XVIII International AIDS Conference, July 18-23 2010, Vienna, Austria

Prävention
und psychosoziale
Gesundheitsforschung

public health

Perceived risk of different HIV risk management strategies among MSM in Germany. A measurement approach using short vignettes.

Jochen Drewes[1], Christoph Kraschl[1], Philipp C. Langer[2] & Dieter Kleiber[1]

[1] Free University Berlin, Public Health, Berlin, Germany; [2] Bundeswehr Institute of Social Sciences, Strausberg, Germany

Background

While condom use among German men having sex with men (MSM) remains on a high level, there is a substantial part of MSM using barrier-free risk management strategies to reduce their risk of HIV infection, such as negotiated safety, seropositioning, and withdrawal (Bochow, Schmidt & Grote, 2010). Among a sample of Swiss MSM, one quarter of the participants reported engaging in at least one of these strategies (Balthasar, et al., 2010). While some of these strategies (e.g. negotiated safety) seem reasonably safe in terms of reducing risk of HIV infection, other strategies seem to be based on the misperception of HIV-transmission mechanisms. Integrating these risk management strategies in HIV-prevention efforts appears to be challenging. There is especially a lack of knowledge on how risky MSM perceive these strategies. To measure risk perceptions of MSM regarding certain risk management strategies, we used a novel approach presenting vignettes of people engaging in these behaviors. We adopted this measurement approach in a nationwide online survey of MSM in Germany.

Methods

As part of the evaluation of the nationwide HIV- and STI-prevention campaign ICH WEISS WAS ICH TU ("I know what I do"), MSM were recruited from various websites to take part in an online survey on HIV-related behaviors and attitudes.

Five short vignettes were designed which depict MSM engaging in the risk strategies *negotiated safety*, *seropositioning*, *seroguessing*, *withdrawal* and *viral load method* (see table 1). Participants were asked to rate the probability of these MSM to get infected with HIV. For the vignettes *seropositioning* and *withdrawal* participants were asked to rate risk perceptions for insertive and receptive behavior respectively. Answers were collected on a ten-point scale with higher scores denoting higher risk. Answers from 5,252 HIV-negative or untested MSM were collected. Bivariate analyses using t-tests were con-ducted via PASW.

vignette *negotiated safety*
Hans decides to stop using condoms with his primary partner Frank, after they took an HIV-test and both received a negative result. They make an agreement to always use condoms with casual partners.
vignette *seropositioning* (*insertive* and *receptive*)
Thomas meets Michael in a gay bathhouse. Thomas only practices insertive anal intercourse. He doesn't like condoms, because he has difficulties to remain an erection when using a condom. Michael doesn't realize that Thomas is not using a condom.
vignette *seroguessing*
Markus likes to fuck without a condom. Because he fears an HIV infection, he decides carefully with whom he has sex. He looks after appearance and health. He prefers sex with young guys.
vignette *withdrawal* (*insertive* and *receptive*)
Tom and Ronny meet at a gay club and leave together. When they start having sex, recognize neither of them has a condom. Tom is keen on fucking Ronny. Ronny agrees under the condition that Tom withdraws before ejaculation. That's how they do it.
vignette *viral load method*
Ralf and Andreas are in a relationship for some years. Ralf is HIV-positive, takes his antiretroviral medication regularly and has an undetectable viral load. When they have sex, the normally don't use a condom.

Table 1: Descriptions of the vignettes (translations from German).

Results

Mean values for risk perception differed between 4.0 and 9.0, with *negotiated safety* rated as the least risky behavior and being the receptive part in *seropositioning* as the most risky behavior in terms of risk of HIV-infection. Ratings of risk perception were generally high (table 2). A direct comparison of ratings for insertive and receptive unprotected anal intercourse using paired t-tests showed that insertive anal intercourse (M=7.8) was rated significantly less risky than receptive anal intercourse (M=9.0) (p<.001). Similar results were found for *withdrawal*.

Sexual risk behavior was associated with lower risk perceptions. MSM who reported unprotected anal intercourse (UAIC) with a partner whose HIV-serostatus was positive or unknown in the last six months rated all risk management strategies significantly as less risky than MSM who did not report UAIC in the last six months. Differences in mean ratings were especially high for insertive anal intercourse.

vignette	M (SD)
negotiated safety	4.0 (2.5)
withdrawal insertive	7.3 (2.7)
seropositioning insertive	7.8 (2.5)
withdrawal receptive	8.3 (2.1)
viral load method	8.3 (2.6)
seroguessing	8.8 (1.8)
seropositioning receptive	9.0 (1.7)

Table 2: Ratings of risk perception for every risk management behavior (means and standard deviations)

vignette	UAIC M (SD) n=1,026	no UAIC M (SD) n=4,226
negotiated safety	3.5 (2.4)	4.1 (2.6)
withdrawal insertive	6.1 (2.8)	7.6 (2.5)
seropositioning insertive	6.7 (2.8)	8.1 (2.3)
withdrawal receptive	7.4 (2.5)	8.6 (1.9)
viral load method	7.5 (3.0)	8.4 (2.4)
seroguessing	8.0 (2.3)	9.0 (1.6)
seropositioning receptive	8.3 (2.2)	9.2 (1.4)

Table 3: Ratings of risk perception for MSM engaging in UAIC and MSM not engaging in UAIC (all differences p <.001)
[UAIC: unprotected anal intercourse in the last six months with a partner whose HIV-serostatus was positive or unknown]

Conclusion

Our study is the first to measure and compare risk perceptions of MSM regarding HIV risk management strategies. We used vignettes depicting MSM engaging in these behaviors. This measurement approach proved to be a feasible method in gaining insight into the way these strategies are perceived.

Negotiated safety was rated as the least risky strategy in terms of HIV infection. This is consistent with experts, who promote negotiated safety as an effective condom-free strategy to minimize risk of HIV infection in relationships (Kippax, et al., 1997). Other practices were rated as much riskier. Being the insertive part while practicing withdrawal and insertive unprotected intercourse are rated significantly less risky than being the receptive counterpart. Though receptive UAIC has the highest probability of getting infected with HIV, there is still a considerable risk related to insertive UAIC (Jin, e.al., 2010). Therefore risk perceptions of insertive UAIC should be targeted by HIV prevention programs.

Basing the decision for unprotected intercourse with a HIV-positive partner on his viral load, assuming less or no infectiousness with an undetectable viral load (Attia, et al., 2009), is rated relatively risky by the participants, but less risky than seroguessing. There was evidence in another part of our questionnaire that most HIV-negative and untested MSM did not know about associations between viral load and infectiousness.

We could also show that MSM who engage in risk behavior perceive risk management strategies as less risky. Though the direction of a possible causal relationship remains unknown, risk perceptions of this group should be a focus of HIV prevention.

References

Attia, S., Egger, M., Müller, M., Zwahlen, M. & Low, N. (2009). Sexual transmission of HIV according to viral load and antiretroviral therapy: systematic review and meta-analysis. *AIDS, 23*, 1397-1404.

Balthasar, H., Jeannin, A., Lociciro, S. & Dubois-Arber, F. (2010). Intentional risk reduction practices of men in Switzerland who have anal intercourse with casual male partners. *Journal of the Acquired Immune Deficiency Syndrome,* Published ahead of Print. doi:10.1097/QAI.0b013e3181e19a6b.

Bochow, M., Schmidt, A.J. & Grote, S. (2010). *Schwule Männer und HIV/Aids. Lebensstile, Szene, Sex 2007. Eine Befragung im Auftrag der Bundeszentrale für gesundheitliche Aufklärung., Köln.* Berlin: Deutsche AIDS-Hilfe e.V.

Jin, F., Jansson, J., Law, M., Prestage, G.P., Zablotska, I., Imrie, J.C.G., Kippax, S., Kaldor, J.M., Grulich, A.E. & Wilson.D.P. (2010). Per-contact probability of HIV transmission in homosexual men in Sydney in the era of HAART. *AIDS, 24,* 907-913.

Kippax, S., Noble, J., Prestage, G., Crawford, J.M., Campbell, D., Baxter, D. & Cooper, D. (1997). Sexual negotiation in the AIDS era: negotiated safety revisited. *AIDS, 11*, 191-197.

Contact
jochen.drewes@fu-berlin.de