artz et al., 2000, Macaluso et al., 2000, Musaba et al., 1997, Latka et al., 2000, Gollub et al., 2001

Does the FC Replace the MC?



- RANDOMIZED
- **Thai sex establishments**
 - ▶ Some replacement, but overall ↑
 - **Kenyan communities**
 - ▶ No replacement, overall ↑
- OBSERVATIONAL
- **Kenyan FSWs**
 - ▶ Some replacement, no overall ↑
 - **Madagascar FSWs**
 - ▶ Some replacement, but overall ↑

Mean proportion of protected sex acts with clients (last 30 days)



Studies of Longer-Term FC Use

What Is Known

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- Can increase % of women who use the FC
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Studies of Longer-Term FC Use



Unanswered Questions

- How can we increase the size of the increment in protected sex occasions?
- What are the most effective promotional methods for each population?
- How can we help to sustain FC use?

What Influences Acceptability? A Broader Perspective



- Acceptability is not a static quality of the method - FC, MC, microbicide
- Acceptability is influenced by
 - ▶ Individual factors - insertion skills and practice
 - ▶ Male partner and relationship type
 - ▶ Social and political environment - provider training, marketing, access, and cost

Individual Factor - Insertion Difficulties



- **Insertion difficulties for some users**

Cecil et al., 1998

- **However....Insertion can be learned!**

- ▶ With insertion skills training and opportunity to practice insertion, difficulties decreased from 25% to 3%

Artz et al., 2002

- **Insertion and use challenges decline with practice**

Yimin et al., 2002, Galvao, 2002

Male Partners and Relationship Type



- **In which type of partnerships is FC most likely to be used?**
- **Male partner challenges**

In What Types of Partnerships is FC Most Likely to be Used?



- ▶ In US studies, FC use is greater with regular partners (spouse or boyfriend) than with casual partners. *Macaluso et al., 2000a, Sly et al., Hoffman et al., 2004, Choi et al., 2003.*
- ▶ MC use is greater with casual and new partners.
- ▶ For women in established partnerships, the female condom may help them achieve 100% protected sex.

Macaluso et al., 2000b

Partner Type and FC Use



	Any Use - % of Women	% of Occasions Used
Spouse or boyfriend	77	18
Lover	75	16
Friend	42	13
Other	28	14
All Partners	67	17

Choi et al., 2003

Partner Type and FC Use



Post Marketing Studies

- FC use is greater with regular, non-marital partners than with marital partners
- Women: Single ↑ than married
- Men: Single = married

Kerrigan et al., 2000, Meekers, 1999, Meekers & Richter, 2005, Agha, 2001

Partner Type and FC Use



	Women %	Men %
Spouse	7.4%	12.8%
Regular partner	11.7	12.1
Casual partner	24.1	9.5

Agha, 2001

Partner Type and FC Use – Female Sex Workers



In both US and developing world studies among FSWs, FC use is greater with paying than with non-paying partners

Thomson 2005, Witte et al., 1999

Challenges: Male Partners



- Qualitative studies worldwide show FC can increase women's sense of empowerment
- Covert use is generally not possible
- In US studies, positive attitude of male partner → increased FC use
Choi et al., 2003 Hoffman et al., 2004
- Worldwide, male partner objection is a reason for FC non-use or discontinuation
Ford & Mathie, 1993; Farr et al., 1994; Welsh et al., 2001; Beksinska et al., 2001.

Strategies: Male Partners



Qualitative Findings - US STI Clinic

Consistent FC users used multiple strategies to present the FC to partners

- ▶ Persuasion
 - Dual protection
 - Sexual pleasure – natural feeling
 - Help with insertion
- ▶ Direct materials for men – pamphlets, testimonial video

Penman-Aguilar et al., 2002

Strategies: Male Partners



Qualitative findings – Kenya & Brazil

- Successful FC users used a range of strategies to introduce FC to partners
 - ▶ Non-confrontational persuasion
 - ▶ Focus on pregnancy prevention
 - ▶ Left FC on bed to stimulate discussion
 - ▶ Inserted before sex
- Men - concerns about sexual pleasure
- Some men wanted to introduce FC

Ankrah & Attika, 1997

Male Partners: Future Directions



- Interventions need to compare different approaches to reaching men
- Prevailing gender norms will influence successful partner introduction strategies

Susser & Stein, 2000, Mantell et al., unpub.

Social Environment Challenge: Cost and Re-Use



- High cost relative to the male condom remains a challenge for sustaining use
- Reuse may reduce cost
- Studies demonstrate FC-1 can be safely washed and re-used
 - ▶ Structural integrity maintained up to 7 washes
 - ▶ No microbial retention

Joanis, et al., 2000; Beksinska, et al., 2001; Potter et al., 2002

Re-Use Practices



Three small studies

- Women who re-use the FC on their own employ a variety of re-use and cleaning practices
- Women who have not re-used the FC are willing to re-use it
- In a trial setting, women find a standardized re-use protocol acceptable
- Remaining question: Can women follow the WHO protocol?

Smith et al., 2001, Pettifor et al., 2001

Future Directions: Getting the Answers



- Short-term acceptability no longer needed with FC-1
- Identify population-specific interventions that will enhance FC use over the longer term
- Focus on approaches to gaining male partner acceptance of FC use
- Use the strongest research designs possible
- For program evaluations - Seek creative approaches to answer key questions

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