Pleasure and PrEP: Pleasure-Seeking Plays a Role in Prevention Choices and Could Lead to PrEP Initiation

Xavier Mabire, Costanza Puppo, Stéphane Morel, Marion Mora, Daniela Rojas Castro, Julie Chas, Eric Cua, Claire Pintado, Marie Suzan-Monti, Bruno Spire, et al.

American Journal of Men's Health
Volume 13(1): 1–14
© The Author(s) 2019
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/1557988319827396
journals.sagepub.com/home/jmh
SAGE

Pleasure and PrEP: Pleasure-Seeking Plays a Role in Prevention Choices and Could Lead to PrEP Initiation

Xavier Mabire[1], Costanza Puppo[1], Stéphane Morel[2], Marion Mora[3,4], Daniela Rojas Castro[3,5], Julie Chas[6], Eric Cua[7], Claire Pintado[8], Marie Suzan-Monti[3,4], Bruno Spire[3,4], Jean-Michel Molina[8], and Marie Préau[1]

Abstract

Pleasure-seeking plays a role in prevention (means choices and use), and in the sexual quality of life of men who have sex with men (MSM). Since HIV is a major threat to MSM health, new means of prevention, like pre-exposure prophylaxis (PrEP), must meet the needs of MSM to be fully efficient. Using a psychosocial approach, we examined how pleasure-seeking plays a role in participation of MSM in "ANRS-IPERGAY," a community-based trial on sexual health which included sexual on-demand PrEP. Thirteen semistructured collective interviews were conducted with 45 participants. First, we analyzed participants' search for new prevention means due to previous failures in condom use. We found that participants perceived condoms as a barrier—both materially and symbolically—to pleasure and desire, causing anxiety and stress considering sexual intercourse. Second, we explored representations and attitudes concerning pleasure within the context of PrEP. We found that PrEP allowed participants to freely choose their desired sexual positions and to better enjoy intimacy. Third, we studied the sexual quality of life for PrEP users in ANRS-IPERGAY and found an improvement. Thanks to the community-based design of the trial, this new prevention tool became a means to develop agency and empowerment for participants, not only in negotiating individual prevention but also in opposing the normative and stigmatizing discourse on sexuality and HIV. In conclusion, pleasure-seeking appears to be an essential element of sexual fulfillment that needs to be integrated as a positive notion in the study of HIV prevention.

Keywords

HIV/AIDS, physiological and endocrine disorders, health promotion and disease prevention, health-care issues, sexual health, sexuality

Received August 29, 2018; revised December 23, 2018; accepted January 7, 2019

Men who have sex with men (MSM) are at high risk of HIV exposure, partly because they frequently lack suitable information and prevention interventions. The rate of new infections in MSM is neither decreasing globally (UNAIDS, 2016a), nor in Europe (European Centre for Disease Prevention and Control, 2013; Haar & Amato-Gauci, 2015). This is especially true in France (Institut de Veille Sanitaire, 2014; Méthy, Velter, Semaille, & Bajos, 2015). Considering this continued threat to MSM health, prevention programs are increasingly implementing the concept of "combination prevention" (UNAIDS, 2010; World Health Organization, 2014b) as part of the 90-90-90 strategy promoted by the WHO to eradicate new infections before 2030 (World Health Organization, 2014a).

[1]GRePS, Lyon 2 University, Lyon, France
[2]AIDES, Pantin, France
[3]Aix Marseille University, INSERM, IRD, SESSTIM, Marseille, France
[4]ORS PACA, Southeastern Health Regional Observatory, Marseille, France
[5]Community-based Research Laboratory, Coalition PLUS, Pantin, France
[6]Hospital Tenon, Paris, France
[7]Hospital Archet, Nice, France
[8]Hospital Saint-Louis, Department of infectious Disease, Assistance Publique Hôpitaux de Paris, Paris, France

Corresponding Author:
Xavier Mabire, Groupe de Recherche en Psychologie Sociale (EA 4163 GRePS), Institut de Psychologie, Université Lumière Lyon 2, 5 avenue Pierre Mendès-France, 69500 Bron, France.
Email: xavier.mabire@univ-lyon-2.fr

Combination prevention brings together various proven high-impact HIV prevention interventions. Since 2014, initiatives to turn the tide of the epidemic have sought to increase the visibility and impact of new prevention tools (World Health Organization, 2014a, 2014b, 2015). One of these tools is antiretroviral-based pre-exposure prophylaxis (PrEP; Grant et al., 2010; McCormack et al., 2016; Molina et al., 2015; Spinner et al., 2016). PrEP is a treatment for seronegative people to prevent against HIV infection. It can be taken every day or on demand for sexual activity. PrEP effectiveness has been proven for all populations (Fonner et al., 2016), including HIV-negative MSM, (Huang et al., 2018). The drug provides promising results in the MSM population (Punyacharoensin et al., 2016), especially when integrated into a more global framework of prevention and sexual health goals. Sexual health is defined as "a state of physical, emotional, mental and social well-being in relation to sexuality" (World Health Organization, 2006, p. 5). It is determined by psychosocial determinants, and "PrEP can give people more autonomy about their sexual decision-making, which may also include risk reduction" (UNAIDS, 2016b). Certain factors regarding the cultural context of social relations and norms (Apostolidis & Dany, 2012; Bertoldo, Guignard, Dany, & Apostolidis, 2017) that determine PrEP use have already been studied. These include awareness and acceptability, risk perception, fear of stigma, concerns about effectiveness, increased sexual risk behavior and adherence (Calabrese & Underhill, 2015; Elst et al., 2012; Frankis, Young, Lorimer, Davis, & Flowers, 2016; Lorente et al., 2011; Parsons et al., 2017; Peng et al., 2018; Rendina, Whitfield, Grov, Starks, & Parsons, 2017; Young, Flowers, & McDaid, 2014a). Nevertheless, the impact of pleasure seeking in PrEP initiation remains poorly documented.

Although the theme of sexual pleasure is increasingly being considered in campaigns promoting HIV risk reduction and PrEP use (Calabrese & Underhill, 2015; Grant & Koester, 2016; Koester et al., 2014; Molina, 2016; Race, 2016), it is still quite uncommon. More related research is needed, especially regarding how users manage pleasure seeking and its impact on sexuality, when considering PrEP initiation as a part of combined prevention care program (Auerbach & Hoppe, 2015; Grant & Koester, 2016; Race, 2016). More specifically, greater knowledge is needed about how sexual pleasure-seeking affects decision making in prevention choices.

ANRS-IPERGAY was a randomized, placebo-controlled biomedical trial implemented in France and Canada between 2012 and 2016. The trial assessed the efficacy of an oral, on-demand, sexual activity-based, free-of-charge PrEP (emtricitabine + tenofovir disoproxil fumarate) strategy in MSM (Molina et al., 2015). The ANRS-IPERGAY trial was conceived as a Community-Based Intervention on Sexual Health (CBISH; Demange, Henry, & Préau, 2012; Reece & Dodge, 2004), using a bottom-up approach which involved various French NGOs primarily AIDeS. The latter contributed by recruiting qualified community-based counselors (CBCs) to provide counseling and support.

The trial focused on collecting data on participants' sexual health in the course of regular visits while testing on-demand PrEP effectiveness. Every 2 months, during scheduled follow-up visits, participants were provided a comprehensive package of prevention tools which included condoms, lubricants, and facilitated access to post-exposure prophylaxis. Furthermore, regular screening and treatment for other STIs and patient-centered counseling performed by a peer CBC were also included. Counseling consisted of analyzing the participant's evolving sexual and preventive behaviors and discussing congruent preventive strategies. Referral to other health services was also offered if needed.

Health-related benefits and the reduction of risk as well as sexual quality of life (QoL) were frequently discussed during individual counseling sessions and during the scheduled regular semistructured collective interviews (CIs) conducted by the CBC. The latter had two key goals: data collection (Caillaud & Kalampalikis, 2013; Kitzinger, 1994) and offering community-based support to improve participant adherence to PrEP (Danet et al., 2015).

This study applied a psychosocial approach to analyze the data collected by the CBC during CIs (Kalampalikis & Haas, 2008; Moscovici, 2000). More precisely, we used the social representation theory which has already proven its value in the analysis of various health issues, including HIV (Joffe, 2000, 2002, 2003; Préau et al., 2016). The qualitative data (Malterud, 2001) described in this article were collected via the CIs during the randomized double-blind phase of ANRS-IPERGAY (Molina et al., 2015). At the time of data collection, participants did not know if they were taking a placebo or PrEP.

We hypothesized that pleasure-seeking was a strong motivation to participate in ANRS-IPERGAY and might influence decision making regarding prevention measures, even if it is commonly considered a "secondary" benefit of PrEP (Underhill, 2015). Accordingly, the study focused on how psychosocial factors motivated people to participate in the trial. The study also attempted to understand to what extent participants justified participation in the overall context of sexual health. To do this, the study compared the perceived benefits of PrEP care with another means of prevention, specifically condoms.

The aim of the present study was to examine how pleasure-seeking plays a role in prevention and in sexual QoL, and how it may lead to PrEP initiation. This knowledge is crucial for the development of PrEP care in the context of the scaling up of the treatment.

Methods

Recruitment and Data Collection

The ANRS-IPERGAY trial inclusion criteria were: HIV-negative status, aged at least 18 years old, male or transgender woman who had sex with men, and at high risk of HIV infection. This latter was defined as a history of unprotected anal sex with at least two partners during the previous 6 months (Molina et al., 2015). Written informed consent before enrollment was obtained. The protocol (initial and amended for the open-label extension study [OLE]) was approved by public health authorities and ethics committees in France (Comité de Protection des Personnes, Paris, Ile de France IV) and Canada (Comité d'éthique de la recherche, Montreal, QC).

The CIs were conceived by the trial's protocol as a tool to empower participants in ANRS-IPERGAY and collect associated data. According to community-based research guidelines (Demange et al., 2012; Israel, Schulz, Parker, & Becker, 1998), the CBCs organized and facilitated the CIs. The CBCs were hired by AIDeS. They were trained in social science and humanities data collection and CI methods. Special attention was given to strengthening their competences to adopt a nonjudgmental attitude, building a trustful relationship with participants and increasing social facilitation. Being members of the studied community, their understanding of MSM sociability as well as sex and prevention issues constituted an added value in conducting data collection. The CI environment was specifically designed to be welcoming and friendly, thereby facilitating exchange of sensitive issues. Building such a facilitating environment was an absolute priority for CBC.

The semistructured CIs methodology was inspired by the focus group methodology. Focus groups require a sequential interview grid and rigorous management of time and usually imply that participants collaborate in solving a collective issue (Flick et al., 2007). Therefore, this format could lack adaptability while not enabling participants to express concerns and sensitive issues. In-depth semistructured CIs were also easier to execute by nonprofessional researchers than focus groups. Considering these methodological choices, the appellation "CIs" was preferred to avoid methodological ambiguity with focus groups.

Voluntary participation in CI was systematically proposed during the inclusion visit. Participation could take place in the first 3 months of follow-up. During the scheduled visits, the CBCs also reminded participants of the optional participation to the CIs. If they agreed, participants were contacted by phone or e-mail to set a date and organize the CI. CIs took place in the premises of AIDeS, an NGO that was already well known to some of the participants. The CI guide comprised four main questions: (a) What were your motivations to join and participate in the trial? (b) How have you appropriated the trial and what impact has it had on your sexual life and prevention choices? (c) How has your sexuality evolved during the trial? (d) What have you done to speak about your participation in the trial to your family and relatives?

Confidentiality was maintained in data collection and the CBCs encouraged participants to do the same, to respect their own privacy. Anonymous personal identifiers were used for each participant. CIs were both audio-recorded and later transcribed verbatim in French. They were analyzed in the original French language by French analysts. The participants' quotes presented in this article were translated into English for publication purposes by a professional native copyeditor with over 12 years' experience in the fields of social science and humanities and HIV/Aids research.

Analysis

A thematic analysis of the integral transcription of the various CIs was performed (Braun & Clarke, 2006) using Atlas-ti, "ATLAS.ti Scientific Software" Development GmbH, version 1.0.51 (403) (Friese, 2014; Hotton et al., 2015). This tool enabled the systematic coding, comparison, and analysis of the different texts comprising the corpus. The analysis proceeded in three steps. The first involved iterative, in-depth readings of the corpus, in order to have an overview of all the themes which emerged. The second step was to place these themes into perspective using classic dimensions of sexual QoL described in the literature (Arrington, Cofrancesco, & Wu, 2004), as well as more specific studies about pleasure and intimacy concerning condom use (Gamarel & Golub, 2014; Giddens, 1992; Golub, Starks, Payton, & Parsons, 2011; Kelly & Kalichman, 1998; Randolph, Pinkerton, Bogart, Cecil, & Abramson, 2007; Underhill, 2015). The third step was to construct and apply the analytic grid (using the data from step 2) which consisted of 31 codes grouped into four categories: PrEP (e.g., schedule, anticipating a sexual event, side effects), psychosocial context (e.g. social sharing and stigma, community-based grounding), risk-reduction strategies (e.g. condoms, seroadaptation, vaccination for hepatitis A and B), and sexual QoL (e.g., libido, satisfaction and quality, relationship). These four categories refer to the psychosocial aspects of sexual life in the framework of

Table 1. Main Characteristics of the Study Sample ($n = 45$) Compared With the ANRS-IPERGAY Total Sample ($n = 400$).

	Study population ($n = 45$)	Other participants ($n = 355$)	
	Median [min–max] or *n* (%)	Median [min–max] or *n* (%)	*p* value
Age[b]	35 [20–67]	35 [19–67]	.87
Educational level[a]			
High school or less than high school	7 (15.5)	39 (9.9)	.18
Above high school	38 (85.5)	355 (90.1)	
Self-defined as homosexual/gay			
No or refusal to define	5 (11.1)	36 (9.0)	.60
Yes	40 (88.9)	364 (91.0)	
Main male partner before entering the trial[a]			
No	27 (61.4)	230 (58.4)	.67
Yes	17 (38.7)	164 (41.6)	
Standard of living[b]			
Not comfortable	6 (13.3)	36 (9.1)	.29
Comfortable	39 (86.7)	360 (90.9)	
Active employment			
Yes	36 (80)	56 (14.0)	.22
No	9 (20)	344 (86.0)	
Used online dating regularly[c]			
No	6 (13.6)	65 (16.5)	.58
Yes	38 (86.4)	328 (83.5)	

Note. *p* values presented in the table are associated with a χ^2 test for categorical variables or a median test for continuous variables. When a category was under-represented ($n < 10$), a Fisher exact test was applied instead of a χ^2 test.
[a]Six missing values. [b]Four missing values. [c]Seven missing values.

ANRS-IPERGAY and enabled us to characterize the diversity of determinants affecting participants' sexual lives in the trial.

Results

Study Population

The main characteristics at baseline of the 45 participants included in the study sample are described in Table 1. Median age was 35 [20–67] years. Educational level, living standards, and employment status were all comparable with those found for the whole ANRS-IPERGAY sample.

Thematic Analysis Results

The 13 CIs (45 participants) retained for this study took place during 2014, in each of the five French cities participating in the trial: one in Lille, two in Lyon, two in Nantes, three in Nice, and five in Paris. Each CI had 3–6 participants with 1–3 CBCs and lasted between 90 and 165 min. In the global corpus of 5,492 quotations (204,350 words), 3,259 quotations (156,630 words, 59% of the global corpus) were related to at least one of our four categories of interest: risk-reduction strategies (30%), PrEP-related statements (22%), sexual QoL (15%), and psychosocial context (15%). The following section presents extracts from the participants' discourses regarding their representations of condoms before they joined the trial, condom use evolution over time, and how this evolution may have influenced participants' decision to participate in a CBISH focusing on PrEP. An analysis of participants' representations and behaviors related to pleasure, prevention, and intimacy is then presented, followed by an analysis of how these representations and behaviors play a role in sexual socialization. Next comes an analysis of the declared benefits, as reported by participants, arising from the community-based nature of the trial. Finally, the declared benefits of trial participation, especially in terms of sexual QoL linked with serenity are presented.

Participants' relationship with condoms. Having greater knowledge about participants' attitudes toward condoms provided better understanding of why people were looking for new means of prevention. In turn, this understanding provided more detailed information of participants' representations of PrEP (or the placebo sometimes perceived as PrEP), and participants' different motivations to enter the CBISH. With respect to barriers and facilitators of condom use, we found that before entering the trial some participants reported a progressive decrease in condom use:

> 79087: But then, like I said, I didn't join the trial to change sexuality. I already had the same sexuality before. I didn't join the trial to say to myself: 'I'll take off the condom'. No, that, I had done that before.

One of the most important barriers to condom use declared by participants was a reduction in sexual pleasure, real or anticipated:

> 30116: I'm twenty-seven years old, I haven't protected myself for five years, so I started [not protecting myself] very early on. I always wanted not to put on a condom, because I knew that the pleasure would be a hundred times better.

This reduction in sexual pleasure was associated with negative experiences or representations of condoms. Condoms were perceived as an artificial membrane reducing pleasurable sensations, and even provoking unpleasant sensations such as irritation and burning:

> 54014: We can very well say, that a condom, whether we are active or passive, we feel it. If I am active … how can I put it? First of all, it really cuts off sensations, and if I'm passive, it's the same thing, and what's more, after a while … how can I put it? Your ass is on fire like nothing else. Needless to say! So, whether you're active or passive, in any case, it's true that it's not the best.

These unpleasant sensations could even act as a barrier to engaging in the sexual act, preventing erection, and at times desire. Sexual pleasure was perceived by some participants to be greater when condoms were not used. This attitude was strongly linked to condom avoidance in future intercourse. Moreover, the physical act of correctly putting on a condom was perceived as a major obstacle, provoking stress and anxiety, and inhibiting desire or erection:

> 16019: It's always a little scary to say to yourself: you have to put a condom on, because you always … well, there's always the fear of loss of performance … not easy to say, that. _Laughs _
>
> 16035: Fear of the loss of performance, FLP…
>
> 16019: Yeah, FLP sets in, because it's true that putting the condom on is technical, it's less passionate and less human than making love, so it's something that's very restrictive to do, so there's always this little anxiety where you say to yourself: "Will I be able to put this on easily so that I can really get on with it [have sex]?". So, when you're really excited, there's no problem, but when you're a little more 'limp', let's say, well it gets more complicated, and you tend to say quickly: "no worries, I won't put it on, it doesn't matter." So, that's always a little worrying.
>
> 16035: So, when you're raring to go, really excited, there's no problem.
>
> W16: Just a note about that, the condom would be an obstacle to pleasure, to sexual fulfilment.
>
> 16035: Oh yes!
>
> 16019: Yeah, absolutely! Even the best condoms, the thinnest, the most …

The position taken during the sexual act (top/insertive or bottom/receptive) played a role in sexual fulfilment, and this sometimes depended on condom or PrEP use for some participants. Those desiring sexual intercourse, but who were unable to use condoms because they inhibited erection, were more likely to take the bottom/receptive position. The top/insertive position was perceived by participants to be less risky in terms of infection and adopted as a risk-reduction strategy, the bottom/receptive position was perceived to be more pleasurable. For some participants, receiving sperm was associated with more pleasure while taking the receptive position:

> 20145: Then, actually, from what I was told, there is less risk being top than being bottom, so you know, I might tend to be a bit more top than bottom when I'm having unprotected intercourse.

The possibility, thanks to PrEP, to freely choose one's position, and to choose to receive sperm or not, was associated with increased sexual pleasure and sexual satisfaction.

We also observed that for some participants, being enrolled in the CBISH facilitated condom use:

> 16015: For my part, I pay more attention to … that's improved a little… well, not really improved, because I haven't changed my habits much, but it's more controlled, more … well, I know that I take a lot fewer risks since I joined the trial, I'm more likely to use condoms and stuff. Unlike before, it's more an awareness. Apart from that, it's the same thing.

This increased awareness was certainly due to counseling and sexual education interventions. PrEP provides protection only from HIV infection, but not from other sexually transmitted infections (STIs). Accordingly, to encourage condom use, it is essential to make condoms more available and to ensure they are of a high quality:

> S54: That's why we thought it was important to offer, as part of Ipergay, thinner condoms, and larger condoms that are less tight.
>
> 54014: That's why I buy them. I buy them.

> 54016: And then elastic condoms are more manageable. They burst less often. It's true that among new condoms, the rim is more supple, because the others, when you let them go … for me, personally, when I let go [the rim of the condom], once it's put on, I can't roll it down much. It hurts too much, like.

Participants also mentioned that providing condoms free of charge to everyone in general could also encourage their use. New kinds of condom are needed to ensure greater physical pleasure and intimacy if their use is to be encouraged:

> 16019: Yes, super condoms that reproduce the heat of the prick. Sorry, but if it's an ordinary condom, no heat is transferred to the condom … no condom transfers the heat. Even if it heat ups, it's not the same heat as the prick, it's not the same texture, it's totally different.

Intimacy and pleasure. The concept of intimacy is sometimes touched on in condom-use studies, but usually as a unidimensional construct (Gamarel & Golub, 2014). Statements in this study's CIs suggested that intimacy should be thought of as having two distinct facets. Accordingly, two main dimensions were considered: physical intimacy (physical closeness) and psychological intimacy (coziness, familiarity). Intimacy seemed to be of crucial importance in participants' discourses concerning sexual fulfillment and preventive choices.

Physical intimacy refers to carnal, sensual, and physical bonding. It is linked to sensorial stimulation experienced upon contact with another body, and contact with one's own body during sexual interaction. More specifically, physical intimacy refers to contact, touch, warmth, flesh, and fluids. Condoms, even the more recent and sophisticated ones, are unable to convey this physical intimacy:

> 16019: Have you already tested [latex-free condoms]?
>
> 16018: It's still there … You still feel something …
>
> 16035: Ah! It's not skin.
>
> 16019: It's totally different from skin.
>
> 16035: The funny thing is that, regardless of the generation, I think we all agree. How can you say that the condom doesn't change anything ….?

Condoms block the transmission of fluids. For some participants, this was frustrating and led to less satisfaction. PrEP protects chemically. There is no mechanical barrier, and so participants were able to fulfill their desires for physical intimacy and fluid exchange:

> 20113: I'm as much active as passive, but I'm more … now I ejaculate internally more, whereas before I would have said: woah there, absolutely not … (…) But now, I let myself go more. So maybe, it [PrEP] made me more uninhibited from that point of view.

Psychological intimacy deals with affectivity and emotivity between partners and forms complicity and trust between the partners. Psychological intimacy was an important part of sexual QoL in that it served as a condition of fulfilment for some participants:

> 16035: Yes, the pleasure that you … yes, and also what you expect, and what you look for on an intimate level. And then, I think that the quality of sexual life really depends on people… some people will absolutely want sexual stability with one person, etc.

Cessation of condom use was reported as a marker of greater attachment to a relationship over time, especially for committed partners, as they almost took it for granted:

> 30113: In a long-term relationship, you're not always going to use a condom, like.

Attachment was sometimes (tacitly) correlated with agreements with partners on sexual exclusivity:

> 30141: I've no idea at all how things can happen. Because I want a serious relationship, but on the other hand, I'm addicted to ass, and I need … there you go. I want to have fun, but I tell myself that I don't want to have fun any longer, and the risks and all that stuff, and to say to myself: damn, at twenty-four, I have HIV, and what's going to happen next?

Sexual exclusivity and condom use were almost never renegotiated over time. When they were, it was with difficulty and shame because some partners considered it a synonym of "betrayal." Participants expressed apparently contradictory desires: the desire for attachment and at the same time, a desire for liberty and a sort of carefreeness. The desire for casual sex encounters and to satisfy one's own sexual fantasies with whomever one wanted conflicted with the desire for an exclusive stable relationship. Prevention was problematic at times when people had sexual relations without condoms outside of their primary relationship while still maintaining condomless sexual relations with the primary partner. For some participants, the desire to commit to one relationship, where condoms were not used, but also to have casual sex with other persons, could be seen as a prophylactic plural monogamous commitment:

> 30140: Me, for example, the reason I joined the trial … I don't have condomless sex with casual partners. In actual

> fact, I've lots of regular partners and we don't use condoms. But on the other hand, with someone like that, who you meet in an online chat in two minutes, no it's never happened [never had condomless sex]. So, for me, that's one of the criteria. What I mean is that if someone says or writes "no condom", no, me, I won't go and meet him.

In terms of the question as to how to match prevention with this desire, PrEP was seen as preventing HIV infection in condomless encounters with casual partners, and so preventing HIV infection in the primary relationship.

Achieving a better sexual QoL. When participants were asked to speak about sexual QoL in the framework of the ANRS-IPERGAY trial, a discourse emerged describing emancipation from recurrent constraints:

> 16009: It means being comfortable about the sexuality that you have, that you practice.
>
> 16005: Quality, being fulfilled. Life as you feel it, as you want it, with as few constraints as possible.
>
> 16010: It's about trying to compromise as little as possible. It's about taking responsibility for your choices, there you go, by compromising as little as possible.
>
> 16011: Quality of sexual life, it's like he [participant 16005] said, I absolutely agree, fulfilment. So, fulfilment as opposed to frustration, and so there you have it, a good quality sexual life is about following your desires, it's doing what you want, to let go a little, and to live out your sexuality on a daily basis, worrying as little about it as possible.

Nevertheless, it provided participants with greater sexual fulfilment and therefore a better sexual QoL. The decrease in condom use, seen as a constraint, before entering the trial was sometimes associated with increased stress and worry about greater possible HIV exposure. Nevertheless, greater anxiety did not lead them to reconsider condom use. Upon their inclusion in the trial, PrEP appeared to become a new means of prevention, which helped participants fulfill their sexual pleasure needs. Notably, through reduced anxiety, fear, and guilt and increased confidence, reflexivity, and agency:

> 30141: I said to myself that it could be worthwhile to have regular follow-up and possibly preventive treatment, unless I'm taking the placebo…. I've no idea… that would allow me to fuck with no condom without worrying about it. It's not exactly that either, but it's kind of the idea, yeah, to be able to fuck without a condom without really getting all worried about it, without being too anxious.

Sexual QoL and the constraints affecting it are present at several levels: individual (abilities, satisfaction), interpersonal (relation to other and partners), and structural (norms and values).

At the individual level, participation in the CBISH presented here enabled participants to tackle prevention negotiation before a sexual act with greater serenity:

> 30145: Indeed, since I've been in the trial, since even the first Ipergay appointment, in actual fact, something has changed… in the sense that I talk more with the person, whether he's seropositive, seronegative, [sex] with or without a condom, I talk more to find out where he's at, to know a little about the risk I'm running… that's changed a lot alright. I tend to try all the same to have protected sex, because I reduce the risk, even though I do have unprotected sex. Now what I do is that if I haven't taken the medicine, I don't have unprotected sex. I see it as a way to help avoid risks, like.

This represented a form of sexual agency, to plan and adapt sexual and preventive practices. PrEP (or the placebo perceived as PrEP) also provided a positive feeling of serenity by decreasing fear and anxiety about HIV infection during intercourse, especially with a seropositive partner:

> 79087: having sex with seronegative and seropositive people, always with a feeling of guilt, saying to yourself: "but what if I get infected" etc., while with "that" [finger quotes referring to PrEP], that, that … talking [with a seropositive partner] … I explain clearly that I'm well aware of the situation, and that I'm not stupid, and that because I joined the trial, well, like, that also shows that I still look out for myself, that I'm not suicidal.

For some participants, PrEP in this CBISH facilitated risk-reduction planning in a partnership, without negatively impacting psychological intimacy:

> 30129: He practices like you too [sex without a condom], when he cheats on you …?
>
> 30128: I don't really think he does…
>
> 30129: You don't talk about it?
>
> 30128: No, we don't go too much into the details. In any case, every time the question is asked, he says to me: no, no, no risks, and so on. Anyway, I'm not on his back about it, so … I don't say anything to him, I wait for him to ask the questions. He knows I'm part of the Ipergay trial. I gave him the information. It's up to him too to ask questions if he wants to know more about it.

In settings where it was not possible or desirable to talk about condomless concomitant relationships outside of the couple (and therefore to readapt prevention practices), PrEP could offer prevention against HIV.

At the interpersonal level, the empowerment provided by the community-based dimension of ANRS-IPERGAY was pivotal. For those who did not want to or could not use condoms, having a space to discuss this issue was of great help:

> 30129: I think it's good, because not having gay friends—I only have straight friends—so … my straight friends are aware of everything, I don't hide anything about my sexuality from them, or about the trial, nothing. But you don't have the same exchange. So, I think it's cool [the community-based aspect], it allows me to talk with people who do the same things, and who aren't there to judge. Because when you talk with other fags [outside the trial], it's all about judging, it's all about comparison, it's all about advice. I don't need that advice, I don't need to hear … and I think it's great right here, you know you're in the same study, you're in it because you have risky practices, if you use condoms 100% of the time, there's no point in doing that [being part of the trial], so I find it quite worthwhile.

Participants declared that being judged and having norms reiterated to them was not an effective strategy. Instead, the welcoming and friendly environment created during the CBISH helped participants liberate their voices and address questions, all the while facilitating linkage to care:

> 54012: What's changed for me is that I no longer have, as soon as I have a doubt about maybe having caught something, about having to contact my doctor and to justify myself and to … I no longer feel the guilt I felt before when I went to see my doctor.

Discussions between participants themselves, but also with medical staff as well as peer counselors, were seen to be of prime importance. Participants were able to reflect on and elaborate their own practices, leading to the possibility of behavioral change and more efficient prevention strategies:

> 79078: I joined the study after being tested in January, and then, I'll tell you, that was some period … _Laughs_ it's a bit blurry, going out lots … Well, I'm a bon-vivant, I'm shy, but I'm a bon-vivant, _Laughs _ and so that's it. I love … I love the "good things in life" [finger quotes], and sometimes you forget the condom, and then like, there you go… and so I think that joining the study helped me to become a little more responsible. And, it's true that today, like, I use them a lot, lot, lot more often, and if I had the same will to stop smoking, well, that'd be perfect. _Laughs_

At the structural level, constraints weighing on participants' sexual fulfilment could be linked to the normative pressure to use condoms and the stigmatization of HIV. Years of the epidemic had led to the participants' conception of sexuality becoming ridden with anxiety. Some participants who could not or did not use condoms perceived themselves to be deviant in some way:

> 16035: There you have it. Because after all, in everyday life, when you're 1oo% aware of everything, you know very well that you shouldn't fuck without a condom, etc. But that doesn't mean there aren't times when you waver, and it's really hard to admit that, yes, it's very difficult. So, that's why I was talking about denial.

This may also have been the result of internalized homophobia as well as homonegativity:

> 16019: And also, like, fucking without a condom, it was more … like first of all, it put me in danger, but besides that, it also put my friends, my family in danger, in the sense that, well, if I die, if something happens to me, well it will affect them too somehow, and it will certainly not help advance the homosexual cause if one more homosexual is dead because he fucked without a condom. I know a lot of people who'd use that as a sledgehammer to kill us, so … There were all these images, like. And, there's the side too, ehm… I like to fuck without a condom despite all that, and so there was this duality that made it all feel like very dark moments, moments that were very … when I fuck without a condom, it's not good, it's dirty, it's … Just talking about it, and getting into the Ipergay trial, well it's like, yeah, it's dirty, okay, so now you try to protect yourself, you try to move things forward, like. That's why for me, it's this really guilty side.

The decision not to use condoms is part of a complex network of decisions and perceptions surrounding social relationships and norms. Despite therapeutic advances, feelings of fear related to HIV contamination would lead one to assume that participants still had negative representations of HIV:

> 30141: (…) I want to have fun, but I tell myself that I don't want to have fun any longer, and the risks and all that stuff, and to say to myself: damn, at twenty-four, I have HIV, and what's going to happen next? Does that mean I can only meet people who have HIV too? Or can I continue to have normal encounters? But when should I warn the other person that I have HIV? I ask myself so many questions, but for now, I can't find the answers… I don't want to find them either, it's too much of a headache, and I say to myself that Ipergay is there for that too a little [provide answers to these questions].

This was also true for younger participants (under 30 years old at the time of data collection), a population usually described as being more sensitized to prevention messages than their older counterparts.

Prior to the trial, participants were aware of and sometimes used the most common prevention tools, such as

condoms, PEP, serosorting, and so forth. Nonetheless, participation in ANRS-IPERGAY proved to be a game changer in their sexual and preventive lives. By introducing a new means of prevention (i.e., PrEP) and gathering new information through counseling and empowerment, they changed their behaviors and enhanced their sexual QoL.

> 16011: (…) more serene, more fulfilled, more thoughtful, more responsible, therefore a better quality of sexual life, after having joined the trial.

Discussion

Analyzing participants' discourses in the ANRS-IPERGAY trial about their sexual and prevention practices in the PrEP era shed new light on previous prevention practices, especially condom use. Participation in the ANRS-IPERGAY trial, with sexual on-demand PrEP as its cornerstone, was seen by participants as a game changer. Using PrEP was seen as a way to feel physically closer to a partner and enable fluid exchange, something perceived as more pleasurable. Participants also expressed their satisfaction with the greater versatility provided by PrEP in terms of intercourse positions, which also led to increased pleasure. According to the participants' discourses, both physical and psychological intimacy improved. Using condoms could protect people from HIV infection when having intercourse with people other than their primary partner and avoid relying on symbolic strategies. Having a better sexual QoL was a widely declared benefit of ANRS-IPERGAY. PrEP (or the placebo perceived as PrEP) helped participants to approach intercourse and negotiate sexual and prevention choices (i.e. whether to use condoms or not) with greater serenity and freedom. This serenity is brought about by reduced anxiety, fear and guilt, as well as increased confidence, reflexivity and sexual agency all linked to less fear of contamination and less HIV stigma.

Documenting participants' representations of prevention and pleasure but also sexual and preventive behaviors during ANRS-IPERGAY, enables a greater understanding of participants' motivations to sign up for CBISH proposing PrEP. Before the trial, condoms were seen as the only valid means of prevention. Those unable or unwilling to use condoms expressed anxiety and increased perceived vulnerability to infection. However, this vulnerability did not translate into increased condom use, as this prevention tool did not meet their sexual needs. Our findings are consistent with the literature, whereby condoms are often associated with the avoidance of sexual relations, erectile dysfunction, decreased sensual intensity, and reduced stimulation (for both top/insertive and bottom/receptive partners; Gamarel & Golub, 2014; Golub et al., 2011; Randolph et al., 2007; Underhill, 2015). Participants declared that PrEP (or the placebo perceived as PrEP) led to more pleasure, as they no longer had to avoid the unpleasant sensation of burning caused by condoms. Nevertheless, PrEP only works for HIV. Those who wanted to use condoms or to encourage their use for other STIs mentioned other changes that needed to be made, including making condoms freely available in general, and improving their quality to make them more acceptable (Sarkar, 2008).

The CIs were full of statements about increased serenity due to joining ANRS-IPERGAY and potential PrEP use. Participants mentioned the psychological discomfort and stress brought on by the clash between their perception that using condoms was seen as mandatory on the one hand and their desire to continue having condomless sex on the other. Stigma is attached to condomless sex (Dubov, Galbo, Altice, & Fraenkel, 2018). In this context, "fear appeal" messages by the public health system seemed to reinforce this tension, even though fear appeal is partially irrelevant (Peters, Ruiter, & Kok, 2013). Participants were aware of their practices and recurring HIV exposition. Their desire to sign up for this CBISH which provided PrEP is evidence of their engagement in prevention and their search for suitable solutions to their sexual needs.

Condoms were also seen to be a major barrier to physical intimacy for the study participants. This result is consistent with the literature. Condoms act as a physical (reducing sensitivity and pleasure) and symbolic (reducing closeness and intimacy) barrier (Randolph et al., 2007). These disadvantages seem to outweigh virtues such as "condoms' ability to prolong sexual intercourse, thus increasing psychosexual tension, and ultimately sexual pleasure" (Randolph et al., 2007, p. 848). Our findings identify that this symbolic barrier interferes with the emotional and affective life of participants (Golub et al., 2011). PrEP in this CBISH seemed to allow participants to question the symbolic dimension of the use or not of condoms, and to qualify the nature of their attachment to their partners.

With respect to prevention in a couple, condom use has a high symbolic value (Gamarel & Golub, 2014; Tavory & Swidler, 2009). It is now clear that "PrEP-protected sex and condom-protected sex may carry different interpersonal meanings" (Underhill, 2015, p. 1). Condomless sex is sometimes seen as a sign of engagement in a relationship. Experience from previous couple relationships influences future couple experiences. The rationale evoked by participants was that if they had a previous long-term/significant condomless relationship, then no future "serious relationship" could have condoms. Condoms were perceived as a marker of sexual and social relationships, a kind of thermometer of

engagement (Appleby, Miller, & Rothspan, 1999). Condom-based prevention in a couple is usually abandoned as a result of reciprocal commitment to the relationship (Bouhnik et al., 2007; Campbell et al., 2014; Sarkar, 2008; Williamson, Liku, McLoughlin, Nyamongo, & Nakayima, 2006). Nonetheless, it can happen that sexual relations outside the couple are maintained or indeed initiated, like casual sexual encounters or cruising which is also a factor of exposition (Elwood, Greene, & Carter, 2003). This can be considered a problem in terms of prevention because studies estimate that a significant part of new infection occurs in couple settings (Sullivan, Salazar, Buchbinder, & Sanchez, 2009). PrEP could avoid new HIV infections in couples arising from either the decision not to wear condoms or failure to use them when needed. As part of combination prevention, interventions targeting dialogue and communication skills, as well as nonjudgmental attitudes, could constitute additional means to avoid such infections. Sexual relations outside of the couple could be discussed and prevention adapted (Keller, 1996). Data show that intimacy and commitment played a role in participants' decisions to join ANRS-IPERGAY and also had an effect on PrEP adherence (Gamarel & Golub, 2014; Ware et al., 2012).

PrEP was seen by some participants as a game changer in terms of increased serenity. Taking PrEP meant that one could approach a condomless sexual encounter with less fear and guilt, especially regarding HIV infection (Koester et al., 2014). Furthermore, with PrEP, the sexual act is perceived as more complete (i.e., penetrative, no erectile dysfunction). PrEP also enabled participants to act out previously criticized fantasies. It significantly contributed to the improvement of participants' sexual QoL. With respect to sexual encounters with a known seropositive partner, PrEP also brought serenity. Treatment as Prevention (TasP) in virally suppressed partners should have already offered this peace of mind. In this case, PrEP provided more symbolic than concrete protection. In the CI, TasP did not seem to be not to be a part of people's representations or prevention practices despite it being a pivotal tool in the prevention arsenal. Study results suggest that TasP knowledge is usually acquired during direct experience of a serodifferent relationship and not via prevention campaigns. Knowledge of and confidence in TasP seemed to be acquired in a climate of psychological intimacy. Nevertheless, it must be taken into account that at the time of data collection, the U=U campaign was not yet widespread. Increasing knowledge about TasP could be beneficial also in terms of reduction of HIV-related stigma (Carter et al., 2015; Holt, 2013; Prati et al., 2016; Young, Flowers, & McDaid, 2014b). More generally, participants saw PrEP as a means to free oneself from any question concerning HIV status. It facilitated having partners of every serostatus. It developed sexual agency and empowered users. In ANRS-IPERGAY, PrEP was a means to foster normalization of HIV positivity and reduce HIV-related stigma.

The community-based element of ANRS-IPERGAY seemed to be of key importance in the decision by participants to join and remain in the trial. The community-based approach also contributed to lessen HIV-related stigma and internalized homophobia. Caregivers, hospital medical staff, and CBCs were seen as facilitators for exchange, by the fact that they created specific spaces of dialogue (Di Ciaccio et al., 2018). The trial's CIs made it possible to discuss practices and harm reduction strategies in a safe and welcoming environment. This specific form of communication has previously been proven to be efficient in adopting new sexual and prevention practices (Grant & Koester, 2016; Prestage, Brown, Allan, Ellard, & Down, 2016). Creating more such spaces in HIV care facilities would seem advantageous. The creation of spaces for dialogue with strong community-based anchoring would seem to be a key element of combined prevention intervention. Such spaces would enable the exchange of information while alleviating stigma. Experiences could be shared and innovative solutions found, thereby creating a prevention dynamic that is not only condom-based. Tailored actions are still needed to encourage the general public to have a positive view of sexuality and pleasure in prevention settings. PrEP cannot address issues like homonegativity and stigma, without a more systemic effort to educate the public (Conley, Perry, Gusakova, & Piemonte, 2018).

Some study limitations must be noted. Although the data collected were within the framework of a clinical trial, they reflected day-to-day life experiences. Nevertheless, they are not directly transferable to a real-life setting. Furthermore, the quality of data collection was guaranteed by training of participating community-based counsellors. Social desirability bias is certainly an issue. However, counselors conducted the CIs with goodwill and respect, something that acted as a facilitator for the participants to openly express their thoughts and concerns. Crucially, data were collected in a collective setting by people directly concerned by the research subject. It is important to point out however that the CIs and qualitative approach reported here did not aim to be representative either of the total ANRS-IPERGAY sample or of MSM taking PrEP in general. Nevertheless, the study sample included approximately 10% of all ANRS-IPERGAY's participants. Unlike questionnaires, using CIs tends to document and to understand social representations and behaviors in meaning-making situations, created by participants themselves with their own reflection framework. Data collection was limited during the first months of the double-blind phase of the trial. For this reason, the study did not consider motivations and attitudes concerning PrEP efficacy.

Conclusion

Promoting increased pleasure in HIV prevention campaigns is not recent. Nevertheless, it has to be sustained and reinforced. Studies on PrEP scale-up need to incorporate pleasure-seeking, and specific research programs need to be developed to gather data on the subjective experience of sexual pleasure as well as intimacy. The challenge is to gain more insight into meaning-making situations in terms of sexual and prevention practices, in order to better explain related decision-making processes.

The perceived increased protection provided in the CBISH presented here may lead to a fuller sexual and affective life. Participants' HIV representations also seem to have changed during the trial.

The rationale of decision making based on statistical indicators and probabilities in order to decrease exposure appears still subordinate to pleasure-seeking for numerous participants. The psychosocial approach used in this study helped to circumvent the common viewpoint that pleasure is a reinforcement value of unsafe sex (Kelly & Kalichman, 1998). Pleasure is a notion to be thought of positively, and no longer as the sign of "a nascent habit on the way to becoming a dangerous compulsion" (Klein, 2010, p. 20). Pleasure can be an important factor in the decision-making process of prevention means. Pleasure and intimacy influence sexual QoL and therefore should be taken into account in health promotion and education for HIV and STI prevention.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

References

Apostolidis, T., & Dany, L. (2012). Pensée sociale et risques dans le domaine de la santé : le regard des représentations sociales. *Psychologie Française*, *57*(2), 67–81. Retrieved from https://doi.org/10.1016/j.psfr.2012.03.003

Appleby, P. R., Miller, L. C., & Rothspan, S. (1999). The paradox of trust for male couples: When risking is a part of loving. *Personal Relationships*, *6*(1), 81–93. Retrieved from https://doi.org/10.1111/j.1475-6811.1999.tb00212.x

Arrington, R., Cofrancesco, J., & Wu, A. W. (2004). Questionnaires to measure sexual quality of life. *Quality of Life Research*, *13*(10), 1643–1658. Retrieved from https://doi.org/10.1007/s11136-004-7625-z

Auerbach, J. D., & Hoppe, T. A. (2015). Beyond '"getting drugs into bodies"': Social science perspectives on pre-exposure prophylaxis for HIV. *Journal of the International AIDS Society*, *18*(4), 19983. Retrieved from https://doi.org/10.7448/ias.18.4.19983

Bertoldo, R., Guignard, S., Dany, L., & Apostolidis, T. (2017). Health is in the eye of the beholder: The impact of social norms on perceived health dispositions. *Swiss Journal of Psychology*, *76*(2), 59–70. Retrieved from https://doi.org/10.1024/1421-0185/a000192

Bouhnik, A.-D., Préau, M., Lert, F., Peretti-Watel, P., Schiltz, M.-A., Obadia, Y., … VESPA Study Group. (2007). Unsafe sex in regular partnerships among heterosexual persons living with HIV: Evidence from a large representative sample of individuals attending outpatients services in France (ANRS-EN12-VESPA Study). *AIDS (London, England)*, *21*(Suppl 1), S57–S62. Retrieved from https://doi.org/10.1097/01.aids.0000255086.54599.23

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. Retrieved from https://doi.org/10.1191/1478088706qp063oa

Caillaud, S., & Kalampalikis, N. (2013). Focus groups and ecological practices: A psychosocial approach. *Qualitative Research in Psychology*, *10*(4), 382–401. Retrieved from https://doi.org/10.1080/14780887.2012.674176

Calabrese, S. K., & Underhill, K. (2015). How stigma surrounding the use of HIV preexposure prophylaxis undermines prevention and pleasure: A call to destigmatize "Truvada Whores." *American Journal of Public Health*, *105*(10), 1960–1964. Retrieved from https://doi.org/10.2105/AJPH.2015.302816

Campbell, C. K., Gómez, A. M., Dworkin, S., Wilson, P. A., Grisham, K. K., McReynolds, J., … Hoff, C. (2014). Health, trust, or "just understood": Explicit and implicit condom decision-making processes among Black, White, and interracial same-sex male couples. *Archives of Sexual Behavior*, *43*(4), 697–706. Retrieved from https://doi.org/10.1007/s10508-013-0146-5

Carter, A., Lachowsky, N., Rich, A., Forrest, J. I., Sereda, P., Cui, Z., … Hogg, R. S. (2015). Gay and bisexual men's awareness and knowledge of treatment as prevention: findings from the Momentum Health Study in Vancouver, Canada. *Journal of the International AIDS Society*, *18*(1), 20039. Retrieved from https://doi.org/10.7448/IAS.18.1.20039

Conley, T. D., Perry, M., Gusakova, S., & Piemonte, J. L. (2018). Monogamous Halo effects: The stigma of non-monogamy within collective sex environments. *Archives of Sexual Behavior*, *14*, 395–412. Retrieved from https://doi.org/10.1007/s10508-018-1213-8

Danet, M.-A., Coquelin, V., Ipergay sexual health coaches' team, Quatremère, G., Suzan-Monti, M., Spire, B., … Rojas Castro, D. (2015, July). *Community-based support in the ANRS ipergay trial: Improving adherence to the trial and access to overall health*. Poster presented at the 12th AIDSImpact International Conference, Amsterdam. Retrieved from http://www.aidsimpact.com/2015/Academics/DraftProgramme/abstract/?id=2275

Demange, E., Henry, E., Préau, M. (Eds.). (2012). *From collaborative research to community-based research. A methodological toolkit*. Paris: ANRS / Coalition Plus. Retrieved

from http://www.coalitionplus.org/wordpress/wp-content/uploads/2012/07/GUIDEgb.pdf

Di Ciaccio, M., Protiere, C., Rojas Castro, D., Suzan-Monti, M., Chas, J., & Cotte, L., … for the ANRS IPERGAY Study Group. (2018). The ANRS-Ipergay trial, an opportunity to use qualitative research to understand the perception of the "participant"-physician relationship. *AIDS Care*, *30*(Suppl 2), 41–47. Retrieved from https://doi.org/10.1080/09540121.2018.1468013

Dubov, A., Galbo, P., Altice, F. L., & Fraenkel, L. (2018). Stigma and shame experiences by MSM who take PrEP for HIV prevention: A Qualitative Study. *American Journal of Men's Health*, *12*(6), 1843–1854. Retrieved from https://doi.org/10.1177/1557988318797437

Elst, E. M. V. der, Mbogua, J., Operario, D., Mutua, G., Kuo, C., Mugo, P., … Sanders, E. J. (2012). High acceptability of HIV pre-exposure prophylaxis but challenges in adherence and use: Qualitative insights from a phase I trial of intermittent and daily PrEP in at-risk populations in Kenya. *AIDS and Behavior*, *17*(6), 2162–2172. Retrieved from https://doi.org/10.1007/s10461-012-0317-8

Elwood, W. N., Greene, K., & Carter, K. K. (2003). Gentlemen don't speak: Communication norms and condom use in bathhouses. *Journal of Applied Communication Research*, *31*(4), 277–297. Retrieved from https://doi.org/10.1080/1369681032000132564

European Centre for Disease Prevention and Control. (2013). *EMIS 2010: The European men-who-have-sex-with-men internet survey: Findings from 38 countries* (p. 240). Stockholm: European Centre for Disease Prevention and Control. Retrieved from http://ecdc.europa.eu/en/publications/Publications/EMIS-2010-european-men-who-have-sex-with-men-survey.pdf

Flick, U., Kvale, S., Angrosino, M. V., Barbour, R. S., Banks, M., Gibbs, G., … Flick, U. (2007). *The Sage qualitative research kit*. London: Sage Publications.

Fonner, V. A., Dalglish, S. L., Kennedy, C. E., Baggaley, R., O'Reilly, K. R., Koechlin, F. M., … Grant, R. M. (2016). Effectiveness and safety of oral HIV preexposure prophylaxis for all populations. *AIDS (London, England)*, *30*(12), 1973–1983. Retrieved from https://doi.org/10.1097/QAD.0000000000001145

Frankis, J. S., Young, I., Lorimer, K., Davis, M., & Flowers, P. (2016). Towards preparedness for PrEP: PrEP awareness and acceptability among MSM at high risk of HIV transmission who use sociosexual media in four Celtic nations: Scotland, Wales, Northern Ireland and The Republic of Ireland: An online survey. *Sexually Transmitted Infections* (Sextrans–2015). Retrieved from http://sti.bmj.com/content/early/2016/01/22/sextrans-2015-052101.abstract

Friese, S. (2014). *Qualitative data analysis with ATLAS.ti* (2nd ed.). Los Angeles, CA: Sage Publications.

Gamarel, K. E., & Golub, S. A. (2014). Intimacy motivations and Pre-exposure Prophylaxis (PrEP) Adoption intentions among HIV-Negative Men Who Have Sex with Men (MSM) in romantic relationships. *Annals of Behavioral Medicine*, *49*(2), 177–186. Retrieved from https://doi.org/10.1007/s12160-014-9646-3

Giddens, A. (1992). *The transformation of intimacy: Sexuality, love and intimacy in modern societies*. Stanford, CA: Stanford University Press.

Golub, S. A., Starks, T. J., Payton, G., & Parsons, J. T. (2011). The critical role of intimacy in the sexual risk behaviors of gay and bisexual men. *AIDS and Behavior*, *16*(3), 626–632. Retrieved from https://doi.org/10.1007/s10461-011-9972-4

Grant, R. M., & Koester, K. A. (2016). What people want from sex and preexposure prophylaxis. *Current Opinion in HIV and AIDS*, *11*(1), 3–9. Retrieved from https://doi.org/10.1097/COH.0000000000000216

Grant, R. M., Lama, J. R., Anderson, P. L., McMahan, V., Liu, A. Y., Vargas, L., … Glidden, D. V. (2010). Preexposure chemoprophylaxis for HIV prevention in men who have sex with men. *New England Journal of Medicine*, *363*(27), 2587–2599. Retrieved from https://doi.org/10.1056/NEJMoa1011205

Haar, K., & Amato-Gauci, A. J. (2015). European men who have sex with men still at risk of HIV infection despite three decades of prevention efforts. *Eurosurveillance*, *20*(14), 2–4. Retrieved from http://www.eurosurveillance.org/images/dynamic/EE/V20N14/V20N14.pdf

Holt, M. (2013). HIV pre-exposure prophylaxis and treatment as prevention: A review of awareness and acceptability among men who have sex with men in the Asia-Pacific region and the Americas. *Sexual Health*, *11*(2), 166–170. Retrieved from https://doi.org/10.1071/SH13060

Hotton, A. L., French, A. L., Hosek, S. G., Kendrick, S. R., Lemos, D., Brothers, J., … Mehta, S. D. (2015). Relationship dynamics and sexual risk reduction strategies among heterosexual young adults: A qualitative study of sexually transmitted infection clinic attendees at an urban Chicago health center. *AIDS Patient Care and STDs*, *29*(12), 668–674. Retrieved from https://doi.org/10.1089/apc.2015.0146

Huang, X., Hou, J., Song, A., Liu, X., Yang, X., Xu, J., … Wu, H. (2018). Efficacy and safety of oral TDF-based pre-exposure prophylaxis for men who have sex with men: A systematic review and meta-analysis. *Frontiers in Pharmacology*, *9*, 1–11. Retrieved from https://doi.org/10.3389/fphar.2018.00799

Institut de Veille Sanitaire. (2014, January 12). *Données épidémiologiques sur l'infection à VIH et les IST, 1er décembre 2014*. Retrieved from http://www.invs.sante.fr/Dossiers-thematiques/Maladies-infectieuses/VIH-sida-IST/Infection-a-VIH-et-sida/Actualites

Israel, B. A., Schulz, A. J., Parker, E. A., & Becker, A. B. (1998). Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health*, *19*(1), 173–202. Retrieved from https://doi.org/10.1146/annurev.publhealth.19.1.173

Joffe, H. (2000). Adherence to health messages: A social psychological perspective. *International Dental Journal*, *50*, 295–303. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1875-595X.2000.tb00579.x/abstract

Joffe, H. (2002). Social representations and health psychology. *Social Science Information*, *41*(4), 559–580. Retrieved from https://doi.org/10.1177/0539018402041004004

Joffe, H. (2003). Risk: From perception to social representation. *British Journal of Social Psychology*, *42*(1), 55–73. Retrieved from http://onlinelibrary.wiley.com/doi/10.1348/014466603763276126/abstract

Kalampalikis, N., & Haas, V. (2008). More than a theory: A new map of social thought. *Journal for the Theory of Social Behaviour*, *38*(4), 449–459. Retrieved from https://doi.org/10.1111/j.1468-5914.2008.00381.x

Keller, S. (1996). Methods work better when couples talk. *Network (Research Triangle Park, N.C.)*, *16*(3), 10–11, 14.

Kelly, J. A., & Kalichman, S. C. (1998). Reinforcement value of unsafe sex as a predictor of condom use and continued HIV/AIDS risk behavior among gay and bisexual men. *Health Psychology: Official Journal of the Division of Health Psychology, American Psychological Association*, *17*(4), 328–335.

Kitzinger, J. (1994). The methodology of focus groups: The importance of interaction between research participants. *Sociology of Health & Illness*, *16*(1), 103–121. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/1467-9566.ep11347023/abstract

Klein, R. (2010). What is health and how do you get it? In J. M. Metzl & A. Kirkland (Eds.), *Against health: How health became the new morality* (pp. 15–25). New York, NY: New York University Press.

Koester, K., Amico, K. R., Liu, A., McMahan, V., Hosek, S., Mayer, K., & Grant, R. (2014, July). *Sex on PrEP: Qualitative findings from the iPrEx Open Label Extension (OLE) in the US*. Oral communication presented at the 20th international AIDS conference, Melbourne, Australia. Retrieved from http://pag.aids2014.org/Session.aspx?s=1106#2

Lorente, N., Fugon, L., Carrieri, M. P., Andreo, C., Le Gall, J.-M., Cook, E., … Spire, B. (2011). Acceptability of an "on-demand" pre-exposure HIV prophylaxis trial among men who have sex with men living in France. *AIDS Care*, *24*(4), 1–10. Retrieved from https://doi.org/10.1080/09540121.2011.626394

Malterud, K. (2001). Qualitative research: Standards, challenges, and guidelines. *The Lancet*, *358*(9280), 483–488. Retrieved from https://doi.org/10.1016/S0140-6736(01)05627-6

McCormack, S., Dunn, D. T., Desai, M., Dolling, D. I., Gafos, M., Gilson, R., … Gill, O. N. (2016). Pre-exposure prophylaxis to prevent the acquisition of HIV-1 infection (PROUD): Effectiveness results from the pilot phase of a pragmatic open-label randomised trial. *The Lancet*, *387*(10013), 53–60. Retrieved from https://doi.org/10.1016/S0140-6736(15)00056-2

Méthy, N., Velter, A., Semaille, C., & Bajos, N. (2015). Sexual behaviours of homosexual and bisexual men in France: A generational approach. *PloS One*, *10*(3), e0123151. Retrieved from https://doi.org/10.1371/journal.pone.0123151

Molina, J.-M. (2016, July). *PrEP roll out France*. Oral communication presented at the WEWS08 PrEP Implementation: From Clinical Trials to Clinical Care. 21st International AIDS Conference (AIDS 2016), Durban, South Africa. Retrieved from http://programme.aids2016.org/Programme/Session/49

Molina, J.-M., Capitant, C., Spire, B., Pialoux, G., Cotte, L., Charreau, I., … Delfraissy, J.-F. (2015). On-demand preexposure prophylaxis in men at high risk for HIV-1 infection. *New England Journal of Medicine*, *373*(23), 2237–2246. Retrieved from https://doi.org/10.1056/NEJMoa1506273

Moscovici, S. (2000). *Social representations: Explorations in social psychology* (Gerard Duveen). New York, NY: New York University Press. Retrieved from http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0745622259.html

Parsons, J. T., Rendina, H. J., Lassiter, J. M., Whitfield, T. H., Starks, T. J., & Grov, C. (2017). Uptake of HIV Pre-Exposure Prophylaxis (PrEP) in a national cohort of gay and bisexual men in the United States: The motivational PrEP cascade. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *74*(3), 285–292. Retrieved from http://journals.lww.com/jaids/Abstract/publishahead/Uptake_of_HIV_pre_exposure_prophylaxis__PrEP__in_a.97077.aspx

Peng, P., Su, S., Fairley, C. K., Chu, M., Jiang, S., Zhuang, X., & Zhang, L. (2018). A global estimate of the acceptability of pre-exposure prophylaxis for HIV among men who have sex with men: A systematic review and meta-analysis. *AIDS and Behavior*, 22(4), 1063–1074. Retrieved from https://doi.org/10.1007/s10461-017-1675-z

Peters, G.-J. Y., Ruiter, R. A. C., & Kok, G. (2013). Threatening communication: A critical re-analysis and a revised meta-analytic test of fear appeal theory. *Health Psychology Review*, *7*(sup1), S8–S31. Retrieved from https://doi.org/10.1080/17437199.2012.703527

Prati, G., Zani, B., Pietrantoni, L., Scudiero, D., Perone, P., Cosmaro, L., … Oldrini, M. (2016). PEP and TasP awareness among Italian MSM, PLWHA, and high-risk heterosexuals and demographic, behavioral, and social correlates. *PLOS ONE*, *11*(6), e0157339. Retrieved from https://doi.org/10.1371/journal.pone.0157339

Préau, M., Mora, M., Laguette, V., Colombani, C., Boufassa, F., Meyer, L., … Lambotte, O. (2016). Identity, representations, and beliefs: HIV controllers living on the Frontier of good health and illness. *Qualitative Health Research*, *26*(11), 1483–1494. Retrieved from https://doi.org/10.1177/1049732315617739

Prestage, G., Brown, G., Allan, B., Ellard, J., & Down, I. (2016). Impact of peer support on behavior change among newly diagnosed Australian gay men. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, *72*(5), 565–571. Retrieved from https://doi.org/10.1097/QAI.0000000000001017

Punyacharoensin, N., Edmunds, W. J., De Angelis, D., Delpech, V., Hart, G., Elford, J., … White, R. G. (2016). Effect of pre-exposure prophylaxis and combination HIV prevention for men who have sex with men in the UK: A mathematical modelling study. *The Lancet HIV*, *3*(2), e94–e104. Retrieved from https://doi.org/10.1016/S2352-3018(15)00056-9

Race, K. (2016). Reluctant objects sexual pleasure as a problem for HIV biomedical prevention. *GLQ: A Journal of Lesbian and Gay Studies*, *22*(1), 1–31. Retrieved from https://doi.org/10.1215/10642684-3315217

Randolph, M. E., Pinkerton, S. D., Bogart, L. M., Cecil, H., & Abramson, P. R. (2007). Sexual Pleasure and condom use.

Archives of Sexual Behavior, *36*(6), 844–848. Retrieved from https://doi.org/10.1007/s10508-007-9213-0

Reece, M., & Dodge, B. (2004). A study in sexual health applying the principles of community-based participatory research. *Archives of Sexual Behavior*, *33*(3), 235–247. Retrieved from https://doi.org/10.1023/B:ASEB.0000026623.69017.df

Rendina, H. J., Whitfield, T. H. F., Grov, C., Starks, T. J., & Parsons, J. T. (2017). Distinguishing hypothetical willingness from behavioral intentions to initiate HIV Pre-Exposure Prophylaxis (PrEP): Findings from a large cohort of gay and bisexual men in the U.S. *Social Science & Medicine*, *172*, 115–123. Retrieved from https://doi.org/10.1016/j.socscimed.2016.10.030

Sarkar, N. N. (2008). Barriers to condom use. *The European Journal of Contraception & Reproductive Health Care*, *13*(2), 114–122. Retrieved from https://doi.org/10.1080/13625180802011302

Spinner, C. D., Boesecke, C., Zink, A., Jessen, H., Stellbrink, H.-J., Rockstroh, J. K., & Esser, S. (2016). HIV Pre-Exposure Prophylaxis (PrEP): A review of current knowledge of oral systemic HIV PrEP in humans. *Infection*, *44*(2), 151–158. Retrieved from https://doi.org/10.1007/s15010-015-0850-2

Sullivan, P. S., Salazar, L., Buchbinder, S., & Sanchez, T. H. (2009). Estimating the proportion of HIV transmissions from main sex partners among men who have sex with men in five US cities: *AIDS*, *23*(9), 1153–1162. Retrieved from https://doi.org/10.1097/QAD.0b013e32832baa34

Tavory, I., & Swidler, A. (2009). Condom semiotics: Meaning and condom use in Rural Malawi. *American Sociological Review*, *74*(2), 171–189. Retrieved from https://doi.org/10.1177/000312240907400201

UNAIDS. (2010, September). *Combination HIV prevention: Tailoring and coordinating biomedical, behavioural and structural strategies 10 to reduce new HIV infections. A UNAIDS discussion paper*. Retrieved from http://files.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2010/JC2007_Combination_Prevention_paper_en.pdf

UNAIDS. (2016a, June). *Global AIDS update 2016*. Retrieved from http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf

UNAIDS. (2016b, November 1). *Maximizing the potential of a new HIV prevention method: PrEP*. Retrieved April 2, 2018, from http://www.unaids.org/en/resources/presscentre/featurestories/2016/november/20161101_PrEP

Underhill, K. (2015). Intimacy, condom use, and Pre-Exposure Prophylaxis (PrEP) acceptability among Men Who Have Sex with Men (MSM) in primary partnerships: A comment on Gamarel and Golub. *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine*, *49*(2), 151–153. Retrieved from https://doi.org/10.1007/s12160-014-9651-6

Ware, N. C., Wyatt, M. A., Haberer, J. E., Baeten, J. M., Kintu, A., Psaros, C., … Bangsberg, D. R. (2012). What's love got to do with it? Explaining adherence to oral antiretroviral Pre-Exposure Prophylaxis (PrEP) for HIV serodiscordant couples. *Journal of Acquired Immune Deficiency Syndromes (1999)*, *59*(5), 463–468. Retrieved from https://doi.org/10.1097/QAI.0b013e31824a060b

Williamson, N. E., Liku, J., McLoughlin, K., Nyamongo, I. K., & Nakayima, F. (2006). A qualitative study of condom use among married couples in Kampala, Uganda. *Reproductive Health Matters*, *14*(28), 89–98. Retrieved from https://doi.org/10.1016/S0968-8080(06)28268-5

World Health Organization. (2006). *Defining sexual health. Report of a technical consultation on sexual health, 28–31 January 2002, Geneva* (p. 30). Geneva, Switzerland: World Health Organization, Department of Reproductive Health and Research. Retrieved from http://www.who.int/reproductivehealth/publications/sexual_health/defining_sexual_health.pdf

World Health Organization. (2014a). *Fast-track cities: Ending the AIDS epidemic. Cities achieving 90-90-90 targets by 2020*. World Health Organization. Retrieved from http://www.unaids.org/en/resources/documents/2014/20141201_Paris_declaration

World Health Organization. (2014b). *Fast-tracking combination prevention*. World Health Organization. Retrieved from http://www.unaids.org/sites/default/files/media_asset/20151019_JC2766_Fast-tracking_combination_prevention.pdf

World Health Organization. (2015). *Fast-track cities update, December 2015*. World Health Organization. Retrieved from http://www.unaids.org/en/resources/documents/2015/JC2815_2015_Dec_update_Fast-track_cities

Young, I., Flowers, P., & McDaid, L. (2014a). Barriers to uptake and use of Pre-Exposure Prophylaxis (PrEP) among communities most affected by HIV in the UK: Findings from a qualitative study in Scotland. *BMJ Open*, *4*(11), e005717. Retrieved from https://doi.org/10.1136/bmjopen-2014-005717

Young, I., Flowers, P., & McDaid, L. (2014b). Key factors in the acceptability of Treatment as Prevention (TasP) in Scotland: A qualitative study with communities affected by HIV. *Sexually Transmitted Infections* (Sextrans-2014-051711). Retrieved from https://doi.org/10.1136/sextrans-2014-051711