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Client Experiences of Odor Associated with PrePex™ Device for Male Circumcision in Botswana

by: Adrian Musiige[1], Tigistu Adamu Ashengo[1,2], Lesego Busang[3], Kenanao Motlhoiwa[1], Alex Chipara[4], Galina Stolarsky[1], Frank Mwangemi[3] and Conrad Ntsuape[4]

affiliate: [1]Jhpiego, an affiliate of Johns Hopkins University; [2]Johns Hopkins Bloomberg School of Public Health; [3]The African Comprehensive HIV/AIDS Partnerships (ACHAP); [4]Ministry of Health (MoH), Botswana

Background: Botswana MC and HIV Situation*

- HIV and MC statistics in 18-month to 64-year age group:
  - HIV prevalence: 19.0%
  - HIV incidence: 2.92%
- Circumcision prevalence in males >10 years old:
  - 24.3%



*Botswana AIDS Impact Survey (BAIS IV) 2013: http://www.cso.gov.bw/templates/cso/file/File/BAIS%20IV%20PRELIMINARY%20RESULTS%20Nov%202013(1).pdf

Background

- Circumcising 80% of men 15 to 49 in Botswana by 2016 would avert >33,000 new HIV infections and save US $248 million in care and treatment costs between 2009 and 2025.*
- The MoH is considering use of the PrePex™ device to increase uptake of voluntary medical male circumcision (VMMC).
- The MoH recently collaborated with CDC, Jhpiego, and ACHAP on an implementation pilot study of the safety and acceptability of PrePex™.

*USAID/Health Policy Initiative: The Potential Cost and Impact of Expanding Male Circumcision in Botswana: http://www.aidstar-one.com/sites/default/files/resources/external/health_policy_initiative/Botswana103009.pdf

The PrePex™ Device





- An elastic compression technique that uses one ring on the inside and one outside to cause ischemic necrosis of the foreskin.
- The procedure requires no injectable anesthesia, cutting of vital tissue, or suturing.
- 5-7 days later the necrotized foreskin and both rings are removed.
- Thus it is simple, scalable and may be acceptable to some men who otherwise wouldn't seek circumcision using conventional surgical methods.

Odor

- Between placement (Day 0) and removal (Day 5-7), some participants experienced an odor of variable intensity due to necrotic foreskin tissue.
- The odor may impact acceptability of this method.
- Definition of odor: A smell, especially one that is unpleasant.*

*Oxford Advanced Learners' Dictionary

The Procedure: Placement (Day 0)

Before the procedure, men receive detailed information and counseling.





1. Identifying device size(A-E) with sizing plate



2. Marking



3. Inserting inner ring



4. Aligning the 2 rings to the circumcision line



5. Inner and outer rings in place
Placement Complete

The Procedure: Removal (Day 5-7)

Study staff attend to a participant on a removal visit.





1. Removing the necrotic foreskin with scissors



2. Removing the elastic ring with surgical blade



3. Extracting the inner ring



4. The PrePex removal is done!

Objective

- To describe participant experiences of and attempts to mitigate odor while wearing the PrePex™ device
- To assess the effect of odor on client satisfaction with the PrePex™ device method of VMMC

Methods

- Study sites:
  - Two urban VMMC clinics in Botswana
- Study population:
  - HIV-negative men aged 18-49 years enrolled in the PrePex™ safety and acceptability study between May and September 2013
  - 802 participants from urban and peri-urban neighborhoods around Gaborone
  - Median age 26 (SD=7.08) years
- Outcome measures:
  - Proportion of participants who noticed odor
  - Proportion of participants who had to forego activities of daily living (ADL) due to odor
  - Proportion of participants who noticed odor who nonetheless would recommend the method to other men
  - The variety and effect of measures taken by participants to mitigate odor
- Statistical test:
  - Wilcoxon Two-Sample Test to assess significance of differences in responses

Setting

Typical neighborhoods in study catchment area







Results

- Did you notice an unusual or unpleasant odor? (n=802)

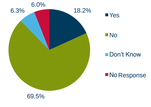


Results *(cont.)*

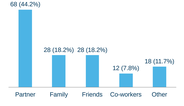
- What was the first day you noticed the odor?



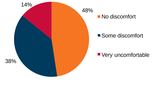
- Do you think anyone else noticed the odor? (n=751)



- Who do you think noticed the odor? (n=154)

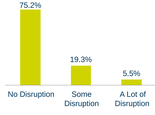


- Rate the level of discomfort you felt because of the odor (n=750)

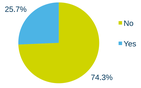


Results *(cont.)*

- Rate the level of disruption to your daily life caused by the odor; (n=745)



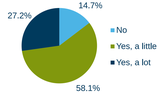
- Did you try anything to reduce the odor? (n=752)



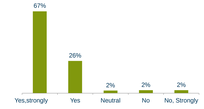
- What did you do to reduce the odor?
  - More frequent bathing
  - Use of perfumes
  - Bathing with antiseptic preparations (Dettol or Savlon)
  - Foam bath
- Participants with large family size were more likely to try combating the odor.
- One participant removed the foreskin with a pair of scissors on Day 3 post-placement due to odor.

Results *(cont.)*

- Was what you did helpful to reduce the odor? (n=191)
- No apparent difference in range of anti odor measures taken between those with "no" versus "a lot" of relief



- Would you recommend PrePex™ Method to another man? (n=732, at Day 42)



Conclusions

- The majority of individuals noticed an odor two days or later after device placement.
- Only a small proportion experienced major disruption in activities of daily living.
- The vast majority of participants would recommend PrePex™ to others.
- VMMC clients choosing PrePex™ should be counseled to expect an odor.
- Additional research is needed about effective ways to mitigate the odor.

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