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BACKGROUND

- Use of PrEP for HIV prevention is not life-long, but rather linked to 'seasons of risk' [1, 2]
- Adolescent girls and young women (AGYW) may underestimate HIV risk, limiting effectiveness in this population [3]
- Traditional interview methods to understand HIV risk perceptions among AGYW are limited by social desirability bias and a focus on current partnerships
- We adapted a novel approach to elicit perceptions of HIV risk in the context of narrative sexual histories [4], a method previously used to understand meaning-making in life histories [5]
- Sexual histories were obtained from adolescent girls and young women (AGYW) in an open label study (HPTN 082) of PrEP uptake and adherence in 16-25 year-old HIV-uninfected women in Zimbabwe (Harare) and South Africa (Crossroads, Cape Town, and Hillbrow, Johannesburg).

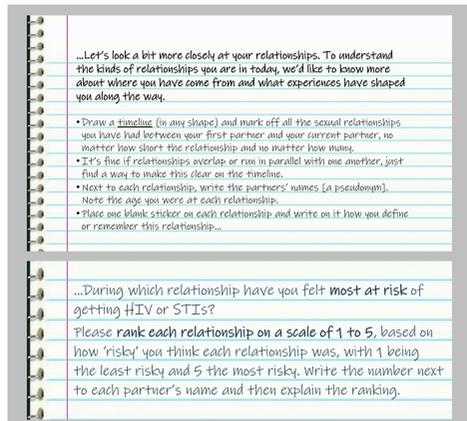


FIGURE 1. Instructions for creating relationship timelines

METHODS

- Participants were purposively sampled on the basis of PrEP usage patterns for audio-recorded in-depth interviews at two time points: after week 13 and week 26 study visits.
- Participants were asked to sketch 'relationship timelines' in the second interview (see Figure 1), while an interviewer probed about key risk factors in past and current relationships, including condom use, substance use, intimate partner violence (IPV) and concurrent partners.
- To assess perceptions of HIV risk, participants were asked to assign a numerical risk score from 1 (least risk) to 5 (highest risk) to each relationship.
- Full descriptive narratives were completed for each participant, from which key risk factors were isolated using a matrix. For the analysis reported here, risk scores were clustered into low (1-2), and high (3-5).

Creating relationship timelines gave young women insight into their lifetime exposure to HIV risk.



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RESULTS

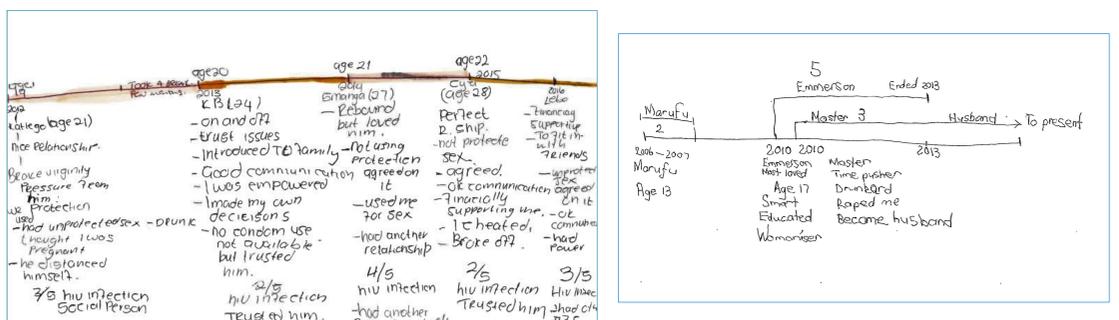
OVERVIEW

- 67 participants enrolled in the qualitative sub-study; 56 completed the second interview. Relationship timelines were collected from 31 participants, encapsulating 130 discrete relationships; 99 were rated by participants using the 1-5 risk scale.
- Participants said that creating the timelines gave them new and valuable insights into their lifetime exposure to risk
- Socio-demographics:
 - Median age 21 years (IQR 19-23)
 - 70% had completed high school or higher; 37% current students
 - Half reported having at least one main partner; 11% married
 - Most (61%) living with their parents

KEY PATTERNS IN RISK ASSESSMENTS

- **'Low risk'** partners were described in largely positive terms:
 - "decent, humble and respectful", "loving and caring", (Harare)
 - "perfect", "kind and good-hearted" (Johannesburg),
 - "fun" and made participants "felt loved" (Cape Town)
 - "trusted" and believed to not have other partners – either younger men ("He was still young, I don't think he has a lot that he did"; Harare), or men with no obvious "suspicious" behaviour ("I did not see him as someone who likes [other] women"; Johannesburg).
- Other **protective factors** considered to lower HIV risk:
 - relationships with shared decision-making and good communication
 - HIV testing together with a partner
 - infrequent sex
 - condom use (even if inconsistent)

FIGURE 2. Examples of relationship timelines produced by HPTN 082 Qualitative participants (all names are pseudonyms)



- **'High risk'** relationships were those with:
 - men known or suspected to have other partners ("womanizers", "smooth talkers", "players" and "cheats"). **Women said they would have used PrEP in these relationships had it been available.**
 - older, transactional sex partners ("blessers") and casual partners ("time pushers" in Harare, "f*ck boys" in Johannesburg, and "side men" in Cape Town), but only if they had other sexual partners
 - men in precarious socio-economic circumstances: financially unstable, not supporting children, with no fixed abode (Harare)
 - IPV and controlling behaviour, where AGYW described feeling "used for sex" and "abused", and reported depression and low self-esteem (Johannesburg).
 - more substance use: men who were "drunkards" (Harare), drug-users, or men with whom participants had had "drunk sex" (Johannesburg and Cape Town).
- Participants felt at risk not only of HIV but also of **unplanned pregnancies and other sexually transmitted infections**
- Participants' own concurrent partners were largely ignored in the risk calculation.

CONCLUSIONS

This "visual storytelling" approach with young women in HPTN 082 revealed how their calibration of personal risk of HIV infection differed from that used in conventional public health messaging about HIV risk:

- **Partner fidelity is a deal-breaker:** in the absence of infidelity, the significance of other risk factors – such as low condom use or transactional sex – was downplayed.
- **Prior experience of partner infidelity** affected women's ability to trust later partners, but did not appear to improve accurate detection of risk in **subsequent relationships.**
- **Emotions matter:** HIV risk tended to be underestimated in relationships where participants had been "in love" or emotionally connected to the partner, or that were affirming and egalitarian.
- **Implications for PrEP uptake and use:** PrEP initiation counselling needs to build young women's skills to accurately assess HIV risk in current and future relationships. In the context of counselling about the geographic nature of HIV risk, the relationship timeline method may be a useful **counselling tool** for supporting young women to visualise their risk exposure over time, adopt protective behaviours and align PrEP use with periods of high risk.

REFERENCES

1. Mugno NR, Ngunjiri K, Kiragu M, et al. The preexposure prophylaxis revolution: from clinical trials to programmatic implementation. *Curr Opin HIV AIDS* 2016, 11(1):80-86.
2. Namey E, Agot K, Ahmed K, et al. When and why women might suspend PrEP use according to perceived seasons of risk: implications for PrEP-specific risk-reduction counselling. *Culture, health & sexuality* 2016, 18(9):1081-1091.
3. Corneli AL, McKenna K, Headley J, et al. A descriptive analysis of perceptions of HIV risk and worry about acquiring HIV among FEM-PrEP participants who seroconverted in Bondo, Kenya, and Pretoria, South Africa. *Journal of the International AIDS Society* 2014, 17(3 Suppl 2):19152.
4. Goldenberg T, Finerman C, Andes KL, Stephenson R. Using participant-empowered visual relationship timelines in a qualitative study of sexual behaviour. *Global public health* 2016, 11(5-6):699-718.
5. Leung PPY. Autobiographical Timeline: A Narrative and Life Story Approach in Understanding Meaning-Making in Cancer Patients. *Illness, Crisis & Loss* 2010, 18(2):111-127.



FIGURE 3. A dichotomy of risk: Terms used to describe 'low risk' (left) and 'high risk' (right) partners

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