Sexual Health Counseling in Daily Practice: Applying Intervention Frameworks and Behavioral Theory to Increase and Improve Sexual Health Discussion

Suzanne de Munnik

colophon

Printing / Circulation
Drukwerkdeal / 100

ISBN
978-90-39379554

DOI
https://doi.org/10.33540/3044

Graphic design
Katrien Sommen - van de Camp

Final editing
Suzanne de Munnik
Tineke Vinck
Oscar Vinck

Sexual Health Counseling in Daily Practice: Applying Intervention Frameworks and Behavioral Theory to Increase and Improve Sexual Health Discussions

Seksuele gezondheidscounseling in de dagelijkse praktijk: het toepassen van interventie raamwerken en gedragstheorieën om seksuele gezondheidsdiscussie te bevorderen en verbeteren (met een samenvatting in het Nederlands)

Proefschrift

ter verkrijging van de graad van doctor aan de
Universiteit Utrecht
op gezag van de
rector magnificus, prof. dr. ir. W. Hazeleger,
ingevolge het besluit van het College voor Promoties
in het openbaar te verdedigen op

woensdag 5 november 2025 des middags te 4.15 uur

door

Esther Suzanne de Munnik

geboren op 19 oktober 1978
te Delft

Promotoren
Prof. dr. J. B. F. de Wit

Copromotoren
Dr. S. C. J. M. Vervoort
Dr. C. den Daas
Dr. H.S.M Ammerlaan

Beoordelingscommissie
Dr. I. Bicanic
Prof. dr. P. Boelen
Prof. dr. R. Ruiter
Prof. dr. L. Schoonhoven
Prof. dr. A. Verbon

For my patients, whose openness and trust
initiated this research

Foreword

During my years as a nurse practitioner, I have been touched by the vulnerability of my patients, who have inspired me to carry out this research. Their trust and openness in sharing their stories have shown me that sexual health concerns and questions are as diverse as they are important, as reflected in the quotes provided on the next pages. My patients have helped me to reflect on my own role, and examine what I and my colleagues can do better to help our patients. Care entails so much more than a focus on possible dysfunction. Ultimately, it is all about achieving an open conversation between the patient and their healthcare provider, focused on the needs of the patient. This should cover a diverse range of topics and take place in an environment in which anything can be discussed without any shame.

Female, 32 years, single:

“Being intimate with a man is no longer an option for me, I have HIV and who wants a relationship with me, let alone intimacy?” “Gewoon intimiteit met een man zit er voor mij niet meer in, ik heb hiv en wie wil er nu nog met mij een relatie, laat staan intimiteit?”

Male, 78 years, married to a man:

“I am getting older and appreciate my monogamous relationship but I notice that my sex life has changed a lot after my HIV diagnosis and as I get older; I have been dealing with this for a long time but I don’t dare to bring it up with my GP or practitioner.”
“Ik word steeds ouder en waardeer mijn monogame relatie, maar ik merk dat mijn seksleven sterk is veranderd na mijn hiv diagnose en het ouder worden op zich, ik loop er al lang mee maar ik durf dit niet aan te kaarten bij mijn huisarts of behandelaar.”

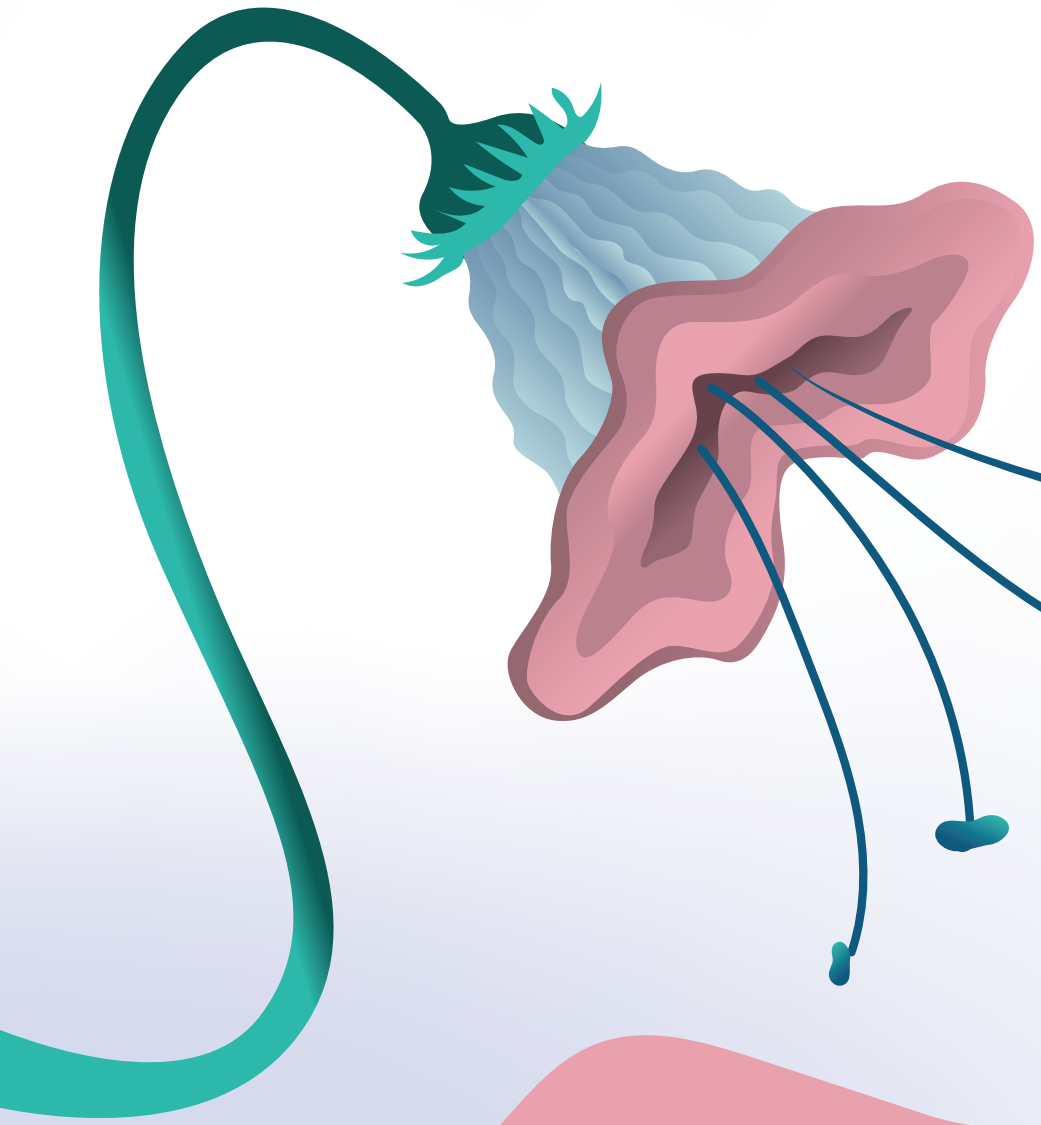
Male, 47 years, single:

“I have been experiencing erectile problems for some time and use medication that I bought online. However, I don’t feel any improvement, but I still have my erection problems, meanwhile I increased the dose myself because I don’t want to go to my doctor, who turns red when I discuss this.”
“Ik ervaar al langer erectieproblemen en gebruik medicatie die ik heb gekocht online. Ik voel echter geen verbetering, maar mijn erectieproblemen heb ik nog steeds, inmiddels zelf maar de dosis opgehoogd omdat ik niet naar mijn arts wil, die wordt rood als ik dit bespreek.”

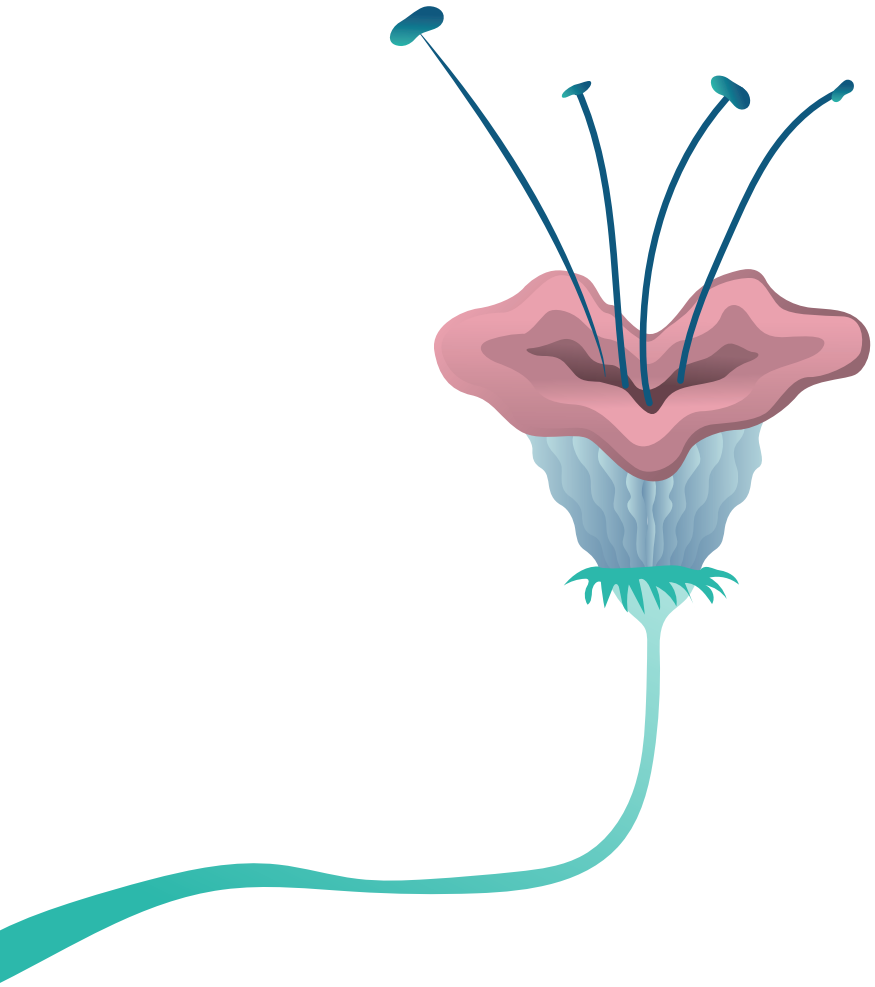
Female, 19 years:

“I’m just very sad; my boyfriend recently broke up with me because I told him I have HIV. He finds me less attractive now, I know it’s unfair but it makes me feel so small, I look in the mirror and see an insecure girl.”
“Ik ben gewoon erg verdrietig, mijn vriend heeft het laatst uitgemaakt omdat ik vertelde dat ik hiv heb. Hij vindt mij nu minder aantrekkelijk, ik weet dat het onterecht is maar ik voel me er zo klein door, ik kijk in de spiegel en zie een onzeker meisje.”

Table of contents



Chapter 1
General Introduction



The life expectancy of people with human immunodeficiency virus (HIV) has increased significantly as a result of the success of antiretroviral therapy (Faulhaber et al., 2023). For those receiving the right treatment and care, HIV is no longer a deadly disease but rather a manageable chronic condition. However, despite these improvements and the achievement of near-normal life expectancy, the impact of HIV on health-related quality of life (HrQoL) requires continued attention (Popping et al., 2021; Nakagawa et al., 2012). People with HIV often experience lower HrQoL compared to the general population (Borchmann et al., 2023; Miners et al., 2014; Pedersen et al., 2015). Research indicates that, in addition to the virus itself, people with HIV experience a multitude of issues that reduce their quality of life. These include poverty, stigma, discrimination, inadequate social support, gender-based violence, and mental health issues (Amin, 2015; Drewes et al., 2013; Rueda et al., 2016).

Sexual health and satisfaction with one's sex life represent a highly significant aspect of overall HrQoL (Flynn et al., 2016). A diagnosis of HIV, primarily transmitted through sexual intercourse, has been shown to negatively affect overall health-related quality of life in people with HIV (Gakhar et al., 2013; Rossen et al., 2012; Sadovsky et al., 2010). Moreover, empirical evidence indicates that people with HIV experience a wide range of sexual health problems, including loss of libido, erectile dysfunction, and problematic interpersonal relationships (Huntingdon et al., 2020; Lema, 2013; Luo et al., 2017). Although sexual health is an important part of HrQoL, it is not sufficiently addressed by healthcare providers (HCPs) during routine consultations (Krouwel et al., 2015; Wang et al., 2018; Zhang et al., 2020). The discussion of sexual health is necessary in order for healthcare providers to identify any issues, concerns or questions, and, if needed, to provide sexual health counseling or referrals, with the overall aim of contributing to a better HrQoL (Anderson, 2013). A prerequisite for adequate sexual health counseling is effective communication between the healthcare provider (HCP) and the patient. Effective communication is particularly important in the context of sexual health, which can be challenging for HCPs, especially when it comes to discussing sexuality (Kelder et al., 2022).

Despite the need for sexual health counseling for people with HIV and the shift in focus to HrQoL, it is currently unknown (due to current treatment strategies) whether and how it is incorporated into routine HIV care, and which HCPs engage in sexual health counseling. Moreover, there is a lack of studies examining the impact of sexual health education programs on nurses' knowledge, attitudes, and self-efficacy (Fennell and Grant, 2019). It is also worth noting that there is limited research on sexual health counseling from the perspective of the HCP in the field of HIV (Flickinger et al., 2013).

It is therefore essential to gain insight into the daily practice of HCP in relation to HIV and sexuality, in order to understand how current care is organized and to identify areas that need improvement. In this way, sexual health issues and problems can be addressed with the aim of increasing HrQoL. Discussing sexual health and offering sexual health counseling can result in improved health outcomes for the patient. On the other hand, the consequences of not discussing sexual health are deleterious: 'when one does not discuss sexual health, proper diagnostics, treatment, and counseling are not possible' (van Bergen, 2015).

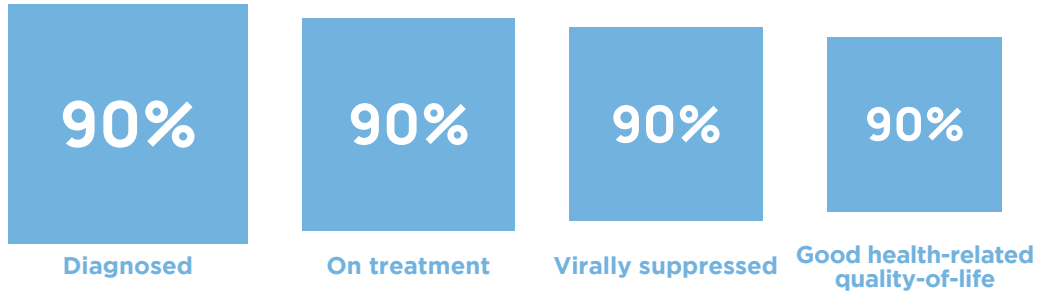
The aim of this dissertation was to explore the practice patterns of healthcare providers - examining what they currently discuss, what they should be discussing, and what they need to promote in the field of HIV-related sexual health counseling - with the ultimate goal of improving sexual health counseling.

Health Related Quality of Life

The current standard of HIV care is to treat people with HIV with antiretroviral therapy as soon as possible after diagnosis (Buchacz et al., 2020; Masters et al., 2019; Rockstroh, 2024). Antiretroviral therapy does not cure HIV but effectively suppresses the virus. This suppression helps in retaining or restoring the immune system and significantly reduces the risk of transmitting HIV to others (Cohen et al., 2016). Since its introduction in 1996, ongoing developments in antiretroviral therapy have led to improved treatment regimens. Current regimens consist of effective, well-tolerated treatments with convenient dosing schedules, contributing to a high degree of adherence to therapy. As mentioned earlier, continuous, lifelong treatment with antiretroviral therapy has turned HIV from a deadly infection into a chronic condition, with a life expectancy similar to that of the general population (Nakagawa et al., 2012). With improved treatment, people with HIV are now surviving, aging, and requiring lifelong care and treatment (Safreed-Harmon et al., 2019).

In order to achieve viral suppression as quickly as possible, people with new HIV infections must be diagnosed and linked to care as soon as possible after diagnosis. However, by the end of 2022, of the estimated 39.0 million [33.1-45.7 million] people with HIV worldwide, 86% [73->98%] knew their status, 76% [65-89%] were on treatment, and 9.2 million people with HIV did not have access to antiretroviral treatment in 2022. Of the 76% on treatment, 71% [60-83%] had a suppressed viral load (UNAIDS, 2023).

Based on the availability of antiretroviral therapy and the current success of treatment, the World Health Organization (WHO) adopted a Global Health Sector Strategy for HIV for 2016-2021. Called the Continuum of Care, it established the "90-90-90" target. This target refers to 90% of people with HIV knowing their HIV status, 90% of people with HIV receiving antiretroviral therapy, and 90% of people with HIV receiving antiretroviral therapy achieving viral suppression (Joint United Nations Program for HIV/AIDS, 2014). The aim is to keep people with HIV healthy and prevent further spread of the virus. However, the strategy does not provide targets related to ensuring a healthy lifestyle and promoting well-being, despite the fact that these are of vital importance and require further attention. There are many issues that people with HIV encounter in their daily lives, such as the necessity of adhering to daily medication regimens, enduring lifelong stigma, navigating whether and how to keep their diagnosis confidential, coping with feelings of guilt, encountering discrimination, and experiencing sexual health problems (Andersson et al., 2020). In addition, despite the fact that undetectable equals untransmittable, some people with HIV still fear transmitting HIV (Arias-Colmenero et al., 2020). These issues are significant barriers to overall HrQoL for people with HIV (Hsieh et al., 2022). In 2016, with the intention of increasing the focus on HrQoL in HIV care, Lazarus et al. (2016) proposed adding a "fourth 90" to the testing and treatment goal (Figure 1): to ensure that 90% of people with viral load suppression have good HrQoL. This expansion emphasizes the importance of the social and psychological well-being of people with HIV, beyond clinical treatment outcomes (Popping et al., 2021).



* Adapted from: UNAIDS. 90-90-90: an ambitious treatment target to help end the AIDS epidemic. 2014. Available at http://unaids.org/sites/default/file-s/media_asset/90-90-90_en_0.pdf. Accessed on 25 April 2016.

Figure 1
The 'Fourth 90': Proposed Revision to the UNAIDS 90-90-90 Targets*

Sexual Health

An essential aspect of the social and psychological well-being of people with HIV is sexual health (Huntingdon et al., 2019). Over the past three decades, numerous definitions of sexual health have been utilized in healthcare (Edwards & Coleman, 2004; Goldfarb & Lieberman, 2021). Sexual health is a multidimensional concept that has been inconsistently defined and interpreted in various ways (Macleod & McCabe, 2020). Sexual health is crucial for most individuals, as it is experienced throughout all stages of life (Van Lunsen & Laan, 2019).

Increased awareness of the positive impact of sexual health on HrQoL represents a significant shift in the discourse of sexuality. Sexual activity is an integral part of health, and sexual functioning is an essential component of quality of life (Huntingdon et al., 2019; Sadovsky et al., 2010). Logically, then, sexual difficulties are associated with a lower quality of life (Meyer et al., 2003; Rossen et al., 2012). Several studies have shown that most people with HIV experience sexual health difficulties, and that HIV is associated with experiencing sexual problems (Dijkstra et al., 2018; Huntingdon et al., 2020; Luo et al., 2017). In addition, studies have shown that up to 70% of gay and bisexual men with HIV reported problems with sex in the first year after diagnosis, such as poor self-image and concerns about transmitting HIV to potential sexual partners (Bourne et al.. 2012). Estimates suggest that HIV-positive men are 2.3 times more likely to experience erectile dysfunction than HIV-negative men (Huntingdon et al., 2020). Moreover, fear of HIV transmission to sexual partners can negatively impact intimacy, sexuality, and quality of life (Lema, 2013; Santi et al., 2014). Although it is known that HIV cannot be sexually transmitted when there is a persistently undetectable HIV viral load, as mentioned earlier, people with HIV still fear transmission, which can negatively affect their sexual pleasure (Hibbert et al., 2018; Calabrese et al., 2021).

Since the introduction of effective HIV prevention strategies, such as the early initiation of antiretroviral therapy and Pre-Exposure Prophylaxis which involves taking a specific HIV medication to reduce the risk of contracting HIV through sex or injection drug use — the HIV diagnosis rate among men who have sex with men (MSM) has gradually decreased (Van Sighem et al., 2023). These strategies do not prevent transmission of other sexually transmitted infections, which still occur regularly among HIV-positive MSM, indicating persistent sexual risk behavior (Kayaert et al., 2022).

Addressing discussions of sexual risk behaviors, sexual health, and sexual well-being in outpatient HIV care is essential. These topics should be discussed thoroughly with patients during the consultation in order to explore and discuss behaviors that will improve their overall sexual health. (Huntingdon et al., 2019; Malta et al., 2010). Failure to address sexual health needs during routine consultations, combined with a lack of information among people with HIV, can lead to changes in sexual risk behaviors, sexual health, and sexual well-being, and negatively impact their sexual HrQoL.

HIV care in the Netherlands

In the Netherlands, HIV outpatient care is provided exclusively in dedicated and certified HIV treatment centers. Currently, there are 24 specialized HIV treatment centers located throughout the country (Figure 2). In these centers, access to HIV care is guaranteed for people diagnosed with HIV. Outpatient HIV care is generally provided and coordinated by specialized clinicians (predominantly infectious disease specialists with experience in HIV medicine) and specialized nurses (HIV nurse consultants), forming the core of the treatment team. Depending on individual needs, other healthcare providers can be included, such as pharmacists, psychologists, sexologists, social-workers, and other medical specialists (e.g., gynecologists or dermatologists) or nurse practitioners.

At the moment, about 80 HIV nurses are employed throughout the 24 certified HIV treatment centers. The Dutch Association of HIV Physicians (NVHB) has 217 members, most of whom are infectious disease physicians. HIV care in these treatment centers is guided by the NVHB guidelines (NVHB, 2024). These guidelines often refer to international and European AIDS Clinical Society (EACS) guidelines (Clinicalinfo, 2024; EACS, 2024). The NVHB regularly adapts the guidelines to align with international changes and to the Dutch healthcare system. Both the international and EACS guidelines provide comprehensive recommendations for clinicians. These guidelines mainly focus on the medical aspects of HIV care.

Figure 2
The 24 HIV Treatment Centers for Adults (1-24) and Children (A-D) in the Netherlands. Source: Stichting HIV Monitoring, Monitoring Report 2023 SHM: Monitoring of Human Immunodeficiency Virus (HIV) Infection in the Netherlands.

The role of HIV nurse consultants is crucial in HIV care. To provide tailored care and psychosocial support, nurses need training in how to address adherence, behavior, psychological issues, social concerns, and sexual health (V&VN, 2023). In the Netherlands, HIV nurse consultants have completed a four-year vocational nursing education and additional courses specifically focused on HIV care. According to the guidelines of the national organization of nursing consultants in HIV care, they should attend the NVHB's two-day HIV care masterclass. This masterclass, for both novice nurses and physicians in HIV care, focuses on medical aspects of care, such as antiretroviral medication, hepatitis, tuberculosis and HIV-related comorbidities. However, the HIV- master class provides limited information on topics of nursing care.

The 2015 report on HIV care in the Netherlands, updated in 2023, implies that HIV nurse consultants need more knowledge and skills (than those currently focused on) in order to be able to adapt to future needs (V&VN, 2023). The recommendations outlined in the report only briefly mention that consultations should address nursing issues, including sexuality, but they do not specify the content or methods that should be used. For example, the report states that, ideally, a nurse: 'Is able to talk openly about sexuality and is aware that discussing sexuality in different (sub)cultures is not self-evident and is sensitive'.

Back in 2008, a set of nursing guidelines, 'Sexual Health for people with HIV', was developed to support nurses in improving the quality of life for people with HIV who have questions or issues regarding sexual health, intimacy, and relationships. In addition, these guidelines focused on preventing the transmission of other sexually transmitted infections. However, this document is no longer available as it has not been updated (AIDS Fonds, 2008). These guidelines are therefore no longer used in training and education for nurses. Regarding sexual health, the NVHB guidelines do include management of sexual dysfunction and regular screening for sexually transmitted infections.

Routinely asking sexual and reproductive health-related questions during HIV consultations is emphasized. However, the guidelines do not provide details on frequency, content or the approach that should be used to broach these subjects in sexual health counseling.

To ensure that nurses and physicians address HrQoL - specifically sexuality – consistently during consultations, it is crucial to update and expand the guidelines continuously. These updates could include new insights that can impact the attitudes, social norms, and skills of healthcare providers when discussing sexual health.

Communication framework in healthcare

In addition to the need for detailed guidance on the kinds of topics to be discussed during sexual health counseling, guidance needs to be provided on the ways in which these topics are discussed. Effective communication between healthcare providers and patients is essential for good clinical practice and can (indirectly) lead to improved health-related quality of life (Albury et al., 2019; Kelder et al., 2022). This is particularly important in the context of sexual health, which can be a challenging topic for HCPs to address.

Research shows that both patients and HCPs often struggle to initiate discussions about sexual health, as evidenced by multiple studies (Fair et al., 2018; Wang et al., 2018; O'Conner et al., 2019; Zhang et al., 2020). Despite the acknowledged need to address sexual health, various personal and practical barriers prevent these conversations from occurring (Zhang et al., 2020; Kelder et al., 2022; Mintz & Moore, 2022). In addition, most studies about sexual health counseling with people with HIV from the provider perspective rely on self-report measures and patient questionnaires; they do not examine communication between HIV HCPs and people with HIV during routine consultations (Fredericksen et al., 2020; Huntingdon et al., 2020). Effective communication in healthcare is challenging and influenced by multiple factors such as time, knowledge, and the provision (or lack) of supporting guidelines. Other factors include language barriers and cultural competence. If any of these components are compromised, effective communication will not occur (Ratna, 2019).

Health is often considered to be the primary focus of routine consultations in HIV care, along with patient-related outcomes. As a result, the specifics of each consultation can vary from patient to patient and moment to moment, making them unpredictable and difficult to prepare for. Healthcare providers should be adaptable, knowledgeable, and able to maintain composure in various circumstances.

Several studies have found a positive association between information sharing behaviors and improved health outcomes (Street et al., 2009; Udvardi, 2019). King and Hoppe (2013) showed that there is a consensus on what constitutes "best practice" for physician communication in medical encounters: (1) fostering the relationship, (2) gathering information, (3) providing information, (4) making decisions, (5) responding to emotions, and (6) enabling disease- and treatment-related behaviors. They added communication skills to their model and developed a framework that links communication functions to the skills needed to achieve effective communication (*Table 1*).

For example, in the field of HIV, it is still unclear how nurse-patient communication takes place during a standard HIV consultation, and what role it plays in relation to sexual health. Therefore, an analysis of nurse-patient communication could clarify what happens during routine HIV consultations and provide insights that could further improve sexual health care.

A patient-centered approach appears to be more effective than simply providing information (e.g., discussing laboratory results) and direct advice (Wanyoni, 2011). In a patient-centered approach, the HCP communicates with patients about their perceptions of the disease, explores patients' needs, expectations and preferences and encourages patients to actively participate in healthcare decisions. Therefore, the nurse or physician providing sexual health counseling should preferably tailor their information and advice to a patient by adapting the information and advice to the patient's characteristics (van Dulmen 2011; Wanyoni, 2011).

As mentioned earlier, in addition to factors such as the provision of information or advice, the behavior of the nurse or physician also plays a crucial role in determining whether sexuality is addressed. Developing an effective communication strategy involves training healthcare providers to make sure they know what to discuss, what to ask, and when further follow-up is needed. It should also focus on how healthcare providers discuss sexual health, and provide guidance on techniques, such as the use of open-ended questions. Training could also focus on what not to do. Research has shown that asking questions at the wrong time or to the wrong person can even be counterproductive (de Haes, 2006).

Table 1
Skills Related to Communication: Adapted From Model of King and Hoppe (2013) Based on de Haes and Bensing (2009) and Applied to Routine HIV Consultation.

Function of medical communication	Communication skill
1. Fostering the relationship	Greet patient appropriately Maintain eye contact Listen actively Encourage patient participation Use appropriate language Show interest in the patient as a person
2. Gathering information	Ask open-ended questions Elicit patient's perspective on the problem/illness Clarify and summarize information Elicit patient's full set of concerns Explore full effect of the illness Inquire about additional concerns Allow patient to complete responses Listen actively
3. Providing information	Encourage questions and check understanding Give uncomplicated explanations and instructions Avoid jargon and complexity Emphasize key messages Explain nature of the problem and approach to diagnosis/treatment
4. Decision making	Outline choices Explore patient's preferences and understanding of the situation Discuss follow-up and plan for unexpected outcomes Identify and enlist resources and support Encourage patient to participate in decision making Reach agreement
5. Enabling disease- and treatment-related behavior	Assess patient's readiness to change health-related behaviors Elicit patient's goals, ideas, and decisions
6. Responding to emotions	Acknowledge and explore emotions Express empathy, sympathy, and reassurance Provide help in dealing with emotions Assess psychological distress

Behavior of healthcare providers in the field of HIV

In summary, current guidelines encourage HIV nurses and physicians to discuss sexual health, but effective communication about sexuality with patients can be challenging. In order to train HIV nurses and physicians to engage in effective sexual health communication with their patients, we need to identify the barriers and facilitators that influence their behavior. Theoretical models of behavior can be useful in examining and understanding the behavior of healthcare providers when discussing sexual health. The Theory of Planned Behavior (TPB; Ajzen, 1991; Ajzen & Schmidt, 2020) is a model that has been widely used to predict and explain different kinds of health-related behaviors (Hagger et al., 2022; Lareyre et al., 2021; McEachan et al., 2011), see Figure 4. It is also one of the behavioral theories most used as a basis for interventions to change or modify behavior (Glanz and Bishop, 2010), something we will return to later in the thesis.

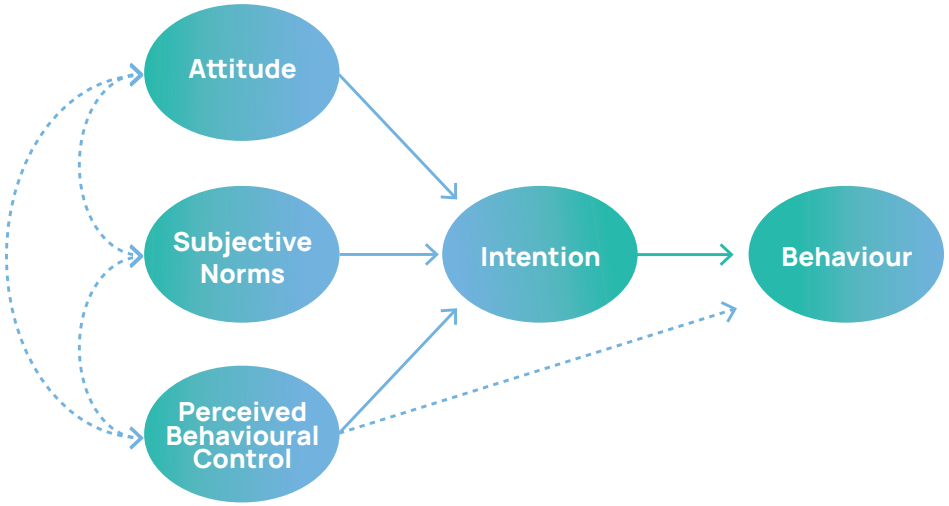


Figure 4
Theory of Planned Behavior (Azjen, 1991).

The Theory of Planned Behavior is an extension of the original Theory of Reasoned Action, including the later introduced Reasoned Action Approach (Fishbein & Ajzen, 2009). The Theory of Planned Behavior (Figure 4) posits that behavior is most directly shaped by behavioral intentions: people's plans to engage in particular behavior in a given context and time frame. Behavioral intentions are, in turn, determined by three key factors: attitudes, subjective norms, and perceived behavioral control (see Ajzen & Schmidt, 2020; p.20):

(1) Beliefs about the likely consequences and experiences resulting from the performance of the behavior, resulting in the formation of an *attitude* towards the behavior. An example of this, in relation to the current research, is whether healthcare providers feel that it is a good or a bad idea to talk to their patients about sexuality.

(2) Beliefs about the expectations and behaviors of significant social referents, which produce the subjective norm, combining the descriptive norm and the injunctive norm. In the current context, healthcare providers subjective norms refer to how they perceive the expectations of those around them in terms of providing sexual health counseling.

(3) Beliefs about factors that may facilitate or impede the performance of the behavior, which result in *perceived behavioral control* or a sense of *self-efficacy*. Here, perceived behavioral control refers to how much people think they are able to engage in a behavior should they want to – for example, a healthcare provider's estimate of their ability to provide sexual health counseling to people with HIV.

Fishbein and Ajzen (2009) argue that other variables external to this model, such as age and gender, may also influence behavior - but always through one or more of these three key factors. For example, a male HIV nurse who is a man who has sex with men may consider his sexual orientation an advantage increasing his confidence in his ability to address sexual health in the context of sexual health counseling. This factor influences perceived behavioral control or a sense of self-efficacy.

In summary, we can use the theory of planned behavior to help identify which factors might influence healthcare providers' intentions when it comes to discussing sexual health with their patients. This can be achieved by exploring healthcare providers' attitudes, subjective norms and perceived behavioral control regarding the discussion of sexual health with their patients, as well as other external variables. Once determinants of behavior have been identified, they can be categorized into barriers and facilitators. This information provides the foundation for developing an intervention with the goal of enhancing positive attitudes, strengthening supportive subjective norms, and improving perceived behavioral control among healthcare providers, thereby increasing the likelihood of them providing sexual health counseling to people with HIV. Intervention mapping (IM) is an approach used to develop effective behavior change interventions (Bartholomew Eldredge et al., (2016); Fernandez et al., 2019), and will be explained in more detail later in the thesis.

Scope and outline of the current thesis

This thesis explores current discussions among healthcare providers regarding HIV-related sexual health counseling, examines key issues that should be addressed to improve its effectiveness, and identifies focus areas that will help to enhance the quality of counseling practices in this field. The aim of this thesis is to better understand the behavior of HIV care providers in terms of discussing sexual health with people with HIV during routine HIV consultations. It describes to what extent sexual health counseling is incorporated into routine HIV care among all HIV physicians and nurses in the Netherlands and explores the differences between physicians and nurses in their views and practices regarding sexual health counseling for people with HIV. This knowledge is applied in a tailor-made intervention for healthcare providers working in the field of HIV. The goal of this intervention is to enhance sexual health counseling by increasing the frequency of discussions about sexual health during routine HIV consultations and by enriching the quality of these conversations.

Chapter 2 provides an overview of sexual healthcare by Dutch HIV care providers, including both physicians and nurses, in the Netherlands. This chapter outlines to what extent sexual health counseling is incorporated into routine Dutch HIV care and explores differences between physicians and nurses in their views and practices regarding sexual health counseling for people with HIV. To answer our research questions, we conducted a cross-sectional survey among all HIV physicians and nurses in the Netherlands. The results were then used to delve deeper into the three core components of the Theory of Planned Behavior (attitudes, subjective norms and perceived behavioral control), which together shape an individual's behavioral intentions (Ajzen & Schmidt, 2020; p.20). In this study, the results of the questionnaire helped to determine how these factors influence the behavior of HIV care providers when discussing sexuality during routine HIV consultations.

In **Chapter 3**, we explore the experiences of HIV nurses in discussing sexual risk behaviors with HIV-positive MSM. Given that sexual risk behavior is particularly prevalent among people with HIV MSM, and considering that people with HIV MSM represents the largest group, we chose to address this topic in our focus groups with HIV nurses. Because we expected that discussions about sexuality are primarily conducted by nurses (as opposed to physicians), and the majority of patients are MSM, we chose to focus on nurses in this research. We conducted this qualitative study using focus group discussions among HIV nurses. These focus group discussions provided insight into how nurses work, and the barriers they experience in discussing sexuality.

Chapter 4 focuses on barriers to and facilitators of discussing sexual risk behavior, as experienced by HIV nurses. In order to gain insight into these barriers and facilitators, an online self-reported questionnaire was developed. The factors assessed in the questionnaire were again derived from the theory of planned behavior (Ajzen, 1991; Kok, 2014): attitudes, subjective norms and perceived behavioral control. The remaining factors were extracted from the qualitative focus group discussions study conducted among HIV nurses in the Netherlands, as described in **Chapter 3**. This online self-reported questionnaire was administered to all HIV nurses in the Netherlands.

Chapter 5 explores the communication between HIV nurses and people with HIV MSM during routine HIV consultations in the Netherlands, in particular regarding sexual health issues. The aim of the study was to gain insight into whether, what and how sexual health issues are discussed during routine HIV consultations. To better understand communication during routine HIV consultations, the framework of King and Hoppe (2013) was used. This study had a qualitative descriptive design, and data was collected from real life standard HIV consultations. By observing and analysing interactions between HIV nurses and their patients, we gained important insights into daily practice.

Chapter 6 outlines how we applied all the data from the studies presented in the previous chapters of this thesis (2-5) in the 6 steps of Intervention Mapping. In this chapter, we explain all the steps of IM and provide a comprehensive description of the methods we used in designing the intervention. These methods were evaluated in Step 6 using a questionnaire in which attitudes, subjective norms, and perceived behavioral control were revisited following implementation of the intervention, and linked to the barriers and facilitators identified earlier in **Chapters 2-4**.

In **Chapter 7**, the general discussion summarizes, integrates, and interprets the results of all studies in the context of the current scientific literature. The following section reflects on the development of the intervention, detailing the rationale for using Intervention Mapping in this research, as well as the benefits and challenges encountered. Methodological considerations that should be taken into account when interpreting the results are highlighted and discussed. Moreover, ideas related to practical implication, lessons for further research, and opportunities for new scientific research are outlined and explored in relation to sexual health counseling. Finally, a personal reflection on the scientific work presented in this thesis is provided. It is hoped that this work will lay the groundwork for the further development of the intervention, the aim of which is to improve sexual health counseling during standard HIV consultation. Ultimately, the goal is to improve the overall HrQoL of individuals with HIV and, more specifically, to enhance the quality of their sexual lives.

References

Aidsfonds. (2008). Richtlijn seksuele gezondheid bij mensen met hiv - Soa Aids yumpu.com

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Ajzen, I., & Schmidt, P. (2020). Changing behavior using the theory of planned behavior. In Cambridge University Press eBooks (pp. 17–31). https://doi.org/10.1017/9781108677318.002

Albury, C., Hall, A., Syed, A., Ziebland, S., Stokoe, E., Roberts, N., Webb, H., & Aveyard, P. (2019). Communication practices for delivering health behaviour change conversations in primary care: a systematic review and thematic synthesis. BMC Family Practice, 20(1). https://doi.org/10.1186/s12875-019-0992-x

Anderson, R. (2013). Positive sexuality and its impact on overall well-being. Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz, 56(2), 208–214. https://doi.org/10.1007/s00103-012-1607-z

Andersson, G. Z., Reinius, M., Eriksson, L. E., Svedhem, V., Esfahani, F. M., Deuba, K., Rao, D., Lyatuu, G. W., Giovenco, D., & Ekström, A. M. (2020). Stigma reduction interventions in people living with HIV to improve health-related quality of life. the Lancet. HIV, 7(2), e129–e140. https://doi.org/10.1016/s2352-3018(19)3034

Amin, A. (2015). Addressing gender inequalities to improve the sexual and reproductive health and wellbeing of women living with HIV. Journal of the International AIDS Society, 18(6S5). https://doi.org/10.7448/ias.18.6.203

Arias-Colmenero, T., Pérez-Morente, M. Á., Ramos-Morcillo, A. J., Capilla-Díaz, C., Ruzafa-Martínez, M., & Hueso-Montoro, C. (2020). Experiences and Attitudes of People with HIV/AIDS: A Systematic Review of Qualitative Studies. International Journal of Environmental Research and Public Health/International Journal of Environmental Research and Public Health, 17(2), 639. https://doi.org/10.3390/ijerph17020639

Bartholomew Eldredge, L. K., Markham, C. M., Ruiter, R. A. C., Fernández, M. E., Kok, G., & Parcel, G. S. (2016). Planning health promotion programs: an Intervention Mapping approach. (4 ed.) Jossey-Bass Inc.

Buchacz, K., Armon, C., Palella, F. J., Novak, R. M., Fuhrer, J., Tedaldi, E.,...Li, J., for the HIV Outpatient Study (HOPS) Investigators. (2020). The HIV Outpatient Study—25 Years of HIV Patient Care and Epidemiologic Research, Open Forum Infectious Diseases, Volume 7, Issue 5, May, https://doi.org/10.1093/ofid/ofaa123

Borchmann, O., Weis, N., Hansen, A. E., Storgaard, M., Fetters, M. D., Chandanabhumma, P. P., & Moseholm, E. (2023). Patient-reported outcomes in clinical HIV care: protocol for a single-centre, multistage, mixed-methods study in Denmark. BMJ Open, 13(9), e077303. https://doi.org/10.1136/bmjopen-2023-077303

Bourne, A., Hickson, F., Keogh, P., Reid, D., & Weatherburn, P. (2012). Problems with sex among gay and bisexual men with diagnosed HIV in the United Kingdom. BMC Public Health, 12(1). https://doi.org/10.1186/1471-2458-12-916

Calabrese, S. K., Mayer, K. H., & Marcus, J. L. (2021). Prioritising pleasure and correcting misinformation in the era of U=U. the Lancet. HIV, 8(3), e175–e180. https://doi.org/10.1016/s2352-3018(20)30341-6

Cohen, M. S., Chen, Y. Q., McCauley, M., Gamble, T., Hosseinipour, M. C., Kumarasamy, N., Hakim, J. G., Kumwenda, J., Grinsztejn, B., Pilotto, J. H., Godbole, S. V., Chariyalertsak, S., Santos, B. R., Mayer, K. H., Hoffman, I. F., Eshleman, S. H., Piwowar-Manning, E., Cottle, L., Zhang, X. C., . . . Fleming, T. R. (2016). Antiretroviral therapy for the prevention of HIV-1 transmission. New England Journal of Medicine, 375(9), 830–839. https://doi.org/10.1056/nejmoa1600693

Clinicalinfo.hiv.gov. (2024). clinical guidelines. Geraadpleegd op 10 mei 2024, van https://clinicalinfo.hiv.gov/en/overall-search?search=sexual+health

de Haes, J., Zandbelt, L., Ong, L. (2006). Communicatie van arts en patiënt. In: Kaptein, A., Erdman, R., Prins, J., van de Wiel, H. (eds) Medische psychologie. Quintessens. Bohn Stafleu van Loghum, Houten.

Dijkstra, M., Van Lunsen, R. H. W., Kooij, K. W., Davidovich, U., Van Zoest, R. A., Wit, F. W. M. N., Prins, M., Reiss, P., & Van Der Loeff, M. F. S. (2018). HIV-1 status is independently associated with decreased erectile function among middle-aged MSM in the era of combination antiretroviral therapy. AIDS, 32(9), 1137–1146. https://doi.org/10.1097/qad.0000000000001800

Drewes, J., Gusy, B., & Von Rüden, U. (2013). More Than 20 Years of Research into the Quality of Life of People with HIV and AIDS—A Descriptive Review of Study Characteristics and Methodological Approaches of Published Empirical Studies. Journal of the International Association of Providers of AIDS Care, 12(1), 18–22. https://doi.org/10.1177/1545109712456429

European AIDS Clinical Society. (2024). Sexual and Reproductive Health. Geraadpleegd op 5 junu 2024, van https://eacs.sanfordguide.com/prevention-non-infectious-co-morbidities/sexual-reproductive-health/sexual-transmission-hiv

Edwards, W. M., & Coleman, E. (2004). Defining Sexual Health: A Descriptive Overview. Archives of Sexual Behavior, 33(3), 189–195. https://doi.org/10.1023/b:aseb.0000026619.95734.d5

Fair, C. D., & Berk, M. (2017). Provider perceptions of stigma and discrimination experienced by adolescents and young adults with pHiV while accessing sexual and reproductive health care. AIDS Care, 30(2), 178–181. https://doi.org/10.1080/09540121.2017.1344349

Faulhaber, J. R., Baffoe-Bonnie, A. W., Oursler, K. K., & Vasudeva, S. S. (2023). Update in human immunodeficiency virus and aging. Infectious Disease Clinics of North America, 37(1), 153–173. https://doi.org/10.1016/j.idc.2022.11.006

Fennell, R., & Grant, B. (2019). Discussing sexuality in health care: A systematic review. J Clin Nurs. 28: 3065–3076. https://doi.org/10.1111/jocn.14900

Fernandez, M. E., Ruiter, R. A. C., Markham, C. M & Kok, G.(2019). Intervention Mapping: Theory- and Evidence-Based Health Promotion Program Planning: Perspective and Examples. Frontiers in Public Health, 7 2019.

Fishbein, M, & Azjen, I. (2009). Predicting and Changing Behavior. The Reasoned Action Approach. (2nd). Psychology Press

Flickinger, T.E., Berry, S., Korthuis, P.T., Saha, S., Laws, M.B., Sharp, V., Moore, R.D., & Beach, M.C. (2013). Counseling to reduce high-risk sexual behavior in HIV care: a multi-center, direct observation study. AIDS Patient Care STDS. 2013 Jul;27(7):416-24. doi: 10.1089/apc.2012.0426.

Flynn, K. E., Lin, L., Bruner, D. W., Cyranowski, J. M., Hahn, E. A., Jeffery, D. D., Reese, J. B., Reeve, B. B., Shelby, R. A., & Weinfurt, K. P. (2016). Sexual satisfaction and the importance of sexual health to quality of life throughout the life course of U.S. adults. the Journal of Sexual Medicine, 13(11), 1642–1650. https://doi.org/10.1016/j.jsxm.2016.08.011

Fredericksen, R. J., Fitzsimmons, E., Gibbons, L. E., Loo, S., Dougherty, S., Avendano-Soto, S., Anderson, W. A., Gutierrez, C., Shurbaji, S., Burleson, S., Christopoulos, K., Poceta, J., Mayer, K. H., Mugavero, M. J., Mathews, W. C., Crane, P. K., & Crane, H. M. (2019). How do treatment priorities differ between patients in HIV care and their providers? A Mixed-Methods study. AIDS and Behavior, 24(4), 1170–1180. https://doi.org/10.1007/s10461-019-02746-8

Gakhar, H., Kamali, A., & Holodniy, M. (2013). Health-related quality of life assessment after antiretroviral therapy: a review of the literature. Drugs. May;73(7):651-72. doi: 10.1007/s40265-013-0040-4.

Glanz, K., & Bishop, D. B. (2010). The role of Behavioral science Theory in development and implementation of public health interventions. Annual Review of Public Health, 31(1), 399–418. https://doi.org/10.1146/annurev.publhealth.012809.103604

Goldfarb, E. S., & Lieberman, L. D. (2021). Three Decades of Research: The case for Comprehensive Sex Education. Journal of Adolescent Health, 68(1), 13–27. https://doi.org/10.1016/j.jadohealth.2020.07.036

Hagger, M. S., Cheung, M. W. L., Ajzen, I., & Hamilton, K. (2022). Perceived behavioral control moderating effects in the theory of planned behavior: A meta-analysis. Health Psychology. https://doi.org/10.1037/hea0001153

Huntingdon, B., Muscat, D. M., De Wit, J., Duracinsky, M., & Juraskova, I. (2019). Factors Associated with General Sexual Functioning and Sexual Satisfaction among People Living with HIV: A Systematic Review. The Journal of Sex Research, 57(7), 824–835. https://doi.org/10.1080/00224499.2019.1689379

Huntingdon, B., Muscat, D. M., De Wit, J., Duracinsky, M., & Juraskova, I. (2020). Factors associated with erectile dysfunction among men living with HIV: a systematic review. AIDS Care, 32(3), 275–285. https://doi.org/10.1080/09540121.2019.1653443

Hibbert, M., Crenna-Jennings, W., Kirwan, P., Benton, L., Lut, I., Okala, S., Asboe, D., Jeffries, J., Kunda, C., Mbewe, R., Morris, S., Morton, J., Nelson, M., Thorley, L., Paterson, H., Ross, M., Reeves, I., Sharp, L., Sseruma, W., . . . Delpech, V. (2018). The people living with HIV stigma survey UK 2015: HIV-related sexual rejection and other experiences of stigma and discrimination among gay and heterosexual men. AIDS Care, 30(9), 1189–1196. https://doi.org/10.1080/09540121.2018.1479027

Hsieh, E., Polo, R., Qian, H., Fuster-RuizdeApodaca, M. J., & Del Amo, J. (2022). Intersectionality of stigmas and health-related quality of life in people ageing with HIV in China, Europe, and Latin America. the Lancet. Healthy Longevity, 3(3), e206–e215. https://doi.org/10.1016/s2666-7568(22)00003-4

Joint United Nations Programme on HIV/AIDS. (2014) Fast-track: ending the AIDS epidemic by 2030. Geneva: UNAIDS, JC2686_WAD2014report_en.pdf (unaids.org). Accessed 19 Octr 2022

Kayaert, L., Sarink, D., Visser, M., van Wees, D. A., Willemstein, I. J. M., Op de Coul, E. L. M., Alexiou, Z. W., de Vries, A., Kusters, J. M. A., van Aar, F., Götz, H. M., Vanhommerig J. W., van Sighem, A. I., &van Benthem, B. H. B. (2022). Sexually transmitted infections in the Netherlands in 2022. RIVM report 2023-0161

Kelder, I., Sneijder, P., Klarenbeek, A., & Laan, E. (2022). Communication practices in conversations about sexual health in medical healthcare settings: A systematic review. Patient Education and Counseling, 105(4), 858–868. https://doi.org/10.1016/j.pec.2021.07.049

King, A., & Hoppe, R. B. (2013). "Best Practice" for Patient-Centered Communication: A Narrative review. Journal of Graduate Medical Education, 5(3), 385–393. https://doi.org/10.4300/jgme-d-13-00072.1

Kok, G. (2014). A practical guide to effective behavior change. The European Health Psychologist, 16(5), 156–170.

Krouwel, E., Nicolai, M., Van Steijn-Van Tol, A., Putter, H., Osanto, S., Pelger, R., & Elzevier, H. (2015). Addressing changed sexual functioning in cancer patients: A cross-sectional survey among Dutch oncology nurses. European Journal of Oncology Nursing, 19(6), 707–715. https://doi.org/10.1016/j.ejon.2015.05.005

Lareyre, O., Gourlan, M., Stoebner-Delbarre, A., & Cousson-Gélie, F. (2021). Characteristics and impact of theory of planned behavior interventions on smoking behavior: A systematic review of the literature. Preventive Medicine, 143, 106327. https://doi.org/10.1016/j.ypmed.2020.106327

Lazarus, J. V., Safreed-Harmon, K., Barton, S. E., Costagliola, D., Dedes, N., Del Amo Valero, J., Gatell, J. M., Baptista-Leite, R., Mendão, L., Porter, K., Vella, S., & Rockstroh, J. K. (2016). Beyond viral suppression of HIV – the new quality of life frontier. BMC Medicine, 14(1). https://doi.org/10.1186/s12916-016-0640-4

Lema, V. M. (2013). Sexual dysfunction among HIV patients: three case reports and review of literature. PubMed, 17(4 Spec No), 161–170. https://pubmed.ncbi.nlm.nih.gov/24689328

Luo, L., Deng, T., Zhao, S., Li, E., Liu, L., Li, F., Wang, J., & Zhao, Z. (2017). Association between HIV Infection and Prevalence of Erectile Dysfunction: A Systematic Review and Meta-Analysis. the Journal of Sexual Medicine, 14(9), 1125–1132. https://doi.org/10.1016/j.jsxm.2017.07.001

Macleod, A., & McCabe, M. P. (2020). Defining sexuality in later life: A systematic review. Australasian Journal on Ageing, 39(S1), 6–15. https://doi.org/10.1111/ajag.12741

Malta, M., Todd, C. S., Stibich, M. A., Garcia, T., Pacheco, D., & Bastos, F. I. (2010). Patient–provider communication and reproductive health among HIV-positive women in Rio de Janeiro, Brazil. Patient Education and Counseling, 81(3), 476–482. https://doi.org/10.1016/j.pec.2010.09.013

Masters, M. C., Krueger, K. M., Williams, J. L., Morrison, L., & Cohn, S. E. (2019). Beyond one pill, once daily: current challenges of antiretroviral therapy management in the United States. Expert Review of Clinical Pharmacology, 12(12), 1129–1143. https://doi.org/10.1080/17512433.2019.1698946

McEachan, R. R. C., Conner, M., Taylor, N. J., Lawton, R. J.(2011). Prospective prediction of health-related behaviours with the Theory of Planned Behaviour: a meta-analysis. Health Psychology Review, 5(2) 97-144.

Meyer, J., Gillatt, D., Lockyer, R., & Macdonagh, R. (2003). The effect of erectile dysfunction on the quality of life of men after radical prostatectomy. BJU International, 92(9), 929–931. https://doi.org/10.1111/j.1464-410x.2003.04530.x

Miners, A., Phillips, A., Kreif, N., Rodger, A., Speakman, A., Fisher, M., Anderson, J., Collins, S., Hart, G., Sherr, L., & Lampe, F. C. (2014). Health-related quality-of-life of people with HIV in the era of combination antiretroviral treatment: a cross-sectional comparison with the general population. the Lancet. HIV, 1(1), e32–e40. https://doi.org/10.1016/s2352-3018(14)70018-9

Mintz, L. J., & Moore, S. E. (2021). Sexual History Taking: An opportunity to reduce health disparities. the Journal of the Association of Nurses in AIDS Care/ Journal of the Association of Nurses in AIDS Care, 33(3), 241–247. https://doi.org/10.1097/jnc.0000

Nakagawa, F., Lodwick, R. K., Smith, C. J., Smith, R., Cambiano, V., Lundgren, J. D., Delpech, V., & Phillips, A. N. (2012). Projected life expectancy of people with HIV according to timing of diagnosis. AIDS, 26(3), 335–343. https://doi.org/10.1097/qad.0b013e32834dcec9

NVHB. . richtlijnhiv. Geraadpleegd 23 juli 2024, van Inhoud - Richtlijnen HIV (nvhb.nl) O'Connor, S. R., Connaghan, J., Maguire, R., Kotronoulas, G., Flannagan, C., Jain, S., Brady, N., & McCaughan, E. (2019). Healthcare professional perceived barriers and facilitators to discussing sexual wellbeing with patients after diagnosis of chronic illness: A mixed-methods evidence synthesis. Patient Education and Counseling, 102(5), 850–863. https://doi.org/10.1016/j.pec.2018.12.015

Pedersen, K. K., Eiersted, M. R., Gaardbo, J. C., Pedersen, M., Gerstoft, J., Troseid, M., & Nielsen, S. D. (2015). Lower Self-Reported Quality of Life in HIV-Infected patients on CART and with low comorbidity compared with healthy controls. Journal of Acquired Immune Deficiency Syndromes, 70(1), 16–22. https://doi.org/10.1097/qai.0000000000000697

Popping, S., Kall, M., Nichols, B. E., Stempher, E., Versteegh, L., Van De Vijver, D. A., Van Sighem, A., Versteegh, M., Boucher, C., Delpech, V., & Verbon, A. (2021). Quality of life among people living with HIV in England and the Netherlands: a population-based study. the Lancet Regional Health. Europe, 8, 100177. https://doi.org/10.1016/j.lanepe.2021.100177

Ratna, H. (2019). The importance of effective communication in healthcare practice. HPHR Journal, 23. https://doi.org/10.54111/0001/w4

Rockstroh, J. (2024, November). Antiretroviral Treatment & Prevention. European AIDS Clinical Society. https://eacs.sanfordguide.com/eacs-part1/art

Rossen, P., Pedersen, A., Zachariae, R., & Von Der Maase, H. (2012). Sexuality and body image in long-term survivors of testicular cancer. European Journal of Cancer, 48(4), 571–578. https://doi.org/10.1016/j.ejca.2011.11.029

Rueda, S., Mitra, S., Chen, S., Gogolishvili, D., Globerman, J., Chambers, L., Wilson, M., Logie, C. H., Shi, Q., Morassaei, S., & Rourke, S. B. (2016). Examining the associations between HIV-related stigma and health outcomes in people living with HIV/AIDS: a series of meta-analyses. BMJ Open, 6(7), e011453. https://doi.org/10.1136/bmjopen-2016-011453

Sadovsky, R., Basson, R., Krychman, M., Morales, A. M., Schover, L., Wang, R., & Incrocci, L. (2010). Cancer and sexual problems. the Journal of Sexual Medicine, 7(1), 349–373. https://doi.org/10.1111/j.1743-6109.2009.01620.x

Safreed-Harmon, K., Anderson, J., Azzopardi-Muscat, N., Behrens, G. M. N., Monforte, A. D., Davidovich, U., Del Amo, J., Kall, M., Noori, T., Porter, K., & Lazarus, J. V. (2019). Reorienting health systems to care for people with HIV beyond viral suppression. the Lancet. HIV, 6(12), e869–e877. https://doi.org/10.1016/s2352-3018(19)30334-0

Santi, D., Brigante, G., Zona, S., Guaraldi, G., & Rochira, V. (2014). Male sexual dysfunction and HIV- a clinical perspective. Nature Reviews Urology, 11(2), 99-109. doi: 10.1038/nrurol.2013.314. Street, R. L., Makoul, G., Arora, N. K., & Epstein, R. M. (2009). How does communication heal? Pathways linking clinician–patient communication to health outcomes. Patient Education and Counseling, 74(3), 295–301. https://doi.org/10.1016/j.pec.2008.11.015

Udvardi, A. (2019). The role of linguistics in improving the evidence base of healthcare communication. Patient Education and Counseling, 102(2), 388–393. https://doi.org/10.1016/j.pec.2018.09.012

UNAIDS. 90–90-90 treatment target jUNAIDS. [Internet]. 2020 [cited 2021 Feb 23]. Available from: https://www.unaids.org/en/90-90-90

UNAIDS Global AIDS Update 2023. Geneva: Joint United Nations Programme on HIV/AIDS; 2023. 2023 Report - UNAIDS - Global Report 2023

Van Bergen, J. (2015) 'Als je niet over seks práát, is geen goede diagnostiek, behandeling en counseling mogelijk'. tijdschrift Huisarts & Wetenschap, nummer 11, jaargang.

Van Dulmen, S., van Weert, J., Jansen, J. (2011). Communiceren in de zorg. Groningen/Houten: Noordhoff Uitgevers

Van Lunsen, R.H.W., & Laan, E.T.M. (2019). Sexual health A Life Course Approach. Steegers, E.A.P. (Ed). Textbook of Obstetrics and Gynaecology (2nd ed., pp177-1). Bohn Stafleu van Loghum.

Van Sighem A.I., Wit F.W.N.M., Boyd A., Smit C., Jongen V.W., Matser A., Monitoring Report 2023. Human Immunodeficiency Virus (HIV) Infection in the Netherlands. Amsterdam: Stichting hiv monitoring, 2023

V&VN verpleegkundig consulenten hiv. (2023). EXPERTISEGEBIED Verpleegkundig Consulenten Hiv. Geraadpleegd van vch-expertisegebied-12-mei-2023.pdf (venvn.nl)

Wang, K., Ariello, K., Choi, M., Turner, A., Wan, B. A., Yee, C., Rowbottom, L., Macdonald, R., Lam, H., Drost, L., & Chow, E. (2018). Sexual healthcare for cancer patients receiving palliative care: a narrative review. Annals of Palliative Medicine, 7(2), 256–264. https://doi.org/10.21037/apm.2017.10.05

Wanyoni, K. L., Themessl-Huber, M., Humphris, G., & Freeman, R. (2011). A systematic review and meta-analysis of face-to-face communication of tailored health messages: Implications for practice. Patient Education and Counseling, 85(3), 348–355. https://doi.org/10.1016/j.pec.2011.02.006

Zhang, X., Sherman, L., & Foster, M. (2020). Patients' and providers' perspectives on sexual health discussion in the United States: A scoping review. Patient Education and Counseling, 103(11), 2205–2213. https://doi.org/10.1016/j.pec.2020.06.019

Chapter 2
Sexual health counselling by Dutch HIV care providers: A cross sectional survey among physicians and nurses in the Netherlands

Suzanne de Munnik, Sigrid C. J. M. Vervoort, Liza Kraan, Heidi S., M. Ammerlaan, Lorena A. Grondhuis Palacio, Gerjo Kok, Henk W. Elzevier, John de Wit & Chantal den Daas.

AIDS Care · Psychological and Socio-medical Aspects of AIDS/HIV March 2021:1-7. Volume 34, 2022 - Issue 6 https://doi.org/10.1080/09540121.2021.1906400

CRediT authorship contribution statement:
Suzanne de Munnik: Writing – original draft, Methodology, formal analysis, conceptualization. **Sigrid Vervoort**: validation, writing-review & editing, supervision. **Liza Kraan**: methodology, software. **Heidi Ammerlaan**: methodology, writing – review & editing. **Lorena Grondhuis Palacios**: validation. **Gerjo Kok**: Methodology, data curation, supervision. **Henk Elzevie**r: conceptualization, methodology, writing – review & editing. **John de Wi**t: Writing – review & editing, supervision. **Chantal de Daas**: Methodology, data curation, writing – review & editing, supervision, formal analysis, conceptualization.

Abstract

To improve sexual health among people living with HIV, sexual health should be addressed during consultations in routine HIV care. The aim of the present study was to investigate to what extent Sexual Health Counselling (SHC) is incorporated into routine Dutch HIV care and to explore differences between physicians and nurses in their practices and views regarding SHC. A crosssectional survey was conducted among all HIV physicians (N=110) and HIV nurses (N=82) in the Netherlands. A questionnaire assessed socio-demographic characteristics, current SHC practice, topics addressed, and factors associated with engaging in SHC. The response rate was 53.6% (N=59) among physicians and 60.0% (N=40) among nurses. SHC was performed by 26.1% of physicians and 83.9% of nurses (X^2 (1) = 27.68, p<.001). The most frequently reported barrier for SHC was the presence of a third party, endorsed by 50.9% of physicians and 60.4% of nurses. Nurses were more likely to address issues related to sexual wellbeing, while physicians mainly discussed medical topics. While, both HIV physicians and nursed felt responsible for providing SHC, nurses were more likely to address SHC that physicians. There is scope for improving SHC for PLHIV through a multidisciplinary approach based on clear guidelines for physicians and nurses.

Keywords

People living with HIV; healthcare providers; sexual health counselling; patient provider interaction

Introduction

Sex is an important human need (Maslow, 1943), and sexual health is an intrinsic part of quality of life (East & Hutchinson, 2013; Saunamäki et al., 2010; Waterhouse & Metcalfe, 1999). According to an influential definition of the World Health Organization (2006), sexual health is not only the absence of illness but is a multi-dimensional state of physical, emotional, mental and social well-being (WHO, 2006). As enshrined in the declaration of sexual rights (Kismödi et al., 2017), all people have the "right to the highest attainable standard of health, including sexual health, with the possibility of pleasurable, satisfying, and safe sexual experiences" (p. 5). Various studies have documented evidence of multiple sexual health problems experienced by people living with HIV (PLHIV) and showed an association between HIV status and sexual health problems (Huntingdon et al., 2020; Lema, 2013; Luo et al., 2017; Russell, 2011). Since sexual intercourse is the primary route for HIV transmission, fear of transmitting the virus during sexual intercourse can negatively affect intimacy and sexuality of PLHIV (Lema, 2013; Santi et al., 2014). Studies among gay and bisexual men living with HIV found that as many as 70% of reported problems with sex in the first year after diagnosis (Bourne et al., 2012; Huntingdon et al., 2020; Sandfort et al., 2013). Among women living with HIV, sexual problems were also found to be highly prevalent (Agaba et al., 2017; Bell et al., 2006). The most commonly reported sexual health problem among men who have sex with men (MSM) living with HIV is loss of libido, followed by erectile dysfunction (Bourne et al., 2012; Santi et al., 2014). Women living with HIV most frequently report a decrease in sexual desire, as well as increased painful intercourse (Sandfort et al., 2013; Taylor et al., 2017).

Despite the clear need for sexual health counselling (SHC) for PLHIV, it is not known whether and how this is incorporated in routine HIV care, and which HIV care providers engage in SHC. The limited available research on SHC in HIV care has shown that sexual health is rarely addressed during regular consultations (Bell et al., 2006; Carter et al., 2014; Saunamäki et al., 2010), not even in the Netherlands, which is generally known for its open-minded attitude towards sexuality (De Munnik et al., 2017, Krouwel et al., 2015, Van Ek et al., 2018).

As of December 2019, 23.700 people were estimated to be living with HIV in the Netherlands (63% MSM, 18.5% other men, and 18.5% women), of whom 20.612 were in care (van Sighem, 2019)). In the Netherlands, HIV care is provided by a total of 110 HIV physicians and 82 HIV nurses in 24 HIV treatment centers across the country. It is not known to what extent these HIV physicians and nurses address sexual health issues in their consultations with PHIV, what issues they address and whether the extent to which physicians and nurses provide SHC and the issues they address differs. The aim of the present study was to investigate to what extent SHC is incorporated into routine Dutch HIV care and to explore differences between physicians and nurses in their views and practices regarding SHC for PLHIV.

METHODS

Study design and participants

All PLHIV who are in care in the Netherlands receive treatment in one of the 24 dedicated HIV treatment centers across the country, with consultations alternating between HIV physicians and HIV nurses who address patients' medical needs with, monitor general health and provide additional care and support, as required.

A cross-sectional survey was conducted among all HIV physicians and nurses in the Netherlands. They were approached via the member list of the Netherlands Association of HIV Physicians (NVHB) and the Netherlands Professional Association of HIV nurses (VCH).

Paper-and-pen questionnaires were sent to physicians between April and June 2017, together with a prepaid return envelope. Nurses received a link to an online questionnaire via their work e-mail between April and June 2018. A reminder was sent to both groups after four weeks.

Ethical considerations

Informed consent was obtained from all physicians and nurses who participated in the study. HIV physicians and nurses were advised that participation was voluntary and anonymous, and that they could withdraw at any time. This study is exempt from formal medical ethics review as stipulated in the Medical Research Involving Human Subjects Act of the Netherlands, as no patients were included and the study did not involve medical or behavioural interventions.

Measures

The questionnaire was adapted from a questionnaire used in previous studies assessing SHC by healthcare providers of patients with chronic illness (Krouwel et al., 2015; Van Ek et al., 2018). The questionnaire was pilot tested with six HIV physicians and two HIV nurses and amended based on their feedback, as required. The final questionnaire consisted of 40 questions (see Supplementary materials for the complete questionnaire).

Participant characteristics: We included questions concerning demographic characteristics and workrelated characteristics (i.e., age, professional role, and years of work experience).

Readiness for providing SHC: HIV care providers indicated whether they felt competent to offer SHC (yes/no). Self-perceived knowledge on sexual health was assessed by asking how well informed HIV care providers perceived themselves to be about sexual health issues and counselling, with responses given on a 5-point scale (1 = not well informed, 5=well informed) and then dichotomized (1-3=not/somewhat informed, 4-5=sufficiently/well informed). Participants also indicated who they thought was responsible for SHC, with various options provided,
of which the five most frequently chosen options are reported. Furthermore, participants indicated whether they were aware of the guidelines on sexual health counselling for PLHIV developed by STI AIDS Netherlands (SANL), the Dutch center of expertise on HIV and other STI, and whether they were interested in training to strengthen their knowledge of SHC.

Provision of SHC: we asked how often HIV care providers addressed sexual health with PLHIV in (1) the first consultation after HIV diagnosis and (2) during routine (follow-up) consultations. Responses were given on 5-point scales (1=never, 5=always, and subsequently dichotomized 1-3=infrequently, 4-5=frequently).
We also asked participants to indicate which of 15 sexual health topics (multiple answers were possible) were addressed in SHC (for example fatigue, lack of experienced pleasure, loss of libido). In addition, we assessed 23 possible barriers for the provision of SHC, with responses given on a 5-point scale (1=fully disagree, 5=fully agree). Participants who selected response options 1 or 2 were classified as experiencing a specific barrier. The three most experienced barriers are reported, as well as the total number of barriers HIV care providers experienced.

Data analysis

Descriptive statistics were calculated for demographic characteristics and views and practices regarding SHC. Univariate analyses were conducted to assess differences between physicians and nurses, consisting of Chi-square tests for categorical variables and independent sample ttests for continuous variables; p-values of ⩽ 0.05 were considered significant. Data analysis was performed using SPSS version 23 (SPSS Inc., Chicago, IL, USA).

RESULTS

Participant characteristics

In total, 59 of 110 physicians (53.6%) and 48 of 82 nurses (58.5%) completed the survey (see Table 1). Age of physicians and nurses did not differ significantly (p = .61), nor did their years of work experience (p = .65). Gender did differ significantly (p = .002) between groups; more physicians (52.2%) than nurses (22.9%) were men.

Table 1

Characteristics, Knowledge, Competency, Responsibility, Practice and Experienced Barriers Regarding Addressing Sexual Health of Physicians (N = 59) and Nurses (N = 48) in the Netherlands.

		Physicians		Nurses		
		N	%	N	%	Statistical test
Age in years Mean (SD)		46.5	9.2	47.4	10.0	t (105) = -.51, p = .612
Gender	Men	31	52.5	11	22.9	x^2 (1) = 9.74, p = .002
Experience in year	1–2	8	13.6	9	18.8	x^2 (4) = 2.45, p = .654
	3–5	5	8.5	6	12.5	
	6–10	15	25.4	7	14.6	
	11–15	11	18.6	10	20.8	
	> 15	20	33.9	16	33.9	
Knowledge (self perceived)	Low	39	66.1	20	41.7	x^2 (1) = 6.39, p = .011
	High	20	33.9	28	58.3	
Competency	Yes	50	84.7	46	95.8	x^2 (1) = 3.53, p = .060
Sexual health counselling is the responsibility of.....	Physician	43	74.1	37	77.1	x^2 (1) = .12, p = .726
	Nurse	56	96.6	48	100.0	x^2 (1) = 1.69, p = .194
	Patient	37	63.8	37	77.1	x^2 (1) = 2.20, p = .138
	General practitioner	19	32.8	31	64.4	x^2 (1) = 10.67, p = .001
	Partner of patient	17	29.3	23	47.9	x^2 (1) = 3.87, p = .049
Addressing sexual health	Infrequently	51	86.4	18	37.5	x^2 (1) = 27.68, p < . 001
	Frequently	8	13.6	30	62.5	
Top 3 barriers	Insufficient time	35	61.4	11	22.9	x^2 (1) = 15.68, p < .001
	Presence of a third party	30	54.6	29	60.4	x^2 (1) = .36, p = .548
	Patients do not initiate...	23	41.1	4	8.3	x^2 (1) = 14.41, p < .001
Aware of guideline	Yes	25	46.3	29	53.7	x^2 (1) = 3.15, p = .076
Wish to increase knowledge by training on sexual health counselling	Yes	29	39.7	44	60.3	x^2 (1) = 22.07, p < .001

Readiness for providing SHC

Most HIV care providers felt competent in providing SHC (physicians: 84.7%, nurses: 95.8%, p = .06). All nurses (100%) and most physicians (72.9%) considered their own professional group to have responsibility for providing SHC to PLHIV. Overall, most physicians as well as most nurses considered nurses to be responsible for SHC, followed by physicians, patients, the patient's general practitioner and the patient's partner. About half of both physicians and nurses were aware of the SHC guideline developed by SANL. About 60% of nurses and 40% of physicians indicated a need for additional training to build their capacity to provide SHC.

Provision of SHC

Nurses (78.9%) were more likely to provide SHC during regular consultations than physicians (26.1%). The topics that physicians and nurses addressed in SHC with PLHIV are shown in Table 2. The most frequently addressed topic, both by physicians and nurses, was fear of HIV transmission. Loss of libido was the second most discussed issue that was also addressed equally frequently by physicians and nurses. HIV stigma, lack of experienced sexual pleasure, altered self-image, uncertainty about the future, fatigue, and inability to reach orgasm were discussed less frequently and relatively more often by nurses than physicians. Erectile dysfunction was addressed relatively frequently and more often by physicians.

The three most reported barriers for not providing SHC were having insufficient time, which was more often indicated by physicians than by nurses (p < .001), presence of a third party, and patients not initiating discussions on sexual health themselves.

Factors associated with providing SHC

As can be seen in Table 3, chi-square tests showed that nurses provided SHC more often than physicians. Work experience and self-perceived competence in SHC were not associated with providing SHC, but HIV care providers with less self-perceived knowledge of SHC were less likely to offer SHC than providers who considered themselves more knowledgeable. Those who felt responsible for SHC were more likely to provide SHC. Also, a higher number of experienced barriers was associated with a lower frequency of providing SHC.

Table 2

Factor Associated with Frequency of Sexual Health Counseling as Indicated by Chi-square Tests Among Dutch Health Care Providers.

		Providing sexual health counselling				
		Frequently		Infrequently		Chi-square/
		N	(%)	N	(%)	
Role	Physician	8	(21.1)	51	(73.9)	x^2 (1) = 27.68, p < . 001
	Nurse	30	(78.9)	18	(26.1)	
Experience	<5 years	12	(31.6)	16	(23.2)	x^2 (1) = 0.89, p = .345
	>5 years	26	(68.4)	53	(76.8)	
Competency	Yes	37	(97.4)	59	(85.5)	x^2 (1) = 3.74, p = .053
	No	1	(2.6)	10	(14.5)	
Knowledge	Low	13	(34.2)	46	(66.7)	x^2 (1) = 10.44, p < .001
	High	25	(65.8)	23	(33.3)	
Count of barriers	0–1	15	(39.5)	9	(13.0)	x^2 (2) = 10.05, p = .007
	2–5	17	(44.7)	41	(59.4)	
	>6	6	(15.8)	19	(27.5)	
Responsible	Yes	36	(97.3)	55	(79.9)	x^2 (1) = 6.13, p = .013
	No	1	(2.7)	14	(20.3)	

	Physicians		Nurses		
	N	%	N	%	Chi-square
Erectile dysfunction	53	59.6	36	40.4	x^2 (1) = 4.160, p = .041
Fatigue	13	23.2	24	50.0	x^2 (1) = 8.091, p = .004
Lack of experienced pleasure	25	44.6	42	87.5	x^2 (1) = 20.71, p < .001
Loss of libido	49	87.5	43	89.6	x^2 (1) = .11, p = .740
Painful intercourse	28	50	24	50.0	x^2 (1) = .00, p = 1.000
Inability to reach orgasm	7	12.5	14	29.2	x^2 (1) = 4.46, p = .035
Sexual arousal problems	12	21.4	22	45.8	x^2 (1) = 7.00, p = .008
Physical changes	15	26.8	11	22.9	x^2 (1) = .21, p = .650
Altered self-image	21	37.5	32	66.7	x^2 (1) = 8.80, p = .003
Uncertainty about future	15	26.8	24	50.0	x^2 (1) = 5.94, p = .015
Hormonal changes	8	14.3	13	27.1	x^2 (1) = 2.63, p = .105
Medication side effects	15	26.8	17	35.4	x^2 (1) = .90, p = .342
Fear of transmitting HIV to partner	52	92.9	46	95.8	x^2 (1) = .42, p = .516
Fear of talking about HIV with partner	44	78.6	40	83.3	x^2 (1) = .38 p = .539
HIV stigma	37	66.1	41	85.4	x^2 (1) = 5.16, p = .023

Discussion

Our study aimed to provide new insights into the extent to which SHC is incorporated into HIV care in the Netherlands, and to assess the similarities and differences in readiness for providing SHC and provision of SHC in regular consultations among HIV physicians and nurses. Overall, HIV care providers felt competent in providing SHC, with nearly all nurses expressing perceived competence as well as the majority of physicians. Also, all nurses and threequarters of physicians considered their professional group to be responsible for SHC with PLHIV. Nevertheless, only about half of the HIV care providers were aware of current Dutch guidelines for SHC with PLHIV, and only about one-third of physicians and over half of nurses felt knowledgeable of SHC for PLHIV. About one third of physicians and nearly two-thirds of nurses indicated an interest in further training on SHC to build their capacity.

While nearly two-thirds of nurses frequently provided SHC, this was done by only slightly more than one in ten physicians. Our study also shows that nurses are more likely to address sexual risk behavior and prevention of HIV transmission, while physicians are more likely to discuss biomedical issues with PLHIV. A study among 400 HIV physicians in the US similarly found that they discussed biomedical issues more frequently with PLHIV than transmission risk reduction Gartner et al. (2008). As the standard number of HIV consultations in the Netherlands has been reduced from four to two times per year as HIV care has become more routine, and as consultations alternate between physicians and nurses, the already limited opportunity for SHC, particularly by physicians, may have been further reduced. This can lead to missed opportunities to address sexual health issues. HIV physicians and nurses should hence be encouraged to include SHC in regular HIV care, and ensure that the diversity of potential sexual health issues is addressed.

The three most important barriers to SHC noted by both physicians and nurses were insufficient time, patients not asking for advice on sexual health issues, and the presence of a third party. Not having enough time is an expected barrier given the average consultation time of 10–15 min for an HIV physician and 30 min for a nurse, as also found in other research among HIV care providers (Carter et al., 2014; Flickinger et al., 2013). Insufficient time due to the limited duration of consultations is also reported as a barrier to SHC by health care providers in other medical domains, including surgical oncologists and dialysis nurses (Krouwel et al., 2015; van Ek et al., 2018). The importance HIV care providers attach to patients initiative for SHC is in line with the findings of research from the perspective of HIV patients, which found that they wanted to start the conversation about sexual health problems (Sandfort et al., 2013).

The presence of a third party as a barrier to SHC likely reflects HIV care providers' perceived sensitive and private nature of the sexual health issues. At the same time, HIV care providers are also attribute responsibility to partners for raising sexual health issues. Whether the third party present during a consultation is a partner or someone else may explain why previous research on the role of the presence of others in SHC has yielded mixed results (Bell et al., 2006; De Munnik et al., 2017; Krouwel et al., 2015).

Our findings show that both HIV physicians and nurses address sexual health issues with PLHIV. Optimal SHC for PLHIV hence requires effective collaboration between HIV nurses and physicians so that sexual health-related issues are actually addressed during (each) regular HIV consultations and that effective care is provided, and ensuring that consultations for the same patient effectively build on each other. Furthermore, our findings suggests scope to strengthen the readiness of HIV care providers to address sexual health issues with PLHIV, building on their perceived responsibility to do so. To strengthen this readiness, it is important to develop and promote awareness of guidelines for SHC with PLHIV that indicate which topics to address, as well as more importantly, how to address these issues, what care to provide and when to refer PLHIV to which care provider.

Our findings show that many issues related to the sexual health of PLHIV, in particular psychosocial issues such as stigma and uncertainty about future, and subjective experiences, such as sexual arousal problems and altered self-image, are mostly discussed with HIV nurses or are discussed equally frequently by HIV nurses and physicians (e.g., fear of HIV transmission, physical changes). This underscores the importance of ensuring that any guidance regarding SHC for PLHIV recognizes and strengthens the role of HIV nurses, who can provide integrated care combining medical and nursing perspectives. HIV physicians also have an important role to play in SHC for PLHIV and, at a minimum, need to be aware of the importance of SHC during regular consultations, have basic knowledge of prevalent sexual health issues and know who to refer patients to, including an HIV nurse already providing regular consultations. We recommend that SHC for PLHIV provided by HIV physicians and nurses encompasses psychosocial, experiential as well as medical issues. While HIV physicians as well as nurses participating in our study indicate feeling responsible for providing SHC to PLHIV, they also indicate a need to engage in further training. Such training should be part of a comprehensive toolkit for optimal SHC for PLHIV, which also included evidence-based guidelines reflecting professional consensus.

Strengths and limitations

To the best of our knowledge, this is one of the first studies to assess the readiness and provision of SHC by both HIV physicians and nurses. Furthermore, this study provides new insight into the barriers HIV care providers experiences with respect to SHC. Some limitations also need to be considered. Data were collected using self-reports, and may be affected by memory and social desirability biases. Also, due to the relatively low number of physicians and nurses involved in HIV care in the Netherlands, the power of our study is limited.

The response rate was nevertheless high, and results likely provide a good indication of the views and practices regarding SHC by HIV care providers in the Netherlands. Furthermore, while the research findings may not be fully generalizable beyond the Dutch HIV care setting, they may however be informative for HIV care providers more broadly.

Conclusion

In contrast to the sense of responsibility among Dutch HIV care providers to address SHC in regular consultations with PLHIV, there is substantial variation in the readiness and provision of SHC between HIV physicians and HIV nurses. Overall, there is substantial room for improvement in SHC provided in regular HIV care, and HIV care providers need to be aware of the importance of addressing sexual health problems for the quality of life of PLHIV. To improve SHC for PLHIV, a multidisciplinary approach may be needed, encompassing guidelines for HIV physicians and nurses, additional training tailored to the needs of specific types of HIV care providers, establishing adequate referral systems and, where possible enabling sufficient consultation time to discuss sexual health.

References

Defining sexual health: report of a technical consultation on sexual health, 28–31 January 2002, Geneva. Geneva: World Health Organization; 2006 http://www.who.int/reproductivehealth/topics/gender_rights/defining_sexual_health.pdf, accessed 14 June 2017

Agaba, P. A., Meloni, S. T., Sule, H. M., Agaba, E. L., Idoko, J. A., & Kanki, P. J. (2017). Sexual dysfunction and its determinants among woman infected with HIV. International Journal of Gynaecology and Obstetrics, 137(3), 301–308. https://doi.org/10.1002/ijgo.12140PMID: 28273350

Bell, C., Richardson, D., Wall, M., & Goldmeier, D. (2006). HIV-associated female sexual dysfunction-clinical experience an literature review. International Journal of STD & AIDS, 17(10), 706–709. https://doi.org/10.1258/095646206780071063

Bourne, A., Hickson, F., Keogh, P., Reid, D., & Weatherburn, P. (2012). Problems with sex among gay and bisexual men with diagnosed HIV in the United Kingdom. BMC Public Health, 12(1), 916. https://doi.org/10.1186/1471-2458-12-916

Carter, J. Q., Hart-Cooper, G. D., Butler, M., Workowski, K. A., & Hoover, K. W. (2014). Providers barriers prevent recommended sexual transmitted screening of HIV-infected men who have sex with men. Journal of Sexually Transmitted Diseases, 41(2), 137–142. https://doi.org/10.1097/OLQ.0000000000000067

De Munnik, S., Vervoort, S. C., Ammerlaan, H. S., Kok, G., & den Daas, C. (2017). From intention to STI prevention: An online questionnaire on barriers and facilitators for discussing sexual risk behaviour among nurses. Journal of Advanced Nursing, 73(12), 2953–2961. https://doi.org/10.1111/jan.13372

East, L., & Hutchinson, M. (2013). Moving beyond the therapeutic relationship: A selective review of intimacy in the sexual health encounter in nursing practice. Journal of Clinical Nursing, 22(23,24), 3568–3576. https://doi.org/10.1111/jocn.12247

Flickinger, T. E., Berry, S., Korthuis, T., Saha, S., Laws, M. B., Sharp, V., Moore, R. D., & Beach, M. C. (2013). Counseling to reduce high-risk sexual behavior inHIV care:Amulti-center, direct observation study. AIDS Patient Care and STDs, 27 (7), 416–424. https://doi.org/10.1089/apc.2012.0426

Gartner, L. I., Metsch, L., Strathdee, S. A., del Rio, C., Mahoney, P., & Holmberg, S. D. (2008). Frequency of Discussing HIV prevention and care topics with patients with HIV: Influence of physician gender. Race/Ethnicity, and Practice Characteristics. Journal of Gender Medicine, 5(3), 259–269. https://doi.org/10.1016/j.genm.2008.08.002

Huntingdon, B., Muscat, D. M., de Wit, J., Duracinsky, M., & Juraskova, I. (2020). Factors associated with erectile dysfunction among men living with HIV: A systematic review. AIDS CARE, 32(3), 275–285. https://doi.org/10.1080/09540121.2019.1653443

Kismödi, E., Corona, E., Maticka-Tyndale, E., Rubio-Aurioles, E., & Coleman, E. (2017). Sexual Rights as Human Rights: A guide for the WAS declaration of Sexual Rights. International Journal of Sexual Health, 29(51), 1–92. https://doi.org/10.1080/19317611.2017.1353865

Krouwel, E. M., Hagen, J. H., Nicolai, M. P., Vahrmeijer, A. L., Putter, H., Pelger, R. C., & Elzevier, H. W. (2015). Management of sexual side effects in the surgical oncology practice: A nationwide survey of Dutch surgical oncologists. Journal of Cancer Surgery, 41(9), 1179–1187. https://doi.org/10.1016/j.ejso215.06.009

Lema, V. M. (2013). Sexual dysfunction among HIV patients: Three case reports and review of literature. African Journal of Reproductive Health, 17(4), 161–170. Luo, L., Deng, T., Zhao, S., Li, E., Liu, L., Li, F., Wang, J., & Zhao, Z. (2017). Association between HIV infection and prevalence of erectile dysfunction: A Systematic Review and meta-analysis. The Journal of Sexual Medicine, 14(9), 1125–1132. https://doi.org/10.1016/j.jsxm.2017.07.001

Maslow, A. (1943). A theory of Human motivation. Psychological Review, 50(4), 370–396. https://doi.org/10.1037/h0054346

Russell, D. B. (2011). Sexual function and dysfunction in older positive patients. Journal of Sexual Health, 8(4), 502–507. https://doi.org/10.1071/SH11041

Sandfort, T. G., Collier, K. L., & Grossberg, R. (2013). Addressing sexual problems in HIV primary care: Experiences from patients. Archives of Sexual Behavior, 42 (7), 1357–1368. https://doi.org/10.1007/s10508-012-0009-5

Santi, D., Brigante, G., Zona, S., Guaraldi, G., & Rochira, V. (2014). Male sexual dysfunction and HIV- a clinical perspective. Nature Reviews Urology, 11(2), 99–109. https://doi.org/10.1038/nrurol.2013.314

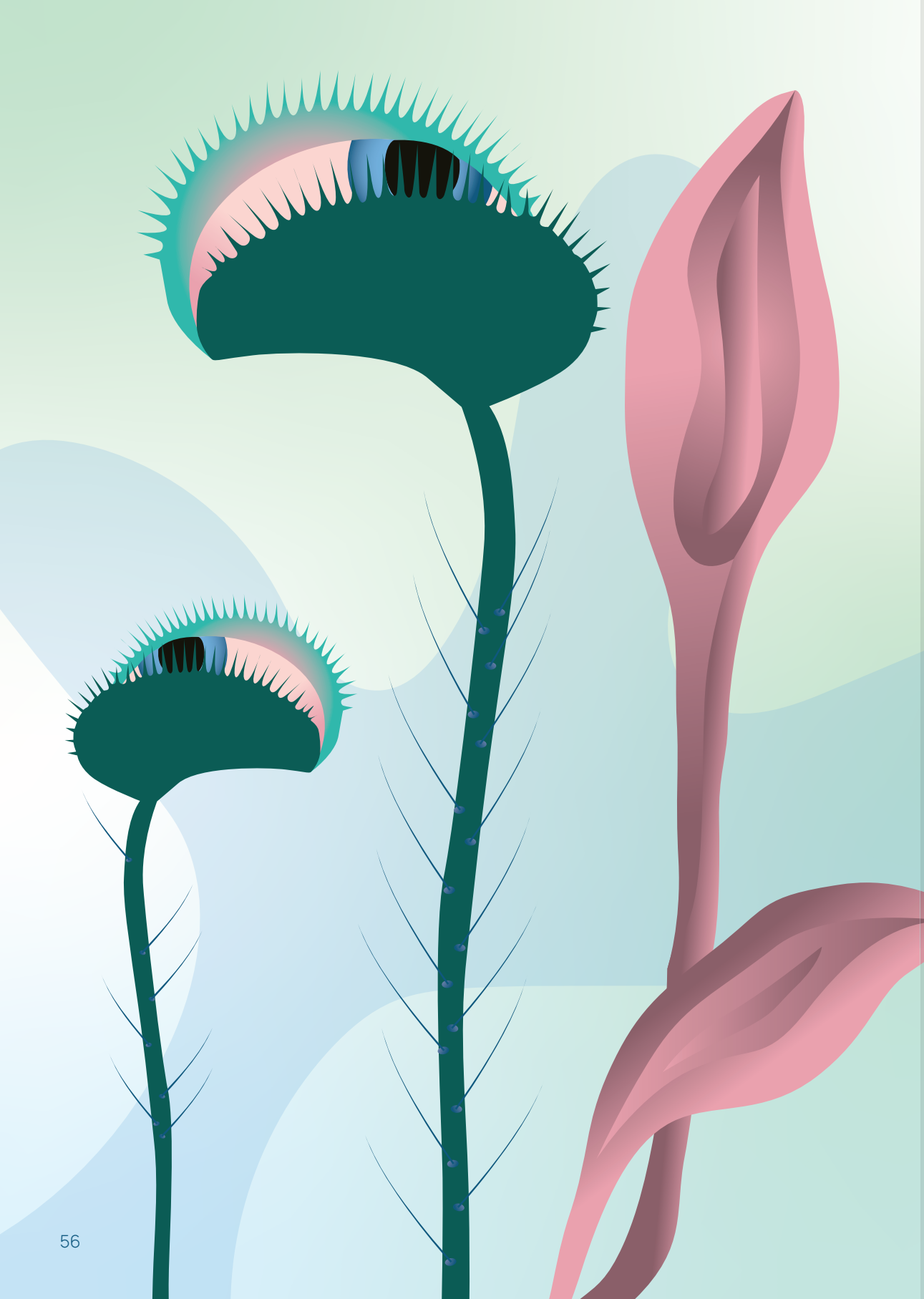
Saunamäki, N., Andersson, M., & Engström, M. (2010). Discussing sexuality with patients: Nurses' attitudes and beliefs. Journal of Advanced Nursing, 66(6), 1308–1316. https://doi.org/10.1111/j.1365-2648.2010.05260.x

Taylor, T. N., Munoz-Plaza, C. E., Goparaju, L., Martinez, O., Holman, S., Minkoff, H. L., Karpiak, S. E., Gandhi, M., Cohen, M. H., Golub, E. T., Levine, A. M., Adedimeji, A. A., Gonsalves, R., Bryan, T., Connors, N., Schechter, G., 6 S. DE MUNNIK ET AL. & Wilson, T. E. (2017). "The pleasure is better as I've gotten older": sexual health, sexuality, and sexual risk behaviors among older women living With HIV. Archives of Sexual Behavior, 46(4), 1137–1150. https://doi.org/10.1007/s10508-016-0751-1

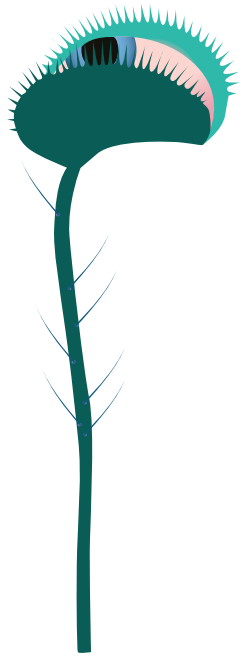
Van Ek, G. F., Gawi, A., Nicolai, M. P., Krouwel, E. M., Den Oudsten, B. L., Den Ouden, M. E., & Elzevier, H. W. (2018). Sexual care for patients receiving dialysis: A cross-sectional study identifying the role of nurses working in the dialysis department. Journal of Advanced Nursing, 74 (1), 128–136. https://doi.org/10.1111/jan13386

Van Sighem, A. I., Wit, F. W. N. M., Boyd, A., Smit, C., Matser, A., & Reiss, P. (2019). Human Immunodeficiency Virus (HIV) Infection in the Netherlands. Amsterdam: Stichting HIV Monitoring. Waterhouse, J., & Metcalfe, M. (1999). Attitudes towards nurses discussing sexual concerns with patients. Journal of Advanced Nursing, 16(9), 1048–1054. https://doi.org/10.1111/j.1365-2648.1991.tb03365.x

World Health Organization. (2006). Defining Sexual Health: Report of a Technical Consultation on Sexual Health, 28– 31 January 2002. Geneva.



Chapter 3
Let's talk about sex: A qualitative study exploring the experiences of HIV nurses when discussing sexual risk behaviours with HIV-positive men who have sex with men



S. de Munnik, C. den Daas, H.S.M. Ammerlaan, G. Kok, M.S. Raethke, S.C.J.M. Vervoort.

International Journal of Nursing Studies Volume 76, November 2017, Pages 55-61 https://doi.org/10.1016/j.ijnurstu.2017.09.002

CRediT authorship contribution statement:
Suzanne de Munnik: Writing – original draft, methodology, formal analysis, conceptualization. **Chantal de Daas**: Data curation, writing – review & editing, supervision. **Heidi Ammerlaan**: Visualization, writing – review & editing. **Gerjo Kok**: Writing – review & editing, supervision. **Monika Raethke**: Visualization, writing- review & editing. **Sigrid Vervoort**: Data curation, methodology, writing- review & editing, supervision.

Abstract

Background: Despite prevention efforts, the incidence of sexually transmitted infection among HIV-positive men who have sex with men remains high, which is indicative of unchanged sexual risk behaviour. Discussing sexual risk behaviour has been shown to help prevent sexually transmitted infections among HIV-positive men who have sex with men.
Objectives: The aim of this study was to identify factors that influence whether - and how - specialised HIV nurses discuss sexual risk behaviour with HIV- positive men who have sex with men. Identifying these factors could indicate how best to improve the frequency and quality of discussions about sexual risk behaviour, thereby reducing sexual risk behaviour and sexually transmitted infections.
Design: Qualitative study, focus groups among HIV nurses.
Setting: Dutch HIV treatment centres.
Participants: A purposive sample was taken of 25 out of 87 HIV nurses working in one of the 26 specialised HIV treatment centres in the Netherlands. Of the 25 HIV nurses we approached, 22 participate in our study.
Methods: Three semi-structured focus group interviews were held with 22 HIV nurses from 17 hospitals. Interviews were transcribed verbatim, and thematic analysis was performed.
Results: HIV nurses agreed that discussing sexual risk behaviour is important, but barriers were experienced in relation to doing so. In accordance with the theory of planned behaviour, attitudes, perceived norms and perceived behavioural control were all found to be relevant variables. Barriers to discussing sexual risk behaviour were identified as: dealing with embarrassment, the changing professional role of an HIV nurse, time constraints, and the structure of the consultation.
Conclusions: To improve the frequency and quality of discussions about sexual risk behaviour with HIV-positive men who have sex with men, our data suggests it would be beneficial to support HIV nurses by developing tools and guidelines addressing what to discuss and how. Using a related topic as a conversational 'bridge' may help nurses to broach this subject with their patients. This would allow HIV nurses to discuss possible risk reduction strategies, such as pre-exposure prophylaxis for HIV-negative partners, condom use, strategic positioning, or sero-sorting.

Key words

Focus groups, HIV, HIV-positive men who have sex with men, nurses, qualitative research, sexual behaviour, sexually transmitted infections, theory of planned behaviour.

1. Introduction

Sexual risk behaviour among HIV-positive men who have sex with men leads to an increased risk of sexually transmitted infections and onward HIV transmission to sexual partners. As sexual risk behaviour in this group is a threat for public health, several Dutch organisations (e.g. STI Aids Netherlands and the Dutch HIV Association) have developed educational programs with the aim of preventing further transmission of sexually transmitted infections, and emphasising prevention among HIV-positive men who have sex with men (SOA Aids Nederland, 2013). These educational programs have been further applied in policies that aim to support the prevention of sexually transmitted infections. Despite these programs, the prevalence of sexually transmitted infections among HIV-positive men who have sex with men has not decreased, which is indicative of unchanged sexual risk behaviour. As of May 2016, more than eighteen thousand HIV-positive people have received care in one of the 26 HIV treatment centres currently operating in the Netherlands (The Dutch HIV Monitoring Foundation, 2016). The majority of these individuals (76%) were men who have sex with men, and more than one third (37%) had been repeatedly diagnosed with one or more sexually transmitted infections (Visser et al., 2016).

In practice, targeted efforts to counter the proliferation of sexually transmitted infections among HIV-positive men who have sex with men might become even more important considering the recent shift in focus to the prevention of onward HIV transmission. The focus of HIV prevention in the Netherlands – as well as internationally – has shifted to early initiation of combination antiretroviral treatment in order to prevent HIV transmission (Cohen et al., 2011). The aim of this risk reduction strategy is to achieve and maintain undetectable viral load, a medical outcome that indicates low transmission risk as well as a better clinical diagnosis. In 2015, of all patients diagnosed with HIV in the Netherlands, 88% were treated in an HIV centre. Of all patients who tested positive for HIV, 77% received HIV treatment within four weeks of testing and 72% had an undetectable viral load within six months of starting treatment (The Dutch HIV Monitoring Foundation, 2016). Another risk reduction strategy is the provision of pre-exposure prophylaxis (PrEP) to prevent HIV infections among high-risk HIV-negative people (McCormack et al., 2016). PrEP has been effective in preventing HIV infections, but efficacy does depend on patients' adherence to the treatment regime. The downside of these preventive measures is that they could reduce inhibitions to engage in sexual risk behaviour and thus in turn might actually raise STI positivity rates (Scott and Klausner, 2016).

2. Background

To try and put a halt to the increasing incidence of sexually transmitted infections among men who have sex with men, several studies have been conducted in recent years to gain insight into determinants that influence sexual risk behaviour among HIV-positive men who have sex with men. The objective of these studies was to identify determinants that can be converted into tailor-made interventions designed to prevent the transmission of sexually transmitted infections (Centre for disease control and prevention, 2003; Carter et al., 2014; Morin et al., 2004). Some studies have shown that a reduction of sexual risk behaviour in HIV-positive men who have sex with men can be achieved if health care providers introduce the topic of sexual risk behaviour during consultation (Crepaz and Marks, 2002; Johnson et al., 2008; Richardson et al., 2004).

While discussing sexual risk behaviour can lead to a reduction in this behaviour, studies have also shown that prevention counselling is frequently neglected in clinical practice (East and Hutchinson, 2013; Gardner et al., 2008; Mayer et al., 2004; Morin et al., 2004). Several studies conducted in the United States have focused on the reasons why health care providers avoid discussing sexual risk behaviour with their patients. Reasons for not discussing sexual risk behaviour have been identified as: time constraints, difficulties in obtaining the patient's sexual history, language and cultural barriers, and patient confidentiality concerns (Morin et al., 2004; Gerbert et al., 1999; Myers et al., 2004; Steward et al., 2006). In contrast to these findings, Marks et al. (2002) reported that healthcare providers were generally comfortable with discussing sexual risk behaviour. Nevertheless, they also mentioned 'lack of structure and guidelines', and 'lack of training' as practical reasons for not discussing sexual risk behaviour. Apart from these more practical concerns, it has been reported that discussing sexual risk behaviour can be hampered by the idea that men who have sex with men will not listen anyway – a belief that has been labelled provider fatalism (Gerbert et al., 1999; Steward et al., 2006).

As most of these studies were conducted in the United States, the results may not be generalisable to European countries and specifically the Netherlands, where the social context is liberal and more open towards the discussion of sexual behaviour in general and sexual risk behaviour in particular. Politically and culturally, the majority of Dutch residents adhere to the notion of freedom for all individuals, as long as this freedom does not limit the freedom of other people. This also includes an open attitude towards homosexuality, HIV status, and sexual behaviour (Widmer et al., 1998). Therefore, exploring barriers

to the discussion of risk behaviour (such as unprotected anal intercourse among men who have sex with men) in the Dutch context can provide valuable new insights into the prevention of sexually transmitted infections.

Moreover, it is worth noting that the barriers identified in American studies may not be applicable to the Dutch context, because in the Netherlands, HIV patients are counselled by specialised HIV nurses. These nurses work in specialised HIV treatment centres, where patients see a doctor for their medical needs and an HIV nurse for additional support and care, including the discussion of sexual risk behaviour. Specialised HIV nurses provide HIV patients with care that may go beyond their medical needs, for example assisting with issues concerning medication adherence, providing social support (i.e. discussing minor psychological issues, depression, stigmatisation, and drug-related questions), and advising on lifestyle choices. The national organisation of nursing consultants in HIV care (VCH) has set up guidelines for discussing the specific topics of adherence to treatment and sexuality.

These include nursing interventions, which provide nurses with direction in terms of how to discuss and improve adherence to treatment and how to address sexual dysfunction among their patients (Vervoort, 2009; Aidsfonds, 2008; Professional Association of Dutch HIV nurses professional, 2015). Despite the availability of guidelines for discussing topics such as sexual risk behaviour, it is possible that some HIV nurses are unaware of the content of these guidelines, or that others do not implement them (Vervoort et al., 2010). As HIV nurses are specifically expected to discuss sexual risk behaviour, identifying barriers within this group might also be relevant for other professionals in sexual health care (East and Hutchinson, 2013).

The aim of our qualitative study was to identify factors that influence specialised HIV nurses' decisions about whether or not to discuss sexual risk behaviour with HIV-positive men who have sex with men. In order to gain more insight into what influences Dutch HIV nurses in terms of whether they discuss sexual risk behaviour, an elicitation procedure with open questions was used to identify possible. The theory of planned behaviour (TPB/RAA) was applied as a theoretical framework in the analysis of the results. The theory of planned behaviour states that intention, one of the immediate determinants of behaviour, depends on three constructs: attitudes, perceived norms and perceived behavioural control, all of which are influenced by underlying beliefs. Fishbein and Ajzen (2010) posit that the influences of other, external variables (e.g. age, gender, education) are mediated by these three constructs. Nevertheless, we felt that it was important to explore the possible influence of these external variables (Bartholomew Eldredge et al., 2016).

The theory of planned behaviour was used as guidance to identify which factors influence HIV nurses' intentions by exploring their attitudes, perceived norms and perceived control regarding the discussion of sexual risk behaviour with men who have sex with men, as well as identifying the effects of certain external variables. Insights into the influence of these determinants on whether and how to discuss sexual risk behaviour can be used to develop interventions to improve the quality of the consultations between HIV nurses and their patients. At the same time, however, our study procedure was designed to ensure an open approach (Ajzen, 2015). Fishbein and Ajzen (2010) have described in detail how an elicitation procedure should be executed, starting with qualitative individual and/or group interviews. We therefore organised focus groups to explore the factors that influence HIV nurses' intentions to discuss sexual risk behaviour with HIV-positive men who have sex with men using the nurses'frame of reference.

3. Methods

3.1. Sample

We selected a purposive sample of HIV nurses who deliver care for HIV infected men who have sex with men and are working in one of the 26 specialised HIV treatment centres in the Netherlands. To obtain a maximum variation sample, we made sure that participants differed according to gender, age, sexuality, education and number of years of working experience. All Dutch HIV nurses and nurse practitioners have a general nursing background (Dutch HBO-V), comparable to that of advanced Nurse Practitioner in the United Kingdom. Furthermore, all Dutch HIV nurses have completed additional master classes focusing on HIV care, and the topics treated in these classes include discussion of sexual health and motivational interviewing. There are additional courses that nurses can opt to attend which focus specifically on sexuality in the broadest sense, and also in relation to sexual dysfunctions, or drug use. We therefore assumed at least an adequate knowledge and skills base in relation to the discussion of sexual risk behaviour in our entire sample of HIV nurses.

3.2. Data collection

Semi structured focus group interviews were performed to investigate HIV nurses' perspectives on how to broach the subject of sexual risk behaviour. An interview guide was used as a framework to make sure that all topics were discussed. The topic list was based on existing literature on the discussion of sexual risk behaviour and on a behavioural theory – the theory of planned behaviour. As we alternated between data collection and analysis, the interview guide was adjusted on the basis of the themes that emerged. All focus groups started with an introduction about the objectives of the study and an explanation of the role of the participants during the focus group session. Each focus group interview started with the same opening question: 'Can you tell us what you are currently doing to discuss sexual risk behaviour among HIV-positive men who have sex with men, and any other subject relevant to this discussion?'

Each focus group was led by the same facilitator (EdM), a nurse practitioner in HIV care, and was attended by an experienced observer (SV), who also made field notes. Based on the HIV nurses' narratives, the topics they mentioned were explored in depth, by asking probing questions. The interviewer asked about all of the topics listed in the interview guideline if they had not already been brought up spontaneously by the participants. Throughout the study, we continuously integrated and discussed themes from preliminary analyses of the previous focus group (or groups) in order to identify commonalities and differences between participants.

Finally, participants were asked to provide information on their age, gender, sexual orientation, function (either HIV nurse or nurse practitioner), the number of years working in the field, and whether they had attended any training about sexual health in particular. All focus group interviews were audiotaped.

In total, three focus groups were conducted in a meeting room at the central station in Utrecht, the Netherlands. These meetings took place between November 2013 and January 2014. The focus group comprised of eight, eight, and six participants respectively. The sessions lasted an average of 105 min (range 90–120 min). Focus group interviews were discontinued when, during the analysis, the third focus group did not uncover any new ideas or insights into the themes, and thus saturation had been reached. Further sampling was not necessary.

3.3. Analysis

Data were analysed by two researchers (EdM, RM) according to the thematic analysis method described by Braun and Clarke (2006), and were discussed with a third researcher (GK). All focus group interviews were transcribed verbatim. The analysis was carried out following the six stages of thematic analysis in order to establish meaningful patterns. During the first stage, 'familiarisation with data', the interviews were read out in full, and then read again in order to grasp the finer details. In the second stage, initial codes were generated and meaningful paragraphs were open coded. In the third stage, both researchers searched for themes among the codes, leading to categorisation based on similarities. In the fourth stage, overall themes were assigned and reviewed, leading to the fifth stage which involved defining and naming the themes. In this stage, the framework of the theory of planned behaviour was applied to explore the themes (in relation to attitudes, subjective norms and perceived behavioural control). The third researcher (GK), an expert in the field of psychology, was involved in the process of categorising and interpreting the data. After the second focus group, the two researchers discussed the initial findings with the third researcher in terms of which themes were as expected, and any new themes were discussed.

Data analysis was supported by means of the software program ATLAS.ti 7.0 (Scientific Software Development GmbH Berlin). Based on the outcomes of these stages, the final report was produced in the sixth and final stage of the analysis.

3.4. Ethical considerations

The study followed the prevailing guidelines for ethical approval in the Netherlands (CCMO website, 2017). Consent was obtained with the participants' positive response to an email requesting study participation, which included information about the study and the study aims. Anonymity of the respondents was guaranteed. Data and results could not be traced back to individual participants.

Table 1
Demographic characteristics of HIV-nurses N (%).

Characteristic (N =22)		
Age (yrs)	Mean (range)	50 (28–64)
Gender	Female	14 (64%)
Sexuality	Heterosexual	15 (68%)
Years in clinical practice (yrs)	Mean (range)	12 (2–25)
Provider type	HIV nurse*	12 (55%)
Training received in discussing sexuality	Yes	13 (59%)

*Note: *The remaining 10 were HIV nurse practitioners.*

4. Results

4.1. Participants

Of 25 selected HIV nurses who were approached by e-mail, 22 participated in our study. Three HIV nurses declined to participate citing lack of time. Fourteen of the 22 participants were women (all heterosexual) and eight were men (one heterosexual). They were aged between 28 and 64, and they had, on average, worked in HIV care for 12 years (range 2–25 years). They worked in 17 of the 26 specialised HIV treatment centres. The characteristics of the HIV nurses are described in Table 1.

The discussion of sexual risk behaviour by HIV nurses was found to be influenced by seven themes (Table 2). These themes are presented according to the three determinants of the theory of planned behaviour, namely attitudes towards the discussion of sexual risk behaviour, perceived norms about the discussion of sexual risk behaviour, and perceived behavioural control with regard to the discussion of sexual risk behaviour. A fourth category comprises external variables. The themes are described below and illustrated with relevant quotes.

Table 2
Determinants that influence whether or not sexual risk behaviour is discussed.

TPB classification	**Themes**
Attitude	1. Dealing with embarrassment 2. Striving for an equal relationship with the patient
Perceived norms	3. Changing professional role of the HIV nurses 4. When to raise a topic 5. Prioritising abundance of relevant topics
Perceived behavioural control	6. Confidence in capacity to discuss HIV-related topics
External variables	7. Connecting with patients through similarities in individual characteristics

4.2. Attitudes towards the discussion of sexual risk behaviour

4.2.1. Dealing with embarrassment

HIV nurses experienced feelings of embarrassment and a sense of discomfort regarding the idea of discussing sexual risk behaviour. These feelings often created a barrier to the discussion of sexual risk behaviour. Participants were particularly uncomfortable about the intimate aspect of discussing sexual risk behaviour. As one HIV nurse put it, 'I often think: Who am I to ask the patient about such an intimate matter? Why should they [the patients] share that with me?' Furthermore, talking about sexual risk behaviour 'out of the blue' was assumed to cause feelings of embarrassment in participants. As one participant put it: 'If the patient himself starts talking about sexuality, I feel less embarrassed about discussing this than when I bring up the subject myself.'

Due to these kinds of experiences, most participants tried to find some sort of reason for introducing the subject of sexuality: 'I regularly use some introductory remarks to make me feel more comfortable discussing sex.' Alternatively, HIV nurses attempted to put the patient at ease verbally and non-verbally, for example by asking open questions in a non-judgemental way. One participant gave the following example: 'I intentionally use open questions and try to be as specific as I can in communicating sexual risk behaviour by using the words bare backing, or by specifically mentioning ejecting semen into the anus, group sex, fisting, or rimming.' Other HIV nurses said that they specifically ask the patient's permission to talk about the subject during the consultation instead of using open questions.

4.2.2. Striving for an equal relationship with the patient

HIV nurses stated that they did not want to be patronising. They considered being equal to be the basis for a trusting relationship with their patient and a prerequisite for high-quality health care. They expressed the fear that a patient might stop showing up for his appointments if they were too patronising or did not give the patient the feeling of being an equal. Having a relationship of trust with a patient was mentioned as both a facilitator and a barrier in terms of discussing sexual risk behaviour. As one participant explained: 'There are patients I have given counselling to for more than ten years. I know them so well, that makes it difficult to bring up this topic'. Another participant said: 'In fact, I dare to ask about sex because I've known my patients for a long time and I can weigh up the situation in terms of whether they can handle this kind of subject or not'.

4.3. Perceived norms regarding the discussion of sexual risk behaviour

4.3.1. The changing professional role of HIV nurses

In recent years, the role of the HIV nurse has shifted, with half of the group specialising in order to be able to combine nursing and medical care. The participants believed that discussing sexual risk behaviour is clearly part of their job, due to the relationship between HIV and sexuality. This perceived norm was mostly supportive of discussing sexual risk behaviour. This is in line with the guidelines of the national professional organisations in health care which stipulate that HIV nurses need to discuss sexual risk behaviour. On the one hand, one participant stated: 'I believe that we, as nurses, should be able to freely and openly discuss HIV and sex, and should, in fact, be open to discussing it over and over again.' On the other hand, participants also explained that even though they are aware of the norm to discuss sexual risk behaviour, they nevertheless sometimes still avoid this topic: 'To me it's not clear what I need to discuss exactly about this topic, or how thoroughly I should explore it. It was more a matter of personal interest [affinity with the topic in relation to the specific patient] whether or not I brought up this topic. After I followed a course, I became more aware of this.'

4.3.2. When to raise a topic

While HIV nurses believe that it is their role to discuss sexual risk behaviour, it is less clear to them how, when, and how often the topic should be raised. The uncertainty felt in relation to their consultations was handled using different strategies. Among some HIV nurses, this sometimes leads to talking about irrelevant issues: 'With patients that have been in care for many years, I expect to know everything, and then we just chitchat.' One participant mentioned that, among colleagues, they decided to make sexual risk behaviour a key topic to be discussed annually: 'We realised that we don't discuss this topic often, but one year ago we decided to discuss this topic during an evaluation session that we would plan one year after the patient started to attend consultations.' The importance of discussing sexual risk behaviour was also highlighted by another participant, who summed up her concerns: 'They have been treated for a sexually transmitted infection and have a low HIV viral load and still continue their sexual risk behaviour. At least they will not infect someone else in the near future.'

4.3.3. Prioritising an abundance of relevant topics

Participants also mentioned the need to address many different topics whilst providing HIV care. This is as a consequence of changes in the health care requirements of the population of HIV-positive patients, many of whom are healthy but aging. Our participants indicated that, in their experience, many of their colleagues prioritise other health topics over the discussion of sexual risk behaviour, due to the abundance of relevant and important topics that should be discussed. Patients visit the outpatient clinics less frequently, and when they do, other health topics are prioritised during the consultation: 'Sometimes we intentionally leave out this subject [sexual risk behaviour] because of other important matters, such as cardiovascular disease.'

Another important barrier to discussing sexual risk is the perceived norm of observing time constraints in relation to consultations. Participants state that there is often insufficient time to start discussing such a sensitive topic, particularly in light of all the other topics that need to be discussed. 'Since the new guidelines, patients visit our clinic less frequently. In practice, they come twice a year, and sometimes, if they call instead of visiting, I see them only once a year. As a result, I do not have enough time during the consultation to discuss this topic.'

4.4. Perceived behavioural control in the discussion of sexual risk behaviour

4.4.1. Confidence in capacity to discuss HIV-related topics

Skills were mentioned as a prerequisite for effective communication by several participants. Even though all HIV nurses are fully qualified for their jobs and have attended education programs specifically tailored to HIV nurses, they also need to feel confident that they are able to convey this knowledge to the patient in a way that he will understand. Specifically, participants indicated using motivational interviewing as a technique that helped them in the discussion of sexual risk behaviour: 'I probably apply motivational interviewing techniques myself. I use some elements of the technique to explore the patient's willingness to use a condom.'

Apart from conversation techniques, knowledge was also seen as an important factor influencing the discussion of sexual risk behaviour. In particular, knowledge about sexuality and drugs was mentioned as a requirement for any

discussion about sexual risk behaviour. A participant illustrated this as follows: 'I realise that since I attended a training course by Mainline [Dutch authority providing training on drugs], I specifically talk to patients about drugs and use the names, such as speed, GHB and XTC or some other drug in combination with Kamagra or Viagra, and I also ask if they are top or bottom. I think that in this way, I can better understand what risks they take.'

Most HIV nurses who participated in the focus group discussions considered attending training courses to be important. Several nurses indicated that the training gave courses provided them with skills as well as knowledge and the confidence to discuss the relevant topics more easily. For example, as one nurse mentioned: 'The [sex addiction] training course made it easier for me to talk about sexuality.'

4.5. External variables influencing the discussion of sexual risk behaviour

4.5.1. Connecting with patients through similarities in individual characteristics

One factor found to negatively influence whether participants discussed sexual risk behaviour was experience of a limited connection with certain patients, due to a perceived distance based on the participant's own age, gender or sexual orientation. Younger participants seemed to find it more difficult to bring up the subject with older patients, and vice versa. The following comment reflects how older HIV nurses are struggling with the age of the patient: '... for me, a patient's age is of significance in terms of talking about it easily; I am somewhat older myself and find it difficult to connect to the younger generation of men who have sex with men.'

The participants also had the impression that gender plays a role in discussing sexual risk behaviour with patients. They felt that men who have sex with men find it more difficult to discuss sexual risk behaviour with a female than with a male HIV nurse. The female participants mentioned that this sometimes influenced whether or not they started a discussion about sexual behaviour ; they thought men who have sex with men would be better understood in a male-to-male conversation: 'I feel that men who have sex with men do not want to talk to me about sex due to the fact that I'm a woman, so that's why I don't always bring it up.' As another participant put it: 'I am almost 30 years older than some of my patients and therefore I am not fully aware of and up-to-date with new trends, such as the dating app Grindr. Furthermore, as a woman, I am not versed in some of the topics this patient group deals with and therefore I sometimes have trouble finding an appropriate way to start the conversation.'

Moreover, participants who are themselves men who have sex with men regarded their sexual orientation as an advantage when it comes to discussing sexual risk behaviour: 'I think it is an incredible advantage that I am in the same scene, I recognise experiences of my patients and have practical knowledge of the topics they discuss.' However, the only heterosexual male participant did not regard his sexual orientation as a disadvantage. 'I am an expert in the area of sexual risk behaviour and try to explicitly discuss this with my gay patients. I do not think it is an issue that I am a straight man myself.'

5. Discussion

The current study explored which barriers and facilitators influence whether or not Dutch HIV nurses' discuss sexual risk behaviour with HIV-positive men who have sex with men.

Our finding that Dutch HIV nurses experience barriers in discussing sexual risk behaviour is in line with previous studies conducted in other parts of the world with nurses who have less specialised roles (Morin et al., 2004; Johnson et al., 2008; Gardner et al., 2008; Mayer et al., 2004; Gerbert et al., 1999). However, we did find some differences in relation to the current context.
Our data suggests that time constraints were interpreted differently by HIV nurses. This difference can be explained by the burgeoning number of topics that need to be discussed in view of the increasing average age of the HIV population, co-morbidities, the recent shift in prevention strategies of onwards transmission, and the changing role from HIV nurse to nurse practitioner.

Although HIV nurses working in the Dutch HIV centres, (specialised in delivering care to HIV-positive patients) are the designated professionals responsible for discussing sexual risk behaviour with HIV-positive men who have sex with men, we found that some Dutch HIV nurses feel embarrassed and experience discomfort when bringing up the topic of sexuality with their patients. This indicates that the personal norms and values of HIV nurses are more relevant in terms of their ability to talk about sexual risk behavior than the rather liberal norms of the society that they are a part of. Dutch society is generally known for its open-minded attitude regarding topics such as sexual behavior and it might therefore be expected that Dutch HIV nurses would feel comfortable in dealing with these topics. However, our data suggests that this is not always the case.

To reduce these feelings of discomfort, some nurses indicated that they would only discuss sexual risk behaviour if this topic was first brought up by the patient. Our findings show that one way to address this barrier could be for HIV nurses to broach other subjects – for example drug use – as a conversational 'bridge' in order to prepare the way for starting a discussion on sexual risk behaviour. It may be beneficial for nurses to first practice this approach in dedicated training courses, in which standard starting points for opening a discussion on this topic could be provided. The preparation of leaflets that include example sentences may also help nurses to start this type of conversation.

Having a long-term relationship of trust with their patients and being new in the field were both factors that led to difficulties in discussing sexual risk behaviour – the first because of knowing the patient too well and the latter due to not knowing the patient well enough to bring up this subject. Furthermore, novice HIV nurses lack the skills and experience necessary to talk about this topic, which suggests that they need specific training on how to discuss sexuality. At the same time, novice nurses need to develop their own professional attitude while gaining general experience in the field. Advanced HIV nurses could use a predetermined list of topics – or use another topic as a conversational 'bridge' that leads to a discussion of sexual risk behaviour.

Currently, Dutch HIV nurses receive education designed to provide the knowledge and skills required for discussing various topics, including sexual risk behaviour. Surprisingly, the training course that nurses mentioned as being most useful – and leading to high intentions to discuss sexual risk behaviour – did not specifically address sexual risk behaviour but rather focused on drugs. Interestingly, participants mentioned that discussing drug use could be used as a starting point for discussing sexual risk behaviour. The fact that this training course was mentioned (rather than one of the other specialised courses) suggests that current educational programs need to be evaluated and potentially modified and updated. This suggestion is in line with a previous study indicating that the fast changes in the field of HIV care and HIV prevention necessitate a need to modify courses more often than is presently the case (Mimiaga et al., 2007). We found that external variables such as age, gender and sexual orientation appear to influence whether or not sexual risk behaviour is discussed.

Specifically, younger nurses and male HIV nurses seemed to be more at ease with this topic, in particular if they are themselves men who have sex with men. This could be because they feel able to communicate more easily with this group of patients, or because they have more affinity with this topic, or because they have better or different relationships with these patients, e.g. more trusting

or more at ease. Of course, an HIV nurse's sexual orientation, age, or gender cannot be influenced, but female or older HIV nurses could receive additional assistance to help them form better connections with patients who they do not automatically identify with, or be trained in ways to communicate with these patients that would feel more natural. A specific example of what HIV nurses could discuss during consultation (in terms of the behaviours involved and the possible risks) is the use of apps, such as Grindr, for meeting sexual partners. Knowing the right jargon and more about the lifestyle of HIV-positive patients who are men who have sex with men is likely to be helpful in terms of discussing this topic more easily and in more depth.

The HIV nurses' confusion about the norms among their peers and managers regarding the importance of discussing sexual risk behaviour indicates that it is important to clarify the role and responsibility of HIV nurses, in order for them to provide patients with the health care they need. To achieve this, they need to be able to dedicate sufficient time and create the ideal setting for discussing sexual risk behaviour. By doing so, not only will HIV nurses improve the individual patient's health care and be able to address their specific needs, but they will also contribute to the community as a whole by preventing further HIV and STI transmission. These findings suggest a need for a re-evaluation of the current guidelines, in particular the structure of consultations, and the time available for individual consultations.

The intentions of Dutch HIV nurses regarding the discussion of sexual risk behaviour with HIV positive men who have sex with men are influenced by different facilitating and hindering factors that, from a theoretical perspective, are consistent with the theory of planned behaviour. First, embarrassment and the need to strive for an equal relationship with the patient were emerging themes that are related to attitudes. Second, themes applicable to perceived norms were related to the HIV nurses' understanding that discussing the topic is part of the changing professional role of the HIV nurses. Perceived norms were also related to timing (when to raise the topic), and nurses' difficulties in prioritising the abundance of relevant topics that could or should be discussed during consultations.

Finally, confidence in the capacity to discuss sexual risk behaviour – and possession of the relevant knowledge and skills – were related to perceived behaviour control. While the present study focused on factors that influence whether or not HIV nurses discuss the topic of sexual risk, the exact content of this discussion is open to debate. The discussion of sexual risk behaviour can be considered from many different angles. (Brawner et al., 2016). In relation to reducing the number of sexually transmitted infections, such a conversation should involve several topics. HIV nurses could discuss sexual behaviours in general, and how these affect risks for sexually transmitted infections – for example, the number of partners, sexual acts, drug use, and disclosure of serostatus or viral-load to partners. HIV nurses could discuss the patient's own behaviour and possible risk reduction strategies, such as PrEP for their HIV-negative partners, condom use, strategic positioning, or how to successfully sero-sort.

Our current study has shed light on several factors which appear to influence the discussion of sexual risk behaviour. Future research could investigate which of these factors are most important, and how these factors might interact to influence the discussion of sexual risk behaviour. It is also worth noting that there are many options available in terms of the discussion of sexual risk behaviour, some of which may be more appropriate for certain patient groups (for example men who have sex with men), and others which may be easier for HIV nurses from a particular demographic to implement. It is important to further investigate the circumstances in which sexual risk behaviour is discussed, what exactly is discussed, and how effectively this topic is discussed.

The findings of this study present an opportunity for improving sexual health care among HIV-positive men who have sex with men by helping HIV nurses to improve the frequency and quality of any discussion of sexual risk behaviour with their patients. Achieving an understanding of the factors that influence whether or not this topic is discussed is essential groundwork for further research. Quantitative research is therefore necessary to assess the themes and to validate the most important determinants.

5.1. Strengths and limitations

It should be noted that the 22 HIV nurses that participated in this study were not from all regions of the Netherlands. However, the participants did work in various hospitals with different levels of urbanisation, and it is possible that this difference in level of urbanisation could have influenced whether ot not the HIV nurses' discussed sexual risk behaviour. For example, levels of stigmatisation could be higher in regions with lower urbanisation levels. However, the different levels of urbanisation were adequately represented in this study. The lead researcher in this study is an experienced HIV nurse practitioner, who sees patients regularly and who has learned to critically assess current nursing care of HIV patients by carrying out indepth research. As the researcher is an active member of this target group, a clear strength of this project is that members of the target group were very willing to participate and were able to see the importance of this research topic. A possible limitation is that the researcher's expectations – which her colleagues may have been more sensitive to – could have influenced the results To counter any effect of experiment bias, another researcher took on the role of moderator in the focus groups. This moderator is an experienced researcher in qualitative research and is also familiar with the field of HIV care in the Netherlands. This experience enabled the moderator to provide continuity in conducting the focus groups. Moreover, as she was less well known to the nurses, she was less likely to influence the participants' responses to the topics discussed. In our study, we did not investigate barriers and facilitators related to discussing sexual risk behaviour from the perspective of the patients (i.e. HIV-positive men who have sex with men), but rather from the perspective of the HIV nurses. Future research should explore patient perspectives in order to understand how patients experience discussing sexual risk behaviour with their HIV nurse, and to gather their opinions on how this could be improved.

6. Conclusion

Our findings indicate several important themes that influence whether or not HIV nurses discuss sexual risk behaviour with their patients (HIV-positive men who have sex with men). To improve the frequency and quality of discussions about sexual risk behaviour, our data suggests it would be beneficial to support HIV nurses by developing skills, tools, and guidelines in relation to what is discussed and how. Using a related topic as a conversation 'bridge' could assist nurses in broaching this subject. External variables such as age, gender and sexual orientation appear to influence whether or not sexual risk behaviour is discussed.

Knowing the right jargon and being familiar with the lifestyle of HIV-positive patients who are men who have sex with men may encourage nurses to discuss this topic more easily and in more depth. We suggest that further research should also explore patients' perspectives on discussing sexual risk behaviour with their nurse.

References

Ajzen, I. (2015). The theory of planned behaviour is alive and well, and not ready to retire: a commentary on Sniehotta, Presseau, and Araújo-Soares. Health Psychol. Rev. 9 (2), 131–137.

Bartholomew Eldredge, L.K., Markham, C.M., Ruiter, R.A.C., Fernández, M.E., Kok, G., Parcel, G.S. (2016). Planning Health Promotion Programs: An Intervention Mapping Approach, 4th edition. Jossey-Bass, San Francisco, CA ISBN-13: 978–1119035497.

Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101. http://dx.doi.org/10.1191/1478088706qp063oa.

Brawner, B.M., Alexander, K.A., Fannin, E.F., Baker, J.L., Davis, Z.M. (2016). The role of sexual health professionals in developing a shared concept of risky sexual behavior as it relates to HIV transmission. Public Health Nurs. 33, 139–150. http://dx.doi.org/10.1111/phn.12216.

CCMO website. (http://www.ccmo.nl/en/non-wmo-research).

Carter Jr., J.W., Hart-Cooper, G.D., Butler, M.O., Workowski, K.A., Hoover, K.W. (2014). Provider barriers prevent recommended sexually transmitted disease screening of HIV-infected men who have sex with men. Sex. Transm. Dis. 41 (2), 137–142. http://dx.doi.org/10.1097/OLQ.0000000000000067.

Centre for disease control and prevention (CDC), 2003. Incorporating HIV Prevention into the Medical Care of Persons Living with HIV. Recommendations of CDC, the Health Resources and Services Administration, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America. MMWR Recomm. Rep. 52, 1–24.

Cohen, M.S., Chen, Y.Q., McCauley, M., Gamble, T., Hosseinipour, M.C., Kumarasamy, N., et al. (2011). Prevention of HIV-1 infection with early antiretroviral therapy. N. Engl. J. Med. 365 (6), 493–505. http://dx.doi.org/10.1056/NEJMoa1105243.

Crepaz, N., Marks, G. (2002). Towards an understanding of sexual risk behavior in people living with HIV: a review of social, psychological, and medical findings. AIDS 16 (2), 135–149. http://dx.doi.org/10.1097/00002030-200201250-00002.

East, L., Hutchinson, M. (2013). Moving beyond the therapeutic relationship: a selective review of intimacy in the sexual health encounter in nursing practice. J. Clin. Nurs. 22, 3568–3576. http://dx.doi.org/10.1111/jocn.12247.

Fishbein, M., Ajzen, I. (2010). Predicting and Changing Behavior: The Reasoned Action Approach. Taylor & Francis, New York. Gardner, L.I., Metsch, L., Strathdee, S.A., del Rio, C., Mahoney, P., Scott, D., et al., 2008. Frequency of discussing HIV prevention and care topics with patients with HIV: influence of physician gender, race/ethnicity, and practice characteristics. Gend. Med. 5 (3), 259–269. http://dx.doi.org/10.1016/j.genm.2008.08.002.

Gerbert, B., Love, C., Caspers, N., Linkins, K., Burack, J.H. (1999). Making all the difference in the world: how physicians can help HIV-seropositive patients become more involved in their healthcare. Aids Patient Care STDS 13 (1), 29–39. http://dx.doi.org/10.1089/apc.1999.13.29.

Johnson, W.D., Diaz, R.M., Flanders, W.D., Goodman, M., Hill, A., Holtgrave, D., et al. (2008). Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. Cochrane Database Syst. Rev. CD001230. http://dx.doi.org/10.1002/14651858. CD001230.pub2.

Marks, G., Richardson, J.L., Crepaz, N., Stoyanoff, S., Milam, J., Kemper, C., et al. (2002). Are HIV care providers talking with patients about safer sex and disclosure?: a multiclinic assessment. J. AIDS 16 (14), 1953–1957. http://dx.doi.org/10.1097/00002030-200209270-00013.

Mayer, K.H., Safren, S.A., Gordon, C.M. (2004). HIV care providers and prevention: opportunities and challenges. J. AIDS 37 (Suppl. 2), S130–S132. http://dx.doi.org/10.1097/01.qai.0000140613.66887.0.

McCormack, S., Dunn, D.T., Desai, M., Dolling, D.I., Gafos, M., Gilson, R., et al. (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. Lancet 387 (10013), 53–60. http://dx.doi.org/10.1016/S0140-6736(15)00056-2.

Mimiaga, J.M., Goldhammer, H., Belanoff, C., Tetu, A., Mayer, K. (2007). Men who have sex with men: perceptions about sexual risk, HIV and sexually transmitted disease testing, and provider communication. Sex. Transm. Dis. 34 (2), 113–119. http://dx.doi.org/10.1097/01.olq.0000225327.13214.bf.

Morin, S.F., Koester, K.A., Steward, W.T., Maiorana, A., McLaughlin, M., Myers, J., et al. (2004). Missed opportunities: prevention with HIV-infected patients in clinical care settings. J. AIDS 36 (4), 960–966. http://dx.doi.org/10.1097/00126334-200408010-00010.

Myers, J.J., Steward, W.T., Charlebois, E., Koester, K.A., Maiorana, A., Morin, S.F. (2004). Written clinic procedures enhance delivery of HIV prevention with positives counselling in primary health care settings. J. AIDS 37 (Suppl. 2), S95–S100. http://dx.doi.org/10.1097/01.qai.0000140607.36393.d3.

Professional Association of Dutch HIV nurses, 2015. Expertisegebied HIV. http://www.venvn.nl/Portals/1/Nieuws/2015%20documenten/20151127%20Expertisegebied%20verpleegkundig%20consulent%20hiv.pdf?timestamp=1448636704299.

Richardson, J.L., Milam, J., McCutchan, A., McCutchana, A., Stoyanoff, S., Bolan, R., et al. (2004). Effect of brief safer-sex counselling by medical providers to HIV-1 seropositive patients: a multi-clinic assessment. AIDS 18 (8), 1179–1186. http://dx.doi.org/10.1097/00002030-200405210-00011.

SOA Aids Nederland, 2013. Onder Controle: Strategie Voor De Aanpak Van Soa's En Hiv Onder MSM in Nederland 2013-2018. Soa Aids Nederland.

Scott, H., Klausner, J. (2016). Sexually transmitted infections and pre-exposure prophylaxis: challenges and opportunities among men who have sex with men in the US. AIDS Res. Ther. 13, 5. http://dx.doi.org/10.1186/s12981-016-0089-8.

Steward, W.T., Koester, K.A., Myers, J.J., Morin, S.F. (2006). Provider fatalism reduces the likelihood of HIV-prevention counselling in primary care settings. AIDS Behav. 10 (1), 3–12. http://dx.doi.org/10.1007/s10461-005-9024-z.

The Dutch HIV Monitoring Foundation [Dutch: Stichting HIV Monitoring], 2016. Monitoring Report 2016. Human Immunodeficiency Virus (HIV) Infection in the Netherlands. Retrievable from. http://www.hiv-monitoring.nl/nederlands/onderzoek/monitoring-reports/.

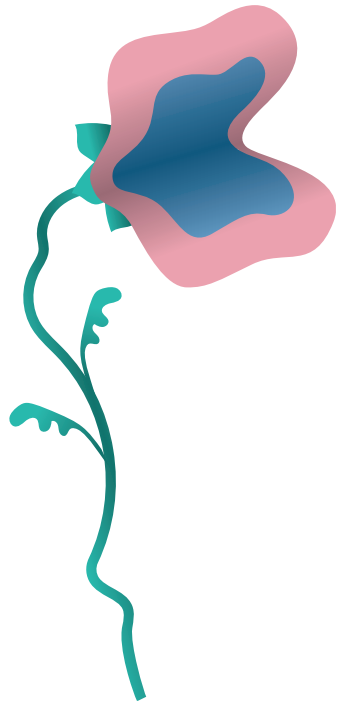
Vervoort, S.C.J.M., Dijkstra, B.M., Hazelzet, E.E.B., Grypdonck, M.H.F., Hoepelman, A.I.M., Borleffs, J.C.C. (2010). The role of HIV nursing consultants in the care of HIVinfected patients in Dutch hospital outpatient clinics. Patient Educ. Couns. 80 (2), 180–184. http://dx.doi.org/10.1016/j.pec.2009.11.016. Epub 2009 Dec 31.

Vervoort, S.C.J.M. (2009). Adherence to HAART. A Study of Patients' Perspectives and HIV Nurse Consultants' Strategies. dissertation University of Utrecht, The Netherlands Printed: Enschede Gildeprint drukkerijen BV.

Visser, M., Van Aar, F., van Oeffelen, A.A.M., Van den Broek, I.V.F., Op de Coul, E.L.M., Hofstraat, S.H.I., Heijne, J.C.M., et al. (2016). Sexually Transmitted Infections Including HIV, in the Netherlands in 2016. Centre for Infectious Disease Control, National Institute for Public Health and the Environment (RIVM), Bilthoven.

Widmer, E.D., Treas, J., Newcomb, R. (1998). Attitudes toward nomarital sex in 24 countries. J. Sex Res. 34 (4), 349.

Chapter 4
From intention to STI prevention: An online questionnaire on barriers and facilitators for discussing sexual risk behaviour among HIV nurses



Suzanne de Munnik, Sigrid C.J.M, Vervoort, Heidi S.M. Ammerlaan, Gerjo Kok, Chantal den Daas

The Journal of Advanced Nursing (JAN) May 23 2017; 73; 2953 -2961
DOI: 10.1111/jan.13372

CRediT authorship contribution statement:
Suzanne de Munnik: Writing – original draft, methodology, formal analysis, conceptualization. **Sigrid Vervoort**: validation, writing- review & editing, methodology, conceptualization, supervision. **Heidi Ammerlaan**: Methodology, visualization, writing – review & editing. **Gerjo Kok**: Methodology, data curation, writing – review & editing, supervision. **Chantal de Daas**: Methodology, data curation, conceptualization, writing – review & editing, supervision.

Abstract

Aims: We aimed to elucidate facilitators and barriers that HIV nurses experience in discussing sexual risk behaviour with HIV-positive men who have sex with men, using variables from a previous qualitative study and the theory of planned behaviour.

Background: HIV-positive men who have sex with men are frequently diagnosed with sexually transmitted infections, which can be reduced if HIV nurses discuss sexual risk behaviour.

Design: An online questionnaire was disseminated in April 2015 among all HIV nurses in the Netherlands.

Methods: We assessed variables, such as attitudes, shame, ability, knowledge and time concerns. A regression analysis was conducted with "intention to discuss sexual risk behaviour" as an outcome variable.

Results: The questionnaire was completed by 60 of 79 HIV nurses. Overall, participants reported high intentions to discuss sexual risk behaviour, and 38% of the variance was explained by attitude, sexual preference, knowing ways to introduce the topic and experiencing enough time or viewing it as a priority. In addition, high intenders significantly differed from low intenders in "experienced shame," "relation with patients," "non-verbal communication," "subjective norm" and "knowledge."

Conclusion: Improving sexual health in HIV care translates into improving opportunities and the facilitating factors in initiating the discussion of sexual risk behaviour rather than removing barriers HIV nurses experience. Interventions should mainly focus on improving the HIV nurses' perceived ability to initiate the topic of sexual risk behaviour and to utilize the jargon and terminology that is commonly used among men who have sex with men.

Keywords

Consultation, counselling, healthcare providers, HIV/AIDS, men who have sex with men, nurse practitioners, nurses, patient–provider interaction, sexual risk behaviour, sexually transmitted infections

1. Introduction

To curb the persistently high incidence of sexually transmitted infections (STIs) among HIV-positive men who have sex with men (MSM), it is of paramount importance that these men are persuaded to discontinue or reduce sexual risk behaviour. In 2014, 76% of the HIV patients in the Netherlands were MSM of whom many (33.9%) were repeatedly diagnosed with one or more STIs (HIV Monitoring Foundation, 2014). This indicates that these MSM tend to engage in unprotected sex, leading to an increased risk of transmission of STIs in this group and their sexual partners. Additionally, in MSM, who have not reached undetectable viral load, sexual risk behaviour can result in the transmission of HIV (Cohen et al., 2011).

Recent shifts in the prevention of HIV transmission policy emphasize early initiation of combination antiretroviral treatment (cART), aiming an overall undetectable viral load as strategic riskreduction approach, clinical outcome indicating low transmission risk (Loutfy et al., 2013) and the in-the-near-future possible provision of pre-exposure prophylaxis (PrEP) to prevent HIV infections. In the Netherlands, 88% of the patients diagnosed with HIV who are in care, receive cART. Of them, 92% have an undetectable viral load within 6 months (HIV Monitoring Foundation, 2014). Another prevention strategy is PrEP, which has been tested effective to prevent HIV infections (Fonner et al., 2016). Notably, these efforts focus on preventing HIV transmission, not on STI transmission. Therefore, targeted efforts to counter the continuing high incidence of STIs among HIV-positive MSM are needed, such as counselling by HIV nurses.

Discussing sexual risk behaviour during HIV consultations has been shown to result in reduction of STIs among HIV-positive MSM (Richardson et al., 2004). Notably, the discussion could emphasize different topics such as transmission risks related to certain behaviours, prevention messages that increase the motivation and commitment of patients to protect their partners and themselves, or the risk of negative consequences of unsafe sexual behaviour (Crepaz & Marks, 2002; Johnson et al., 2008; Richardson et al., 2004). Discussing these different topics could be improved by interventions aiming to strengthen facilitators of the discussion of sexual risk behaviour or removing or reducing the barriers. There are already several interventions which have been shown to support the discussion of sexual risk behaviour. For example, brief provider-delivered safer-sex interventions are both feasible and effective (Richardson et al., 2004). Moreover, healthcare providers can play a significant role in helping patients to adopt and maintain healthy behaviours (Marks et al., 2002). Additionally, reducing STIs among HIV-positive MSM by discussing sexual risk behaviour leads to a better individual health and lower public health costs.

Therefore, national agencies and professional guidelines encourage healthcare providers to counsel HIV-infected patients about safer sex practices and transmission risks, including STIs (De Vries, Van Doornum, Bax, & Al, 2012).

Surprisingly, however, studies have shown that discussing sexual risk behaviour is still often neglected (Drainoni, Dekker, Lee-Hood, Boehmer, & Relf, 2009; Gardner et al., 2008; Laws et al., 2011; Mayer, Safren, & Gordon, 2004; Morin et al., 2004). This neglect seems not related to barriers, such as insufficient motivation of healthcare providers. Marks et al. (2002) reported effects of practical barriers as reasons, such as lack of structure and guidelines and lack of training of healthcare providers. Previous research also showed additional barriers experienced by healthcare providers for not discussing sexual risk behaviour such as time constraints, difficulty obtaining a patient's sexual history, language barriers and cultural barriers and patient confidentiality concerns that prevented routine STI screening (Carter, Hart-Cooper, Butler, Workowski, & Hoover, 2014). Moreover, healthcare providers seldom provide sexual risk reduction counselling in HIV care, even in the presence of specific indications, such as STI (Laws et al., 2011). Furthermore, patients are not as much engaged in discussions on sexual risk behaviour as they are in discussions on other health behaviours, such as tobacco use or eating habits (Gardner et al., 2008). Healthcare providers are also hampered in discussing sexual risk behaviour because of the notion that MSM will not change their behaviour regardless, an idea that is also known as provider fatalism (Gerbert, Love, Caspers, Linkins, & Burack, 2009).

Most studies emphasize barriers towards discussing sexual risk behaviour and were conducted in the USA therefore, they may not be generalizable to the situation in Europe. Specifically, in the Netherlands people have more liberal and open mindset towards sexuality, which could be a strong facilitator to discuss sexual risk behaviour. Confirmed by the Dutch having the highest ranking of the acceptance of same-sex sexual behaviour, with 69.6% who found that same-sex sexual risk behaviour is "not wrong at all" (Smith, 2011). Therefore, the Netherlands should be a front runner in the discussion of sexual risk behaviour in HIV consultations.

HIV-positive MSM have many opportunities for receiving information on sexual risk behaviour during the outpatient clinic consultations. They have approximately three times a year a consultation in one of the 26 specialized HIV treatment centres. During these consultations, the medical needs of MSM are discussed, their health is monitored and if necessary, they receive additional support and care from trained HIV nurses. HIV nurses are Registered Nurses specialized in HIV care.

Differences are seen in the educational level among them; some nurses with and some without a postgraduate qualification on a professional level (Master of Advanced Nursing Practice and/or academic level Master of Science). For HIV nurses, discussing sexual risk behaviour could be an important part of their professional role (de Munnik, den Daas, Raethke, Kok & Vervoort, 2014). Nevertheless, they also reported that the discussion of sexual risk behaviour was influenced by experiencing barriers such as discomfort, lack of trust, lack of guidelines and time constraints. These barriers influenced Dutch HIV nurses differently and hence they discuss sexual risk behaviour to different degrees and in markedly different ways. In the group of HIV nurses, there is variety in their role and which issues they discuss during consultations (de Munnik et al., 2014). Moreover, since a guideline for discussing sexual risk behaviour with HIV consultations is lacking, HIV nurses discuss this subject without direction (or guidance) and thus in different ways. As HIV nurses are specifically suited to discuss sexual risk behaviour, determinants that influence the discussion of sexual risk behaviour in this specific group might be characteristic for healthcare professionals in HIV care in general.

To improve the frequency and quality of HIV nurses' discussions of sexual risk behaviour with HIV-positive MSM, insight into the social-cognitive determinants that contribute or hamper discussing sexual risk behaviour is needed for the development of tailored tools for HIV nurses. The aim of this study was to investigate systematically the psychosocial determinants that affect the intention to discuss sexual risk behaviour by measuring these facilitators and barriers and assessing their relative importance. As previous research focused on investigating why sexual risk behaviour was not discussed, the emphasis was on barriers. In this study, both barriers and facilitators are included. Facilitator and barriers of HIV nurses' intentions will be identified by means of the protocol suggested by the theory of planned behaviour (Ajzen, 1991), which states that intention, one of the immediate determinants of behaviour, depends on three constructs: attitudes, subjective norms and perceived behavioural control and their underlying beliefs. Moreover, the theory of planned behaviour posits that these constructs also mediate influences of other factors, such as age, gender and education.

2. Methods

2.1 Design and procedure

An online self-reported questionnaire was offered by email to 79 of the total 85 HIV nurses in the Netherlands; six HIV nurses were excluded because they did not work with the target group. The email addresses were made available through the chairperson of the professional association (Nurse Consultants HIV-VCH), of which all Dutch HIV nurses are a member. All HIV nurses received an email in April 2015 through the questionnaire software "Easy Research." This email contained a direct link to the questionnaire.

After 2 weeks, an automatic reminder email was sent to all HIV nurses, who had not or had only partially completed the questionnaire. In the invitation, participants were assured of their privacy and of the confidentiality of their responses. Participants gave informed consent at the start of the questionnaire. Under Dutch law, Research Ethics Committee approval for this study was not necessary; as confirmed in this Dutch site (Central Committee Human Research), participation was voluntary and completely anonymous.

2.2 Questionnaire

To get insight into facilitators and barriers, which are important for the discussion of sexual risk behaviour, a questionnaire was developed consisting of 14 determinants. These determinants were derived from the theory of planned behaviour (Ajzen, 1991; Kok, 2014): attitude, subjective norm and perceived behavioural control. The remaining determinants were extracted from a qualitative focus group study among HIV nurses in the Netherlands (de Munnik et al., 2014). These determinants were also confirmed through literature (e.g. Carter et al., 2014; Drainoni et al., 2009).

The items were measured using 7-point Likert scales with the end points labelled as *1 = does not apply to me at all* and *7 = completely applies to me unless indicated otherwise*:

1. Attitude towards discussing sexual risk behaviour was measured using four semantic differentials (i.e. "Discussing sexual risk behaviour with HIV-positive MSM is: positive-negative, useful–not useful, appropriate-inappropriate, important-unimportant"; a = .82).

2. Subjective norm was measured with eight items; a = .72. Specifically, we measured perceived importance of prevention (five items) and whether HIV nurses perceived the discussion of sexual risk behaviour as part of their professional role (three items). Examples: "I think it is important to discuss sexual risk behaviour with an HIV-positive MSM to reduce negative health outcomes" and "The discussion of sexual risk behaviour with HIV-positive MSM is part of my job."
3. Perceived behavioural control was measured with questions on knowledge (four items) and ability (five items). Examples are "I am not sufficiently familiar with the use of the guideline sexual health" (recoded) and "My experience has given me enough skills to discuss sexual risk behaviour with HIV-positive MSM"; a = .77.
4. Five items measured verbal and non-verbal communication aiming to convey openness. Example: "I watch my body language when discussing sexual behaviour with an HIV-positive MSM"; a = .62.
5. Initiation of the topic was measured with five items. Example: "I often use topics that are addressed as a bridge to discussing sexual risk behaviour"; a = .71.
6. The interpersonal relation was measured with 12 items a = .85. Specifically, we measured shame with six items. Example: "I sometimes find it uncomfortable to discuss sexual risk behaviours with an HIV-positive MSM"; and the direct relation with the HIV-positive MSM was measured with six additional items. Example: "I have a good relationship of mutual trust with most HIV-positive MSM patients".
7. Motivation to discuss sexual risk behaviour was measured with six items. Example: "In my opinion, HIV-positive MSM are not interested in discussing sexual risk behaviour" (recoded); a = .76.
8. Time concerns were measured with four items. Example: "Other topics often have priority over the discussion of sexual risk behaviour with HIV-positive MSM" (recoded); a = .72.
9. The influence of similarity was measured with seven items. Example: "I think the more you have in common with HIV-positive MSM the more smoothly the conversation will go"; a = .80.
10. The intention to discuss sexual risk behaviour was measured with three items: "I think that I discuss sexual risk behaviour with HIV-positive MSM more often than other colleagues." "In general, I have the intention to discuss sexual risk behaviour with HIV-positive MSM." "How often do you decide to skip the discussion of sexual risk behaviour?" (recoded); a = .76. These questions were summed to obtain an intention score (1–7, 1–7, 1–5; range 3–19).

Some additional variables were measured to analyse their possible unique contribution to predicting intention, such as gender, age, professional function (nurse consultant or nurse practitioner), sexual preference (heterosexual, homosexual, or other), years of experience, hospital the participant was employed at and self-reported participation in the focus groups (de Munnik et al., 2014). Finally, we assessed whether participants had taken one or more of the four available facultative courses related to sexual health: a specialized drug use and HIV-related course (Mainline), a course on motivational interviewing, a 3-day course and/or a 10-day course on sexuality-related diagnoses, such as loss of libido or addiction to sexual risk behaviour.

2.3 Data analysis

Items were recoded if necessary so that higher scores indicated a positive relationship with discussing sexual risk behaviour. Items were averaged into one single concept when they showed sufficient internal consistency (Cronbach's alpha a>.60). We performed a regression analysis with "intention to discuss sexual risk behaviour" as an outcome. In addition, "intention" was dichotomized by categorizing scores above the mean as high intentions scores and scores below the mean were categorized as low intention. An independent t-test on specific beliefs was performed. For the analysis, IBM SPSS (version 20.0.0.0) was used.

3. Results

3.1 Participants

Of the 79 HIV nurses in the Netherlands, 60 (76%) completed the online questionnaire. The 60 respondents (47 women; Mage = 47.90 SD 9.19) worked in 22 of 26 HIV treatment centres in the Netherlands, 33 as HIV nurse consultant and the remaining 27 as a nurse practitioner. In total, 45 respondents (75%; 43 women) were identified as heterosexual and 87% had completed at least one of the courses on sexual health. Respondents worked in this field for an average of 13 years (SD 9.30). First, we report the expected relations among the social-cognitive variables, between the social-cognitive variables and the intention to discuss sexual risk behaviour. Next, the possible influences of the other variables were explored and the differences on item level are described in detail. Table 1 presents the means, SDs and correlations between the study variables.

Table 1

Means, standard deviations (SDs) and correlations between study variables (N = 60)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Intention													
2. Attitude	.40**												
3. Subjective norm	.33**	.37**											
4. Self-efficacy	.29*	.22	.20										
5. Communication	.29*	.29*	.49*	.57**									
6. Initiation	.40**	.07	.47**	.50**	.46**								
7. Interpersonal relation	.24	.17	.19	.45**	.25	.18							
8. Time	.33*	.28*	.11	.20	.01	.03	.34**						
9. Motivation	.20	.44**	.18	.09	.25	.19	.17	.31*					
10. Similarity	.15	.40**	.13	.26*	.31*	.05	.45**	.32*	.35**				
11. Sex (men = 1; women = 0)	.27*	.15	.09	.19	.13	.04	.02	.00	.02	.16			
12. Sexual preference (homo = 1; hetero = 0)	.36**	.14	.09	.17	.03	.02	.06	.06	.01	.20	.72**		
13. Mainline course (yes = 1; no = 0)	.34**	.15	.16	.36**	.33**	.28*	.07	.12	.26*	.07	.23	.29*	
Mean score	13.67	6.15	6.01	5.59	5.89	5.30	5.62	4.20	5.34	5.29	21.7%	25%	55%
SD	2.46	0.76	0.58	0.73	0.58	0.90	0.78	0.91	0.89	0.96	0.42	0.44	0.50

**Correlation is significant at the .05 level (two-tailed).*
***Correlation is significant at the .01 level (two-tailed).*

3.2 Prediction of intention to discuss sexual risk behaviour

Intentions to discuss sexual risk behaviour with HIV-positive MSM were high (M = 13.67 SD 2.46, range 5–19). Intention was predicted in a regression with the TPB variables: attitudes, subjective norm and perceived behavioural control (see Table 2). The percentage of explained variance was 23%, with attitudes as the only significant variable. Adding communication, initiation, interpersonal relation, time, motivation and similarity to the regression increased the percentage explained variance to 38%, with initiation, attitude and time as the most salient variables.

Possible influences of the other variables were analysed by selecting variables with a significant direct relation with intention and subsequently adding these to the regression analysis (see Table 2). Age, function, years of experience and the courses (either taken or not taken or several courses) were not significantly related to intention, except the mainline course. Table 2 reports the additional variables with a significant unique relation with intention: gender, sexual preference and having taken the mainline course. Adding these variables increased the explained variance to 48%. However, these variables did not reach significance in the multivariate regression model.

Table 2

Determinants associated with the intention to discuss sexual risk behaviour (N = 60)

		r	Beta in step 1	Beta in step 2	Beta in step 3
Step 1	Attitude	.40**	.29*	.35*	.30*
	Self-efficacy	.33**	.19	.10	.22
	Subjective norm	.29*	.19	.05	.01
	R^2		.23		
Step 2	Communication	.29*		.09	.09
	Initiation	.40**		.38*	.41**
	Interpersonal relation	.24		.11	.10
	Time	.33*		.30*	.28*
	Motivation	.20		.12	.15
	Similarity	.15		.12	.00
	R^2			.38	
Step 3	Sex (women = 0; men = 1)	F = 4.59*			.01
	Sexual preference (hetero = 0; homo = 1)	F = 8.79**			.27
	Mainline course (no = 0; yes = 1)	F = 7.74**			.15
	R^2				.48

**p < .05,*
***p < .01, beta = standardized regression coefficient, r = correlation coefficient, R^2 = explained variance.*

3.3 Differences between high intenders' and lower intenders' beliefs

Table 3 shows the differences in means between low (N = 28) and high intenders (N = 32) about all the beliefs underlying the significant scales in the regression analyses; all variables were recoded and higher scores indicated higher intentions.
In addition, differences between high and low intentions groups were for self-efficacy and sexual preference approaching significance (p < .20).

Table 3

Differences in means between high and low intenders on all beliefs (Nhigh = 32, Nlow = 28)

		High intention	Low intention[a]
Attitudes	Discussing SRB with HIV positive MSM. . .		
	is positive-negative	6.41	5.79**
	is useful-not useful	6.44	5.43**
	is appropriate-inappropriate	6.41	5.50**
	is important-unimportant	6.69	6.32*
Self-efficacy	I am able to discuss SRB	6.53	5.96*
	I have enough knowledge to discuss SRB	6.16	5.54*
	I am able to convert embarrassing moments	5.75	5.25
	My experience offers me enough skills to discuss SRB with HIV-positive MSM	5.47	5.39
	My work experience is helpful when discussing SRB by HIV-positive MSM	6.16	5.93
	I sometimes lack the right words from the scene (jargon), therefore I do not discuss SRB with HIV-positive MSM [R]	5.19	4.61
	I am not sufficiently familiar with the use of the guideline sexual health [R]	5.22	5.29
	It is difficult for me to apply my knowledge to discuss SRB in HIV-positive MSM [R]	6.06	5.36*
	When I notice problems I apply other counselling techniques	5.41	5.21
	Initiation I use bridge to initiate discussions about SRB with an HIV-positive MSM	5.22	4.86
	I often take the initiative to discuss SRB with an HIV-positive MSM	5.72	5.29
	I discuss SRB only when the HIV-positive MSM brings it up [R]	6.31	5.86
	I discuss SRB regularly without immediate cause	5.41	4.61*
	I often use topics that are addressed as a bridge to discuss SRB	4.81	4.79
Time	I discuss SRB in HIV-positive MSM less because		
	I see them less frequently [R]	5.69	4.04**
	I sometimes feel pressure from colleagues to discuss SRB by HIV-positive MSM more often [R]	6.34	5.54*
	Other topics often have priority over the discussion of SRB by HIV-positive MSM [R]	4.19	3.50*
	I often lack time to discuss SRB with an HIV-positive MSM [R]	5.34	4.07**
	Besides SRB other topics have to be discussed that take priority	5.59	5.11
	Usually, in my department after a visit with the medical doctor a nurse is seen	5.19	4.68

[a]Differences were tested with independent sample t-tests,
**p < .05; **p < .01; R = recoded; SRB = sexual risk behaviour.*

The higher intention group comprised more homosexual (or MSM) HIV nurses than the lower intention group: 37.50% vs. 10.71%, v2(1) = 5.71, p < .02. Non-heterosexuals were more likely to be male, v2(1) = 31.46, p < .01, and to have taken the mainline course, v2(1) = 5.05, p < .03. Additionally, investigating separate beliefs, homosexuals indicated that their gender made discussing sexual risk behaviour easier since they knew the right jargon or terminology to talk to HIV-positive MSM and they had the ability and time to discuss sexual risk behaviour and to deal with embarrassing moments (ps < .05). However, gender did not differ between the high and low intention groups, we will come back to this finding in the discussion.

4. Discussion

This study showed that the intentions of HIV nurses to discuss sexual risk behaviour were influenced by facilitators and barriers derived from the theory of planned behaviour, our focus groups study and the literature. Even though intentions to discuss sexual risk behaviour were uniformly high, facilitators among HIV nurses were positive attitudes, a high-perceived self-efficacy and believing that their level of knowledge and ability to discuss sexual risk behaviour was sufficient.

Another facilitator was if HIV nurses indicated that they were able to discuss sexual risk behaviour without immediate cause; this was especially true for HIV nurses with high intentions. In our study, we found more facilitating determinants than determinants that were barriers towards discussing sexual risk behaviour. The exception is that high intenders experienced less interference from barriers, such as time concerns and having other priorities during the consultations they have with HIV-positive MSM.

Consistent with previous studies, we found that recognizing the importance of discussing sexual risk behaviour was a facilitator, while experiencing a lack of time was a barrier for discussing sexual risk behaviour (Carter et al., 2014; Drainoni et al., 2009; Morin et al., 2004). Notably, effects of this barrier, experiencing priority and time constraints, is strongly associated with recent changes in the role of HIV nurses in HIV care, together with the shift in HIV prevention strategies. The role of HIV nurses changed due to the priority of dealing with co-morbidities among HIV-positive MSM, because of the success of HIV treatments in this ageing population. During consultations, additional medical topics and discussing lifestyle take time at the expense of discussing sexual risk behaviour. Moreover, the shift in HIV prevention requires that other

aspects are discussed, when aiming to reduce the amount of STIs in HIV-positive MSM. HIV nurses can discuss the number of sex partners, kinds of sexual acts, party drug use, whether or not to disclose one's serostatus or viral load to sex partners and discuss how these affect risks for STIs and the possibility to change behaviour. During counselling other risk reduction strategies, such as PrEP for their HIV-negative partners, condom use, strategic positioning, or how to serosort successfully, could be discussed.

Unlike previous research, we found a facilitator, in the ability to initiate the topic of sexual risk behaviour, which positively affected the intentions of HIV nurses, meaning that high intenders bring up the topic more easily. An intervention using this facilitator aiming to improve HIV nurses' ability to bring up this topic among those who still find it difficult to discuss sexual behaviour unexpectedly, is, therefore, an option. A tailor-made intervention assists HIV nurses in initiating the discussion of sexual risk behaviour, which give them the opportunity to discuss this topic more thoroughly and effectively. The advantage of this intervention is that it is not dependent on the patient or context but can be initiated by the HIV nurse.

As an additional facilitator, we found higher intentions to discuss sexual risk behaviour among homosexual HIV nurses. Sexual preference was confounded by gender, however, we found that sexual preference drove the effect, such that homosexual males and not males, in general, had higher intentions to discuss sexual risk behaviour. This association affected several facilitating determinants: having taken the mainline course, perceiving the discussion of sexual risk behaviour as easier, knowing the right jargon or terminology to talk to HIV-positive MSM and finally perceiving to have the ability to discuss sexual risk behaviour. Furthermore, barriers such as a lack of time and experiencing embarrassing moments were less a barrier among this group.

Interventions could target these underlying facilitators and barriers that influence the effect of sexual preference on intention. For example, interventions could aim to provide heterosexual HIV nurses with the necessary knowledge of the target group's social context and help them to use the jargon to facilitate discussion. Concerning the social context, the typical homosexual context could be discussed, such as specific locations MSM like to visit, specific parties and often-used social media and apps. A limitation of this study is the limited number of participants, which reduced the power of our study. However, a strength of this study is the high response rate of 76% of the total eligible population of HIV nurses in the Netherlands. Unfortunately, the group of HIV nurses in the Netherlands is small, which made it impossible to include more HIV nurses.

Second, since HIV care is particularly well organized in the Netherlands, our results might not generalizable to other HIV care settings in the world. In the Netherlands, HIV care is concentrated in specialized HIV treatment centres. Interdisciplinary teams having strong ongoing collaborations with non-profit organizations with a focus on sexual health, provide opportunities to roll out strategic interventions easily. In addition, the social context in the Netherlands is more liberal and open than in other countries in general and specifically about the discussion of sexual risk behaviour (Widmer, Treas, & Newcomb, 1998). Despite the differences in the context of care, HIV-positive MSM anywhere in the world have similar basic needs and they are at risk for becoming infected with STIs. Thereby, in spite of the more liberal context, the majority of HIV nurses, even while having high intentions to discuss sexual risk behaviour, are hampered by several barriers. Most of these barriers can be generalized to other healthcare providers working in this field.

Third, because HIV care is dynamic, due to the ongoing developments in the HIV field, barriers that are experienced now might change rapidly and new barriers and facilitators could arise. Therefore, to convert our results to tailored interventions might be difficult. The present study however captured recent changes in the field, making it possible to adjust guidelines on the cutting edge of these developments. For instance, during the dissemination of the questionnaire initial findings about the reduction of HIV transmission infectiousness as a result of the early initiation of cART and the introduction of Prep were published (Grinsztejn et al., 2014; Landovitz & Coates 2014).

A final limitation of our study is that intention and not behaviour was assessed. Due to the well-known gap between intention and behaviour, HIV nurses who display high intentions may still not discuss sexual risk behaviour with their patients in daily practice (Webb & Sheeran, 2006). Future research should focus on what HIV nurses discuss during consultations, to understand the impact of verbal and non-verbal communication on the behaviour of patients better. HIV nurses have high intentions to discuss sexual risk behaviour, which is a good start. An observational study investigating how these intentions are translated into daily practice and which interventions can assist HIV nurses to improve frequency and quality of discussing sexual risk behaviour is needed. Ultimately, to curb the high STI's rates among HIV-positive MSM and to improve their sexual health.

5. Conclusion

HIV nurses found that discussing sexuality is an inherent part of their role. Ultimately, improving the sexual health of HIV-positive MSM in HIV care seems to be more a question of improving opportunities, strengthening facilitators and removing or reducing barriers in the current context than of motivating HIV nurses. In contrast to previous studies, the current study included both facilitators and barriers and found that the intention to discuss sexual risk behaviour primarily was influenced by the strength of facilitating factors and not the strength of the experienced barriers. Interventions should mainly focus on improving the HIV nurses' perceived ability to initiate the topic of sexual risk behaviour and to use the jargon and terminology that is commonly used among MSM.

References

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50, 179–211.

Carter, J. W. J. R., Hart-Cooper, G. D., Butler, M. O., Workowski, K. A., & Hoover, K. W. (2014). Provider barriers prevent recommended sexually transmitted disease screening of HIV-infected men who have sex with men. Sexual Transmitted Diseases, 41, 137–142.

Cohen, M. S., Chen, Y. Q., MCCauley, M., Gamble, T., Hosseinipour, M. C., Kumarasamy, N., . . . Fleming, T. R.; Team H. S. (2011). Prevention of HIV-1 infection with early antiretroviral therapy. New England Journal of Medicine, 365 6, 493–505.

Crepaz, N., & Marks, G. (2002). Towards an understanding of sexual risk behavior in people living with HIV: A review of social, psychological and medical findings. AIDS, 16, 135–149.

De Vries, H. J. C., Van Doornum, G. J. J., Bax, C. J., & Al, E. (2012). Multidisciplinaire Richtlijn Seksueel Overdraagbare Aandoeningen voor de 2e Lijn [Online]. Retrieved from www.huidarts.info:Nederlandse Vereniging voor Dermatologie en Venereologie (NVDV).

Drainoni, M. L., Dekker, D., Lee-Hood, E., Boehmer, U., & Relf, M. (2009). HIV medical care provider practices for reducing high-risk sexual behavior: Results of a qualitative study. AIDS Patient Care STDS, 23, 347–356.

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 pre-exposure prophylaxis (PrEP) for all populations: A systematic review and meta-analysis. AIDS 30(12), 1973–1983.

Gardner, L. I., Metsch, L., Strathdee, S. A., Del Rio, C., Mahoney, P., & Holmberg, S. D.; For the Antiretroviral Treatment and Access Studies (ARTAS) Study Group. (2008). Frequency of discussing HIV prevention and care topics with patients with HIV: Influence of physician gender, race/ethnicity and practice characteristics. Gender Medicine 5 (3), 259–269.

Gerbert, B., Love, C., Caspers, N., Linkins, K., & Burack, J. H. (2009). "Making all the difference in the world": How physicians can help HIV-seropositive patients become more involved in their healthcare. AIDS Patient Care STDS, 13(1), 29–39.

Grinsztejn, B., Hosseinipour, M. C., Ribaudo, H. J., Swindells, S., Eron, J., Chen, Y. Q., . . . TEAM, H. A. S. (2014). Effects of early versus delayed initiation of antiretroviral treatment on clinical outcomes of HIV-1 infection: Results from the phase 3 HPTN 052 randomised controlled trial. Lancet Infectious Diseases, 14, 281–290. HIV monitoring Foundation. (2014). Monitoringrapport 2014. HIV infectie in Nederland.

Johnson, W. D., Diaz, R. M., Flanders, W. D., Goodman, M., Hill, A. N., Holtgrave, D., . . . McClellan, W. M. (2008). Behavioral interventions to reduce risk for sexual transmission of HIV among men who have sex with men. Cochrane Database Systematic Review, 3, CD001230.
Kok, G. (2014). A practical guide to effective behavior change. The European Health Psychologist, 16(5), 156–170.

Landovitz, R. J., & Coates, T, J. (2014). Moving HIV PrEP from research into practice. The Lancet Infectious diseases. 14(9), 781–783. Laws, M. B., Bradshaw, Y. S., Safren, S. A., Beach, M. C., Lee, Y., Rogers, W., & Wilson, I. B. (2011). Discussion of sexual risk behavior in HIV care is infrequent and appears ineffectual: A mixed methods study. AIDS Behavior, 15(4), 812–822.

Loutfy, M. R., Wu, W., Letchumanan, M., Bondy, L., Antoniou, T., Margolese, S., . . . Rochon, P. A. (2013). Systematic review of HIV transmission between heterosexual serodiscordant couples where the HIV-positive partner is fully suppressed on antiretroviral therapy.

PLoS ONE, 8(12), 10.1371. Retrieved from: http://journals.plos.org/plosone/article?id=10.1371/annotation/aa7792b2-f841-4b23-a808-384ba1b35ae4

Marks, G., Richardson, J. L., Crepaz, N., Stoyanoff, S., Milam, J., Kemper, C., . . . McCutchan, A. (2002). Are HIV care providers talking with patients about safer sex and disclosure?: A multi-clinic assessment. AIDS, 16(14), 1953–1957.

Mayer, K. H., Safren, S. A., & Gordon, C. M. (2004). HIV care providers and prevention: Opportunities and challenges. Journal of Acquired Immune Deficiency Syndrome, 37(2), 130–132.

Morin, S. F., Koester, K. A., Steward, W. T., Maiorana, A., McLaughlin, M., Myers, J. J., . . . Chesney, M. A. (2004). Missed opportunities: Prevention with HIV-infected patients in clinical care settings. Journal of Acquired Immune Deficiency Syndrome, 36(4), 960–966.

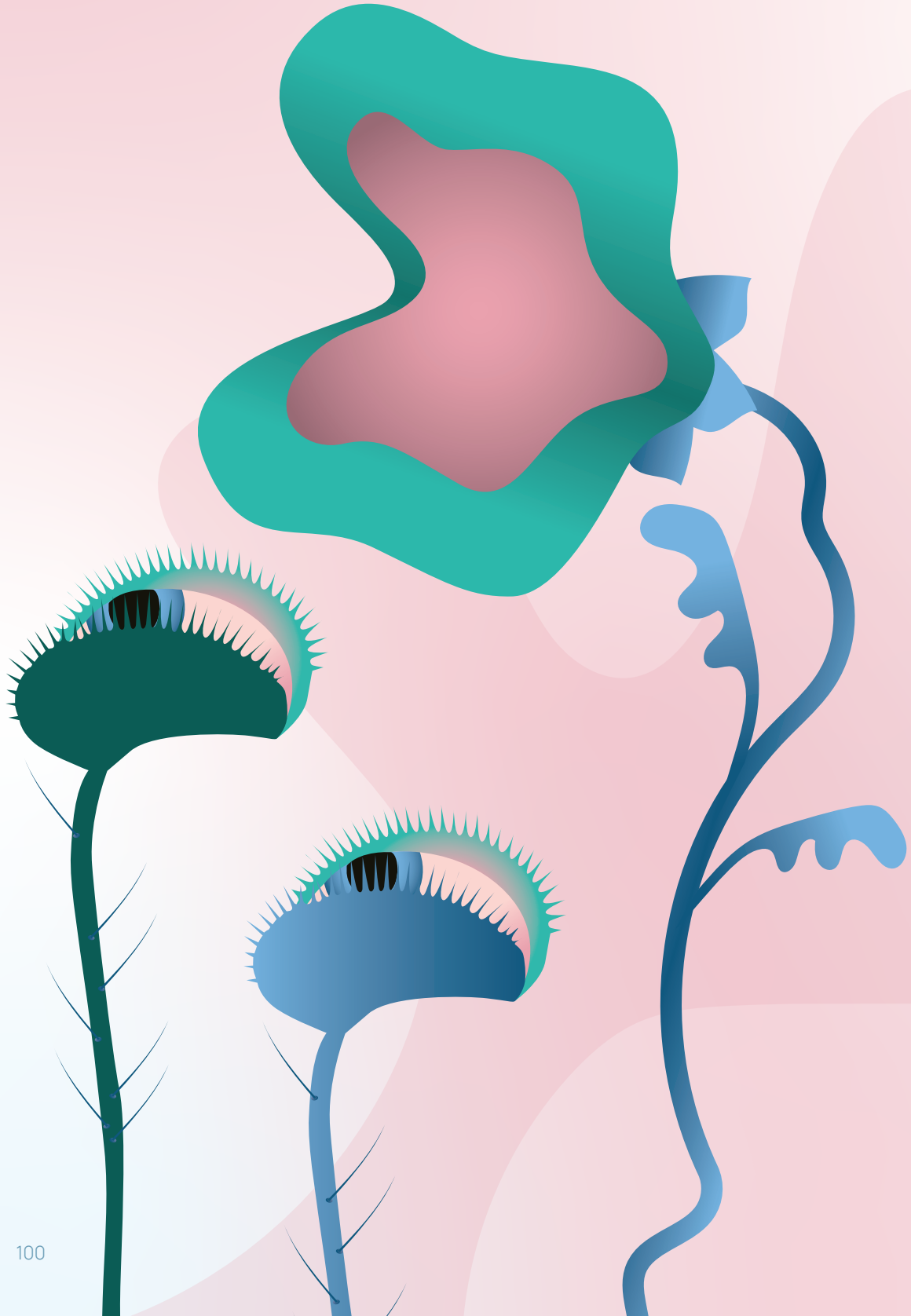
de Munnik, S., den Daas, C., Raethke, M., Kok, G., & Vervoort, S. C. J. M. (2014). Let's talk about sex: A qualitative study showing that discomfort and lack of structure prevent HIV nurses from discussing sexual risk behaviour.

Richardson, J. L., Milam, J., McCutchan, A., Stoyanoff, S., Bolan, R., Weiss, J., . . . Marks, G. (2004). Effect of brief safer-sex counseling by medical providers to HIV-1 seropositive patients: A multi-clinic assessment. AIDS, 18(8), 1179–1186.

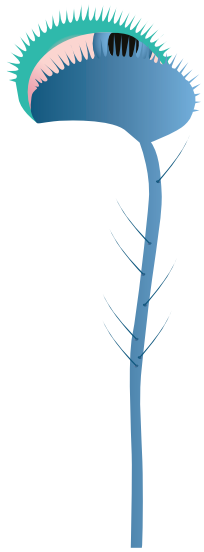
Smith, T. W. (2011). Cross-national differences in attitudes towards homosexuality. UCLA: The Williams Institute. Retrieved from: https://escholarship.org/uc/item/81m7x7 kb.

Webb, T. L., & Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. Psychological Bulletin, 132(2), 249–268.

Widmer, E. D., Treas, J., & Newcomb, R. (1998). Attitudes toward nonmarital sex in 24 countries. The Journal of Sex Research, 35(4), 349–358.



Chapter 5
Observations of Communication Practices Between Men Who Have Sex With Men With HIV and HIV Specialist Nurses During Routine Consultations Regarding Sexual Health Counseling in the Netherlands: A Qualitative Study



Suzanne de Munnik, MSc; Chantal den Daas, PhD; Heidi Sophia Maria Ammerlaan, PhD; Gerjo, Kok, PhD professor, John de Wit PhD professor and Sigrid Cornelia Johanna Maria Vervoort, PhD.

Journal of the Association of Nurses in AIDS Care
February 18. 2025. DOI: 10.1097/JNC.0000000000000525

CRediT authorship contribution statement:
Suzanne de Munnik: Conceptualization & methodology, formal analysis, investigation, project administration, writing – original draft. **Chantal den Daas**: Conceptualization & methodology, investigation, writing – original draft, supervision **Heidi Ammerlaan**: Writing/revising, validation. **Gerjo Kok**: Formal analysis, supervision. **John de Wit**: supervision methodology, formal analysis, writing – review & editing, formal Analysis, supervision. **Sigrid Vervoort**: Conceptualization & methodology, investigation, writing – original draft,validation, supervision.

Abstract

This study investigated how HIV specialist nurses communicate with men who have sex with men with HIV during routine consultations with a focus on sexual health counseling in the Netherlands. In this multicenter observational study, 16 video-recorded consultations from four HIV treatment centers were analyzed. Verbatim transcriptions were analyzed to assess the topics discussed, the duration of consultations, time spent on sexual health counseling, and specific issues covered. Communication skills were evaluated through a predefined framework. The findings indicated inconsistent coverage of sexual health, varied topics, and a lack of structure. Various communication skills and techniques were applied inconsistently. Given these findings, we recommend implementing communication strategies during routine consultations to improve the quality of sexual health counseling, especially for men who have sex with men with HIV. This is essential to improve the quality of sexual health counseling for persons with HIV, especially men who have sex with men.

Key words

Communication, consultation, HIV, men who have sex with men, nurse, sexual health.

5

Introduction

Sex is the primary route of HIV transmission worldwide, and fear of transmission can negatively affect the intimacy, sexuality, and health-related quality of life of people with HIV (PWH); Peyre et al., 2019; Shey et al., 2020). PWH experience multiple difficulties related to sex (De Vincentis et al., 2021; Peyre et al., 2019), including loss of libido and erectile dysfunction (Huntingdon et al., 2020a). Moreover, some PWH report engaging in sexual risk behavior, and studies of men who have sex with men with HIV (MSMWH) have shown that approximately 40% of these individuals report ongoing sexual behaviors that are associated with HIV transmission, and 39–66% report recent condomless anal sex with a partner (Basten et al., 2018; Hess et al., 2017). These risks may have evolved in the era of Undetectable = Untransmittable (U=U), where PWH who have an undetectable viral load cannot transmit the virus (Rodger et al., 2016). However, not all PWH are aware of their diagnosis or have an undetectable viral load, and these conversations may not always be reliable. Therefore, prevention efforts remain crucial.

Men who have sex with men with HIV are a key population for sexually transmitted infections (STI's) (Refugio & Klausner, 2018). In the Netherlands, most STIs are diagnosed among MSMWH (66%), and more than one third of MSMWH are repeatedly diagnosed with an STI (Van Sighem et al., 2023). The high prevalence of sexual health problems, chemsex, sexual behaviors that are associated with HIV and STI risk, and STIs among MSMWH highlights the importance of sexual health counseling (SHC), including during routine HIV consultations.

Sexual health, encompassing biological, psychological, and social aspects, is crucial for a good quality of life and is an integral part of health-related quality of life (Nimbi et al., 2021). However, sexual health is often overlooked or avoided by both providers and individuals. The specific needs of MSMWH related to sexual health are diverse. Specifically, this key population faces multiple issues, including fear of HIV transmission to a partner, disclosure of one's HIV status to a partner, stigma, and body image changes (De Vincentis et al., 2021). In addition, to effectively identify areas of concern, care providers must also have the necessary skills to discuss sexual health effectively, even when it is not prioritized.

Background

Research has shown that individuals and care providers sometimes find it difficult to initiate discussions on sexual health (Fair et al., 2018; O'Connor et al., 2019; Zhang et al., 2020). Both individuals and care providers express a need to discuss sexual health; however, personal and practical barriers prevent them from initiating these discussions (Kelder et al., 2022; Mintz & Moore, 2022; Zhang et al., 2020). Little research has been conducted on SHC during routine HIV consultations; the limited research available has shown that sexual health is rarely discussed (Flickinger et al., 2013). Without sexual health communication, sexual health problems may go unnoticed for PWH, advice cannot be given, a treatment plan cannot be established, and psychosocial implications cannot be addressed. In the current setting of standard HIV consultations with HIV specialist nurses, the guidelines suggest that sexual health should be a topic of discussion. However, it remains unclear in what manner, how frequently, and specifically what content should be addressed according to the guidelines (European AIDS Clinical Society, 2024).

A study on SHC provided by Dutch HIV care providers showed that most HIV physicians and HIV specialist nurses reported addressing sexual health (Munnik et al., 2022). However, HIV specialist nurses were more likely to focus on sexual well-being, whereas physicians mainly discussed sexual health from a biomedical perspective. Nevertheless, this and other available studies do not provide information about which sexual health issues are discussed during HIV consultations, who raises sexual health issues, whether problems are identified and explored, and which interventions, if any, are initiated (De Munnik et al., 2017). Moreover, most studies on SHC for PWH from a provider perspective were based on self-reported measurements and consumer (patient) questionnaires, without examining communication between HIV care providers and PWH during routine consultations (Huntingdon et al., 2020b; Stanton et al., 2019).

Analyzing individual nurse–client communication could clarify what happens during routine HIV consultations and provide insights to improve SHC. Several studies have reported a positive association between intervention and communication outcomes, for example, information exchange behavior and improved health outcomes (Rao et al., 2007; Udvardi, 2019). De Haes and Bensing (2009) suggested a six-function model of medical communication based on the integration of earlier models. This model distinguishes (a) fostering the relationship, (b) gathering information, (c) providing information, (d) making decisions, (e) enabling diseaserelated and treatment-related behavior, and (f) responding to emotions and underscoring that effective nurse–individual

(patient) communication contributes to achieving the best outcomes for individuals. This model has much in common with the earlier models regarding the main features of effective, person-centered communication, which is very well summarized by King and Hoppe (2013). The necessity for person-centered communication has become more prominent in health care, particularly with the advent of the biopsychosocial model. This approach involves delving into and comprehending an individual's perspective and psychosocial context, establishing a shared understanding of the problem and its treatment, and actively involving the individual in decision making. Specifically, King and Hoppe (2013) added communication skills to their model to achieve these communication functions and developed a framework linking communication functions to the skills needed to achieve effective communication (Table 1). The communication framework of King and Hoppe (2013) can be flexibly modified on the basis of individuals, diseases, and health care settings. In addition to verbal communication (King&Hoppe, 2013), nonverbal cues—such as eye contact, facial expressions, and body posture—are crucial elements of effective interactions. These nonverbal behaviors are just as important as verbal communication during consultations and have a significant effect on health outcomes (D'Agostino & Bylund, 2014; Hall et al., 2019). Nonverbal behavior is essential to understanding clinical interactions (Mast, 2007). Compared with Western Caucasian individuals, East Asian individuals are reported to engage less in mutual gaze during social interactions because of the sociocultural norm of "gaze avoidance." In East Asian cultures, an averted gaze often signifies respect. Conversely, in Western cultures, mutual gaze during social interactions is perceived as a positive indication of attention and interest (Akechi et al., 2013; Haensel et al., 2021). Moreover, research shows that the use of computers during health care visits has a negative impact on doctor individual communication, including reduced eye contact (Noordman et al., 2010) and less attention by the physician to the individual on the basis of the physician's gaze and body posture (Asan et al., 2015). Nonverbal behavior, encompassing all aspects of communication beyond words, plays a crucial role during consultations between individuals and care providers. A significant amount of information is conveyed through these nonverbal cues (Udvardi, 2019).

Table 1

Skills Related to Communication

Function of Medical Communication and Skills	
Fostering the relationship	Greet patient appropriately
	Maintain eye contact
	Listen actively
	Encourage patient participation
	Use appropriate language
	Show interest in the patient as a person
Gathering information	Ask open-ended questions
	Elicit the patient's perspective on the problem/illness
	Clarify and summarize information
	Elicit the patient's full set of concerns
	Explore the full effect of the illness
	Inquire about additional concerns
	Allow the patient to complete their responses
	Listen actively
Providing information	Encourage questions and check understanding
	Give uncomplicated explanations and instructions
	Avoid jargon and complex terms
	Emphasize key messages
	Explain the nature of the problem and the approach to diagnosis/treatment
Making decisions	Outline choices
	Explore the patient's preferences and understanding
	Discuss follow-up and plan for unexpected outcomes
	Identify and enlist resources and support
	Encourage the patient to participate in decision making
	Reach an agreement
Enabling disease and treatment related behavior	Assess the patient's readiness to change their health behaviors
	Elicit the patient's goals, ideas, and decisions
Responding to emotions	Acknowledge and explore emotions
	Express empathy, sympathy, and reassurance
	Provide help in dealing with emotions
	Assess psychological distress

Note. Adapted from the Model of King and Hoppe (2013). Reproduced with permission from the Journal of Graduate Medical Education. Based on the Model of de Haes and Bensing and Applied to Routine HIV Consultation.

Methods and Purpose

This study aimed to explore communication between HIV specialist nurses and MSMWH during routine HIV consultations in the Netherlands, particularly with respect to sexual health issues. Specifically, this study aimed to gain insight into whether, what, and how sexual health issues are discussed during routine HIV consultations and to better understand communication during routine HIV consultations through the adapted communication model of King and Hoppe (2013).

Design, Participants, and Setting

This study used a qualitative descriptive design. In the Netherlands, approximately 24,000 known PWH receive care in 1 of 24 specialized HIV treatment centers, where they see a physician for their medical needs and an HIV specialist nurse for additional care, including SHC (Van Sighem et al., 2023). Dutch HIV specialist nurses have a general nursing background (i.e., they are registered nurses) and have completed an additional course focusing on HIV care, including discussions of sexual health and motivational interviews.

The sample consisted of HIV specialist nurses working at one of the 24 HIV treatment centers. HIV specialist nurses were eligible if they had more than 1 year of experience in HIV care and if they were older than 18 years. Participants were recruited from the membership list of the national organization of nursing consultants in HIV care, which includes all 86 HIV specialist nurses in the Netherlands. Ten potential participants from six different hospitals were invited through email to participate. Among these potential participants, four declined to participate because of a lack of time or discomfort with being recorded.

Data Collection

In this study, video–audio recordings of standard consultations with HIV specialist nurses were the main method of data collection. These interactions rely upon the interplay of talking and visual observation through video recordings, which provide a wealth of information (verbal and nonverbal) to help explain the different modes of interaction (Davitti, 2018). Recordings of routine consultations between HIV specialist nurses and individuals receiving HIV care were obtained between October 2016 and March 2017. PWH are still negatively affected by a wide range of health-related issues, including sexual health–related problems, such as STIs, hormonal problems, a lack of libido, and general sexual dissatisfaction (Safreed-Harmon et al., 2022). Identifying and addressing these issues in routine HIV care provided by HIV specialist nurses may ultimately contribute to better health and health-related quality of life outcomes in this population. Although the results of our previous studies showed that HIV specialist nurses' intentions to discuss sexual behavior were consistently high, they still experienced barriers to discussing sexual health (De Munnik et al., 2017). Therefore, we used recordings that, although dated, are still relevant and provide us with valuable insights into the behavior (verbal/nonverbal) of HIV specialist nurses in their own practice settings. In addition, as of 2024, the current guidelines are still very limited in how and in what way sexuality should be best discussed to meet patients' needs.

HIV specialist nurses chose the days on which they recorded their consultations. All MSMWH scheduled for routine consultations were approached a week earlier by the HIV specialist nurses to explain our study and to ask if they wanted to participate. This gave the MSMWH time to consider participation. HIV specialist nurses were asked about their demographic characteristics, including their age, sex, sexual preference, years of experience, and training experience related to HIV. The camera was placed in a static position on top of the computer screen on the desk used for consultation, and recordings were started and stopped by the HIV specialist nurses; no other persons were present during the consultation. For privacy reasons, MSMWH were outside the camera focus, and only their voices were included in the recordings.

Data Analysis

The video data were analyzed by two researchers (S.M. and S.V.) through the video-based content analysis approach, a qualitative method of content analysis that focuses on both verbal and nonverbal communication, interaction, performance, and behavior (Huber & Froehlich, 2020). During the first phase, the total duration of the consultations, including the time spent on SHC, was determined and calculated. Before analyzing the visual data, both researchers watched the videos of the consultations to become familiar with the data. Footage was analyzed through the Roter interaction analysis system components, which focused on the facial expressions, body cues, and vocal indicators of the HIV specialist nurses (Roter&Larson, 2002). By coding these cues, we were able to capture not only the HIV specialist nurses' responses but also whether the HIV specialist nurses were taking a position or looking at the patient. Both researchers then independently analyzed the parts of the video footage in which sexual health was addressed. The observable performance, nonverbal communication, patterns, and context were described, noting the time frame

of the video recording in which it occurred and linked to the Roter interaction analysis system components. The findings of both researchers were compared and checked with the video material. Discrepancies were discussed until a consensus was reached. The researchers then compared their findings and reviewed the images together to check for similarities and completeness.

The audio part of the video recordings, in which sexuality was discussed, was transcribed verbatim, and personal identifiers were removed. Both researchers (S.M. and S.V.) read the transcripts in full and reread them to grasp the details. In the second stage, both researchers independently coded both the content and the process of the conversation in the transcripts. The text parts were initially labeled open by assigning the topic or content and the conversation elements. The analysis involved the use of questioning (open, closed, or probing questions), turn-taking, interrupting, structuring, giving space to respond, initiating the topic, using a bridge to discuss sexuality, determining the words used, probing and prompting, and acting reacting.

In the next phase, on the basis of the meaning of the codes and the content, the codes were sorted under the main overarching categories, resulting in a code tree (Figure 1). During this process, the researchers compared their coding. In cases of discrepancies, a consensus was reached after discussion. In the next phase, the two researchers separately assigned the codes of both the text and visual data into categories according to the model of King and Hoppe: the functions of medical communication and communication skills (Table 1). The categorization results of both researchers were discussed in a joint meeting with a third researcher (C.D.D.) to confirm the interpretations and reach a consensus. In the last phase, the findings were integrated and described within the categories of King and Hoppe's model.

During the data analysis, theoretical memos were made that supported the analysis process. Data analysis was supported by ATLAS.ti (Scientific Software Development GmbH Berlin, 2017). All the data were analyzed in their original language, with quotes being forward and backward translated by native speakers to ensure that the original meaning was accurately reflected. In addition, the researchers further examined the meanings of the words and the text in context after translation.

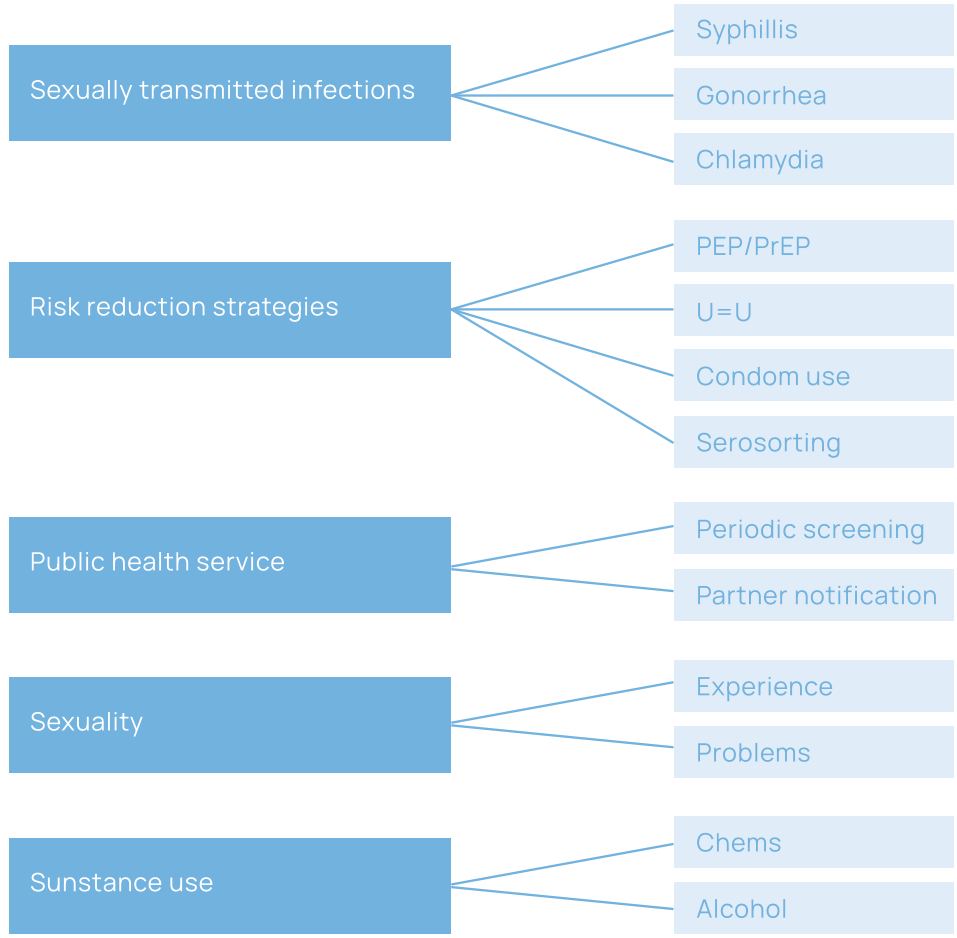


Figure 1
Code Tree Topics in the Context of Sexual Health Brought up During Routine HIV Consultations. PEP 5 post-exposure prophylaxis; PrEP 5 preexposure prophylaxis; U 5 U 5 undetectable 5 untransmissible.

Methodological Rigor

Methodological rigor and trustworthinesswere evaluated in terms of transferability, dependability, credibility, and confirmability (Johnson et al., 2020). In this study, transferability was achieved as much as possible through thick descriptions and the presentation of details of the participants and setting. Memos were written during the data analysis to document study developments and theoretical thoughts to enhance dependability. The research team consisted of a diverse team of psychologists, behavior scientists, a nurse practitioner, and a nurse

scientist, all with extensive experience in the HIV field, enhancing the credibility of the study. The researchers involved in the data analysis were familiar with the observed setting. In this study, we focused on the behavior of HIV specialist nurses in daily practice, specifically examining verbal and nonverbal behavior. We aimed to obtain a detailed picture of how and what HIV specialist nurses discuss as "naturally occurring" during real consultations. We analyzed the recordings of consultations in depth to gain insight into all layers of these conversations. We aimed for thick descriptions rather than data saturation (Braun & Clarke, 2019; Thorne, 2011). The researchers' triangulation during data analysis and peer debriefing with a third independent researcher enhanced the credibility and confirmability of the interpretations. The reflexivity of the researchers ensured confirmability. Critical reflections and discussions of personal thoughts and beliefs and whether they could affect the study were discussed within the research team. The authenticity of the study was reinforced by nurses initiating the study and facilitating direct recommendations for daily practice.

Ethical Considerations

The protocol was approved by the Medical Ethical CommitteeUnitedwith reference W19.068 and exempted from full medical ethics review under Dutch law. Before the recording started, both the HIV specialist nurses and theMSMWH provided written informed consent.

Results

The recordings (N 5 16) of four of the six participating HIV specialist nurses were analyzed. Owing to poor recording quality, the recordings of two specialized HIV nurses were excluded. Among the participants, two women and two men, between ages 33 and 56 years, had an average of 12 years of HIV care experience (range 1–22), and they worked in different hospitals.

Sexual Health Discussed During Routine HIV Consultations

Sexual health was not discussed in 4 of 16 consultations. The HIV specialist nurses spent only a short time discussing sexual health (less than 2:56 min). One notable exception was that one HIV specialist nurse spent 49% of one consultation on sexual health (Table 2). The following paragraph explains which sexual health topics were discussed, with the topics categorized according to the biopsychosocial model. This model implies that every sexual expression involves interactions among biological, psychological, and social factors and aims to provide comprehensive treatments to increase personal satisfaction and quality of life (Nimbi et al., 2021).

Table 2

Duration of Consultations, including the Time (min) and Percentage of Time Spent on Topics Related to Sexual Health.

Nurse and Consultation	No. of Sexual Health Counseling During	Duration of Interview (min/s) the Consultation	Time When Sexual Health Was Brought up (s)	Percentage of Time Spent on Sexual health
Nurse 1				
Consultation 1	2	27:20	39	2.38
			61	3.7
Consultation 2	0	22:00		0
Consultation 3	0	06:30		0
Consultation 4	1	18:48	40	3.5
Nurse 2				
Consultation 1	3	27:40	39	2.3
			383	23
			30	1.8
Consultation 2	2	18:20	28	2.5
			65	5.9
Consultation 3	1	28:13	825	48.7
Consultation 4	0	30:57		0
Nurse 3				
Consultation 1	2	23:50	43	3
			25	1.7
Consultation 2	1	29:00	99	5.7
Consultation 3	2	22:16	49	3.6
			84	6.3
Consultation 4	1	14:35	65	7.4
Nurse 4				
Consultation 1	1	21:36	176	13.6
Consultation 2	0	30:52		0
Consultation 3	3	29:50	29	1.6
			54	3.0
			29	1.6
Consultation 4	1	20:00	158	13.2

Sexual Health from a Biological Perspective

The topics discussed concerning the biological perspective were (testing for) STIs, burning sensations, erectile problems, masturbation, libido loss, and sexual dysfunction. Sexual dysfunction was mainly discussed from a medical perspective through questions about the prescription of Viagra, HIV medication side effects, and comorbidities. One HIV specialist nurse provided medical information about the interaction between medications used at the same time (sildenafil and emtricitabine/tenofovir alafenamide/elvitegravir/cobicistat); however, there was no communication about the psychosocial aspect of erectile problems. Instead, the HIVspecialist nurse changed the subject to drug use, as illustrated below.

Nurse (N): Are you currently taking any other medications or supplements, things you buy yourself, that sort of thing?
Participant (P): I'm only using sildenafil.
N: Emtricitabine/tenofovir alafenamide/elvitegravir/cobicistat and sildenafil can reinforce each other. You know that, right?
P: Yes, yes.
N: It's difficult to know sometimes how many milligrams a tablet contains, especially when you order it online.
P: Exactly.
N: What do you use? A half?
P: Exactly.
N: Does it have an effect?
P: I've had erectile problems since the beginning of this disease. Otherwise, I wouldn't be taking the stuff.
N: Yes, and how about other chems such as XTC, 3MMC and that sort of stuff? Are you using any of those? (Nurse 4, consult 3)

Psychological Aspects of Sexual Health

Attention to psychological factors related to sexual health during the consultations was limited. The topics related to this factor that were mentioned during the consultations were transmission risk (risk perception), relationships, and condomless sex. The HIV specialist nurses rarely explored the individuals' sexual needs or well-being. Sometimes, HIV specialist nurses asked an open-ended, in-depth question, immediately followed by gathering information through multiple questions exploring sexual risk behavior. Three nurses asked for detailed information about multiple partners and partner notifications linked to transmission risk. However, the individuals' answers never led to a more detailed conversation about sexual health.

The topic of "condom use" was introduced by the HIV specialist nurses. All of the nurses addressed condom use, sexual preference, and HIV status. In the following consultation, the patient answered one of three parts of the nurse's question; the other questions remained largely unanswered.

P: I feel okay, but now that I'm unemployed, I sometimes feel a bit lonely.
N: You haven't got a relationship, right? But, you do have sexual contact, yes? Have you got an idea that the sexual relationship is monogamous? So, you only have sex with each other?
P: No, my sexual partner has other sexual contacts via apps.
N: Do you use a condom or not? May I ask how do you and your partner deal with HIV and your sexuality? Is your sexual partner HIV negative or not?
P: Sometimes, it depends.
V: Very good, well done. (Nurse 1, consult 4)

Because the HIV specialist nurse asked multiple questions in a short time, no meaningful conversation arose, and potential signals, such as the previously mentioned use of apps for sexual contact, were ignored. One of the HIV specialist nurses asked more specific questions about sexual health and needs concerning the social context.Nofollow-up was observed here; the HIV specialist nurse asked about risk mitigation, and the patient discussed pleasure.

N: Hmm, do you have, do you have a monogamous relationship?
P: Monogamous relationship. Yes, a serious one.
N: Ok, may I ask how you deal with HIV regarding sexuality? Your partner is HIV negative, right?
P: Yeah.
N: You have been still undetectable for a while.
P: Right.
N: How do you deal with that?
P: We just have fun together.
N: That's good to know. (Nurse 4, consult 4)

During this consultation, the HIV specialist nurse asked follow-up questions that seemed to be more in line with prevention strategies, such as "U5U," rather than engaging in a conversation about the patient's relationship and intimacy linked

to their HIV diagnosis. Two HIV specialist nurses briefly raised the topic of sexual needs after discussing STI results and sexual risks through several questions. This was done mainly by asking specific closed questions, leaving room for the patient to respond.

P: I am relieved that my viral load is good.
N: Do you notice in other areas that you, uhm. For example, has your libido decreased? Do you notice that too? Or…
P: No, no, no.
N: Okay. Your sex life is otherwise good? No complaints?
P: No, it remains a bit stable.
V: Yes. Otherwise, are there any risk of STIs?
P: No. At least, the last few times I had an STD test, I was clean each time. (Nurse 3, consult 2)

The HIV specialist nurse steered the conversation toward a sexual issue, in this case, the loss of libido, and then moved on to discussing problems and STIs. In this case, the nurse did not ask questions that focused on the patient's psychological needs related to sexuality or intimacy. Most of the time, there was no dialogue between the MSMWH and the HIV specialist nurse when condomless sex was mentioned because the nurse immediately began talking about STI testing. For example, as shown in the following conversation, the nurse's response after the patient disclosed condomless sex was "You have no symptoms?"

P: Oh, I am satisfied and will continue with my HIV treatment
N: I was wondering if we also need to test for STIs?
P: I did have condomless sex, uhm, contact twice with other people.
N: Yes?
P: But, I don't know if it really, huh…
N: [interruption by the nurse] You have no symptoms?
P: I have no symptoms and it was a while back.
N: Whatever you want. If you say you know I just want to test it, then uuh it's possible.
P: Maybe next time?
N: Yes, next time, but you need to do some blood tests anyway so we can just get that sorted.
P: If that is possible.
N: Well let's just add those then.
P: Nice, always nice to be monitored. (Nurse 3, consult 1)

The HIV specialist nurse seemed to emphasize STI screening in this consultation, turning it into a practical and technical procedure through the questions asked.

As a result, the HIV specialist nurse overlooked the patient's cues as they initiated a conversation about unprotected sex. In two consultations, the individuals talked about experienced sexual problems in general. In response, the nurse briefly explored sexual desire by discussing the individuals' needs regarding masturbation. In both cases, the nurse inquired about the frequency and success of masturbation, but no discussion followed about the patients' needs, either individually or with respect to potential partners.

Social Aspects of Sexual Health

Social Aspects of Sexual Health Social aspects of HIV and sexual health were not addressed or were addressed only in a limited way during the consultations. Among the possible topics, such as social support, cultural influences, sexual partners, and family relationships, the only related topic discussed was the number of partners. In five consultations, the HIV specialist nurses asked in-depth questions to explore sexual behavior, specifically, questions related to the patients' sexual partners. The HIV specialist nurses tried to obtain a more detailed picture of the individuals' situations by asking them to respond to statements such as "I have heard that condoms aren't really discussed these days. I'm not sure if that is the case for you?" No counseling was provided during these consultations, as shown in the following example.

N: And besides, there could be very small wounds, so it is important to be alert to that.
P: To pay very close attention indeed.
N: And I don't know if you have a regular group with whom you have contact?
P: We have regular addresses. But, yet again, there's one group which isn't our regular group.
N: Yes.
P: Sometimes there is someone you don't know that well and then you just have to wait and see. So, uhm.
N: Yes, look, it's more, I don't know exactly, without a condom. I have heard that condoms aren't really discussed these days. I'm not sure if that is the case for you?
P: Well, once you're in such a group and suddenly someone new joins then…
N: Then?
P: It's still, but anyway, that's how I got it, implicitly assuming. That just doesn't work.
N: Yes.
P: So, let's leave it at that. (Nurse 2, consult 3)

Communication Analysis of Routine HIV Consultations

The findings regarding communication strategies between the HIV specialist nurses and MSMWH were grouped according to the six communication functions and related skills according to King and Hoppe (2013).

Fostering the Relationship

At the beginning of the consultations, none of the HIV specialist nurses introduced themselves; they did not start the consultation by becoming acquainted. In most consultations, the HIV specialist nurse "greeted the patient appropriately" by saying, "Welcome, have a seat." During all the consultations, whether the nurses "maintained eye contact" with the patient was influenced by the presence of a computer screen presenting the patient's chart. HIV specialist nurses often looked at the computer screen and read and checked information, limiting their eye contact with the patient. Notably, during discussions on sexual health, there was less eye contact with the patient. The nurses regularly looked at the computer screen throughout the consultation, providing information and asking questions about sexual health topics. In eight of the consultations, the HIV specialist nurse looked at the computer screen while initiating a conversation about sexual health, as they started by explaining STI laboratory results.

Overall, HIV specialist nurses held an "active listening" position, especially at the start of the consultation, including maintaining eye contact. When appropriate, the nurses often mirrored the individuals' emotions during the conversations, such as laughing or talking with a more serious tone. One nurse lightened the conversation by using humor. This HIV specialist nurse, as shown in the following example, commented in a funny tone about drug use and sex.

P: Excuse me, I know how I can contract an STI.
N: And if you, okay, you also know when you should get tested. You keep track of that?
P: Yes, of course.
N: Okay, fine. If you have sexual contact, do you use drugs?
P: No, why?
N: Well, I thought I'll ask because it happens a lot nowadays.
P: [laughs out loud]
N: It's very modern nowadays for people to do that.

P: I'm not that modern.
N: Me neither, we're old-fashioned. [laughing]
N: I read in your file that you went to Istanbul on vacation?
(Nurse 3, consult 2)

There were frequent silences in one consultation, which "encouraged the patient to participate." In nine of the consultations, there was some silence. These silences did not cause the individuals to introduce issues. In all consultations, the "language used was appropriate." The complexity of the sentences and the words used seemed appropriate for the individuals, who never asked for clarification. When discussing drug use concerning individuals' sexual behavior, three HIV specialist nurses referred to chems (drugs) by using jargon and the proper names of the drugs, e.g., gamma hydroxy butyraat. The names of the drugs were used as a bridge to ask questions about recreational drug use in relation to the patient's sexual behavior. Especially in the opening phase of the consultation, the HIV specialist nurses showed interest in the patient as a person by taking an active stance: making eye contact, placing their hands on the table, smiling, and bending forward. Interest in the patient was also expressed as the HIV specialist nurse brought up the patient's personal information, as shared in a previous consultation. This led to the patient sharing personal information with the HIV specialist nurse.

N: Is everything going well?
P: Just moved, take a look.
N: [gets mobile and looks at the house] Gosh, you have a nice house.
P: Done a lot.
N: I wish I had such a skilled partner. [laughs]
P: [laughs out loud] (nurse 1, consult 3)

Gathering Information

The consultations usually started with one-directional communication from the nurse to the MSMWH. All the HIV specialist nurses initiated the conversation with an "open-ended question" by asking the patient, "How are you doing?" One nurse started all four consultations with the same yet somewhat more specific question: "How has your health been recently?" By using this open-ended, more specific question, the HIV specialist nurse offered the patient an opportunity to talk about themselves with a focus on their health. The open-ended question was mostly followed by more specific and closed-ended questions to gather more

information. Open-ended questions were often started but were reformulated into closed-ended questions, as illustrated below.

N: How is the relationship?
P: It's going well, yes, but I did run into someone.
N: Do you have clear arrangements about it?
P: Yes.
N: Okay, and you don't use drugs while having sex?
N: Never?
P: Only alcohol.
N: We often underestimate that. (Nurse 3, consult 1)

These closed questions were asked to determine the individual's current situation and to obtain additional information. HIV specialist nurses asked check questions, listened to the individuals' answers, and continued asking more detailed closed questions, as shown in the following example:

N: And tested for everything?
P: Tested and all negative.
N: How did it go in the meantime since October?
P: Had no complaints.
N: Did you have sexual contact now and then?
P: Yes, yes.
N: And are they casual partners or regular partners to you?
P: They are regular partners.
N: Partners?
P: No, yes, one. (Nurse 4, consult 1)

In one consultation, the nurse elicited the patient's perspective on the problem by exploring the severity of the problem in alignment with the patient's experience.

N: Your laboratory results are good.
N: Once in a while we do a syphilis test. Do you have an active sex life?
P: No, not so much… I don't feel like it anymore and take it easy.
N: Does it bother you?
P: Well, actually not.
N: Really? Is there a problem?
P: No, absolutely not.
N: Look, if there were a problem, we would talk about it.
P: No, sometimes I wishmylibido would increase; I just want to do my own thing. Next year, I'll go on vacation. (Nurse 3, consult 4)

One HIV specialist nurse actively used paraphrasing on three separate occasions to "clarify and summarize" the information provided by the individuals. The individuals responded by confirming the given summary by saying "indeed" and providing additional information accordingly. One nurse made the following statement during a consultation: "You say you want to reduce the amount of chems you use because of the influence it has on your partner."

All the HIV specialist nurses used mostly closed questions, leaving less room for clarification from the individuals' perspectives, which prevented them from "eliciting the individuals" full set of concerns' and discussing the individuals' behavior. For "exploring the full effect of the illness," the experience of living with HIV in general and topics such as experiencing stigma were not discussed in any consultation.

In one consultation, the nurse "inquired about any additional concerns" and invited the patient to speak more about the impact of the death of a friend on the patient by saying, "Tell me." In terms of gathering information, most HIV specialist nurses stared at their computer screens, listened to the individuals' answers, and simultaneously typed information into the individuals' charts without asking any exploratory questions. None of the HIV specialist nurses explored what issues the MSMWHwanted to discuss. Moreover, none of the consultations included agenda setting between MSMWH and the HIV specialist nurse to guide the topics being addressed. The HIV specialist nurses encouraged the individuals to participate throughout the consultations by asking open and closed questions. The individuals were verbally encouraged to express more details by nurses, who asked probing questions, said yes, and hummed.

N: And is he getting tested for HIV?
P: Yes.
N: Because when you have sex, is it with a condom?
P: Actually, quite often without, you know.
N: Yes?
P: Nowadays it's nice to know that the other is undetectable. If your status is known, he knowingly takes a risk.
N: Yes?
P: We often talk about condom use, and I leave the decision to him.
(Nurse 2, consult 3)

Providing Information

All the HIV specialist nurses provided technical information during the consultations. This technical information included laboratory blood results, such as the CD4 count and viral load. In some consultations, the nurses discussed obesity and briefly explained the importance of exercise and its relationship with obesity. The HIV specialist nurses never "checked" whether the given information was "understood." Providing information about lifestyle issues was mostly done with descriptive statements such as "Your body mass index is 31.2, losing weight will have a positive effect on your blood pressure." However, the nature of the problem was not explained.

The sharing of STI results was often used as a starting point for providing information about sexual health. Conversations about sexual health and related topics, mainly initiated by the HIV specialist nurses, focused on providing technical information such as Venereal Disease Research Laboratory or syphilis test results and how to interpret laboratory results. No "clarifications, instructions, or explanations" were given about these results or sexual behavior.

In most consultations, the HIV specialist nurses used language that the patient understood when providing information, and they seemed to "avoid jargon and complex terms." Jargon was used for the "syphilis" blood test results or specific sexual topics, such as "U 5 U." Individuals were expected to be familiar with these terms because they had been in follow-up for some time, and the nurses and individuals had discussed these terms during previous consultations.

In three consultations with two HIV specialist nurses, the nurses did not respond by answering the individuals' questions about their STI results. Alternatively, the nurses started providing information on other topics, such as medication use and weight.

During consultations, some information was addressed mostly superficially, and "no key messages were emphasized" or highlighted by the HIV specialist nurses. When the nurses were providing information, the individuals were not encouraged to ask questions, and the nurses did not check whether the individuals understood the information or needed more information.

Making Decisions

Overall, communicative decision-making skills were applied to a limited extent and used only in relation to smoking. In one consultation, one HIV specialist nurse asked the patient about their current smoking behavior and "outlined the individual's choice" by "exploring the patient's preference" to quit smoking and asked them to rate the statement "How do you feel about quitting smoking?" on a 10-point scale, in alignment with the motivational interviewing approach. An "agreement was reached," as the patient did not want to discuss the topic further during this consultation. One HIV specialist nurse used the Permission, Limited Information, Specific Suggestions, Intensive Therapy method for the shared decision of whether to discuss sexuality, followed by asking an explicit question for permission ("May I ask how you deal with HIV in terms of sexuality?"). However, the patient's "preferences and understanding" were not explored, as this question was immediately followed by asking the next question ("Your partner is HIV negative, right?") without a pause or an opportunity for the patient to respond. All of the nurses scheduled a follow-up appointment with the individuals at the end of the consultations. However, this was a purely administrative act, as no "follow-up action plan" was discussed at the end of the consultations.

Enabling Disease- and Treatment-Related Behavior

None of the conversations involved a discussion of "the patient's readiness to change their health behavior" or their "goals, ideas or decisions." In one case, a patient brought up a successful behavior change related to quitting smoking; however, there was no support endorsing the patient's behavior change.

Responding to Emotions

During two consultations, one nurse "acknowledged the observed emotions" of the patient by "expressing empathy," saying, "I can see that you are having a hard time." During a consultation with another HIV specialist nurse, one patient discussed loneliness. The HIV specialist nurse did not respond verbally or nonverbally to the patient's expressed emotions during the discussion of this topic.

Discussion

Sexual health counseling was not always discussed during the routine HIV consultations, and the topics addressed by the HIV specialist nurses were often discussed from a biological perspective. However, when sexuality was discussed, the time spent on counseling was limited, and communication functions and skills were rarely applied by the HIV specialist nurses.

Research among HIV specialist nurses has shown that they are motivated to provide SHC and feel responsible for discussing sexual health during routine HIV consultations (De Munnik et al., 2017). Nevertheless, although these nurses are trained in practice, there are many missed opportunities to introduce sexual health. In addition, with respect to the content of communication, many topics remain unaddressed. Even when patients initiate the topic, nurses often do not respond. The time spent on SHC during routine consultations was short; the nurses usually talked to their patients rather than conversing with them. The conversation between the HIV specialist nurse and patient was usually more of a "question and answer" session than a two-way conversation.

Effective conversations about sexual health were rare. This finding is consistent with previous studies that confirmed that a lack of time was considered a severe barrier to discussing sexual health by care professionals (Albright & Fair, 2014; Flickinger et al., 2013). This could be explained by HIV becoming a chronic disease and the aging population, making other issues relevant parts of consultations. HIV specialist nurses need to prioritize what is important to address during a consultation. In addition, the topics addressed during consultations were primarily discussed from a biological or physical perspective rather than topics addressing psychological or social needs, as used in the biopsychosocial model (Engel, 1977). More specifically, the HIV specialist nurses often used STI laboratory results as a bridge to initiate SHC. In addition, the HIV specialist nurses rarely addressed sexual health; however, sexual health was also not always mentioned by the MSMWH themselves. Time or other priorities were not the only barriers to discussing sexual health; the difficulty of initiating SHC for both nurses and individuals during consultations can also be a factor, as confirmed in previous studies (De Munnik et al., 2017; Zhang et al., 2020).

In our study, HIV specialist nurses mainly used technical communication when talking about sexual health, especially when discussing information about medical treatment. They occasionally applied communication skills and rarely checked or verified whether the patient understood the information provided. More specifically, the nurses often used closed questions that rarely left room for exploring individuals' emotions or understanding. However, to improve individuals' sexual health, using these skills is crucial, especially when discussing sexual behavior (O'Conner et al., 2019). All models of health care communication recommend the use of open-ended questions, which allows individuals to freely present all their problems or needs, whether medical, psychosocial, or social (King & Hoppe, 2013; Tsai et al., 2013).

Overall, observing HIV specialist nurses during consultations revealed that the nurses spent the most time during the consultation looking at the computer screen while typing and asking questions simultaneously. Staring at the screen rather than addressing the patient directly is a potential barrier to the effectiveness of consultations, especially on the topic of sexuality. Other studies have confirmed that computer use within a consultation is indispensable and is often experienced by individuals as a barrier to dialogue (Noordman et al., 2010; Street et al., 2014). Strategies such as actively engaging individuals in viewing the computer screen or maintaining conversation flow while talking to individuals could positively influence dialogue.

To our knowledge, this is the first study among HIV specialist nurses that used a snapshot of real-life data within the HIV field. There is limited literature available that has analyzed both consultations and techniques. By observing and analyzing consultations in this way, the study provides a realistic picture of the conversations during a standard consultation with respect to selfreported behavior. However, a disadvantage of video recordings is that they might influence the interactions between providers and patients, also known as the Hawthorne effect (Sedgwick & Greenwood, 2015). Although we were aware of the Hawthorne effect when observing the participants, it was acknowledged that after a while, the participants forgot about the video and reverted to their normal behavior. Furthermore, our study did not explore the consultations from a patient's point of view because no patients were filmed. Above all, there was no evaluation of the reactions of theMSMWH to the consultation, especially from a nonverbal perspective.

Table 3

Suggestions for Questions for HIV Specialist Nurses to Ask When Providing SHC in Daily Practice

Questionnaire	Suggested Questions
Opening questions for routine HIV consultations when the patient brings up a sexual health problem	When was the last time you had good sex?
	Can you describe your complaint?
	How did the reduced sex drive come about? Did it happen gradually or suddenly?
Opening questions for routine HIV consultations when there is a reason for the nurse to address the problem, e.g., lab results/ STI	Your STI test is positive. How does this make you feel?
	How do you relate risky sex to contracting an STI?
	Is risky sex a cause for concern for you in relation to contracting an STI?
	Do you have complaints that may be related to an STI?
Opening questions for routine HIV consultations when there is no reason for the nurse to address the problem but the nurse would like to bring this topic up in general	How satisfied are you with your sexuality?
	How important is sex to you?
	Do you have any worries, questions or complaints regarding having sex?
Suggestion how to start SHC per topic; *biological aspects*	
Positive STI test	What does it mean to you to have contracted an STI?
STI screening	We know that people with high-risk sexual contacts often have an STI. How do you feel about getting a STI test?
Sexual dysfunction	What do you need to have a positive sexual stimulation?
Loss of libido	How was your sex drive before your HIV diagnosis?
Viagra	Can you explain tomewhat you need in order for Viagra to work?
Drug use	What is the difference between having sex with and without drugs?
Masturbation	Do you masturbate sometimes? How is that for you?
Suggestion how to start SHC per topic; *psychological aspects*	
Transmission risks	What has changed in your sex life since N=N was introduced?
Relationships	What influence does HIV have when you're having sex?
Safe/unsafe sex	What arrangements did you make in your relationship regarding safe and unsafe sex with a third party?
Patient's sexual needs	In which ways do you make your sexual needs known to your partner or sex buddy?
Sexual risk behavior	Which sexual acts do you consider high risk?
Multiple partners	How do you experience having sex with different partners?
Condomless sex	Which choice do you make while having sex? With or without a condom?
Suggestion how to start SHC per topic; *social aspects*	
Social support	With whom and why do you share your HIV status?
Cultural influences	How do you live out your gender identity in a generally heteronormative environment?
Sexual partners	Where and in which way do you make contact with people to have sex with?
Family relationships	How do you communicate within your family and friends about sexual health?
Suggestions for communication skills	
	Ask open-ended questions
	Encourage questions, ask in-depth questions and check the patient's understanding
	Discuss follow-up and plan for unexpected outcomes

Note. SHC = sexual health counseling; STI = sexual transmitted infection.

To understand the communication between HIV specialist nurses and PWH, it is important to conduct further research specifically on the role of individuals in the context of SHC. A limitation of our study is the small sample size, which means that the findings cannot be generalized to a larger population. However, our study of 16 consultations between four HIV specialist nurses and different individuals made it possible to examine conversations about sexual health in more depth and de tail.

Practice Implications

HIV specialist nurses are aware of the importance of SHC; however, more attention is needed to initiate SHC and address individuals' sexual needs, which requires good communication skills. Communication strategies should be adopted flexibly and tailored to individual patients within the HIV care context. This means that nurses should be told what to do regarding behavioral communication skills and shown how to use these skills.

The development of a customized, practice-based sexual health training program is essential. Studies have demonstrated that training programs significantly affect health care providers' communication skills and, thus, patient outcomes. The findings of this study can be applied in clinical practice, in various areas of nursing care, and especially in care related to sexual health.

A modified framework divided into biological, psychological, and social factors according to the model (Table 3) for HIV specialist nurses could be helpful in initiating discussions with patients about sexual health. In the long term, SHC should be standardized by training and supporting HIV specialist nurses and physicians working with PWH.

Conclusion

Despite the importance of discussing SHC during routine HIV consultations, it appears that HIV specialist nurses can improve their communication skills to communicate more effectively with individuals regarding this topic. This is partly due to a lack of communication strategies combined with insufficient use of the biopsychosocial model linked to sexual health. Clinical discussions of sexual health can be improved when more consistent communication functions and skills are applied.

References

Akechi, H., Senju, A., Uibo, H., Kikuchi, Y., Hasegawa, T., & Hietanen, J. K. (2013). Attention to eye contact in the west and east: Autonomic responses and evaluative ratings. PLoS One, 8(3), e59312. https://doi.org/10.1371/journal.pone.0059312

Albright, J. N., & Fair, C. D. (2014). Providers caring for adolescents with perinatally-acquired HIV: Current practices and barriers to communication about sexual and reproductive health. AIDS Patient Care and STDS, 28(11), 587–593. https://doi.org/10.1089/apc.2014.0162

Asan, O., Carayon, P., Beasley, J. W., & Montague, E. (2015). Work system factors influencing physicians' screen sharing behaviors in primary care encounters. International Journal of Medical Informatics, 84(10), 791–798. https://doi.org/10.1016/j.ijmedinf.2015.05.006

Basten, M., Heijne, J. C. M., Geskus, R., Den Daas, C., Kretzschmar, M., & Matser, A. (2018). Sexual risk behaviour trajectories among MSM at risk for HIV in Amsterdam, the Netherlands. AIDS, 32(9), 1185–1192. https://doi.org/10.1097/qad.0000000000001803

Braun, V., & Clarke, V. (2019). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. Qualitative Research in Sport, Exercise and Health, 13(2), 201–216. https://doi.org/10.1080/2159676X.2019.1704846

D'Agostino, T. A., & Bylund, C. L. (2013). Nonverbal accommodation in health care communication. Health Communication, 29(6), 563–573. https://doi.org/10.1080/10410236.2013.783773

Davitti, E. (2018). Methodological explorations of interpreter-mediated interaction: Novel insights from multimodal analysis. Qualitative Research, 19(1), 7–29. https://doi.org/10.1177/1468794118761492

De Haes, H., & Bensing, J. (2009). Endpoints in medical communication research, proposing a framework of functions and outcomes. Patient Education and Counseling, 74(3), 287–294. https://doi.org/10.1016/j.pec.2008.12.006

De Munnik, S., Vervoort, S., Ammerlaan, H. S. M., Kok, G., & Den Daas, C. (2017). From intention to STI prevention: An online questionnaire on barriers and facilitators for discussing sexual risk behaviour among HIV nurses. Journal of Advanced Nursing, 73(12), 2953–2961. https://doi.org/10.1111/jan.13372

De Munnik, S., Vervoort, S., Kraan, L., Ammerlaan, H. S. M., Palacio, L. A. G., Kok, G., Elzevier, H. W., De Wit, J., & Daas, C. D. (2021). Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands. AIDS Care, 34(6), 734–740. https://doi.org/10.1080/09540121.2021.1906400

De Vincentis, S., Tartaro, G., Rochira, V., & Santi, D. (2021). HIV and sexual dysfunction in men. Journal of Clinical Medicine, 10(5), 1088. https://doi.org/10.3390/jcm10051088

European AIDS Clinical Society. (2024, August 29). Sexual and reproductive health. https://eacs.sanfordguide.com/prevention-non-infectious-co-morbidities/sexual-reproductive-health/sexual-transmission-hiv

Fair, C. D., Albright, J., & Culy, L. (2018). Factors that influence sexual and reproductive health information offered to adolescents with perinatally acquired HIV: An ecological analysis of provider perspectives. Journal of the Association of Nurses in AIDS Care, 29(6), 822–834. https://doi.org/10.1016/j.jana.2018.06.002

Flickinger, T. E., Berry, S., Korthuis, P. T., Saha, S., Laws, M. B., Sharp, V., Moore, R. D., & Beach, M. C. (2013). Counseling to reduce high-risk sexual behavior in HIV care: A multi-center, direct observation study. AIDS Patient Care and STDS, 27(7), 416–424. https://doi.org/10.1089/apc.2012.0426

Haensel, J. X., Smith, T. J., & Senju, A. (2021). Cultural differences in mutual gaze during face-to-face interactions: A dual head-mounted eye-tracking study. Visual Cognition, 30(1-2), 100–115. https://doi.org/10.1080/13506285.2021.1928354

Hall, J. A., Horgan, T. G., & Murphy, N. A. (2019). Nonverbal communication. Annual Review of Psychology, 70, 271–294. https://doi.org/10.1146/annurev-psych-010418-103145

Hess, K. L., Crepaz, N., Rose, C., Purcell, D., & Paz-Bailey, G. (2017). Trends in sexual behavior among men who have sex with men (MSM) in high-income countries, 1990-2013: A systematic review. AIDS and Behavior, 21(10), 2811–2834. https://doi.org/10.1007/s10461-017-1799-1

Huber, M., & Froehlich, D. E. (2020). Analyzing group interactions. Routledge eBooks.

Huntingdon, B., Muscat, D. M., De Wit, J., Duracinsky, M., & Juraskova, I. (2019a). Factors associated with erectile dysfunction among men living with HIV: A systematic review. AIDS Care, 32(3), 275–285. https://doi.org/10.1080/09540121.2019.1653443

Huntingdon, B., Muscat, D. M., De Wit, J., Duracinsky, M., & Juraskova, I. (2019b). Factors associated with general sexual functioning and sexual satisfaction among people living with HIV: A systematic review. Journal of Sex Research, 57(7), 824–835. https://doi.org/10.1080/00224499.2019.1689379

Johnson, J. L., Adkins, D., & Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. American Journal of Pharmaceutical Education, 84(1), 7120. https://doi.org/10.5688/ajpe7120

Kelder, I., Sneijder, P., Klarenbeek, A., & Laan, E. (2022). Communication practices in conversations about sexual health in medical healthcare settings: A systematic review. Patient Education and Counseling, 105(4), 858–868. https://doi.org/10.1016/j.pec.2021.07.049

King, A., & Hoppe, R. B. (2013). "Best practice" for patient-centered communication: A narrative review. Journal of Graduate Medical Education, 5(3), 385–393. https://doi.org/10.4300/jgme-d-13-00072.1

Mast, M. S. (2007). On the importance of nonverbal communication in the physician-patient interaction. Patient Education and Counseling, 67(3), 315–318. https://doi.org/10.1016/j.pec.2007.03.005

Mintz, L. J., & Moore, S. E. (2021). Sexual history taking: An opportunity to reduce health disparities. Journal of the Association of Nurses in AIDS Care, 33(3), 241–247. https://doi.org/10.1097/jnc.0000000000000290

Nimbi, F. M., Galizia, R., Rossi, R., Limoncin, E., Ciocca, G., Fontanesi, L., Jannini, E. A., Simonelli, C., & Tambelli, R. (2021). The biopsychosocial model and the sex-positive approach: An integrative perspective for sexology and general health care. Sexuality Research and Social Policy, 19(3), 894–908. https://doi.org/10.1007/s13178-021-00647-x

Noordman, J., Verhaak, P., Van Beljouw, I., & Van Dulmen, S. (2010). Consulting room computers and their effect on general practitioner-patient communication. Family Practice, 27(6), 644–651. https://doi.org/10.1093/fampra/cmq058

O'Connor, S. R., Connaghan, J., Maguire, R., Kotronoulas, G., Flannagan, C., Jain, S., Brady, N., & McCaughan, E. (2019). Healthcare professional perceived barriers and facilitators to discussing sexual wellbeing with patients after diagnosis of chronic illness: A mixed-methods evidence synthesis. Patient Education and Counseling, 102(5), 850–863. https://doi.org/10.1016/j.pec.2018.12.015

Peyre, M., Gauchet, A., Bissuel, F., Blanc, M., Boibieux, A., Cotte, L., Forestier, E., Janssen, C., Legout, L., & Epaulard, O. (2018). Satisfaction with sexual life in people living with HIV/AIDS: The persistent weight of the fear of transmission. AIDS Care, 31(6), 681–686. https://doi.org/10.1080/09540121.2018.1537465

Rao, J. K., Anderson, L. A., Inui, T. S., & Frankel, R. M. (2007). Communication interventions make a difference in conversations between physicians and patients: A systematic review of the evidence. Medical Care, 45(4), 340–349. https://doi.org/10.1097/01.mlr.0000254516.04961.d5

Refugio, O. N., & Klausner, J. D. (2018). Syphilis incidence in men who have sex with men with human immunodeficiency virus comorbidity and the importance of integrating sexually transmitted infection prevention into HIV care. Expert Review of Anti-infective Therapy, 16(4), 321–331. https://doi.org/10.1080/14787210.2018.1446828

Roter, D., & Larson, S. (2002). The roter interaction analysis system (RIAS): Utility and flexibility for analysis of medical interactions. Patient Education and Counseling, 46(4), 243–251. https://doi.org/10.1016/s0738-3991(02)00012-5

Safreed-Harmon, K., Fuster-RuizdeApodaca, M.J., & Pastor de la Cal, M. (2022). Problems undermining the health-related quality of life of people living with HIV in Spain: a qualitative study to inform the development of a novel clinic screening tool. Health Qual Life Outcomes 20, 84 (2022). https://doi.org/10.1186/s12955-022-01978-y

Sedgwick, P., & Greenwood, N. (2015). Understanding the Hawthorne effect. BMJ, 351, h4672. https://doi.org/10.1136/bmj.h4672

Shey, N. D., Dzemo, K. O., Siysi, V. V., Ekobo, A. S., & Jelil, N. A. (2020). Quality of life of HIV patients on highly active antiretroviral therapy: A scoping review. Journal of Public Health and Epidemiology, 12(1), 63–73. https://doi.org/10.5897/JPHE2019.1148

Stanton, A. M., Goodman, G., Looby, S. E., Robbins, G. K., & Psaros, C. (2019). Sexuality and intimacy among older women living with HIV: A systematic review. Current Sexual Health Reports, 11, 320–330. https://doi.org/10.1007/s11930-019-00227-6

Street, R. L., Liu, L., Farber, N. J., Chen, Y., Calvitti, A., Zuest, D., Gabuzda, M. T., Bell, K., Gray, B., Rick, S., Ashfaq, S., & Agha, Z. (2014). Provider interaction with the electronic health record: The effects on patient-centered communication in medical encounters. Patient Education and Counseling, 96(3), 315–319. https://doi.org/10.1016/j.pec.2014.05.004

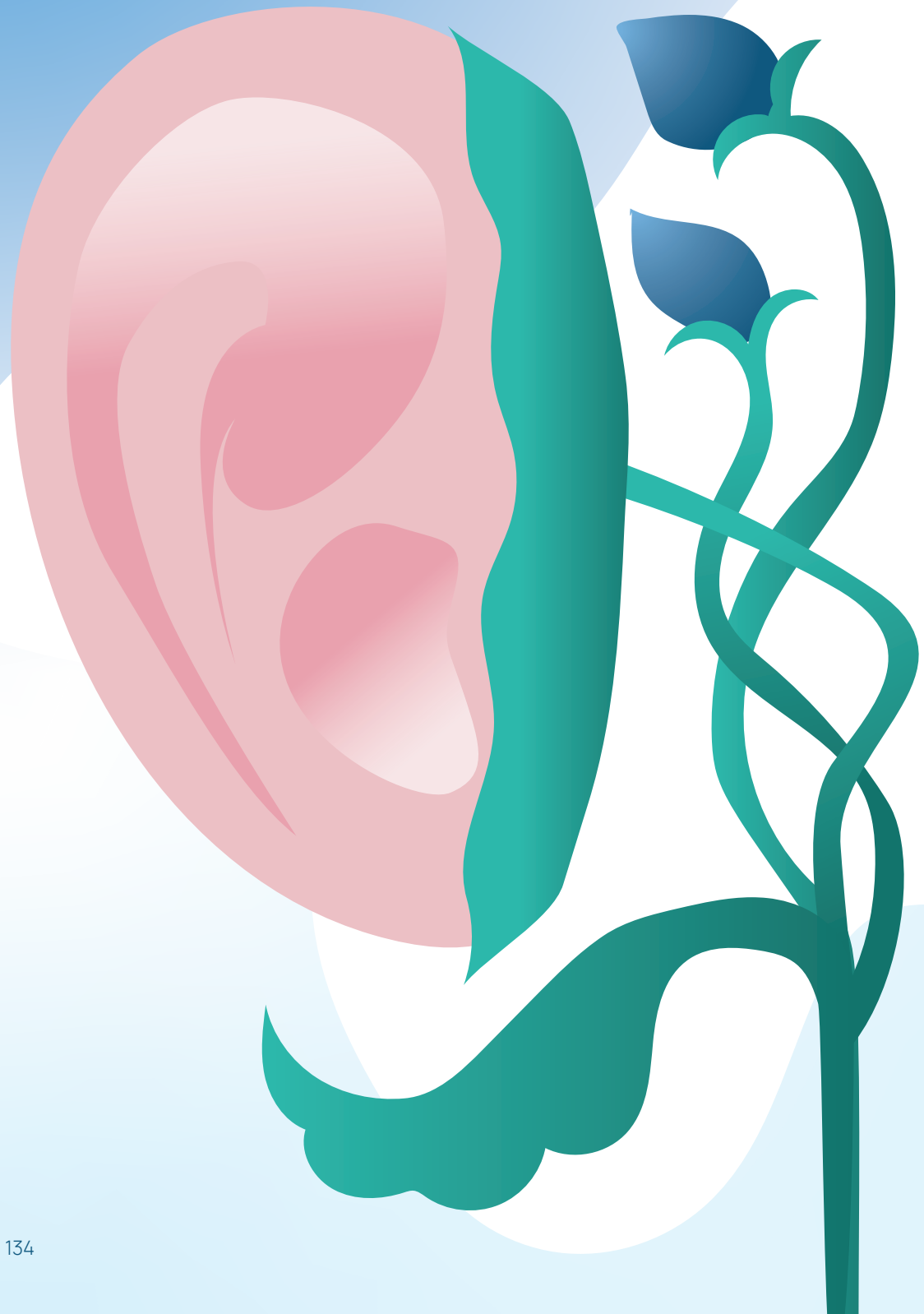
Thorne, S. (2010). Toward methodological emancipation in applied health research. Qualitative Health Research, 21(4), 443–453. https://doi.org/10.1177/1049732310392595

Tsai, M. H., Lu, F. H., & Frankel, R. M. (2013). Learning to listen: Effects of using conversational transcripts to help medical students improve their use of open questions in soliciting patient problems. Patient Education and Counseling, 93(1), 48–55. https://doi.org/10.1016/j.pec.2013.03.022

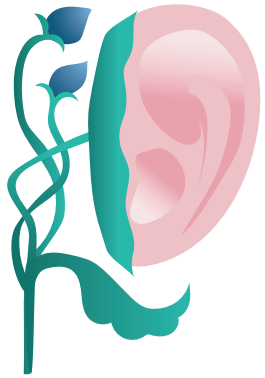
Udvardi, A. (2019). The role of linguistics in improving the evidence base of healthcare communication. Patient Education and Counseling, 102(2), 388–393. https://doi.org/10.1016/j.pec.2018.09.012

Van Sighem, A. I., Wit, F. W. N. M., Boyd, A., Smit, C., Jongen, V. W., Matser, A., & Monitoring Report. (2023). Human immunodeficiency virus (HIV) infection in the Netherlands. Stichting Hiv Monitoring.

Zhang, X., Sherman, L., & Foster, M. (2020). Patients' and providers' perspectives on sexual health discussion in the United States: A scoping review. Patient Education and Counseling, 103(11), 2205–2213. https://doi.org/10.1016/j.pec.2020.06.019



Chapter 6
Developing a novel sexual health counseling training for HIV care providers



Suzanne de Munnik, John de Wit , Heidi S.M. Ammerlaan, Gerjo Kok, Sigrid C.M.J. Vervoort, Chantal den Daas.

International Journal of Nursing Studies Advances
The article has been submitted October 2024 to the journal and is currently under review, but has not yet been accepted

CRediT authorship contribution statement:
Suzanne de Munnik: Writing – original draft, writing-review, methodology, formal analysis, conceptualization. **John de Wit**: Supervision, methodology, data curation, writing – review & editing. **Heidi Ammerlaan**: Visualization, writing –review & editing. **Gerjo Kok**: Methodology, data curation, writing – review & editing, supervision. **Sigrid Vervoort**: Validation, writing-review, editing. **Chantal den Daas**: Methodology, data curation, writing – review & editing, supervision.

Abstract

Background: HIV healthcare providers encounter difficulties in discussing sexual health with their patients. However, providers are aware that sexuality should be addressed, because without discussing sexual health, problems may remain unnoticed, advice cannot be given, no treatment plan established, and psychosocial implications cannot be addressed.

Objective: We developed a theory- and evidence-based intervention using the Intervention Mapping (IM) approach to improve sexual health counseling and promote discussing sexuality by HIV care providers.

Design: We applied the six steps of IM: an initial needs assessment to thoroughly understand the problem (step 1); formulation of the program objectives (step 2); selection of theory-based methods (step 3); program development (step 4); developing an implementation plan (step 5); and developing an evaluation plan focused on an assessment of behavioural determinants and sexual health counseling behaviour before and after the training through four consecutive online surveys (step 6).

Results: Step 1 consisted of focus groups and online surveys among HIV care providers. Findings confirmed the need for an intervention targeting HIV care providers. In step 2 we formulated detailed program objectives. In step 3 we identified behavioural determinants, specifically attitude, knowledge, self-efficacy, and communication skills. These determinants guided the development of a two–day sexual health training programme, including interactive skills building with professional actors (Step 4). The two-one day training was attended by 37 day-one and 20 day-two HIV healthcare providers (Step 5). A descriptive analysis of data collected in step 6 showed that nurses who had participated in the pilot training were more likely to initiate conversations about sexual health during routine HIV consultations. A positive trend was observed in the attitudes, knowledge, social norms, and perceived skills of the participants, aligning with the training's objectives. This outcome reinforces the importance of targeted training in enhancing professional competence in sexual health counseling.

Conclusion: The training program enabled HIV healthcare providers to initiate sexual health discussions during routine consultations. The IM approach facilitated a structured, iterative, bottom-up, participatory process to develop the training program, which aimed to promote sexual health counseling in a real-life setting by using evidence and theory.

In order to promote sexual health counseling it is important that HIV healthcare providers express confidence in their ability to discuss sexuality. Suggestions for the planning of support interventions highlight the importance of training with real-life case studies with professional actors with experience in the sexual healthcare sector.

Keywords

Consultation, communication, HIV infection, nurse, people with HIV, physician, sexual health counseling, quality of life.

Background

Healthcare providers, particularly nurses, are expected to be competent in providing sexual health education. However, in nursing care and education, sexual health is often disregarded in favor of other relevant topics, and to avoid discomfort (Fennell and Grant, 2019; O'Connor et al., 2019). Healthcare providers (HCPs) experience difficulties in discussing sexual health with patients (Åling et al., 2021; Dyer and das Nair, 2013; Kelder et al., 2022). During consultations, many physicians and nurses fail to engage in meaningful conversations about sexual health, missing opportunities to prevent negative health events (Fennell and Grant, 2019). Sexual health is an essential component of overall health and general well-being (World Health Organisation, 2006): "The ability to have a good sex life and to adapt and self-manage it in the face of social, physical, and emotional challenges in different phases of life" (Van Lunsen and Laan, 2019, p 181). Such challenges arise in particular among patients with HIV-related medical conditions (Scanavino et al., 2022).

Efforts have been made training HCP to discuss sexual health in clinical settings (Mrad et al., 2022; Sun and Lin, 2013). Research highlights a significant lack of interventions available to oncology nurses (Albers et al., 2020; Krouwel et al., 2019). However, sexual health, as part of health-related quality of life (HrQoL), should be addressed by all HCPs. They must have tools to initiate sexual health counseling (SHC) when appropriate, encouraging patient participation, especially in the field of HIV. More efforts are needed to promote adequate SHC in this setting. It is crucial to develop training programs that address the needs of people with HIV (PWH) and the learning requirements of their nurses.

Sexual health encompasses a multitude of topics, making it challenging to determine which to prioritize. PWH experience many issues related to sex (de Vincentis et al., 2021). Therefore, HCPs should consider factors related to HIV infection: fear of virus transmission, loss of libido, changes in body image, lack of experiencing pleasure, alongside non-HIV related factors, e.g. aging or lifestyle (de Vincentis et al., 2021). And, even if HCPs know what to discuss, they need to acquire the necessary skills. Interventions are more effective when developed systematically, grounded in evidence and theory (de Bruin et al., 2009; Bartholomew Eldredge et al., (2016)). We applied Intervention Mapping (IM), a systematic protocol for effective, step-by-step decision-making in intervention development, implementation, and evaluation (Fernandez et al., 2019); distinguishing theories about behavior from theories about change (Kok et al., 2016). IM has proven an effective approach for designing behavior change interventions, including those aimed at reducing sexual prejudice or preventing sexually transmitted infections (STIs) (Mevissen et al., 2017; Wolfers et al., 2007).

The aim of this study was to develop an intervention, encouraging HCPs to address sexual health during routine HIV consultations. Program development begins with a needs assessment (IM-Step 1): a thorough analysis describing the health-related problem, impact on quality of life, population at-risk, and relevant social-cognitive, behavioral, and environmental factors associated with the problem. Next, planners select target groups and formulate behavioral and social-cognitive change objectives, based on importance and changeability (IM-Step 2). In IM-Step 3, planners apply theory-based behavior change methods as applications in the final program (IM-Step 4), describe the adoption and implementation of the program (IM-Step 5), and the evaluation plan (IM-Step 6). Below, we give a detailed description of how we systematically developed a tailored intervention for care providers, and present the outcomes.

Methods and Results

IM-task 1: Logic Model of the Problem

A planning group was established, which produced a needs assessment by creating a logic model of the problem, assessing the context of the intervention, and specifying program goals. The outcome was a list of behaviors and determinants that contributed to the problem, which served as starting points for the systematic development of an intervention.

IM-task 1.1: Establishing a Planning

Group Members were selected based on their academic experience and expertise in IM, nursing care, and HIV care. The 11 experts had various expertise: interdisciplinary social science/IM, applied psychology/IM, health psychology/IM, nursing science/HIV patient care, physician/HIV patient care, three HIV experts and three HIV nurses: one specialized in sexual health and one the principal investigator (PI). This planning group convened on a monthly basis in various compositions to guide the IM process (Eldredge et al., 2016). Planning group members are encouraged to think about adoption and implementation from the start.

IM-task 1.2: Needs Assessment

Four empirical studies were conducted (de Munnik et al., 2017a, 2017b; 2021; 2024). First, a cross-sectional survey was conducted among all Dutch HIV physicians (N=110) and HIV nurses (N=82) in order to gain further insight into their roles in SHC within routine HIV care (de Munnik et al., 2021). Participants were recruited via the Netherlands Association of HIV Physicians (NVHB) and the Netherlands Professional Association of HIV nurses (VCH). Participants completed an online questionnaire about their current practice and involvement in SHC.

SHC was provided less by physicians (26.1%) than by nurses (83.9%; $p<.001$). Nurses were more likely to discuss issues about patient's well-being and psychosocial functioning. The main reason for not providing SHC was the presence of a third party. Physicians reported this 9% of the time, nurses 60.4%. The second reason was insufficient time due to the limited duration of consultations. The third was that patients themselves do not initiate conversations about SHC, interpreted as that SHC should not be initiated by a physician or nurse. Both groups indicated a need for more practical knowledge and skills about sexual health issues and counseling.

The planning group decided on the need for an intervention promoting SHC, specifically by nurses in routine HIV care. Additionally, as HIV in the Netherlands primarily affects men who have sex with men (MSM), also targeting HIV nurses, supporting them in addressing sexual (risk) behavior during routine consultations with HIV-positive MSM. The second study focused on the experiences of HIV nurses in discussing SHC with MSM (de Munnik et al., 2017a). This involved three semi-structured focus group discussions (FGDs) with 22 HIV nurses from 17 HIV treatment centers. The FGDs were transcribed and analyzed to identify meaningful patterns (Braun and Clarke, 2006). HIV nurses infrequently initiated SHC and lack of time was again the main barrier. Presence of a third party was never mentioned as a reason for not providing SHC; other reasons included the experience of embarrassment and having to cover many issues during routine HIV care which makes prioritizing difficult. Nurses mentioned that feeling confident about their knowledge and skills is a prerequisite for SHC.

The third study was an online survey on the determinants of HIV nurses' discussing SHC with PWH, based on the Theory of Planned Behavior (Ajzen, 1991; 2006) and the findings of the qualitative study (de Munnik et al., 2017a): 79 HIV nurses completed a self-report questionnaire. Consistent with previous studies, the intention to prioritize SHC was impeded by 'time concerns' and 'having other priorities'. Supportive determinants were: positive attitude, high perceived

self-efficacy and confidence in own skills discussing sexual health. The intention to initiate and discuss sexual risk behavior was again found to be influenced by 'time concerns' and 'other priorities during consultations', against a positive attitude and high perceived self-efficacy regarding SHC and confidence in own knowledge and skills (de Munnik et al., 2017b).

The fourth study comprised the analysis of video recordings of routine HIV consultations of HIV nurses with PWH from four Dutch HIV treatment centers using real-life data from clinical practice to assess whether nurses' behaviors during consultations were in line with the results of previous studies (de Munnik et al., 2024). Four participants from four hospitals consented to participate, and 16 recordings of consultations were analyzed. The duration of consultations, time spent on sexual health issues, topics addressed, and the communication functions and skills employed were all recorded. When sexual health was discussed, the time nurses spent on this topic was relatively brief, with nurses typically adopting a more directive approach to communication with patients, rather than engaging in a conversation. SHC is not typically discussed during consultations. When discussed, effective communication was rare, and attention to psychological and social factors limited. Nurses predominantly used technical communication skills and provided STI-test results and information about medical treatment.

IM-task 1.3: Intervention Context

In the Netherlands, HIV care is provided in 24 HIV treatment centers by 110 HIV physicians and 86 HIV nurses. PWH visit an outpatient clinic once or twice a year for consultation with an HIV nurse who monitors patients' health, addresses medical and psychosocial needs, provides additional support and care, or refers to another specialist. All HIV nurses are registered nurses specialized in HIV care and members of the Dutch VCH. Some obtained a post-graduate qualification, and some completed dedicated sexual health training, provided by STI/AIDS Netherlands, the center for STI-prevention.

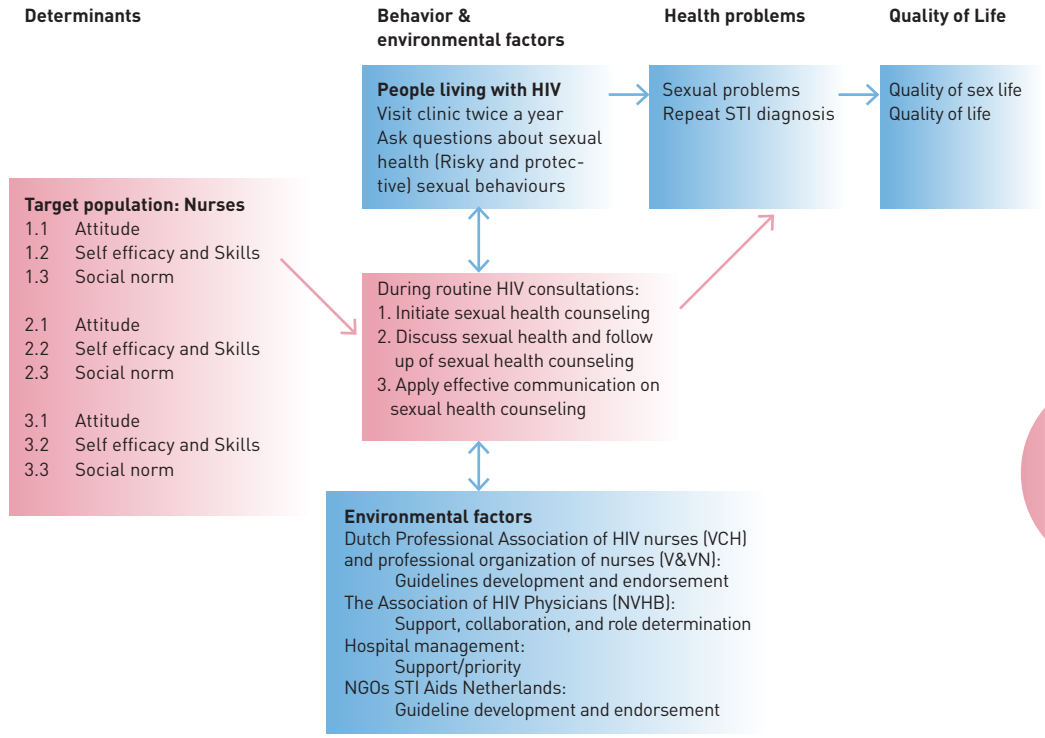
The VCH has developed guidelines, however, these are not recent and reflect a biomedical perspective (V&VN, 2023). VCH guidelines refer to the relevant European guidelines, which state that all HCPs should ask PWH about their sexual and reproductive health to make sure that PWH receive appropriate and ongoing reproductive counseling. They do not include recommendations on what should be addressed, and how (Clinicalinfo.hiv.gov., 2024; European AIDS Clinical Society, 2024). The work of HIV nurses is mostly based on guidelines developed by the National Organization of HIV Physicians. Hospital managers also determine what and how nurses do their jobs.

IM-task 1.4: Program Goals

The results of the needs assessment were summarized in the form of a logic model of the problem (see Fig. 1) which identifies the overarching problem to be addressed on the right: suboptimal quality of sexual health and quality of life. Moving to the left, problems arise because PWH may experience multiple sexual health issues, plus the behavioral and environmental factors that may influence their sexual health. The planning group identified these behavioral factors as critical. At the far left of the model the determinants of providing SHC are shown which should be addressed by our intervention.

Figure 1

Logic model of the problem of HIV nurses in the Netherlands regarding providing sexual health counselling.



IM-task 1.5: Specifying Program Goals

The planning group discussed the findings of the needs assessment and used their expertise to define program goals for the three most important and changeable SHC-behaviors of HIV nurses "during routine HIV consultations":

1. Nurses initiate SHC
2. Nurses discuss and follow up SH topics more in depth
3. Nurses apply effective communication for SHC

IM-step 2: Program Outcomes and Objectives; Logic Model of Change

The planning group used the needs assessment findings to formulate outcomes for nurse behaviour and performance objectives for each of these outcomes. Subsequently, the planning group identified important and modifiable determinants of the nurses' behavior. Finally, matrices were created specifying the change objectives for the program.

IM-task 2.1 and 2.2: Expected Outcomes for Nurses' Behavior; Performance Objectives (PO's)

A multidisciplinary planning group formulated outcomes for the program goal, defined in step 1.5. The PI defined desired changes at the behavioral level (POs), to promote and increase the provision of SHC by nurses, making the required behavior of the nurse specific.

PO-1: Nurses initiate SHC during routine HIV consultations twice a year. Sexual health communication currently does not meet the needs of patients; nurses have expressed that they only discuss sexual health when patients raised the topic (de Munnik et al., 2021; Magnan and Reynolds, 2006; Rimmer et al., 2010). Moreover, sexual health was not sufficiently addressed between patients and nurses. These findings revealed a strong discrepancy between patients' and nurses' views on who is responsible for initiating this discussion and the willingness and comfort levels. Consequently, nurses should take the initiative, when necessary (Bauer et al., 2015; Zhang et al., 2020).

PO-2: Nurses discuss SHC and follow up those topics linked to sexual health more in depth, twice a year, during routine HIV consultations. Patients regard effective sexuality communication as essential and feel comfortable with it (Kelder et al., 2022; Zhang et al., 2020).

PO-3: Nurses communicate effectively about sexual health during routine HIV consultation twice a year. In our observational study, HIV nurses only occasionally applied communication skills (i.e., asking open questions) and rarely checked if the patient had understood the information given (de Munnik et al., 2024); in line with earlier studies (de Munnik et al., 2017a, b).

IM-task 2.3: Determinants of Behavioral Outcomes and M-task 2.4: Matrix of Change Objectives (CO's) and IM-task: 2.5 Logic Model of Change

After formulating these POs, we selected their determinants, based on relevance, strength of the association with the behavior, and changeability. Similarly, setting priorities, because other topics need attention during consultation, which negatively affects nurses' attitude towards SHC as well as the quality of SHC. For example, the presence of a third party (e.g. a translator) is not changeable, but may have influence. Some HIV nurses feel negative emotions, such as embarrassment and discomfort, indicating that perceived skills and personal norms and values are relevant. These insights indicate critical determinants of SHC which are changeable through training, supervision, and support. Finally, a multidisciplinary approach is needed to generate a supportive social norm, encompassing guidelines for HIV nurses, and additional training tailored to the needs of HIV care providers. We identified. attitude, social norm and self-efficacy/skills (and their underlying beliefs), as determinants in the matrix of change objectives.

COs were formulated that match each determinant with its PO, guided by the needs assessment. For example, for "Nurses apply effective communication for talking about sexual health during routine HIV consultation", "attitude" is one of the determinants; we formulated the CO "Describe applying communication skills as necessary and important". This CO is necessary and achievable because sexual health is not always discussed during routine HIV consultation and, if brought up, often without structure and/or communication strategies.

A list of possible determinants was compiled, and refined based on evidence from the literature and needs assessment. The Matrix of Change Objectives was

developed connecting Performance Objectives with identified relevant and changeable Determinants, guiding the development of the training program, see Table 1. In the final task of step 2, we created the logic model of change for the intervention, combining performance objectives with determinants. As part of the later program evaluation, questions can be asked to determine whether HIV nurses achieved the performance objectives, which provides valuable information for evaluating the program's effectiveness.

Table 1

Matrix for behavioral outcome: Nurses initiate, discuss, and apply effective communication of SHC

Performance objectives (PO) of HIV nurses	**Personal determinants**		
	Attitude (A)	**Self-efficacy & skills (SSE)**	**Social norm (SN)**
1. Nurses initiates and start to talk about SHC during routine HIV consultation twice a year.	1. Feel positive about initiating SHC during routine consultation.	1a. Express confidence in the ability to make the decision to initiate the SHC.	1a. State that patients approve and respect their decision to initiate SHC. 1b. Recognize that other professionals or patients have found SHC has enough dvantages to be worthwhile to implement them.
2. Nurses discuss and follow up SHC during routine HIV consultation twice a year. tion	2. Feel positive about discussing SHC twice a year during consultation.	2a. Express confidence in the ability to discuss SHC twice a year. 2b. The nurses demonstrate actively how to use PLISSIT model and response curve when discussing SHC. 2c. Express confidence in applying 1) physical aspects within sexual health and 2) sexual dysfunction when necessary. 2d. Express confidence in applying theory of chemsex/relation/libido/ desire linked to HIV to their patient.	2. Acknowledge that the national organization of nurses nd physicians recognize applying communication func- and skills is important in discussing SHC.
3. Nurses apply effective communicate linked to SHC with PWH during routine HIV consultation.	3a. Describe applying communication skill as necessary and important. 3b. Describes communication as being worth the effort to adopt.	3a. Demonstrate the ability to communicate to patients. 3b. Express confidence in ability to actively using biopsychosocial mode during SHC 3c. Demonstrate the ability of applying effective strategies of King and Hoppe (2013) to create an effective patient-provider dialogue regarding SHC.	3. Recognize that their colleagues SHC find relevant and is seen as part of their professional role.

Abbreviations SHC sexual health counseling; PWH people with HIV;

Overview IM-step 3: Program Design

The logic model of the problem and the logic model of change form the basis for step 3, the selection of theory-based methods and practical applications. The first task was to generate ideas for program themes and to decide on their sequence, together with the planning group. The next task was to choose theory-based change methods to address program objectives. The final task in this step was to design practical applications for these methods.

IM-task 3.1: Generate Ideas for the Intervention

To ensure the intervention met the needs of HIV nurses, a linkage group of five full-time HIV nurses from various hospitals supported the planning group. This group provided input on specific questions and tested ideas. Discussions with the linkage group resulted in several general themes for the intervention. First, nurses needed to be aware of a number of topics to be discussed with patients regarding sexual health. In addition, they required more knowledge about sexual health from both medical and psychosocial perspectives. With regard to communication strategies, nurses expressed a desire to exchange counseling experiences with other nurses. These themes were aligned with the earlier needs assessment.

Another vital finding was related to the mode of delivery. The linkage group recommended a flexible, hybrid, 1.5-day face-to-face training program to accommodate users' needs and time constraints. The final intervention was a 1.5-day training program. In our intervention, we used elements of a five-day course from 2005 designed for HIV nurses on basic knowledge regarding anatomy and physiology (Aidsfonds, 2008; V&VN Verpleegkundig Consulenten Hiv, 2023). For the training, we reviewed literature on interventions for healthcare professionals (HCPs) in clinical settings. Verrastro et al. (2020) found that participation in sexuality education programs significantly improved HCPs' ability to address patients' sexuality issues. The review emphasized the need for sexual health education and highlighted the importance of investing in training to enhance nurses' skills and comfort. Case studies and role-playing have considerable advantages over traditional lectures. This review supports the importance of providing HCP with at least some training, and the opportunity to organize longer training sessions with interactive activities to enhance their comfort and confidence when counseling patients on sexual issues.

IM-task 3.2: Choose Theory- and Evidence- Based Change Methods

During three interactive sessions, based on the formulated objectives of the program, the planning and linkage group selected theory- and evidence-based methods for achieving the change objectives. Based on the nurses' experience and the results of the literature search, the most suitable methods were selected and translated into potentially feasible practical applications (Fernandez et al., 2019; Verrastro et al., 2020).

As the HIV nurses in the linkage group mentioned time as a barrier, time management was chosen as an important issue. Moreover, the planning group selected methods and applications appropriate for the context and clinical practice. Examples of the outcomes for P01 is are presented in Table 2. Methods and applications for P01 (remaining), P02 and P03 are described in the supplementary files.

The determinants of the previous steps led to a choice of behavioral change methods that fit into a 1.5-day workshop. The final intervention needed to be flexible in use and easy to adjust, either face-to-face or online.

Table 2

Overview of P01. of sexual health counselling pilot program including methods, parameter and applications. The parameters for these methods can be found in Kok et al. (2016)

	Method and parameter of P01: Nurses initiate SHC	**Application**
Attitude **Feel positive about initiating SHC during consultation**	Arguments: Using a set of one or more meaningful premises and a conclusion.	Provided arguments in 5 experts talks of the importance of sexual health. Including the consequences if you don't or do discuss it. E.g. can refer better.
	Shifting perspective: Encouraging taking the perspective of the other.	In the role play we discussed, practiced the different case studies from the patient's perspective. E.g.; what is it like for the patient to use this opening sentence? One nurse was able to practice the same case following feedback multiple times. And process the comments during practice.
	Direct experience: Encouraging a process whereby knowledge is created through the interpretation of experience.	Theory in the morning is applied by 2 experts through case examples. Afterwards asked to practice in clinical setting and on return day to try again through role plays.
	Elaboration: Stimulating the learner to add meaning to information that is processed.	Use of theory when not discussed how it affects the pt. This was later reflected in practical examples discussed plenary.
	Information about health consequences: Provide information (e.g. written, verbal, visual) about health consequences of performing the behavior.	The presentations of day 1 focuses on the fact that if you don't discuss the same complaints e.g. STD or libido loss, the same symptoms keep coming back. The importance of discussing and recording interventions was explained. This used to be more on intuition. By recording, evaluating and discussing the outcomes, the nurse can better refer or treat.
	Salience of consequences: Use methods specifically designed to emphasize the consequences of performing the behavior with the aim of making them more memorable.	As a group, there were sometimes negative reactions to real-life examples from the group itself, with some questions and techniques not seen in the video. All speakers are experienced and experts in the field. Their presentation focused on the benefits to the patient of starting the conversation.
	Information about social and environment consequences: Provide information (written, verbal, visual) about social and environmental consequences of performing the behavior.	Nurses often assume that behavior in the consultation room during conversations is good. On Day 1 where theory and practice come together, examples are given where sometimes it appears that having a conversation in a different way could possibly still lead to different outcomes.
	Credible source: Present verbal or visual communication from credible source in favour of or against the behavior.	While practicing in practice through role playing the techniques learned will be applied. On day 2 there is a lot of attention for specific behavior to influence the outcome of a conversation.

	Incompatible beliefs: Draw attention to discrepancies between current of past behavior and self-image, in order to create discomfort (includes 'cognitive dissonance').	There was attention in the presentations to the practical situations on the one hand the current practice and on the other hand examples of how it should be according to the theory. Explanations were given about the different ways in which SHC is addressed. The differences were discussed in small groups with attention to the discomfort that sometimes arose during practice.
Perceived skills & Self-efficacy **Express confidence in the ability to initiate SHC**	Guided practice: Prompting individuals to rehearse and repeat the behavior various times, discuss the experience and provide feedback.	On day 1 the nurses were shown examples of practical situations from colleagues. On day 2 the participants got to work with them by discussing their own cases. During practice they got feedback from each other and the actor and this was discussed afterwards in small group as well as in class.
	Verbal persuasion: Using messages that suggest that the participant possesses certain capabilities.	Two expert nurses explained step by step through their own case histories how to put theory into practice. They also actively involve and empower the audience.
	Cue altering: Teaching changing a stimulus, either consciously or unconsciously perceived, that elicits or signals a behavior.	The opening questions collected from the field and tested by experts were discussed with all participants in order to then apply them in practice during the role-playing games.
	Planning coping response: Prompting participants to list potential barriers and ways to overcome these.	In small groups we discussed what would you do differently in your own hospital as a result of learning about SHC and practicing.
	Problem solving (overlap planning coping respons): Analyze, or prompt the person to analyze, factors influencing the behavior and generate or select strategies that include overcoming barriers and/or increasing facilitators.	While practicing role playing games with the moderator, actor and colleagues, it was discussed which barriers influence SHC. Also jointly discussed was how this might be done in other ways so that the barriers are reduced.
	Instruction on how to perform behavior: Advise or agree on how to perform the behavior.	During 2 presentations specific theory was covered about conversation skills, then translated into a case that was discussed in plenary. After that the groups split up to practice with instructions. Instructions were also on paper.
	Demonstration of the behavior: Provide an observable sample of the performance of the behavior, directly in person or indirectly e.g. via film, pictures, for person to aspire to or imitate.	During both days there was a case study that was fully developed by 2 people via power point and discussed step by step in the group. On both days, role plays were practiced at different times.
	Behavioral practice/rehearsal: Prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill.	On the return day, participants brought in their experiences from the past few months and this was discussed in plenary. This was very deliberately positively endorsed by the moderators.

	Social reward: Arrange verbal or nonverbal reward if only if there has been effort and/or progress in performing the behaviour.	After practicing through role-plays and case histories with each other in both small groups and plenary discussed that after these days they have sufficient knowledge and skills to discuss SHC. This was discussed several times and by different people.
	Verbal persuasion about capability: Tell the person that they can successfully perform wanted behavior, arguing against self doubts and asserting that they can and will succeed.	In the last part of day 2, the successes were discussed in plenary and attention was also paid to the fact that in practice it is sometimes not always ideal. The participants were advised to think back to this training and to look at the theory and detailed case studies.
	Focus on past success: Advise to think about or list previous successes in performing the behaviour.	Last part of the day plenary successes discussed in initiating the conversation about SHC. Also indicated that it is normal that in practice it may be a bit more difficult. The advice was given to think back to the 2 training days and to take in the theory and detailed case studies.
The nurse demonstrates skills of initiating sexual health counselling in a practical setting	Behavioral practice/rehearsal: Prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill.	After practicing with role-play (actors), observed by colleagues and moderators. Nurses positive points about their skills are discussed with feedback so they can use them in clinical setting. Day 1 through self-submitted case studies, the skills of the nurses was evaluated and provided with feedback, and discussed anonymously in presentations by experts. Day 2, case studies were again discussed and nurses were given opportunities to practice in various roles multiple times; as observers, nurses, and listeners.
Social norm **States that the patients approve and respect their decision to initiate SHC**	Credible source: Present verbal or visual communication from a credible source in favour of or against the behavior.	Informing patients at start consultation using share decision making that SHC is a topic to bring up.
Recognize that other professionals have found SHC has enough advantages to be worthwhile to implement them	Information about others' approval: Provide information about what other people think about the behavior. The information clarifies whether others will like, approve or disapprove of what the person is doing or will do.	Talk to each other about how things are arranged within your own setting and with mutual agreements with colleagues. Here, a lot of attention was paid to the practice with examples to exchange experiences.
	Social comparison: Draw attention to others' performance to allow comparison with the person's own performance.	Have a plenary discussion in small groups and discuss the differences and similarities within each other's setting.

***Notes**:*
The parameters for these methods can be found in Kok et al. (2016).
Abbreviation; SHC sexual health counseling;

IM-task 3.3: Select or Design Practical Applications

Translating behavioral change methods into applications requires a sufficient understanding of the theory behind the method, especially the parameters necessary for the effectiveness of the change process in practice (Kok et al., 2016). Table 2 provides an overview of the intervention for PO1: "Providers initiate SHC", including theory-based change methods, their translation into practical applications, and how these relate to earlier determinants. E.g., the change objective "Feel positive about initiating SHC during consultation" is related to 'attitude', leading to methods for changing attitudes, e.g. "Direct experience, to encourage a process whereby knowledge is created through the interpretation of experience". Theoretical knowledge about sexuality was taught by multiple experts, each of whom tried to transfer their knowledge through examples from practice. The participants were then asked to practice initiating SHC during the training and in their own clinics. On the second day, role-play was used again to assess the nurses' attitudes when actively initiating SHC.

Overview IM-task 4: Program Production

The first task is to refine the program structure and organization generated in IM-Step 3. The second task is to prepare plans for the program content. These documents will guide production, ensuring that the program materials and activities are relevant and follow the parameters for their selected methods and practical applications. The final task in this step is to pre-test, refine, and produce program materials.

IM-task 4.1: Refine Program Structure and Organization

The project group developed a program based on all input, which was then presented to the linkage group for discussion and adjusted in two meetings. The project team, composed of three field experts, finalized the program based on established parameters, which include methods, applications, and specific details, outlined in the sections on the SHC pilot program (Tables 2, S1 and S2).

The 2005 sexual health training for HIV nurses consisted of five full days; nurses found this to be an excessive burden on their daily practice. We designed the new training to be one full and one half day, with an interval of three months to increase the learning effect. The training was designed for all HCPs providing care for PWH and working in a hospital or public health organization. It was anticipated that approximately 33% of all HIV nurses in the Netherlands would participate: 28 participants. The training was accredited for both physicians and nurses in the field of HIV by the Accreditation Committee of the Quality Register. HCP are required to earn a certain number of these points in order to maintain their registration.

The linkage group considered it important to start on the first day with plenary expert talks rather than small group discussions, given the lack of knowledge indicated by participants and the discomfort they sometimes felt discussing sexual health. Speakers were selected based on expertise and experience; and invited for a face-to-face meeting to discuss the exact content of their contributions to prevent overlap. The duration varied: 30-45 minutes. Actors were approached through a national network in sexology, and context and case studies were explained during a one-on-one online conversation. A week before the first training day, case-scenarios were reviewed in a joint online meeting involving the project group and three actors. Due to the national nature of the meeting, Utrecht was chosen, being centrally located.

IM-task 4.2: Content of the Program

Prior to the training, participants received two assignments: 1) write up a patient case in which the participant encountered difficulties addressing or discussing sexuality; 2) outline a sexology network in their own region, to determine if that network was comprehensive or if there were more potential partners.

The first part of day 1 started with an opening by the project group presenting a case study of their own clinical practice related to positive sexual health when discussing sexual health. Then followed three talks on basic knowledge about sexuality, focusing on sexual health problems linked with attitude, self-efficacy, skills and social norms. All presenters interacted with the audience by asking questions via mentimeter.com.

The second part of day 1 involved translating theory into conversations in daily practice during routine consultation, introduced from the perspective of the nurse, followed by how-to-apply theoretical models during consultation. Then: conversation techniques, illustrated with examples, followed by an explanation which barriers and facilitators nurses and physicians may experience;

from the provider's perspective. This allowed participants gaining a better understanding of how the theoretical concepts can be applied in real-life, and identifying factors that may hinder or support effective communication about sexuality. Small groups reviewed and discussed video recordings of routine HIV consultations. These sessions were mainly interactive to create a safe atmosphere and to build up confidence among participants. At the end of the second part of the first day, participants returned to the earlier case study and were asked to consider in their own network whom they could refer patients to in the region of their hospital.

The third part of day 1 was focused on clinical practice. Participants watched video footage of consultations in small groups and were asked questions (e.g. "what did you notice?") to engage them in conversations about the practice of SHC. This third part ended with a plenary session in which the importance of a sexology referral network was discussed based on a case study presented by two project group members. After this plenary session, participants were asked to map out their own network at home, make it comprehensible, and bring it to day 2.

On day 2, the focus was on role-playing and practicing case scenarios for sexual health counseling, with the help of actors. Day 2 began with a plenary session, in which the theory from day 1 was integrated into practical examples. Two members of the project group went through a case study. Next, the participants dispersed into small groups and practiced their own case scenarios with actors, focused on skills training. Participants engaged in conversations as both professionals and observers, focusing on key points from a handout. This handout, along with observer notes, later guided evaluations of participants' attitudes and behaviors during case practice. Participants engaged in simulated scenarios applying their knowledge and skills related to discussing sexual health. These role-plays allowed them to simulate real-life interactions with patients, improving their communication techniques and addressing challenges they might encounter. By actively participating, participants had the opportunity enhancing their confidence and competence in discussing sensitive topics. Day 2 concluded with a plenary session featuring reflections from one participant per group on their role-playing experiences and interactions with actors. Next, a plenary discussion about sexuality, sexual health guidelines, the clinical setting, how colleagues view discussing SHC during consultation, and possible differences between hospitals. A case study highlighted the importance of a robust referral network. Homework assignments were also discussed, and participants received the fully elaborated case studies from both days, providing a step-by-step guide on paper. Additionally, they were given the theoretical models discussed on day 1 in written form. Table 3 provides an overview of the SHC training program.

Table 3

Program of the pilot training sexual health counseling

Program of the pilot training sexual health counseling

PROGRAM		AGENDA
Day 1	Part one (3 hours) Overview of sexual health in the field of HIV	I. Positive sexual health: a case study II. Sexual and reproductive anatomy of males and females III. Psychological perspective related to sexual health and HIV IV. Sexual problems and HIV (sexual behavior and STIs)
	Part two (2 hours) Initiating and discussing sexual health in clinical practice	I. Discussing sexual health: from theory to clinical practice. Case examples and benefits of discussing sexual health II. Theoretical models: biopsychosocial model, PLISSIT, communication strategies linked with case studies III. Sexual history: which questions to ask, attitude of the care provider, how to apply theoretical models during counseling IV. Barriers and facilitators of discussing sexual health from a provider's perspective V. Recognizing the importance of SHC; case studies
	Part three (60 minutes) Clinical practice	I. Real life video registrations of consultations in clinical practice II. Practical tips and exploring referral options III. Summary via case study of theory discussed day 1.
Day 2	Part one (60 minutes) Skills building & clinical practice	I. How to apply theoretical sexual models in a conversation (including communication skills) II. Capability of initiating sexual health and having an in-depth conversation III. Demonstrating skills: self-efficacy and assertiveness of care providers
	Part two (90 minutes) Skills building	I. Scenarios of real-life case studies are discussed II. Role playing (effective patient-provider dialogue)

Abbreviation; SHC sexual health counseling; STI sexual transmitted infection.

IM-task 4.3: Pre-test, Refine, and Produce Program Materials

The program material compiled by the linkage process consisted of three elements. Initially, all experts provided a PowerPoint presentation to support the talk. The presentations were checked by members of the linkage group to prevent overlap, whether the content was sufficiently relevant; and to make final adjustments. The talks were mostly from a medical perspective; however, after input from the linkage group, more attention was given to the psychosocial aspect of sexuality. After the training, these presentations were sent to the participants at their request. Case studies from day 1 and 2 were three examples from the practice of an HIV nurse who was also a consultant

sexologist, fully developed by the linkage group according to the theoretical models explained earlier. The linkage group assessed the case studies on content, relevance and applicability in daily practice, and final adjustments were made. After the training, all participants received the fully developed case studies to take home. An interview guide ensured that they discussed the same questions during their role-play practice.

Overview IM-task 5: Program Implementation Plan

Implementation Mapping (Fernandez et al., 2019) was applied within IM-step 5 and involves five specific tasks, iteratively applied to involve all adopters and implementers, implementation outcomes, determinants, and objectives. We applied the five specific Implementation Mapping tasks to bridge the gap between the development of effective programs and their actual implementation in the HIV care setting.

IM-task: 5.1: Conduct an Implementation Needs Assessment

The program adopters are HCPs within HIV care. Due to the strong involvement of the linkage group, the focus was on HIV nurses, with HIV physicians being indirectly involved. To bring the pilot training to national attention properly, monthly contact was made with the VCH-board, and three times with the NVHB-board. It was important that HCPs agreed to participate in the entire training program. Sometimes, participants would need to negotiate with their managers and colleagues to secure the time required for attending the training.

The linkage group was a highly active group that kept all relevant stakeholders (VCH, NVHB, and soaids) informed on a monthly basis through periodic mailings. Moreover, from the beginning, this group was in close contact with other HIV nurses, HIV physicians, HIV prevention programmers, sexual health experts, and PWH. The first author provided multiple lectures, to physicians about the results of the needs assessment and to nurses on nursing practice. The request for more attention to sexual health training came from the linkage group itself, and members dedicated extra hours through their own hospitals, ensuring that conditions such as time and intrinsic motivation from the group itself would facilitate the future development of the intervention.

IM-task: 5.2: Identify Adoption and Implementation Outcomes, Performance Objectives, Determinants, and Change Objectives

During discussions with the board of physicians (NVHB), we noticed that sexuality was not a priority topic. Therefore, we decided focusing primarily on nurses as future implementers, as described in the performance objectives. Members of the linkage group engaged in lectures and interactive discussions at three meetings with as many nurses as possible, aiming for them to recognize the value of the training and to encourage them to sign up. The program implementers were responsible for the content of the training, ensuring that the speakers' presentations aligned well with the level and knowledge of the nurses.

Additionally, the curriculum was tailored to the performance objectives of Step 1: "Nurses initiate sexual health conversations during routine HIV consultations, discuss and delve deeper into sexual health topics during routine HIV consultations, and apply effective communication techniques for sexual health conversations during routine HIV consultations". The determinants attitude, self-efficacy, skills, and social norms were incorporated into the training objectives (IM-Step 1). The linkage group focused specifically on attitude, particularly in the months leading up to the training. In all meetings, it was emphasized that the nurse's positive attitude towards sexuality is crucial for effectively discussing this topic in consultations. In addition, workshops and discussions were held at conferences targeting SHC in the Netherlands, emphasizing the importance of the performance objective "initiating sexual health counseling" as part of the professional roles of physicians and nurses.

IM-task 5.3: Select Theoretical Methods and Design Implementation Strategies

To promote that nurses actually signed up for the training, we employed various methods: persuasive communication, modeling, and mobilization. Alongside addressing nurses' attitudes, we also focused on the fact that sexuality is not always discussed according to effective communication strategies. Through discussions and lectures, we made the target group realize the need for changing current behavior and engaging in conversations about the findings of the needs assessment and what this means for practice. Articles already published from our needs assessment were circulated among members of the VCH and the NVHB.

IM-task: 5.4: Produce Implementation Protocols

Aside from much attention being given to promoting the training among stakeholders, the linkage group and planning group convened to discuss which documents would be best utilized prior to, during, and after the training. First, a video (shared via LinkedIn) was utilized, featuring a nurse in real practical setting addressing the challenges of discussing SHC. The aim of this video was to acknowledge the problem from a practical standpoint and encourage participation in the training. In addition to monthly updates sent via emails to all VCH members to raise awareness about the training, various materials were used on the day itself. Regarding knowledge, the theoretical models used by speakers in their presentations were printed and distributed onsite among participants in consultation with the speakers prior to the event.

Additionally, we incorporated case studies submitted by participants before the training. Speakers integrated these into their discussions. Also, during the first day of training, video footage from the observational study in the needs assessment in IM-step 1 was utilized. These videos were viewed (with permission) to discuss attitudes, self-efficacy, and skills. The goal was to engage in conversations about what is observed in practice and what that means after completing day 1 part two.

IM:-task: 5.5. Evaluate Implementation Outcomes

We did effectively reach our target audience N= 34. The application of various methods during the training, connected to implementation outcomes, determinants, and objectives, became clear for the participants. They also saw those as integral parts of this nursing training. After 1.5 days, they gained a clearer understanding of the three performance objectives and how those relate to their own practice.

What did not work well in this step was our decision to use experienced actors in role-playing scenarios with participants' own submitted case studies for the guided practice method: participants found it tense to practice with actors they don't know, especially with colleagues present.

Overview IM-step 6: Pilot evaluation

The setup of this pilot training as an intervention was small-scale, making it impossible to conduct a RCT. We did a process evaluation of the intervention in combination with an evaluation of the effect, we assessed both the self-reported behaviors and their determinants in four online questionnaires (see supplementary) using pre- and post-pilot design.

This study was exempt from formal medical ethics review as stipulated in the Medical Research Involving Human Subjects Act of the Netherlands, as no patients were included and the study did not involve medical or behavioral interventions of patients.

The baseline questionnaire was administered via email two days before the training. Participants who had not completed the questionnaire were invited to complete it on the day before the training started. The second questionnaire (T1) was distributed before the second training day. Following the conclusion of the second day, the third questionnaire (T2) was sent with two-week reminder. Six weeks later, the fourth questionnaire (T3) was distributed, again with a two-week reminder.

The limited sample size precludes statistical comparison testing. We provide descriptive analysis of the outcomes (Table 4). We kept the questionnaires as short as possible to reduce participant burden. At baseline, we did not include skills due to the focus of day 1 being on attitude and self-efficacy. Additionally, we chose not to include social norms at T3 assuming no change after T2. The process evaluation (T2) was assessed using a Likert scale (1= poor, 5= excellent).

In total, 37 participants followed day 1 of the training (16 online): 34 nurses, 2 physicians and 1 social worker; 20 nurses also participated on day 2. Participants were positive about all outcomes at baseline, then dipped after day 1, followed by an upward trajectory after day 2. The evaluation of effect of the pilot training with 20 participants who took part in both days revealed a positive trend in the determinants of participants' attitudes, social norms, knowledge, and perceived skills. Additionally, the intention to initiate sexual health care seems high but does not appear to have changed.

The process evaluation (data not in Table 4) showed that participants were positive about the clinical relevance of the complete program (M=4.32, SD=.70). The quality of the discussions was rated positively: 3.88 (SD=.54). Participants also indicated that enough time was spent on each topic: 4.08 (SD=.41). A large-scale evaluation should take place during the further development and implementation of this pilot training.

Table 4
Outcome evaluation of the pilot training at baseline, before training day 2 (T1), immediately after day 2 (T2), and six weeks after day 2 (T3)

Determinants	Items	Cronbach's alpha	Baseline, mean ± SD (N = 34)	T1, mean ± SD (N = 20)	T2, mean ± SD (N = 20)	T3, mean ± SD (N = 19)
Attitudes	4	0.83	5.26 ± 1.02	4.73 ± 1.42	4.94 ± 1.22	5.49 ± 0.79
Self-efficacy	6	0.74	5.00 ± 0.98	4.35 ± 1.44	4.51 ± 1.32	4.91 ± 0.75
Social norms	3	0.82	5.10 ± 0.94	4.96 ± 1.78	5.48 ± 1.71	–
Knowledge	1		4.30 ± 1.41	4.08 ± 1.41	4.50 ± 1.40	5.40 ± 1.19
Perceived skills	1		–	4.17 ± 1.55	4.30 ± 1.46	6.00 ± 0.80
Intention to initiate	6	0.72			5.89 ± 0.61	5.85 ± 0.59

Discussion

Effective training has the potential to enhance providers' ability to comfortably discuss sensitive sexual health issues (Dyer and das Nair, 2013; Fennell and Grant, 2019; Ford et al., 2013). Our study provides significant insights into developing an intervention aimed at encouraging healthcare professionals (HCPs) to address sexual health during routine HIV consultations. By applying Intervention Mapping for design and Implementation Mapping, we aimed to assess whether promoting initiating conversations and sexual health counseling could enhance both the frequency and quality of counseling in these consultations. Significant involvement from nurses in the HIV field led to the development of an intervention tailored to their needs, which positively influenced participants' attitudes, social norms, knowledge, and perceived skills over time.

The finding that the majority of our participants were nurses aligns with previous research that has primarily examined nurses' attitudes, knowledge, experiences, and barriers to discussing sexual health (Kelder et al., 2022; Klaeson et al., 2017; Zhang et al., 2020). While nurses play a crucial role in educating patients about sexual health care (Fennell and Grant, 2019), it is essential to recognize that both nurses and physicians should proactively engage with patients regarding their sexual concerns. Echoing the study by Jonsdottir et al. (2016), our focus extended beyond nurses to include a diverse group of healthcare professionals. Nevertheless, during the training, nurses predominated, with only nurses present on the second day. This underscores a potential gap in collaborative care, as both HIV physicians and nurses expressed responsibility for providing sexual health care (de Munnik et al., 2021). Our findings suggest that, while there is ambiguity regarding the division of responsibility, nurses, particularly those specializing in HIV care, are well-trained and positioned to address sexual health issues. Given their substantial involvement in all phases of the intervention model, it is imperative to prioritize nurses as the primary providers of nursing care, especially in the context of sexual health.

Nevertheless, while there is substantial knowledge regarding the application of Intervention Mapping in developing tailored interventions (Roozeboom et al., 2021), systematic training programs specifically designed for clinical nurses in the field of HIV remain scarce. Moreover, research evaluating the impact of these programs on nurses' knowledge, attitudes, and self-efficacy is limited, and existing initiatives often lack comprehensiveness (McAuliffe et al., 2016). To address this gap, we developed a training program aimed at meeting these needs and assessed its effects on the aforementioned determinants. Although we integrated all steps of Intervention Mapping and aligned determinants with

behavior change strategies, the training program we developed, which emerged after completing all stages—including matrices and performance objectives—did not achieve our primary goal of improving the frequency and quality of sexual health counseling. The intention to initiate sexual health care was high before the intervention (de Munnik et al., 2017b), therefore this intervention has not translated into observable changes in intentions. We focused the evaluation of the training's on assessing the determinants that were the aim of the intervention. We changed these through various behavior change methods, which may have overshadowed the focus on the ultimate performance objectives. Moving forward with the development of this pilot training, further research is necessary to better define performance objectives, particularly objective assessment of behaviour. Emphasising those related to in-depth discussions about sexual health and the application of effective communication techniques. This will ultimately facilitate more productive conversations about sexuality, ensuring that patients receive comprehensive care.

To facilitate productive discussions on sexual health counseling during consultations, it is essential to employ appropriate behavior change methods in training that help to effectively influence behavior. While these behavioral change methods have been successfully implemented in various settings (Kok et al., 2016), some were less effective in our training.

For instance, we utilized guided practice, an effective method for enhancing self-efficacy and skill development. We incorporated both video footage and real-life case studies, which, according to the linkage group, were well-suited for the HIV context. However, the use of video footage resulted in participants spending excessive time discussing the scenario's context rather than focusing on the primary goal of reinforcing sexual health discussions. This led to a negative atmosphere during the group viewing of the videos. In contrast, the incorporation of participants' own case studies, combined with small group discussions guided by a structured set of questions around sexuality, was positively received. This approach likely contributed to an improvement in their perceived skill. Possibly guided practice was in this case not the best selected of the behaviour change methods. Still, it is important to focus on how to enhance the self-efficacy of HIV nurses in the ongoing development of the training program. Moreover, targeting self-efficacy alone may not lead to behavior change; there are other relevant determinants. Also, when applying change methods, it is crucial to ensure that the parameters for a method's effectiveness are met. According to the literature, methods of behaviour change must target the specific determinants that are selected, with practical, specific applications, and reflecting the parameters of the theory-based methods they embody. Stronger multidisciplinary collaboration is needed, involving experts such as behavioral scientists in the development of behavior change methods, who should work closely with healthcare professionals in the HIV field.

The intervention presented in this study has several notable strengths. First, our study significantly contributes to the literature on Intervention Mapping by thoroughly documenting the entire process and highlighting the unique challenges we encountered, which may be valuable for others applying this framework. Additionally, the project originated as a grassroots initiative among HIV nurses eager to enhance their practice, which ignited interest in developing a tailored intervention. This process involved collaboration with key stakeholders in the HIV field, including patient organizations, NVHB, VCH, and Soa AIDS Netherlands.

A highly engaged linkage group of HIV nurses from across the country played a critical role in promoting the training at meetings and conferences, making participant recruitment relatively straightforward. However, we acknowledge the possibility of selection bias among the participating nurses. Lastly, the well-structured nature of HIV care in the Netherlands has fostered an effective network of professionals in this field. The COVID-19 pandemic necessitated a shift to a hybrid training format, which, despite presenting challenges, also demonstrated that the training could remain effective even when components needed to be adapted for remote delivery.

This study is not without limitations. The before and after design, having neither a control group nor randomization weaken the validity of the findings. However, the twenty HIV nurses who completed all four questionnaires represent 24% of all the HIV nurses in the Netherlands. Finally, another limitation of our study is that due to practical constraints, the questionnaire did not measure all the performance objectives. This may explain why we did not achieve our primary goal, as we focused too heavily on influencing the participants' determinants rather than also addressing intention and behavior, as outlined in the Theory of Planned Behavior (Ajzen, 1991). Nevertheless, these results should be viewed as an initial step in a pilot evaluation and can serve as a foundation for developing a comprehensive training program that incorporates all aspects of the TPB.

In conclusion although this evaluation as the final step of IM provides valuable insight into which determinants of HCPs working in the field of HIV can be influenced, it is desirable to further develop this intervention. We still do not have a complete understanding of how to influence HCP behavior in such a way that all three performance objectives of the training are achieved and sexual health counseling is fully discussed. A recommendation for further development of the intervention is to place more focus on the performance objective two and three, discussing sexual health in more depth, applying the appropriate communication techniques, and evaluating intentions and behavior. An example could be through observations, such as reviewing one's own recordings of consultations, watching oneself back, and receiving feedback.

For the further development of the pilot training, it is essential to involve not only nurses but also to encourage more active participation from physicians. Although physicians are not the primary providers for discussing sexual health counseling, literature indicates that patients rarely initiate conversations about sexuality-related issues. A common explanation for this is that patients expect healthcare professionals, such as physicians, to address these topics if they consider them important (Jonsdottir et al., 2016). The role of physicians in sexual health counseling, as well as nurses highlighted in our needs assessment, is crucial during routine HIV consultations. Additionally, since effective communication requires collaboration between patients with HIV and healthcare professionals, it is recommended to enhance the involvement of patient associations in the development of this pilot training. When HCPs listen and communicate with patients, they are likely to develop a shared understanding with regard to sexual health that may improve future decision making and the quality of sexual care patients with HIV receive.

References

Aidsfonds. (2008). https://www.yumpu.com/nl/document/read/20242375/richtlijn-seksuele-gezondheid-bij-mensen-met-hiv-soa-aids. (accessed 28 november 2024)

Ajzen, I. (1991). The theory of planned behavior. Organ. Behav. Hum. Decis. Process. 70, 179–211. https://doi.org/.

Ajzen, I. (2006) Constructing a Theory of Planned Behaviour Questionnaire: Conceptual and Methodological Consideration. http://www.people.umass.edu/aizen/pdf/tpb.measurement.

Albers, L.F., Palacios, L.A.G., Pelger, R.C.M., Elzevier, H.W. (2020). Can the provision of sexual healthcare for oncology patients be improved? A literature review of educational interventions for healthcare professionals. J. Cancer Surviv. 14 (6), 858–866. https://doi.org/10.1007/s11764-020-00898-4.

Åling, M., Lindgren, A., Löfall, H., Okenwa-Emegwa, L. (2021). A scoping review to identify barriers and enabling factors for nurse-patient discussions on sexuality and sexual health. Nurs. Rep. 11 (2), 253–266. https://doi.org/10.3390/nursrep11020025.

Bauer, M., Haesler, E., Fetherstonhaugh, D. (2016). Let's talk about sex: older people's views on the recognition of sexuality and sexual health in the health-care setting. Health Expect. 19 (6), 1237–1250. https://doi.org/10.1111/hex.12418.

Braun, V., Clarke, V. (2006). Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101. https://doi.org/10.1191/1478088706qp063oa.

Clinicalinfo.hiv.gov. (2024). clinical guidelines. Accessed 10 may 2024, van https://clinicalinfo.hiv.gov/en/overall-search?search=sexual+

de Bruin, M., Viechtbauer, W., Hospers, H.J., Schaalma, H.P., Kok, G. (2009). Standard care quality determines treatment outcomes in control groups of HAART-adherence intervention studies: implications for the interpretation and comparison of intervention effects. Health Psychol. 28 (6), 668–674. https://doi.org/10.1037/a0015989.

de Munnik, S., Daas, C.D., Ammerlaan, H.S.M., Kok, G., Wit de, J., Vervoort, S. (2025). Observations of communication practices between HIV-positive men who have sex with men and HIV-nurses during HIV consultation regarding sexual health counselling; A Qualitative Study. Journal of the Association of Nurses in AIDS Care ():10.1097/JNC.0000000000000525, February 18, 2025. | DOI: 10.1097/JNC.0000000000000525.

de Munnik, S., Daas, C.D., Ammerlaan, H.S.M., Kok, G., Raethke, M.S., Vervoort, S. (2017)a. Let's talk about sex: a qualitative study exploring the experiences of HIV nurses when discussing sexual risk behaviours with HIV-positive men who have sex with men. Int. J. Nurs. Stud. 76, 55–61. https://doi.org/10.1016/j.ijnurstu.2017.09.002.

de Munnik, S., Vervoort, S., Ammerlaan, H.S.M., Kok, G., Daas, C.D. (2017) b. From intention to STI prevention: an online questionnaire on barriers and facilitators for discussing sexual risk behaviour among HIV nurses. J. Adv. Nurs. 73 (12), 2953–2961. https://doi.org/10.1111/jan.13372.

de Munnik, S., Vervoort, S., Kraan, L., Ammerlaan, H.S.M., Palacio, L.A.G., Kok, G., Elzevier, H.W., de Wit, J., Daas, C.D. (2021). Sexual health counselling by Dutch HIV care providers: a cross-sectional survey among physicians and nurses in the Netherlands. AIDS Care 34 (6), 734–740. https://doi.org/10.1080/09540121.2021.1906400.

de Vincentis, S., Tartaro, G., Rochira, V., Santi, D., (2021). HIV and sexual dysfunction in men. J. Clin. Med. 10 (5), 1088. https://doi.org/10.3390/jcm10051088.

Dyer, K., das Nair, R. (2013). Why don't healthcare professionals talk about sex? A systematic review of recent qualitative studies conducted in the United kingdom. J. Sex. Med. 10 (11), 2658–2670. https://doi.org/10.1111/j.1743-6109.2012.02856.x.

Eldredge, L.K.B., Markham, C.M., Ruiter, R.A.C., Fernández, M.E., Kok, G., Parcel, G.S. (2016). Planning health promotion programs: an intervention mapping approach. Jossey-Bass Inc., United Kingdom, UK.

European AIDS Clinical Society. (2024). Sexual and Reproductive Health. Geraadpleegd op 5 juni 2024, van https://eacs.sanfordguide.com/prevention-non-infectious-co-morbidities/sexual-reproductive-health/sexual-transmission-

Fennell, R., Grant, B., 2019. Discussing sexuality in health care: a systematic review. J. Clin. Nurs. 28 (17-18), 3065–3076. https://doi.org/10.1111/jocn.14900.

Fernandez, M.E., Ruiter, R.A.C., Markham, C.M., Kok, G. (2019). Intervention mapping: theory- and evidence-based health promotion program planning: perspective and examples. Front. Public Health 7, 209. https://doi.org/10.3389/fpubh.2019.00209.

Ford, J.V., Barnes, R., Rompalo, A., Hook, E.W., 3rd, 2013. Sexual health training and education in the U.S. Public Health Rep. 128 Suppl 1 (Suppl 1), 96–101. https://doi.org/10.1177/00333549131282s111.

Jonsdottir, J.I., Zoëga, S., Saevarsdottir, T., Sverrisdottir, A., Thorsdottir, T., Einarsson, G.V., Gunnarsdottir, S., Fridriksdottir, N. (2016). Changes in attitudes, practices and barriers among oncology health care professionals regarding sexual health care: outcomes from a 2-year educational intervention at a university hospital. Eur. J. Oncol. Nurs. 21, 24–30. https://doi.org/10.1016/j.ejon.2015.12.004.

Kelder, I., Sneijder, P., Klarenbeek, A., Laan, E. (2022). Communication practices in conversations about sexual health in medical healthcare settings: a systematic review. Patient Educ. Couns. 105 (4), 858–868. https://doi.org/10.1016/j.pec.2021.07.049.

Klaeson, K., Hovlin, L., Guvå, H., Kjellsdotter, A. (2017). Sexual health in primary health care - a qualitative study of nurses' experiences. J. Clin. Nurs. 26 (11-12), 1545–1554. https://doi.org/10.1111/jocn.13454.

Kok, G., Gottlieb, N.H., Peters, G.J., Mullen, P.D., Parcel, G.S., Ruiter, R.A., Fernández, M.E., Markham, C., Bartholomew, L.K. (2016). A taxonomy of behaviour change methods: an intervention mapping approach. Health Psychol. Rev. 10 (3), 297–312. https://doi.org/10.1080/17437199.2015.1077155.

Krouwel, E.M., Albers, L.F., Nicolai, M.P.J., Putter, H., Osanto, S., Pelger, R.C.M., Elzevier, H.W. (2020). Discussing sexual health in the medical oncologist's practice: exploring current practice and challenges. J. Cancer Educ. 35 (6), 1072–1088. https://doi.org/10.1007/s13187-019-01559-6.

Magnan, M.A., Reynolds, K. (2006). Barriers to addressing patient sexuality concerns across five areas of specialization. Clin. Nurse Spec. 20 (6), 285–292. https://doi.org/10.1097/00002800-200611000-00009.

McAuliffe L, Bauer M, Fetherstonhaugh D &Chenco C (2016) Education of residen-tial aged care staff regarding sexualityand sexual health in later life. Journal ofClinical Nursing 25, 883–885.

Mevissen, F.E.F., Kok, G., Watzeels, A., van Duin, G., Bos, A.E.R. (2018). Systematic Development of a Dutch School-Based Sexual Prejudice Reduction Program: an Intervention Mapping Approach. Sex. Res. Social Policy 15 (4), 433–451. https://doi.org/10.1007/s13178-017-0301-1.

Mrad, H., Vinette, B., Chouinard, A., Bilodeau, K. (2022). Educational interventions to improve communication about sexual health between nurses and gynecologic oncology patients: a narrative review. Can. Oncol. Nurs. J. 32 (1), 30–37. https://doi.org/10.5737/236880763213037.

O'Connor, S.R., Connaghan, J., Maguire, R., Kotronoulas, G., Flannagan, C., Jain, S., Brady, N., McCaughan, E. (2019). Healthcare professional perceived barriers and facilitators to discussing sexual wellbeing with patients after diagnosis of chronic illness: a mixed-methods evidence synthesis. Patient Educ. Couns. 102 (5), 850–863. https://doi.org/10.1016/j.pec.2018.12.015.

Rimmer, R.B., Rutter, C.E., Lessard, C.R., Pressman, M.S., Jost, J.C., Bosch, J., Foster, K.N., Caruso, D.M. (2010). Burn care professionals' attitudes and practices regarding discussions of sexuality and intimacy with adult burn survivors. J. Burn Care Res. 31 (4), 579–589. https://doi.org/10.1097/BCR.0b013e3181e4d66a.

Roozeboom, M.C.B., Wiezer, N.M., Boot, C.R.L., Bongers, P.M., Schelvis, R.M.C. (2021). Use of intervention mapping for occupational risk prevention and health promotion: a systematic review of literature. Int. J. Environ. Res. Public Health 18 (4), 1775. https://doi.org/10.3390/ijerph18041775.

Scanavino, M.T., Mori, E., Nisida, V.V., Avelino-Silva, V.I., Amaral, M., Messina, B., Segurado, A.C. (2022). Sexual dysfunctions among people living with HIV with long-term treatment with antiretroviral therapy. Sex. Med. 10 (5), 100542. https://doi.org/10.1016/j.esxm.2022.100542.

Sung, S., & Lin, Y. (2013). Effectiveness of the sexual healthcare education in nursing students' knowledge, attitude, and self-efficacy on sexual healthcare. Nurse Education Today, 33(5), 498–503. https://doi.org/10.1016/j.nedt.2012.06.019

Van Lunsen, R.H.W., & Laan, E.T.M. (2019). Sexual health A Life Course Approach. Steegers, E.A.P. (Ed). Textbook of Obstetrics and Gynaecology (2nd ed., pp177-1). Bohn Stafleu van Loghum.

Verrastro, V., Saladino, V., Petruccelli, F., Eleuteri, S. (2020). Medical and health care professionals' sexuality education: state of the art and recommendations. Int. J. Environ. Res. Public Health 17 (7), 2186. https://doi.org/10.3390/ijerph17072186.

Wolfers, M.E., van den Hoek, C., Brug, J., de Zwart, O. (2007). Using intervention mapping to develop a programme to prevent sexually transmittable infections, including HIV, among heterosexual migrant men. BMC Public Health 7, 141. https://doi.org/10.1186/1471-2458-7-141.

World Health Organisation. (2006). Sexual and reproductive health defining sexual health. https://www.who.int/reproductivehealth/topics/sexual_health/sh_definitions/en/.(accessed on 28 11 2019).

Zhang, X., Sherman, L., Foster, M. (2020). Patients' and providers' perspectives on sexual health discussion in the United States: a scoping review. Patient Educ. Couns. 103 (11), 2205–2213. https://doi.org/10.1016/j.pec.2020.06.019.

Chapter 7
General Discussion

"Intimacy and sexuality are important aspects of quality of life and are basic human needs" (WHO, 2018)

Although people with HIV have a near-normal life expectancy, they often experience lower health-related quality of life (HrQoL) compared to the general population. Sex-life satisfaction and the sexual health of people with HIV are highly significant aspects of HrQoL and should therefore be addressed during consultations (De Vincentis et al., 2021; Flynn et al., 2016; Kall et al., 2020). Several studies indicate that the prevalence of sexual problems and overt sexual dysfunction is higher among people with HIV than among HIV-negative individuals of either gender (Shacham et al., 2017; Zona et al., 2012). People with HIV continue to struggle with challenges related to intimacy and physical sexual pleasure (De Vincentis et al., 2021). When addressing sexual problems in HIV patients, it is important to consider factors specifically associated with HIV infection - such as fear of transmission, body image changes, HIV-related comorbidities, distress, and stigma - as well as more general factors unrelated to HIV.

Healthcare providers (HCPs) caring for people with HIV should address sexual health with the aim of promoting satisfying sexual lives and improving overall quality of life and relationships (Santi et al., 2014). However, discussions about sexual health and intimacy are complex and often need to be initiated by HCPs (Fennell and Grant, 2019). The HCP's role is to identify any problems, concerns or questions and, if necessary, provide sexual health counseling or referrals to other services. In this way, HCPs can help to ensure a better HrQoL for people with HIV. To date, it has been unclear to what extent this actually happens. Therefore, the aim of this dissertation was to explore "what healthcare providers currently discuss, what they should be discussing, and what they need to focus on in the field of HIV-related sexual health counseling to ultimately enhance the quality of sexual health counseling".

This chapter offers a comprehensive overview of the key findings of this thesis. I begin by reflecting on these findings in relation to both theory and HIV practice, examining them within the context of the primary research questions and highlighting the most significant outcomes. I also outline the rationale for using Intervention Mapping (IM) in this study and address key methodological considerations related to the research design. Following this, I explore the practical implications of the findings. The chapter concludes with key lessons for further research and a final overall conclusion.

7

7.1 Main findings

In recent years, a new line of research has emerged that focuses on discussions about sexuality between HCPs and their patients, particularly in the field of oncology (Krouwel et al., 2020; Pimsen et al., 2023). There is, however, a notable lack of published studies on the discussion of sexual health in HIV care, and, to our knowledge, no research to date has simultaneously investigated the role of both nurses and physicians in relation to this topic. Although the role of HIV nurses extends beyond addressing the medical needs of people with HIV—and includes, for example, assisting with medication adherence, providing social support (including discussions about psychological issues, depression, stigma, and drug-related concerns), advising on lifestyle choices and addressing sexual health —the role of physicians, particularly in the area of sexual health, remains unclear. However, bearing in mind that HIV care today is interdisciplinary, it is essential to involve both groups in this type of research in order to clarify roles and establish best practices.

The limited information available to date suggests that communication about sexual health in HIV care remains a problematic issue (Kelder et al., 2022; Krouwel et al., 2015). In the Netherlands, people with HIV often alternate visits between a physician and a nurse at the outpatient clinic. Both HCPs should initiate a discussion of sexual health with their patients, although one would expect there to be differences in the way they address sexual health counseling due to differences in training and competences.

In **Chapter 2**, we investigated to what extent sexual health counseling is incorporated into routine Dutch HIV care, and explored differences between physicians and nurses in their views and practices regarding sexual health counseling for people with HIV. Patients rely on HCPs to determine the content of routine consultations, and previous research has found that physicians tend to focus on medical issues and nurses place more emphasis on providing psychosocial support (Fuzzel et al., 2017; Kwame & Petrucka, 2021). However, our study shows that both physicians and nurses feel responsible for providing sexual health counseling and do discuss some of the same topics, such as fear of transmission and loss of libido. Nevertheless, is not clear which perspective HCPs take (medical or psychosocial), and whether this perspective matches their background and skills in discussing sexual health. Previous research suggests that sexual health counseling is a topic that should be addressed mainly by nurses, as they are able to provide both medical and psychosocial care (Åling et al., 2021; Gradellini et al., 2023). In line with this, our study showed that all nurses (100%) considered their professional group responsible for providing sexual health counseling. However, as patients alternate between seeing a physician and a nurses, it is important to make sure that the patient is able to discuss sexuality in both scenarios.

In **Chapter 2**, we furthermore described how nurses and physicians often wait for patients to bring up sexual health topics themselves (Rimmer et al., 2010; Sandfort et al., 2013; Zhang et al., 2020). However, patients believe that HCPs should bring up the topic of sexual health during appointments (Zhang et al., 2020). In our study, reasons for not initiating the conversation varied between HCP, with both nurses and physicians experiencing the presence of a third party, such as a partner or interpreter, as a barrier to initiating sexual health counseling. Physicians also indicated that they do not begin the conversation if the patient does not bring it up; they usually wait for the patient to initiate it. This highlights a significant gap between patient expectations and HCP practices, underscoring the need for a more proactive approach in addressing how sexual health counseling is implemented.

Nurses are the primary providers of sexual health counseling and have a strong sense of responsibility when it comes to integrating this aspect of care into their consultation. Sexuality is recognized as a vital component of holistic care, and nurses are trained to make a significant contribution to the advancement of healthcare, particularly by providing fundamental nursing care (Heinen et al., 2019; Verrastro et al., 2020). In the current healthcare system, there is a strong emphasis on biomedical care and intervention. Fundamental aspects of care - such as psychosocial support provided by nurses - receive much less attention, despite the fact that they play a critical role in enhancing HrQoL, and significantly impacting patient well-being. This imbalance has contributed to fundamental care remaining one of the least investigated and, therefore, least scientifically evidence-based areas of research.

In order to address this imbalance, **Chapter 3** focused exclusively on the experiences and perspectives of nurses who typically take on the majority of psychosocial care related to HrQoL. Despite nurses expressing a commitment to offering sexual health counseling, there remains a limited understanding of the factors that either hinder or facilitate their ability to do so. To gain a deeper understanding of these factors, we chose to focus specifically on patients exhibiting sexual risk behavior (although it should be noted that there are broader challenges related to sexual healthcare within the context of HIV). This focus is particularly significant, as these risk behaviors can lead to an increased likelihood of sexually transmitted infections and other sexual health issues (Henderson et al., 2020; Kayaert et al., 2022).

In the Netherlands, men who have sex with men (MSM) represent the largest subgroup of people with HIV (Van Sighem et al, 2023). In our qualitative study, described in **Chapter 3**, we identified factors that influence specialized HIV nurses in their decision-making about whether and how to discuss sexual risk behavior with HIV-positive men who have sex with men. To gain insight into the dynamics of discussing sexual health counseling from a nursing perspective, we performed focus groups with HIV nurses. These discussions provided valuable insights into how sexual health counseling is addressed among HIV-positive MSM. We specifically explored why sexual health is sometimes asked about and why this topic is sometimes avoided. We later used the Theory of Planned Behavior (TPB) to better understand the behavioral intentions of HIV nurses in relation to this topic (Ajzen, 1991). Behavior is influenced by multiple factors, and this model helped us to identify determinants that affect HIV nurses' behavior. This approach allows us to pinpoint specific areas where we can influence behavior to ultimately achieve the desired outcome: fostering discussions around sexual health counseling. Although nurses are well positioned to promote sexual health, the current study suggests that their behavior in providing sexual healthcare varies significantly among individuals. Additionally, it indicates that sexuality, a crucial component of quality of life, is often simply not addressed during routine HIV consultations.

As outlined in **Chapter 3**, one theme that emerged in our study (as well as in previous research, see Fennel & Grant, 2019) was discomfort around discussing sexuality. Previous studies have shown that working with older patients, cancer patients, and cardiac patients often leads to discomfort when addressing sexual issues (Bauer et al., 2016; Krouwel et al., 2015; Nicolai et al., 2013). As found in our preceding study (**Chapter 2**), waiting for patients to initiate discussions about sexuality is often a strategy HIV nurses use to avoid discomfort or embarrassment (O' Connor et al., 2019). One might expect HIV nurses to be more comfortable discussing sexuality, given that many patients acquire HIV through unsafe sexual practices, demonstrating a clear need for these discussions to take place. However, despite reporting a sense of responsibility to do so, it appears to be the case that HIV nurses still experience discomfort when providing sexual health counseling.

A significant insight that emerged from the focus group discussions detailed in **Chapter 3** is that HIV nurses have the potential to overcome the discomfort that often creates a barrier to discussing sexual health. By skillfully introducing alternative conversation topics, such as substance use, they can use these as conversational "bridges" to initiate discussions about sexual risk behavior. Surprisingly, there is a paucity of literature on the use of this technique (Krouwel et al., 2020; van Ek et al., 2017). Nevertheless, using a conversational bridge offers a valuable and effective way for nurses to initiate conversations about sexual health. Discussing sexual health can become a more comfortable experience, and concerns can be more easily be raised. This is an important facilitator that was further explored in subsequent chapters.

To generalize from the findings of **Chapter 3** and to confirm which determinants are associated with behavior in a larger sample, we expanded the needs assessment and developed a quantitative questionnaire for our third study in **Chapter 4**. In this chapter, we examined the barriers to and facilitators of discussing sexual risk behavior. The factors assessed in the questionnaire were derived from TPB. The goal of this quantitative study was to replicate some of our previous qualitative findings in a representative sample of HIV nurses in the Netherlands. In addition, our aim was to systematically investigate the psychosocial determinants influencing the intention to discuss sexual risk behavior by measuring the facilitators of and barriers to this behavior, and assessing their relative importance. Aligned with our previous research in **Chapters 2 and 3**, we demonstrated that when nurses believe in the importance of sexual health, they are more likely to engage in discussions about sexual health. Additionally, confidence in initiating discussions about sexual health, as an aspect of self-efficacy within the TPB, was found to positively influence nurses' intentions.

Our findings, which are consistent with other literature, suggest that nurses often fail to adhere to recommendations about initiating sexual health counseling, even if they have strong intentions to do so (Saunamäki et al., 2010). The discrepancy between intentions and behavior, observed in both correlational and experimental studies, is referred to in the literature as the intention-behavior gap (Conner & Norman, 2022; Conner et al., 2016; Rhodes & de Bruin, 2013). The lack of sexual health counseling is not due to a belief that it falls outside the nursing role, nor is it due to a lack of motivation. Rather, it is due to factors such as the inability to initiate the conversation and/or find the time. These factors are crucial in determining whether sexual health counseling is addressed. So, while nurses express a positive attitude toward sexual health counseling, their intention does not always translate into practice. It is important to note that our data do not provide a clear explanation for the gap between intention and behavior. While HIV nurses indicate that they would like to discuss sexual health, there appear to be barriers that have not yet been clearly identified, barriers that nurses themselves may not even be fully aware of.

Previous studies have all relied on the self-reported behaviors and intentions of both physicians and nurses. However, self-reported measures such as responses to questionnaires may be influenced by the participants' desire

to present a generally favorable image of themselves (Johnson and Fendrich, 2002). This tendency to respond in a socially desirable way is especially evident in responses to socially sensitive questions, such as those concerning sexual practices. Similarly, discussions about the sexual practices of others, as part of one's professional role, can also be influenced by social desirability biases (DiFranceisco et al., 1998; King & Bruner, 2000).

In **Chapter 5**, we studied communication behavior during routine HIV consultations between HIV nurses and men who have sex with men (MSM). To accurately capture current practices, we specifically focused on routine consultations for HIV-positive MSM, as this group is disproportionately represented among individuals with HIV in the Netherlands. To clarify what happens during a consultation, we used video footage to investigate communication around sexual health. In addition to the previous studies outlined in **Chapters 2-4**, this video footage gave us additional information about whether, what, and how sexual health issues were discussed. As far as we know, using video footage as research data is not common practice in the field of HIV research, especially among nurses; existing studies primarily focus on the role of physicians (Alexander et al., 2014; Golembiewski et al., 2023; Höglander et al., 2022).

One study, conducted by Alexander et al. (2014), indicates that discussions about sexuality between physicians and patients are often brief. Addressing patients' sexual health requires an interdisciplinary approach that emphasizes active patient involvement and patient-centered communication, facilitating more open discussions in clinical settings (Pask & Wu, 2024; Verrasto et al., 2020). However, physicians have a different role to nurses, and, as mentioned above, often have less time available for these kinds of conversations. Nurses are expected to discuss sexuality in its entirety with their patients within the nursing domain, and yet our video footage revealed a significant discrepancy between nurses' self-reported behaviors and their actual practices. Despite nurses expressing a strong intention to engage in sexual health counseling, as highlighted in **Chapter 4**, our observational study showed that the time allocated to this topic during routine consultations was minimal. Additionally, the interactions between nurses and patients often resembled a "question and answer" format rather than a genuine two-way dialogue.

Focusing on how sexuality was discussed, observations of HIV nurses revealed that they spent most of their time looking at their computer screens while typing and asking questions, predominantly favoring closed-ended questions when engaging with patients. Staring at the screen instead of looking directly at the patient is a potential barrier for the effectiveness of consultations, especially when it comes to the topic of sexual health. Studies have confirmed

that computer use within a consultation is indispensable but is often experienced as a barrier to dialog (Crampton et al., 2016; Córdova Gonzales, 2022; Noordman et al., 2010; Sobral et al., 2015). While the computer is an essential component of the consultation, it is important to ensure effective communication between patients and HCPs, particularly in relation to sensitive topics such as sexuality, taking into account any barriers that may be experienced (Haider et al., 2018). To enhance patient-centered communication, it may be useful to make the screen visible in order to share results of clinical exams, discuss the risks associated with different treatment options, and keep patients informed about ongoing procedures (Marino et al., 2023).

The four studies presented in **Chapters 2** through **Chapter 5** provided valuable insights into the attitudes, self-efficacy, and perceived skills which predict nurses' behavior in relation to addressing sexual health counseling. In **Chapter 6**, we matched these determinants to behavior change methods in a theory- and evidence-based intervention designed to promote the desired behavior – sexual health counseling. Intervention Mapping (IM) was used as the framework for this, following its six steps, and based on the findings from the comprehensive needs assessments (step 1) outlined in **Chapters 2-5** (Bartholomew Eldredge et al., (2016)).

In the first step of IM, a needs assessment is made and program goals are set out. Our finding that not all nurses routinely discuss sexual health in consultations, and our identification of the barriers and facilitators to this (**Chapter 2**), as well as the results from our needs assessment (particularly the observational study in (**Chapter 5**), showed that specific communication strategies were inconsistently used. Moreover, the skills for sexual health counseling were insufficient, as participants indicated in the surveys in **Chapters 2 and 4**. We used these findings as the foundation to create a tailored 1.5-day pilot training program for HCPs in the field of HIV.

Existing literature reveals a significant lack in the systematic development of specific training programs for HCPs, particularly in the field of HIV (Jonsdottir et al., 2016; Mrad et al., 2022; Sun and Lin, 2013). Our pilot training program, informed by data from **Chapters 2-5** and the TPB, systematically followed all steps of Intervention Mapping. Needs assessment findings were reviewed, and expert insights were used to establish program goals targeting the determinants of the three most crucial and modifiable sexual health counseling behaviors of HIV nurses during routine consultations: initiating sexual health counseling, discussing sexual health counseling, and applying effective communication techniques for sexual health counseling.

In our pilot training program as described in **Chapter 6**, we used a variety of behavior change methods to strengthen nurses' sexual health counseling behaviors, guided by the Intervention Mapping approach. Theory-based methods, or behavior change methods, are defined as "general techniques or processes that have been shown to be able to change one or more determinants of behavior of members of the at-risk group or of environmental decision-makers" (Kok et al., 2016, p. 299). We define practical applications as "specific translations of theory-based methods for practical use in ways that fit the intervention population and the context in which the intervention will be conducted" (p. 300). An example of a behavior change methods is "Direct experience", which we used to promote knowledge creation through interpretation of personal experiences. We also applied "Guided practice", which prompted nurses to rehearse and repeat behaviors multiple times, discuss their experiences, and receive feedback. In the application, we used "Mobilizing social networks" where nurses collaboratively reviewed video footage (as described in **Chapter 5**) of their routine consultations, carefully analyzing both verbal and non-verbal communication during discussions about sexual health. The application of this method offered valuable insights into real-life nursing practices and highlighted the nuanced aspects of effective communication. Through these real-life case studies and subsequent peer discussions, nurses explored optimal communication approaches and identified areas for improvement.

The active involvement of nurses from the field at each step of the process not only enriched the research but also diversified the methods employed. Using real-life case studies helped to reinforce the practical applicability of the training, resulting in a pilot training program that addressed most of the barriers and facilitators encountered.

As part of step 6 of the Intervention Mapping process, evaluations of the pilot training program were conducted at different points using questionnaires. These evaluations assessed the effectiveness of various methods in influencing nurses' behavior in relation to sexual health counseling. After completing the training, the determinants—attitudes, social norm, knowledge, and perceived skills - of the healthcare providers, mainly nurses, were positively affected. However, this pilot training program did not impact the intentions or behaviors of nurses to engage in more frequent or improved discussions about sexuality. Although the use of IM is time-consuming, it proved highly valuable in terms of identifying which determinants can be influenced by the training program. By following all the steps of Intervention Mapping, the process resulted in an evidence-based, participatory approach that led to a partially effective pilot training program for healthcare providers in the field of HIV. Although the pilot did not fully achieve its immediate performance objectives, it provided valuable insights that will greatly inform and enhance the future development of this training program.

This thesis underscores the critical role of HIV nurses, who have the skills necessary to facilitate meaningful counseling about sexual health. Through this process, we have identified the key determinants that can be influenced to promote the desired behaviors, ultimately enhancing the provision of appropriate sexual health counseling for people with HIV.

7.2 Intervention Development

In the following section, I discuss the development of the intervention, reflecting on the reasons for using Intervention Mapping in this research, and the benefits and challenges of doing so. The decision to use Intervention Mapping to create a tailor-made sexual health program was mainly driven by its systematic, step-by-step approach (Bartholomew Eldredge et al., (2016)). This choice was also influenced by our team's extensive experience in applying IM and by the fact that IM has already proven to be effective in various healthcare settings (Beck et al., 2019; Garba & Gadanya, 2017).

Intervention Mapping emphasizes the importance of forming a linkage group. To this end, we had a stakeholder team working closely with five full-time HIV nurses from different hospitals in the Netherlands to develop a new, tailor-made sexual health training program. For one year, we organized bi-monthly meetings with this linkage group during Steps 3, 4, and 5 of the Intervention Mapping process. During these meetings, all members of the group were actively involved in developing the intervention content and in the design of the pilot training program, offering input based on their individual experiences and nursing perspectives. These regular meetings increased engagement and ensured that all members were kept informed about the progress made. Their contributions were of critical importance, helping us to address specific questions and test ideas, and ultimately enabling us to create a novel pilot training program that is both relevant and feasible to implement in practice. On reflection, however, it is clear that there are some limitations to the way the linkage group was set up, which should also be discussed. First, the group consisted solely of nurses, even though the training was also intended for physicians. This lack of representation from the medical field meant that we missed out on valuable insights from physicians and, more importantly, failed to generate support among them for advancing this topic within the medical community. Second, it may have helped to structure the meetings slightly differently, for example, with greater involvement from an IM expert who could have posed different questions and provided

input from a more behavioral perspective. Finally, we should acknowledge the possibility that the nurses in the linkage group experienced social desirability bias, as they likely already had an affinity for sexual health.

During the development of the intervention, it became clear that Step 3, which involved selecting appropriate methods and applications, was particularly complex. What made the content of the training program successful was the input from three planning group members with experience in applying IM. Their familiarity with IM terminology enabled them to translate the feedback provided by the linkage group, along with the results of the needs assessment, into methods and applications that were both scientifically grounded and practically applicable. Additionally, through intensive collaboration throughout the process, I gained extensive expertise in IM, which enabled me to better explain the training program to my colleagues and helped to increase awareness of IM within the HIV field.

Moving forward, we will need to engage with experts to define our performance objectives and identify the most effective methods and strategies to achieve them. The evaluation process has provided valuable insights, highlighting several areas for improvement. As IM is an iterative process, these insights underscore the importance of continuously refining our approach to ensure that the chosen methods remain appropriate and effective for our target population of HCPs in HIV care. This experience has also emphasized that while theoretical frameworks and structured methods offer valuable guidance, their practical applicability must be continuously reassessed to align with the evolving needs of healthcare providers. Thus, while we have made significant progress in developing the pilot training program, further iterations and evaluations will be essential to optimize its effectiveness in driving behavioral change and achieving the desired outcomes

To ensure the training program was as comprehensive as possible, as well as receiving input from nurses and physicians we also engaged in extensive discussions with key stakeholders, specifically SOA AIDS Nederland. This organization has considerable experience using Intervention Mapping (IM) to develop national-level training programs, and is well-versed in the HIV context. These discussions proved invaluable, and they helped us make informed decisions when it came to selecting methods specifically tailored to the target audience. Furthermore, SOA AIDS Nederland supported us in generating engagement and fostering support for the training program by utilizing mailing lists and disseminating information to the target group through newsletters. This collaborative effort ensured that the training program was not only rooted in scientific evidence but also framed as a practical initiative to be further developed and evaluated in the future.

7.3 Methodological Considerations

Several methodologies were used in this thesis to gain insight into how sexual health counseling is discussed, including two survey studies (**Chapters 2 and 4**), a focus group study (**Chapter 3**), a video-observation study (**Chapter 5**), and finally, the intervention study (**Chapter 6**). This triangulation of methods contributed to the overall validity of our research, providing valuable and complementary insights that significantly enhance our understanding of sexual health counseling in clinical practice. Nevertheless, there are some methodological considerations that should be discussed when interpreting these findings.

The various studies in this dissertation that utilized questionnaires rely primarily on self-reported, quantitative data, which may not fully capture participants' perspectives, attitudes, and experiences from their own point of view due to factors such as social desirability bias, as discussed earlier in this chapter (**Chapters 2 and 4**). In addition to the questionnaires, we therefore organized focus group discussions to gain a broader understanding of HIV nurses' perspectives. The results obtained were then incorporated into the questionnaire discussed in **Chapter 4**. To further supplement the data and gain a better understanding of sexual health care consultation and communication during routine HIV consultations, we employed a qualitative descriptive design in **Chapter 5**, analyzing video and audio recordings of standard consultations with HIV nurses. This approach provided a deeper and richer contextual understanding of the results.

In qualitative research, external validity—particularly the concept of transferability—poses a challenge, especially when attempting to generalize findings to the broader population. In relation to our research, it is difficult to generalize the results obtained from our focus group to the larger group (n = 86) of HIV nurses, due to two key factors. First, it is possible that study participants in the focus group study (**Chapter 2**) had a particular interest or background related to the research topic, which could have made it more likely that they participated. This kind of selection bias can create a sample that does not fully represent the diversity of perspectives in the larger population (Lincoln & Guba, 1994). Second, participants in the observational study presented in **Chapter 5** may have been susceptible to the Hawthorne effect. This is where the awareness of being observed can alter participants' behavior, and can lead to concerns about internal validity, specifically regarding the credibility of the data (Sedgwick & Greenwood, 2015). Our participants might have altered their responses or actions based on the presence of a camera, potentially distorting the authenticity of their experiences and reducing the trustworthiness of the findings (Sedgwick & Greenwood, 2015).

A notable strength of our research was the inclusion of both HIV physicians and HIV nurses, made possible by the well-coordinated structure of HIV care in the Netherlands (**Chapter 2**). Analysis of the questionnaire data provided us with valuable insights into the ways in which sexual health counseling is discussed by both physicians and nurses in specialized HIV treatment centers. Recognizing the pivotal role of nurses in engaging in sexual health counseling, this dissertation placed a primary focus on the contributions and experiences of HIV nurses (**Chapters 3, 4 and 5**), and did not undertake a full exploration of the physician's role in sexual health counseling. Nevertheless, as sexual health counseling conversations also take place during routine consultations with physicians, physician input was integrated into the development of the sexual health training intervention (**Chapter 6**). Further intervention development focusing on the role of physicians as well as nurses is needed to ensure future interventions are well-tailored and effectively integrated into the clinical practice of HIV care.

7.4 Practical Implications

To optimize sexual health as a vital aspect of the overall quality of life for people with HIV, a more integrated multidisciplinary approach to sexual health in routine care is essential. To ensure appropriate care is offered, greater attention must be given to sexual health. A shift from fragmented, ad hoc care to a more holistic, person-centered approach that prioritizes sexual health as an integral component of HIV care is required. In order to provide this comprehensive care to patients with HIV, a clear division of responsibilities between nurses and physicians is needed.

The current national guidelines for both HIV physicians and HIV nurses state that, as sexual health is a component of quality of life, discussions of sexual health should be included in consultations with HIV patients. However, the phrasing is too vague, making it unclear what exactly this should entail. Since addressing sexual health primarily falls within the scope of nursing, we recommend that a more detailed overview of what should be included in these conversations is integrated into current nursing guidelines. This is especially important in light of the findings presented in **Chapter 2**, which show that nurses, unlike doctors, not only bring up sexual health more often but also feel entirely responsible for doing so. To ensure that sexual health is discussed during routine HIV consultations, our main recommendation – in addition to clarifying responsibilities – is to integrate the Dutch Nurses and Caregivers Association (V&VN) guidelines on sexual health, titled "Changed Sexual Health" (V&VN, 2022) into the existing guidelines specifically for HIV nurses. These comprehensive V&VN guidelines – which do not specifically focus on HIV – encompass all aspects of sexuality and provide an evidence-based framework for high-quality sexual healthcare.

Finally, with the goal of establishing a complete set of guidelines, we would strongly recommend comprehensive and effective collaboration between the national working group of HIV nurses and the HIV patient organization. Together, they should identify specific sexual issues, questions, or concerns that can be integrated into the current guidelines. Other topics that frequently arise in consultations, such as chemsex, serosorting, and "Undetectable = Untransmittable" (U=U), should also be included.

Since some patients with HIV only consult an HIV physician for check-ups, it is crucial to incorporate a dedicated section on sexual health—alongside adherence—into the existing Dutch Association of HIV Treating Physicians (NVHB) guidelines. This section should provide clear, practical guidance on initiating conversations about sexual health, key questions to pose, and appropriate referral pathways. If sexual health concerns are non-medical, physicians should proactively refer patients to an HIV nurse within the team, ensuring that these issues are thoroughly addressed. Beyond updating the guidelines, it is crucial for each hospital to establish a well-defined division of responsibilities between physicians and nurses, thereby ensuring a structured and consistent approach to sexual healthcare in HIV treatment.

To ensure the successful adoption of the revised guidelines in clinical practice, a well-structured implementation plan is essential. An important component of this plan is the active involvement of key stakeholders, including people with HIV, the National Association of HIV Nurses, the National Association of HIV Physicians, and SOA AIDS Netherlands. However, full and effective adoption of the guidelines requires continuous engagement with these stakeholders throughout the implementation process. Establishing a dedicated linkage group that includes all stakeholders could play a vital role in this, potentially building on the foundation of the previous linkage group discussed in **Chapter 6**. This multidisciplinary approach would promote widespread implementation and ensure the sustainable integration of sexual health within the guidelines, strengthening its long-term impact on HIV care.

Effective implementation of the new guidelines in clinical practice is key to enhancing sexual health counseling and, consequently, improving the quality of care for patients with HIV. Effective communication is a fundamental aspect of nurse-patient interactions and a core component of nursing care (Kwame & Petrucka, 2021). To ensure that nurses and physicians communicate effectively about sexual health within a patient-centered care framework, comprehensive training in communication skills is essential.

Although communication skills are a fundamental part of nursing education, they are not always applied effectively in practice, as discussed in **Chapter 5**. The model proposed by King and Hoppe (2009) provides a valuable and pragmatic framework for understanding the significance of communication skills and supporting healthcare providers in their development. To enhance communication skills in healthcare, attention must be given to both verbal and non-verbal communication, as emphasized by King and Hoppe (2009). Additionally, we recommend integrating video recordings as a training tool within the ongoing development of pilot training interventions described in **Chapter 6**. Video recordings enable nurses and physicians to review their interactions from an external perspective, facilitating self-reflection and providing opportunities for constructive feedback from colleagues or patients (Dohms et al., 2020; Møller et al., 2024; Wouda & van de Wiel, 2014). Such feedback is essential for the continuous improvement of communication skills.

In addition to involving HIV nurses in the advanced training program, we recommend integrating the topic of sexual health into the broader national nursing curriculum. This would emphasize that the discussion of sexual health is a core aspect of nursing and would be consistent with (our) (previous) recommendations to strengthen communication skills in this area. This could include references to the Dutch Nurses and Caregivers Association (V&VN) guidelines on sexual health, titled "Changed Sexual Health" (V&VN, 2022), alongside educational resources such as lectures and perhaps also video recordings, which have proven valuable in the pilot training intervention discussed in **Chapter 6**. Incorporating this into the curriculum will equip (future) nurses with the essential communication skills required for sexual health counseling. Within nursing education, for example, in relation to the Bachelor's degree in Nursing or the Master's in Advanced Nursing Practice, curricula are designed in accordance with the CanMEDS roles, which define the key competencies necessary for nurses to deliver high-quality care. These roles ensure that nurses develop a well-rounded skill set.

The findings from this thesis are particularly relevant to the CanMEDS roles of communicator—engaging in effective communication with patients, families, and healthcare teams; scholar –continuously learning, applying evidence-based practice, and contributing to knowledge sharing; and collaborator—working alongside other healthcare professionals to ensure integrated care. We recommended improving communication about sexual health within these roles, as this is essential for preparing (future) nurses to provide comprehensive, sensitive, and effective care. By prioritizing sexual health in theoretical education within curricula and in clinical practice, we can ensure its integration into everyday nursing care, fostering a new generation of nurses who regard sexual health as a core component of high-quality care.

7.5 Lessons for Further Research

This thesis primarily focuses on the perspectives and behaviors of nurses in the field of HIV care. Future research could provide further valuable insights by exploring the perspectives and behavior of HIV physicians. This is particularly important because some patients only have routine consultations with their physician. Physicians should be equipped to discuss sexuality with patients as it is an integral part of their quality of life. Findings from the questionnaire presented in **Chapter 2** show that both nurses and physicians acknowledged a shared sense of responsibility for providing sexual health counseling. We therefore recommend that additional qualitative research is conducted to further explore the role of physicians in sexual health counseling. Specifically, this research should examine how physicians, acknowledging their sense of responsibility, approach these consultations with patients. It should also identify their training needs in this area and assess their effectiveness in comprehensively addressing the diverse aspects of sexual health concerns.

In addition to exploring the perspectives of physicians and nurses, it is also essential to examine the experiences and viewpoints of patients with HIV. Understanding the needs and experiences of patients with HIV is vital for gaining a deeper understanding of the role of sexual health counseling in consultations and the need to provide adequate counseling. Research, such as that conducted by Levya- Moral et al. (2020), has revealed that patients with HIV often express a strong desire to discuss sexual health concerns, with many feeling more comfortable addressing these issues with their HIV nurse. Furthermore, a study by Okoli et al. (2021) highlighted that many patients with HIV prefer their healthcare providers to proactively bring up sexual health concerns in a timely and sensitive manner. Despite this, ongoing gaps in addressing these concerns hinder effective communication between patients and healthcare providers, limiting the quality of sexual health counseling and its integration into the fourth pillar of the WHO's health-related quality of life (HrQoL) framework. Consequently, future research must prioritize exploring the sexual health counseling needs of people with HIV to enhance care delivery and address these critical, unmet needs.

Chapter 6 described the promising pilot phase of a training intervention. While this initial pilot phase had a limited number of participants, it provided us with valuable insights. However, there is currently no definitive empirical evidence demonstrating the impact of this training on the behavior (attitudes, subjective norms, and perceived behavioral control) of nurses and physicians in HIV care, particularly with regard to the initiation and engagement of sexual

health counseling and the application of effective communication strategies. In the light of the promising results, it is of crucial importance to further develop this pilot training intervention into a comprehensive training program with a greater number of participants, in order to assess its effectiveness. However, because the number of HIV care providers in the Netherlands is relatively small, conducting a randomized controlled trial (RCT) may not be feasible. As an alternative, a quasi-experimental design (Barnish & Turner, 2017) is recommended. This approach could entail randomly assigning half of the target group to receive the training first, while the other half receives it at a later stage. The outcomes of these two groups would be compared across three measurement points: (1) pre-training, (2) interim (when one group has already completed the training), and (3) post-training. This design would allow for an evaluation of whether the training program has a measurable impact on healthcare providers' behavior and their approach to sexual health counseling in HIV care.

Finally, further literature indicates that, beyond the field of HIV care, there remains considerable potential to improve sexual health counseling among healthcare providers in other specialties, including cardiology, oncology, and nephrology (Karani & McLuskey, 2020; Reese et al., 2016; van Ek et al., 2015). A review by Kelder et al. (2022) highlights that many healthcare professionals face challenges when addressing sexual health in various clinical settings. Further studies on this topic reveal that, while sexual health is seen as an important issue in healthcare and part of HrQoL, it is often neglected in patient interactions (Åling et al., 2021). Moreover, there seems to be a strong demand for training that can help professionals across different specialties in assessing sexual health counseling more effectively, with particular emphasis on integrating cultural sensitivity into these assessments. Although similar communication practices are observed across various healthcare settings, our findings cannot be universally applied to all contexts. Given the overlap in identified barriers and needs, we believe that our foundational pilot training program could be adapted for use by healthcare providers outside the field of HIV care. Consequently, further research is needed to identify the specific requirements within each specialty. Training could then be tailored to different healthcare providers, ensuring that it is relevant across a broad range of specialties.

7.6. Conclusion

This thesis provides valuable insights into understanding HIV-related sexual health counseling within routine HIV consultations, particularly from the perspective of healthcare providers. It emphasizes the importance of addressing sexual health in these encounters and demonstrates that any omission of this is not due to a lack of motivation or a disregard for its significance. Rather, barriers such as discomfort in initiating a discussion, provider attitudes, and the prioritization of other urgent health concerns each play a role in the inconsistent integration of sexual health discussions.

The findings presented in this thesis indicate that sexual health is addressed inconsistently both in terms of the topics covered and the lack of a structured counseling approach. Moreover, communication techniques and skills are applied inconsistently. To bridge these gaps, a tailored pilot intervention program was developed for healthcare providers working in the field of HIV. Using Intervention mapping to design the program, and Implementation Mapping to evaluate it, the research presented in this thesis highlights the crucial role of HIV nurses in developing the intervention to align with their specific needs. The evaluation of the pilot intervention demonstrated a positive trend in participants' attitudes, social norms, knowledge, and perceived skills over time. However, despite these promising findings, a comprehensive understanding of how to influence healthcare provider behavior to fully meet all training objectives remains incomplete. Further refinement of the intervention is necessary to ensure that sexual health counseling is systematically and effectively incorporated into routine HIV consultations.

In conclusion, while this thesis advances our understanding of the barriers to and facilitators of integrating sexual health counseling into HIV care, it also emphasizes the need for continued research and intervention development. Only through sustained exploration and refinement can healthcare providers be fully equipped to deliver comprehensive, structured, and consistent sexual health counseling as an integral part of routine HIV care.

References

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Alexander, S.C., Fortenberry, J.D., Pollak, K.I., Bravender, T., Davis, J.K., Ostbye, T., Tulsky, J.A., Dolor, R.J., & Shields C.G. (2014). Sexuality talk during adolescent health maintenance visits. JAMA Pediatr. Feb;168(2):163-9. doi: 10.1001/jamapediatrics.2013.4338

Åling, M., Lindgren, A., Löfall, H., & Okenwa-Emegwa, L. (2021). A scoping review to identify barriers and enabling factors for nurse–patient discussions on sexuality and sexual health. Nursing reports, 11(2), 253-266.

Barnish, M.S., & Turner, S. (2017). The value of pragmatic and observational studies in health care and public health. Pragmat Obs Res. 2017 May 12;8:49-55. doi: 10.2147/POR.S137701.

Bauer, M., Haesler, E. and Fetherstonhaugh, D. (2016), Let's talk about sex: older people's views on the recognition of sexuality and sexual health in the health-care setting. Health Expect, 19: 1237-1250. https://doi.org/10.1111/hex.12418

Beck D, Been-Dahmen J, Peeters M, Grijpma JW, van der Stege H, Tielen M, van Buren M, Weimar W, Ista E, Massey E, van Staa A. (2019). A Nurse-Led Self-Management Support Intervention (ZENN) for Kidney Transplant Recipients Using Intervention Mapping: Protocol for a Mixed-Methods Feasibility Study. JMIR Res Protoc. Mar 1;8(3):e11856. doi: 10.2196/11856.

Conner, M., & Norman, P. (2022). Understanding the intention-behavior gap: The role of intention strength. Front Psychol. Aug 4;13:923464. doi: 10.3389/fpsyg.2022.923464

Conner, M., Abraham, C., Prestwich, A., Hutter, R., Hallam, J., Sykes-Muskett, B., Morris, B., & Hurling, R. (2016). Impact of goal priority and goal conflict on the intention-health-behavior relationship: Tests on physical activity and other health behaviors. Health Psychol. Sep;35(9):1017-26. doi: 10.1037/hea0000340

Córdova González, G. (2022). Electronic health records: its effects on the doctor-patient relationship and the role of the computer in the clinical setting. Health Technol. 12, 305–311 https://doi.org/10.1007/s12553-021-00634-7

Crampton, N.H., Reis, S., Shachak, A. (2016). Computers in the clinical encounter: a scoping review and thematic analysis. J Am Med Inform Assoc. May;23(3):654-65. doi: 10.1093/jamia/ocv178

De Vincentis S., Tartaro G., Rochira V., & Santi D.(2021). HIV and Sexual Dysfunction in Men. J Clin Med. Mar 5;10(5):1088. doi: 10.3390/jcm10051088.

DiFranceisco, W., McAuliffe, T.L. & Sikkema, K.J. (1998). Influences of Survey Instrument Format and Social Desirability on the Reliability of Self-Reported High Risk Sexual Behavior. AIDS Behav 2, 329–337 https://doi.org/10.1023/A:1022674125756

Eldredge, L. K. B., Markham, C. M., Ruiter, R. a. C., Fernández, M. E., Kok, G., & Parcel, G. S. (2016). Planning Health Promotion Programs: An Intervention Mapping Approach. John Wiley & Sons.

Fernandez, M.E., Ten Hoor, G.A., van Lieshout. S., Rodriguez, S.A., Beidas, R.S., Parcel, G., Ruiter, R.A.C., Markham, C.M., & Kok, G. (2019). Implementation Mapping: Using Intervention Mapping to Develop Implementation Strategies. Front Public Health. Jun 18;7:158. doi: 10.3389/fpubh.2019.00158.

Fennell, R., & Grant, B. (2019). Discussing sexuality in health care: A systematic review. J Clin Nurs. 28: 3065–3076. https://doi.org/10.1111/jocn.14900

Fuzzell, L., Shields, C.G., Alexander, S.C., & Fortenberry, J.D. (2017). Physicians Talking About Sex, Sexuality, and Protection With Adolescents. J Adolesc Health. 2017 Jul;61(1):6-23. doi: 10.1016/j.jadohealth.2017.01.017. Epub 2017 Apr 5. PMID: 28391967.

Flynn, K. E., Lin, L., Bruner, D. W., Cyranowski, J. M., Hahn, E. A., Jeffery, D. D., Reese, J. B., Reeve, B. B., Shelby, R. A., & Weinfurt, K. P. (2016). Sexual satisfaction and the importance of sexual health to quality of life throughout the life course of U.S. adults. the Journal of Sexual Medicine, 13(11), 1642–1650. https://doi.org/10.1016/j.jsxm.2016.08.011

Garba RM, & Gadanya MA. (2017). The role of intervention mapping in designing disease prevention interventions: A systematic review of the literature. PLoS One. Mar 30;12(3):e0174438. doi: 10.1371/journal.pone.0174438.

Gradellini, C., Mecugni, D., Castagnaro, E., Frade, F., Da Luz ferreira Barros., M., Palma, S., Jesús Bocos Reglero, M., & Gomez Cantarino, S. (2023). Educating to sexuality care: the nurse educator's experience in a multicenter study. Frontiers in Psychology. 14. 10.3389/fpsyg.2023.1206323.

Golembiewski, E.H., Espinoza Suarez, N.R., Maraboto Escarria, A.P., Yang, A.X., Kunneman, M., Hassett, L.C., & Montori, V.M. (2023). Video-based observation research: A systematic review of studies in outpatient health care settings. Patient Education and Counseling, Volume 106, Pages 42-67, https://doi.org/10.1016/j.pec.2022.09.017

Haider, A., Tanco, K., Epner, M., Azhar, A., Williams, J., Liu, D.D., & Bruera, E. (2018). Physicians' Compassion, Communication Skills, and Professionalism With and Without Physicians' Use of an Examination Room Computer: A Randomized Clinical Trial. JAMA OncolJun 1;4(6):879-881. doi: 10.1001/jamaoncol.2018.0343

Henderson, J.T., Senger, C.A., Henninger, M., Bean, S.I., Redmond, N., & O'Connor, E.A. (2020). Behavioral Counseling Interventions to Prevent Sexually Transmitted Infections: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. JAMA. 324(7):682–699. doi:10.1001/jama.2020.10371

Heinen, M., Zwakhalen, S., De Man-Van Ginkel, Ettema, R., Metzelthin, S., Hamers, J., Vermeulen, H., Schoonhoven, L., & Huisman-de Waal, G. (2019). Essentiële zorg: het meest geleverd, het minst onderzocht. TVZ verpleegkunde in de praktijk en wetenschap 129, 16–18 (2019). https://doi.org/10.1007/s41184-019-0034-0

Höglander, J., Holmström, I.K., Lövenmark, A., Van Dulmen, S., Eide, H., & Sundler, A.J. (2022). Registered nurse–patient communication research: An integrative review for future directions in nursing research. Journal of Advanced Nursing. Volume 79, Issue 2. Pages 539-562 https://doi.org/10.1111/jan.15548

Johnson, T.P., & Fendrich, M. (2002). A validation of the Crowne-Marlowe social desirability scale. Presented at the 57th Annual Meeting of the American Association for Public Opinion Research.

Jonsdottir, J. I., Zoëga, S., Saevarsdottir, T., Sverrisdottir, A., Thorsdottir, T., Einarsson, G. V., Gunnarsdottir, S., & Fridriksdottir, N. (2016). Changes in attitudes, practices and barriers among oncology health care professionals regarding sexual health care: Outcomes from a 2-year educational intervention at a University Hospital. European Journal Of Oncology Nursing, 21, 24–30. https://doi.org/10.1016/j.ejon.2015.12.004.

Kall M., Marcellin F., Harding R., Lazarus J.V., & Carrieri P. (2020). Patient-reported outcomes to enhance person-centred HIV care. Lancet HIV. Jan;7(1):e59-e68. doi: 10.1016/S2352-3018(19)30345-5.

Karani, S., & McLuskey, J. (2020). Facilitators and barriers for nurses in providing sexual education to myocardial-infarction patients: A qualitative systematic review. Intensive and Critical Care Nursing Volume 58, June, https://doi.org/10.1016/j.iccn.2020.102802

Kayaert, L., Sarink, D., Visser, M., van Wees, D. A., Willemstein, I. J. M., Op de Coul, E. L. M., Alexiou, Z. W., de Vries, A., Kusters, J. M. A., van Aar, F., Götz, H. M., Vanhommerig J. W., van Sighem, A. I., & van Benthem, B. H. B. (2022). Sexually transmitted infections in the Netherlands in 2022. RIVM report 2023-0161

Kelder, I., Sneijder, P., Klarenbeek, A., & Laan, E. (2022). Communication practices in conversations about sexual health in medical healthcare settings: A systematic review. Patient Educ Couns. Apr;105(4):858-868. doi: 10.1016/j.pec.2021.07.049.

King, M. F, & Bruner, G.C. (2000). Social desirability bias: a neglected aspect of validity testing. Psychology & Marketing; Hoboken 79.17(2):79–103.

Krouwel, E. M., Nicolai, M. P. J., Van Steijn-Van Tol, A. Q. M. J., Putter, H., Osanto, S., Pelger, R. C. M., & Elzevier, H. W. (2015). Addressing changed sexual functioning in cancer patients: a cross-sectional survey among Dutch oncology nurses. European Journal of Oncology Nursing, 19(6), 707-715.

Krouwel, E.M., Albers, L.F., Nicolai, M.P.J. E. M., Putter, H., Osanto, S., Pelger, R. C. M, & Elzevier, H. W. (2020). Discussing Sexual Health in the Medical Oncologist's Practice: Exploring Current Practice and Challenges. J Canc Educ 35, 1072–1088. https://doi.org/10.1007/s13187-019-01559-6

Kwame, A., & Petrucka, P.M. (2021). A literature-based study of patient-centered care and communication in nurse-patient interactions: barriers, facilitators, and the way forward. BMC Nurs 20, 158. https://doi.org/10.1186/s12912-021-00684-2

Kok, G., Gottlieb, N.H., Peters, G.J., Mullen, P.D., Parcel, G.S., Ruiter, R.A., Fernández, M.E., Markham, C., & Bartholomew, L.K. (2016). A taxonomy of behaviour change methods: an Intervention Mapping approach. Health Psychol Rev. Sep;10(3):297-312. doi: 10.1080/17437199.2015.1077155.

Leyva-Moral, J. M., Feijoo-Cid, M., Domingo, A. T., Ribas, B. P., Royes, R. B., Castillo, M. M., Mercadé, J. N., & Aguayo-Gonzalez, M. (2020). Exploration of clients living with HIV needs for reporting on experiences with sex. Nursing and Health Sciences, 22(3), 570–576. https://doi.org/10.1111/nhs.12696

Lincoln, Y. S. & Guba, E. G. (1994). Competing paradigms in qualitative research. Handbook of qualitative research, 2(163-194), 105

Marino, F., Alby, F., Zucchermaglio, C., & Fatigante, M. (2023). Digital technology in medical visits: a critical review of its impact on doctor-patient communication. Front Psychiatry. Jul 27;14:1226225. doi: 10.3389/fpsyt.2023.1226225

Nicolai, M.P.J., Both, S., Liem, S.S., Pelger, R.C.M., Putter, H., Schalij, M.J., & Elzevier, H.W. (2013). Discussing sexual function in the cardiology practice. Clin Res Cardiol 102, 329–336. https://doi.org/10.1007/s00392-013-0549-2

Noordman, J., Verhaak, P., Van Beljouw, I., & Van Dulmen, S. (2010). Consulting room computers and their effect on general practitioner-patient communication. Family Practice, 27(6), 644–651. https://doi.org/10.1093/fampra/cmq058

Mrad, H., Vinette, B., Chouinard, A., & Bilodeau, K. (2022). Educational interventions to improve communication about sexual health between nurses and gynecologic oncology patients: A narrative review. Canadian Oncology Nursing Journal, 32(1), 30–37. https://doi.org/10.5737/236880763213037

O'Connor, S. R., Connaghan, J., Maguire, R., Kotronoulas, G., Flannagan, C., Jain, S., Brady, N., & McCaughan, E. (2019). Healthcare professional perceived barriers and facilitators to discussing sexual wellbeing with patients after diagnosis of chronic illness: A mixed-methods evidence synthesis. Patient Education and Counseling, 102(5), 850–863. https://doi.org/10.1016/j.pec.2018.12.015

Okoli, C., Brough, G., Allan, B., Castellanos, E., Young, B., Eremin, A., Corbelli, G. M., Mc Britton, M., Muchenje, M., Van der Velde, N., & de Los Rios, P. (2021). Shared Decision Making Between Patients and Healthcare Providers and its Association with Favorable Health Outcomes Among People Living with HIV. AIDS Behav 25, 1384–1395. https://doi.org/10.1007/s10461-020-02973-4

Pask, E.B., & Wu, Q.L. (2024). Let's (not) talk about sexual health: How sexual communication apprehension with healthcare providers and peer communication influence intentions to protect sexual health. Patient Educ Couns. Sep;126:108318. doi: 10.1016/j.pec.2024.108318

Pimsen, A., Lin, W, H., Lin, C, Y., Kuo, Y, L., & Shu, B, C. (2023). Healthcare providers' experiences in providing sexual health care to breast cancer survivors: A mixed-methods systematic review. Journal of Clinical Nursing , Volume33, Issue3 March 2024 Pages 797-816. https://doi.org/10.1111/jocn.16943

Reese, J. B., Sorice, K., Beach, M.C., Porter, L.S., Tulsky, J.A., Daly, M.B., & Lepore, S.J.(2016). Patient-provider communication about sexual concerns in cancer: a systematic review. J Cancer Surviv. Apr;11(2):175-188. doi: 10.1007/s11764-016-0577-9. Epub 2016 Nov 17. PMID: 27858322; PMCID: PMC5357584

Rimmer, R.B., Rutter, C.E., Lessard, C.R., Pressman, M.S., Jost, J.C., Bosch, J., Foster, K.N., & Caruso, D, M. (2010). Burn care professionals' attitudes and practices regarding discussions of sexuality and intimacy with adult burn survivors. J. burn care & res. Off. Pub. Am. Burn Assoc. 2010; 31: pp. 579-589.

Rhodes, R.E., & de Bruijn, G.J. (2013). How big is the physical activity intention-behaviour gap? A meta-analysis using the action control framework. Br J Health Psychol. May;18(2):296-309. doi: 10.1111/bjhp.12032. PMID: 23480428.

Sandfort, T.G.M., Collier, K.L., & Grossberg, R. (2013). Addressing sexual problems in HIV primary care: experiences from patients. Arch. Sex. Behav. 42: pp. 1357-1368.

Santi, D., Brigante, G., Zona, S. et al. (2014). Male sexual dysfunction and HIV—a clinical perspective. Nat Rev Urol 11, 99–109. https://doi.org/10.1038/nrurol.2013.314

Saunamäki, N., Andersson, M., & Engström, M. (2010). Discussing sexuality with patients: nurses' attitudes and beliefs. Journal of Advanced Nursing 66(6), 1308–1316.

Sedgwick, P., & Greenwood, N. (2015). Understanding the Hawthorne effect. BMJ, 351, h4672. https://doi.org/10.1136/bmj.h4672

Shacham, E., López, J.D., Souza, P., Overton, E.T. (2017). Examining Sexual Function Among Individuals With HIV in a Midwestern US Urban Outpatient Clinic Setting. J. Int. Assoc. Provid. AIDS Care, 16, 481–486.

Sobral, D., Rosenbaum, M., & Figueiredo-Braga, M. (2015). Computer use in primary care and patient-physician communication. Patient Education and Counseling, 2015-12-01, Volume 98, Issue 12, Pages 1568-1576. DOI:10.1016/j.pec.2015.07.002

Sung, S.C., & Lin, Y.C. (2013). Effectiveness of the sexual healthcare education in nursing students' knowledge, attitude, and self-efficacy on sexual healthcare. Nurse Educ Today. May;33(5):498-503. doi: 10.1016/j.nedt.2012.06.019. Epub 2012 Jul 10. PMID: 22789872.

Van Ek, G.F., Krouwel, E.M., Nicolai, M.P., Bouwsma, H., Ringers, J., Putter, H., Pelger, R.C., & Elzevier, H.W. (2015). Discussing Sexual Dysfunction with Chronic Kidney Disease Patients: Practice Patterns in the Office of the Nephrologist. J Sex Med. Dec;12(12):2350-63. doi: 10.1111/jsm.13062.

Van Ek, G.F., Krouwel, E.M., Nicolai, M.P.J., Den Oudsten, B. L., Den Ouden, M.E.M., Dieben, S.W.M., Putter, H.,Pelger, R.C.M., & Elzevier, H.W.(2017). What is the role of nephrologists and nurses of the dialysis department in providing fertility care to CKD patients? A questionnaire study among care providers. Int Urol Nephrol 49, 1273–1285. https://doi.org/10.1007/s11255-017-1577-z

Van Sighem A.I., Wit F.W.N.M., Boyd A., Smit C., Jongen V.W., Matser A., Monitoring Report 2023. Human Immunodeficiency Virus (HIV) Infection in the Netherlands. Amsterdam: Stichting hiv monitoring, 2023

Verrastro, V., Saladino, V., Petruccelli, F., & Eleuteri, S. (2020). Medical and Health Care Professionals' Sexuality Education: State of the Art and Recommendations. Int J Environ Res Public Health. Mar 25;17(7):2186. doi: 10.3390/ijerph17072186. PMID: 32218258

World Health Organization (2018) Defining Sexual Health. Geneva: WHO. Retrieved from: tinyurl.com/ WHO-sexual-health. (Last accessed 14th April 2023).

Zhang, X., Sherman, L., & Foster, M. (2020). Patients' and providers' perspectives on sexual health discussion in the United States: A scoping review. Patient Education and Counseling, Volume 103, Issue 11,Pages 2205-2213, https://doi.org/10.1016/j.pec.2020.06.019.

Zona, S., Guaraldi, G., Luzi, K., Beggi, M., Santi, D., Stentarelli, C., Madeo, B., & Rochira, V. (2012). Erectile dysfunction is more common in young to middle-aged HIV-infected men than in HIV-uninfected men. J. Sex. Med. 9, 1923–1930.

Addendum

- **Nederlandse Samenvatting** (summary in Dutch)
- **Dankwoord** (acknowledgement)
- **About the author**
- **List of publications and contributions**
- **List of supplementary materials**

Nederlandse Samenvatting

De levensverwachting van mensen met humaan immunodeficiëntievirus (hiv) is de afgelopen decennia aanzienlijk gestegen dankzij de succesvolle introductie van combinatie antiretrovirale therapie (cART). Voor patiënten met hiv, die toegang hebben tot de juiste behandeling en zorg, is hiv niet langer een dodelijke ziekte, maar een beheersbare chronische aandoening. Bij een effectieve behandeling is de levensverwachting van mensen met hiv bijna gelijk aan die van gezonde personen.

In lijn met deze vooruitgang stelde de Wereldgezondheidsorganisatie (WHO) in 2016 ambitieuze doelen om de wereldwijde hiv-epidemie in te dammen. Na de oorspronkelijke **"90-90-90"**-doelen, scherpte zij deze in 2020 verder aan tot de **"95-95-95"**-doelen voor 2025. Dit betekent dat 95% van alle mensen met hiv wordt gediagnosticeerd, 95% van hen effectieve behandeling met cART krijgt en 95% van deze mensen een onderdrukt virus heeft (UNAIDS. 2023).

Hoewel deze doelen bijdragen aan een bijna normale levensverwachting, blijft de impact van hiv op de kwaliteit van leven groot. Langer leven met een chronische aandoening zoals hiv vergroot de kans op bijkomende gezondheidsproblemen zoals hart- en vaatziekten, hoge bloeddruk, diabetes, botontkalking, nier- en leverziekten, depressie, bepaalde vormen van kanker en geheugenproblemen. Daarnaast beïnvloedt een chronische ziekte zoals hiv niet alleen de lichamelijke gezondheid, maar ook het sociale en mentale functioneren, die beide een belangrijk onderdeel zijn van de algehele kwaliteit van leven.

De afgelopen jaren groeide de aandacht voor een persoonsgerichte zorgbenadering voor mensen met hiv. Deze benadering richtte zich niet alleen op medische behandeling, maar ook op het verbeteren van de kwaliteit van leven. Dit streven leidde tot een vierde '90'-doel: een doorlopend zorgdoel dat specifiek gericht is op het optimaliseren van het lichamelijk, sociaal en psychologisch functioneren. Hierbinnen speelt seksualiteit een centrale rol, zowel op fysiek als mentaal vlak. Een hiv-diagnose kan iemands beleving van seksualiteit veranderen en kan leiden tot seksuele en relatieproblemen en tot problemen met intimiteit.

Naast het bevorderen van de algehele kwaliteit van leven, zou seksualiteit een essentieel onderdeel van de zorg voor mensen met hiv moeten zijn. Aangezien hiv voornamelijk via seksueel contact wordt overgedragen, komen andere seksueel overdraagbare aandoeningen (soa's) vaak voor, in het bijzonder onder hiv-positieve mannen die seks hebben met mannen. Het is daarom cruciaal om niet alleen de kwaliteit van leven te verbeteren, maar ook in te zetten op preventie van soa's. Openheid over risicogedrag en het stimuleren van preventieve maatregelen spelen hierbij een sleutelrol.

Dit proefschrift onderzoekt welke factoren van invloed zijn op hoe verpleegkundigen en artsen in de hiv-zorg in hiv-behandelcentra seksualiteit bespreken tijdens een routineconsult met een patiënt met hiv. Het brengt verschillen in opvattingen tussen beide beroepsgroepen in kaart over het bespreken van seksualiteit bij hiv-patiënten en geeft inzicht in de verbale en non-verbale communicatie rondom seksualiteit in de dagelijkse praktijk. Op basis van zowel theoretische inzichten als onderzoeksresultaten is een pilot trainingsinterventie ontwikkeld om seksualiteit vaker en beter bespreekbaar te maken in de zorg voor mensen met hiv.

In **hoofdstuk 2** hebben we een cross-sectionele vragenlijststudie uitgevoerd. De vragenlijst, oorspronkelijk ontwikkeld voor onderzoek naar het bespreken van seksualiteit bij patiënten met een chronische ziekte, werd aangepast aan de hiv-zorg (Krouwel et al., 2015; Van Ek et al., 2018). Met deze studie onderzochten we in hoeverre seksualiteit en intimiteit aan bod komen in de Nederlandse hiv-zorg en brachten we de verschillen in aanpak en opvattingen tussen artsen en verpleegkundigen in kaart. In totaal vulden 59 van de 110 artsen (53,6%) en 48 van de 82 verpleegkundigen (58,5%) de vragenlijst in. Deze studie laat zien dat er een duidelijke discrepantie bestaat in het gevoel van verantwoordelijkheid tussen artsen en verpleegkundigen om seksualiteit te bespreken en de daadwerkelijke uitvoering ervan. Alle verpleegkundigen (100%) en de meeste artsen (72,9%) vonden dat hun eigen beroepsgroep verantwoordelijk is voor het bespreken van seksualiteit met hiv-patiënten. Toch bespraken verpleegkundigen (62,5%) seksualiteit significant vaker dan artsen (13,6%) (x^2 (1) = 27.68, p < .001). De aanwezigheid van een derde persoon was de meest genoemde barrière voor het bespreken van seksualiteit. Deze reden werd door 50,9% van de artsen en 60,4% van de verpleegkundigen gerapporteerd als barrière. Verpleegkundigen waren vaker geneigd om psychosociale aspecten rondom seksualiteit te bespreken, terwijl artsen zich voornamelijk richtten op de medische facetten die met seksualiteit samenhangen. De bevindingen laten zien dat seksualiteit niet standaard aan bod komt en dat de inhoud van het gesprek afhankelijk is van de zorgverlener en onderstrepen dat er meer structureel aandacht moet komen voor seksualiteit in hiv-consulten, zodat alle relevante aspecten besproken worden op een manier die aansluit bij de behoeften van de patiënt. Een interdisciplinaire aanpak is hierbij essentieel en vereist geactualiseerde en uitgebreide richtlijnen voor zowel hiv-artsen als hiv-verpleegkundigen, met een duidelijke taakverdeling over wie welke thema's bespreekt. Er is daarnaast een grotere focus op kennis over seksualiteit en het omgaan met barrières in de hiv-zorg nodig voor zowel artsen als verpleegkundigen. Richtlijnen, taakverdeling en kennis rondom seksualiteit zouden structureel geïntegreerd moeten worden in de trainingen voor hiv-artsen en -verpleegkundigen, zodat zij beter voorbereid zijn om seksualiteit effectief bespreekbaar te maken.

Ondanks preventieve maatregelen in de hiv-zorg blijft het aantal seksueel overdraagbare aandoeningen onder mannen met hiv die seks hebben met mannen hoog, wat wijst op aanhoudend seksueel risicogedrag. Om meer zicht te krijgen op de rol van de hiv-verpleegkundige bij het bespreken van seksueel risicogedrag met mannen met hiv die seks hebben met mannen, hebben we in **hoofdstuk 3** een kwalitatieve studie aan de hand van focusgroepen uitgevoerd. Hoewel het vorige onderzoek oorspronkelijk zowel artsen als verpleegkundigen als deelnemers omvatte, richt dit specifieke hoofdstuk zich uitsluitend op de rol van de hiv-verpleegkundige in het bespreken van seksueel risicogedrag. Deze studie had als doel factoren te identificeren die bepalen óf en hoe verpleegkundigen seksueel risicogedrag bespreken met hiv-positieve mannen die seks hebben met mannen. Hiervoor gebruikten we de theorie van gepland gedrag (Ajzen, 1991), een theorie die bewust gedrag verklaart. Er werden drie belangrijke factoren in het onderzoek meegenomen: de houding ten opzichte van bepaald gedrag van de verpleegkundigen zelf (attitude), wat verpleegkundigen denken dat er van hen verwacht wordt (injunctieve sociale norm) en het gevoel van controle over hun eigen gedrag (waargenomen gedragscontrole, ook wel eigeneffectiviteit genoemd) bij het bespreken van seksueel risicogedrag met mannen die seks hebben met mannen. Er werd een doelgerichte steekproef genomen uit de 87 hiv-verpleegkundigen die op dat moment werkzaam waren in een van de 26 gespecialiseerde hiv-behandelcentra in Nederland. Uiteindelijk namen 22 verpleegkundigen uit 17 verschillende behandelcentra deel aan de studie. In totaal werden er drie semigestructureerde focusgroepgesprekken uitgevoerd. Door focusgroepgesprekken kregen we diepgaand inzicht in de perspectieven en benaderingen van hiv-verpleegkundigen over het bespreken van seksueel risicogedrag tijdens een routineconsult.

Over het algemeen vinden hiv-verpleegkundigen het belangrijk om seksueel risicogedrag te bespreken, maar zij ervaren ook diverse barrières. We identificeerden vier belangrijke barrières: omgaan met eigen schaamte, de veranderende professionele rol van de hiv-verpleegkundige, tijdsdruk en de structuur van het consult.

Om de frequentie en kwaliteit van de gesprekken over seksueel risicogedrag te verbeteren, bevelen we op basis van dit onderzoek aan om praktische handvatten te bieden, zoals het inzetten van een aan seksualiteit gerelateerd onderwerp als overbrugging om seksualiteit bespreekbaar te maken. Dit kan verpleegkundigen helpen om het gesprek gemakkelijker aan te gaan. Daarnaast is het essentieel om richtlijnen te ontwikkelen die verpleegkundigen ondersteunen bij het bespreekbaar maken van seksueel risicogedrag.

In lijn met de resultaten uit **hoofdstuk 3** en de drie belangrijke factoren van de theorie van gepland gedrag, onderzochten we in **hoofdstuk 4** welke factoren hiv-verpleegkundigen als bevorderend of belemmerend ervaren bij het bespreken van seksueel risicogedrag met hiv-positieve mannen die seks hebben met mannen. Daarnaast brachten we in kaart welke van deze factoren de grootste invloed hebben op het bespreken van seksueel risicogedrag. We hebben daartoe een cross-sectioneel vragenlijstonderzoek uitgevoerd onder alle hiv-verpleegkundigen in Nederland; 60 van de totale populatie van 79 hiv-verpleegkundigen die op dat moment werkzaam waren in de hiv-behandelcentra, vulden deze vragenlijst in, waarin onder meer de drie factoren van de theorie van gepland gedrag (attitude, injunctieve sociale norm en waargenomen gedragscontrole) aan de orde kwamen. Daarnaast werden de barrières die wij vonden in het kwalitatieve onderzoek uit **hoofdstuk 3** meegenomen, met name ervaren schaamte, de veranderende professionele rol van de hiv-verpleegkundige, tijdsdruk en de structuur van het consult. De resultaten laten zien welke factoren de intentie van hiv-verpleegkundigen beïnvloeden om seksueel risicogedrag te bespreken tijdens een routine hiv-consult. Over het algemeen was de bereidheid om seksualiteit aan te kaarten hoog. De variatie in intenties werd grotendeels verklaard door attitude, kennis, tijdsdruk en de mate waarin het onderwerp seksueel risicogedrag als prioriteit werd gezien. Verder bleek dat hiv-verpleegkundigen met een sterke intentie om seksualiteit te bespreken significant verschilden van collega's met een lagere intentie op basis van factoren zoals ervaren schaamte, non-verbale communicatie, sociale norm en kennis. Deze bevindingen suggereren dat hiv-verpleegkundigen seksueel risicogedrag beter kunnen bespreken als bevorderende factoren worden versterkt, zoals een positieve houding, het zonder specifieke aanleiding bespreekbaar maken van seksualiteit en het erkennen van het belang van het bespreken van seksueel risicogedrag. Daarnaast kan het verminderen van belemmerende factoren in de huidige hiv-zorg effectiever zijn dan enkel de focus op de motivatie van hiv-verpleegkundigen.

Hoofdstuk 5 beschrijft een kwalitatieve studie die gebruikmaakt van observaties om de impact van bias op zelfgerapporteerd gedrag onder hiv-verpleegkundigen te verminderen. We analyseerden 16 video-opnamen, met audio, van routine hiv-consulten door vier hiv-verpleegkundigen uit vier verschillende behandelcentra. Deze methode gaf meer objectief en gedetailleerd inzicht in hoe hiv-verpleegkundigen in de praktijk seksualiteit en seksueel risicogedrag bespreken in een consult. Om de besproken onderwerpen rondom seksualiteit te categoriseren, gebruikten we het bio-psychosociale model van Engel (1977). Dit model stelt dat ziekte niet alleen een biologische oorzaak heeft, maar ook beïnvloed wordt door psychologische en sociale factoren. Een holistische benadering is daarom essentieel voor effectieve zorg en behandeling. Daarnaast pasten we het communicatiemodel van King en Hoppe (2013) toe om de verbale en non-verbale communicatie van hiv-verpleegkundigen tijdens standaard hiv-consulten over seksualiteit te analyseren. Dit model onderscheidt zes belangrijke aspecten van communicatie en benadrukt de verbale en non-verbale interactie tussen zorgverlener en patiënt. Het model gaat ervan uit dat communicatie een voortdurend proces is, waarbij niet alleen informatie wordt overgedragen, maar ook begrip en gezamenlijke betekenis ontstaan. Hoewel de onderzoeken in **hoofdstukken 2, 3 en 4** laten zien dat hiv-verpleegkundigen gemotiveerd zijn om seksualiteit bespreekbaar te maken en zich verantwoordelijk voelen voor dit onderwerp, tonen de resultaten in **hoofdstuk 5** aan dat het gesprek over seksualiteit niet standaard aan bod komt tijdens routine hiv-consulten. Als het onderwerp wél werd besproken, lag de nadruk vooral op biologische aspecten, zoals erectiestoornissen of laboratoriumresultaten gerelateerd aan seksueel risicogedrag, zoals een positieve lues uitslag. Bovendien was de tijd die aan het bespreken van seksualiteit werd besteed beperkt en werden communicatiefuncties en -vaardigheden, waaronder actief luisteren en samenvatten en het begrip van de patiënt te verkennen, inconsistent toegepast. Daarnaast ontbrak er regelmatig een duidelijke structuur tijdens hiv-consulten, waardoor mogelijkheden om seksualiteit en intimiteit effectief te bespreken verloren gingen.

In **hoofdstuk 6** hebben we de bevindingen uit de voorgaande hoofdstukken verwerkt in een op maat gemaakte pilottrainingsinterventie voor hiv-verpleegkundigen. Het doel van deze interventie was om het bespreekbaar maken van seksualiteit met mensen met hiv door verpleegkundigen te ondersteunen en de frequentie van gesprekken over seksualiteit in routine

consulten te verhogen. Voor de ontwikkeling van de interventie hebben we een theoretisch raamwerk gehanteerd en de zes stappen van Intervention Mapping gevolgd (Bartholomew Eldredge et al., (2016)). In stap 1 hebben we een grondige probleem- en behoefteanalyse uitgevoerd, waarbij we de inzichten uit **hoofdstukken 2 tot en met 5** hebben meegenomen. Op basis hiervan hebben we in stap 2 programmadoelen geformuleerd, waaronder: "De verpleegkundige kan het gesprek over seksualiteit starten tijdens een routineconsult." In stap 3 hebben we onderzocht welke theoretisch onderbouwde methoden het beste aansluiten bij de doelgroep en de programmadoelen. Dit vormde de basis voor stap 4, waarin we een training van anderhalve dag hebben ontwikkeld. Voor een effectieve en duurzame invoering van de trainingsinterventie in de praktijk hebben we in stap 5 een implementatieplan opgesteld, in nauwe samenwerking met netwerkpartners. Tot slot hebben we in stap 6 een pilotevaluatie uitgevoerd, gericht op het beoordelen van houding en het gedrag rondom het bespreken van seksualiteit vóór en na de training. Aan de pilot van de trainingsinterventie deden 37 deelnemers mee op de eerste dag en 20 deelnemers op de tweede (halve) dag. We hebben een procesevaluatie van de interventie uitgevoerd, gecombineerd met een verkenning van het mogelijke effect. Zelfgerapporteerd gedrag en bevorderende en belemmerende factoren die het gedrag van de deelnemers kunnen beïnvloeden, zijn onderzocht met behulp van online vragenlijsten. Deze vragenlijsten werden op vier verschillende momenten afgenomen volgens een pre- en post-test design. De evaluatie van de pilottraining, onder 20 deelnemers die beide dagen aanwezig waren, liet een positieve verandering zien in kennis, attitude, injunctieve sociale norm en waargenomen gedragscontrole om seksualiteit bespreekbaar te maken.

Dit proefschrift biedt waardevolle inzichten in zowel de praktijk van het bespreken van seksualiteit als de percepties van verpleegkundigen en artsen over het bespreken van seksualiteit en seksueel risicogedrag in de hiv-zorg. Deze bevindingen hebben geleid tot de ontwikkeling en implementatie van een gerichte trainingsinterventie, waarvan de pilotevaluatie aantoonde dat deze bepaalde bevorderende en belemmerende factoren kan beïnvloeden om seksualiteit beter en frequenter bespreekbaar te maken. Door het toepassen van een systematische methode, zoals beschreven in Intervention Mapping, bleek het mogelijk om deze factoren positief te beïnvloeden.

Hoewel dit proefschrift aantoont dat de training 'het bespreken van seksualiteit en seksueel risicogedrag" een positieve verandering teweegbrengt in verschillende factoren, is deze toe nu toe slechts onderzocht in een pilotevaluatie met een kleine groep zorgverleners. Om echt het verschil te kunnen maken in het beter en frequenter bespreken van seksualiteit tijdens routineconsulten, is er naast een bredere implementatie onder hiv-verpleegkundigen ook het actief betrekken van artsen essentieel. Dit is vooral belangrijk omdat sommige patiënten met hiv soms alleen de arts zien tijdens hun routineconsulten.

Dit proefschrift heeft waardevolle inzichten opgeleverd over zowel het bespreken van seksualiteit in de praktijk als de percepties van verpleegkundigen en artsen over seksualiteit in het hiv-veld. Deze inzichten hebben geleid tot de ontwikkeling en pilot implementatie en evaluatie van een op maat gemaakte trainingsinterventie, die liet zien dat er bevorderende factoren zijn die beïnvloed kunnen worden om seksualiteit beter en vaker te bespreken door toepassen van specifieke theoretische methodes beschreven in IM. Concluderend kunnen de resultaten van dit proefschrift worden gebruikt voor de verdere doorontwikkeling van de training, met als uiteindelijk doel seksualiteit als onderdeel van kwaliteit van leven in zijn volledigheid bespreekbaar te maken tijdens een routinematige hiv-controle.

Referenties

Ajzen, I. (1991). The theory of planned behavior. Organizational Behav ior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Bartholomew, L. K., Parcel, G. S., Kok, G., Gottlieb, N. H., & Fernandez, M. E. (2016). Planning health promotion programs: An intervention mapping approach (4e ed.). Jossey-Bass.

Engel, G. L. (1977). The need for a new medical model: A challenge for biomedicine. Science, 196(4286), 129-136. https://doi.org/10.1126/science.874173

King, A., & Hoppe, R. B. (2013). "Best practice" for patient-centered communication: A narrative review. Journal of Graduate Medical Education, 5(3), 385–393. https://doi.org/10.4300/jgme-d-13-00072.1

Krouwel, E., Nicolai, M., Van Steijn-Van Tol, A., Putter, H., Osanto, S., Pelger, R., & Elzevier, H. (2015). Addressing changed sexual functioning in cancer patients: A cross-sectional survey among Dutch oncology nurses. European Journal of Oncology Nursing, 19(6), 707–715. https://doi.org/10.1016/j.ejon.2015.05.005

UNAIDS Global AIDS Update 2023. Geneva: Joint United Nations Programme on HIV/AIDS; 2023. 2023 Report - UNAIDS - Global Report 2023

Van Ek, G. F., Gawi, A., Nicolai, M. P., Krouwel, E. M., Den Oudsten, B. L., Den Ouden, M. E., & Elzevier, H. W. (2018). Sexual care for patients receiving dialysis: A cross-sectional study identifying the role of nurses working in the dialysis department. Journal of Advanced Nursing, 74 (1), 128–136. https://doi.org/10.1111/jan13386

About the author

'Completing my PhD has provided the scientific foundation, but in many ways, this is where the real journey begins.'

Esther Suzanne de Munnik was born on October 19, 1978, in Delft. She grew up in Vught, where she completed her MAVO diploma in 1996 at Reeburg Mavo, followed by a HAVO diploma in 1998 at Maurick College. Suzanne then pursued a bachelor's degree in nursing at Fontys University of Applied Sciences in Eindhoven, graduating in 2002. After completing her degree, she started working as a nurse at the outpatient clinic for internal medicine at Catharina Hospital in Eindhoven, where she specialized in HIV care. Suzanne played a key role in establishing the HIV outpatient clinic and has been working there full-time ever since.

In 2012, Suzanne began the Master of Advanced Nursing Practice program at Fontys University of Applied Sciences in Tilburg. During this program, her research led to her first publication, which explored the experiences of HIV nurses in discussing sexual risk behavior. This experience not only deepened her fascination with the ongoing challenges related to quality of life in HIV care but also ignited a lasting passion for nursing science and evidence-based practice. After obtaining her MSc degree in Advanced Nursing Practice in 2014, Suzanne continued her academic journey by enrolling in the Master of Advanced Practice (Health) program at Birmingham City University (BCU), Faculty of Health, Education and Life Sciences, in 2016.

Her second research project, supervised by Prof. Dr. Joy Notter, led to her graduation from BCU in March 2018. Her dissertation, titled "Which topics do HIV nurses discuss? And what strategies are they using?", aimed to clarify the role of HIV nurses during consultations with HIV-positive men who have sex with men to optimise the discussion of relevant topics.

From 2015 to 2017, Suzanne worked full-time at the hospital while also dedicating one day a week at the National Institute for Public Health and the Environment (RIVM). This experience allowed her to enhance her research skills and establish connections between clinical practice and scientific research. In recent years, Suzanne has increasingly focused on integrating scientific nursing research into her work as a nurse practitioner. She has presented her research at various national and international conferences and has contributed to several articles to professional journals. Throughout her career, she has emphasized the importance of discussing sexual health during patient consultations.

Suzanne has long been passionate about integrating sexual health into clinical practice. Alongside her full-time professional responsibilities, she has remained dedicated to developing effective interventions in this fieldwork that extend beyond the scope of her dissertation.

In 2024, she co-founded Seksenzorg (www.seksenzorg.nl) with two colleagues to create a platform aimed at improving the quality of sexual health care. As part of this initiative, they developed a three-part training program for healthcare professionals working in the field of HIV. The training includes a podcast series, a webinar, and a practical training day, all funded by external grants and directly informed by her PhD research findings. This program has been presented at national (NCHV 2023) and international conferences. The program was completed in April 2024. Currently, based on scientific evaluation, the intervention is being refined and expanded. A new training day based on the updated program is scheduled for early 2026.

Suzanne reflects on her journey: "Completing my PhD has provided the scientific foundation, but in many ways, this is where the real journey begins. Now it's time to bring research to life and turn knowledge into meaningful impact for my patients with HIV."

Outside of her professional life, Suzanne enjoys family life with her husband, Sander and their two children, Julian (born in 2007) and Katelijne (born in 2008).

Acknowledgements

Promoveren was voor mij een reis van volharding, doorzettingsvermogen en het opbouwen van vertrouwen in mijn eigen kunnen. Wat mij dreef, was niet alleen mijn passie voor het vak van verpleegkundig specialist, maar ook de wens om bij te dragen aan de verbetering van de zorg voor mijn patiënten. Deze PhD-reis heeft me verder gebracht dan ik ooit voor mogelijk had gehouden. Het heeft me geleerd dat je soms het onbekende moet omarmen, omdat er onverwachte en prachtige dingen kunnen ontstaan – zelfs wanneer je niet precies weet waar je aan begint. Deze reis heeft me niet alleen professioneel verrijkt, maar ook waardevolle levenslessen en blijvende vriendschappen gebracht.

Na jaren van werken aan dit proefschrift besef ik dat ik dit niet alleen heb gedaan, maar dat ook veel anderen onmiskenbaar betrokken zijn geweest bij dit proces. Hoewel mijn naam op de kaft staat, is dit boek tot stand gekomen dankzij de hulp, steun en betrokkenheid van velen. Graag wil ik van deze gelegenheid gebruikmaken om iedereen die op welke manier dan ook heeft bijgedragen, van harte te bedanken. Omdat dit proefschrift zo lang in ontwikkeling is geweest, hebben veel mensen, zowel bewust als onbewust, hun steentje bijgedragen. Ik besef me dat dit nawoord daardoor niet volledig kan zijn. Mijn excuses hiervoor en alsnog mijn oprechte dank aan iedereen die heeft bijgedragen!

Chantal en Sigrid

Allereerst wil ik Chantal en Sigrid bedanken, mijn geweldige co-promotoren. Chantal, wat hebben we elkaar goed leren kennen sinds onze start bij het RIVM! Ik ben je enorm dankbaar voor het vertrouwen dat je in mij hebt gesteld en voor de kans om één dag per week op (toen nog) jullie afdeling te mogen werken. Vanaf het begin was ik onder de indruk van jouw uitgebreide kennis van wetenschap, gedragsverandering en interventiemodellen. Jij was al snel bezig met het idee om te promoveren, terwijl ik me afvroeg of alles wel goed ging met jou. Door jou heb ik mijn klinische wetenschappelijke vragen kunnen vertalen naar echt wetenschappelijk werk. Het was een voorrecht om jouw begeleiding te mogen ontvangen. Je constructieve kritiek heeft mijn denken verder ontwikkeld dan ik ooit voor mogelijk had gehouden. Je nam nooit genoegen met makkelijke antwoorden, en dat heeft me echt verder geholpen. Wat ben ik blij dat jij me uiteindelijk over de streep hebt getrokken! Je hebt altijd vertrouwen in mij gehad, en je onophoudelijke optimisme heeft me ontzettend veel geleerd over wetenschap. Dank voor je vriendschap, de borrels en ik hoop nog heel veel samen te kunnen werken aan wetenschappelijk onderzoek!

Sigrid, jij was er vanaf het begin van mijn verpleegkundige carrière binnen de hiv-zorg en bent voor mij een groot voorbeeld, zowel als verpleegkundig specialist als wetenschapper. Je bent integer, beschouwend, analytisch, geïnteresseerd en hebt een diep hart voor het verpleegkundig vak. Wat een eer dat jij mij hebt willen begeleiden! Maar bovenal was je altijd beschikbaar om te luisteren en me te ondersteunen bij het nemen van beslissingen, zowel in mijn onderzoek als in mijn carrière. Op momenten dat ik niet volledig in mezelf geloofde, had jij dat wel, waardoor ik me nooit verloren voelde. Daarnaast wil ik je ontzettend bedanken voor je scherpe inzichten, je oog voor detail bij kwalitatief onderzoek en je betrokken begeleiding. Jij hebt me geholpen om te groeien, niet alleen als onderzoeker, maar ook als verpleegkundig specialist. Ik hoop dat onze gesprekken blijven voortduren en dat we elkaar in dit vakgebied blijven vinden.

Gerjo

Meer dan 10 jaar geleden benaderde ik jou via LinkedIn omdat ik onderzoek wilde doen onder zorgprofessionals en begreep dat jij bij SoaAids actief was op het gebied van voorlichting over seksualiteit en risicogedrag. Ondanks het feit dat jij professor was en ik verpleegkundige, accepteerde je direct mijn uitnodiging, en in 2014 hadden we een prettig gesprek over de gezondheidszorg, met name risicogedrag en seksualiteit. We deelden dezelfde beweegredenen en missie: het beïnvloeden van het gedrag van zorgprofessionals. De reis naar Maastricht was het zeker waard, en ik ben je enorm dankbaar voor al die inspirerende gesprekken. Jij was er vanaf het begin bij, altijd laagdrempelig bereikbaar, en wist me opnieuw vertrouwen te geven, zelfs wanneer het tegenzat. Je kritische blik op mijn onderzoek en artikelen heb ik altijd als zeer waardevol ervaren. Het was een groot gemis toen je je, vanwege gezondheids-redenen, recent moest terugtrekken. Ik wil je dan ook enorm bedanken voor alles wat je voor me hebt gedaan, en ik wens je alle goeds voor je gezondheid!

John

Via Chantal kwam ik in contact met jou, en in 2017 hadden we onze eerste kennismaking in je kamer op de universiteit. In het begin was het wat onwennig en was ik nog zoekende naar mijn rol als buitenpromovendi. Maar naarmate de tijd vorderde, leerden we elkaar steeds beter kennen. Met name het laatste jaar, waarin onze ontmoetingen op de universiteit frequenter werden, heb ik onze samenwerking als bjzonder waardevol ervaren. Allereerst wil ik je bedanken voor de kans en de steun die jij mij hebt geboden om dit proefschrift te schrijven en uiteindelijk succesvol af te ronden. Onze jarenlange samenwerking en het vertrouwen dat je in mij bleef stellen, ondanks mijn vaak drukke werk in het Catharina Ziekenhuis, waar de patiëntenzorg altijd mijn prioriteit had, betekenen veel voor me. Jouw enorme wetenschappelijke kennis

en drive zijn moeilijk in woorden te vatten. Daarnaast wil ik je bedanken voor je kritische blik op mijn artikelen. De voorafgaande opmerkingen in je e-mails, waarin je aangaf dat het vaak nog beter kon, kwamen soms hard aan; ik hoopte op wat minder correcties in de wetenschappelijke teksten, maar ze waren altijd terecht. Ze leidden tot verbetering en uiteindelijk tot een mooi proefschrift.

Leden van de leescommissie

Geachte leden van de leescommissie: Prof. dr. P. Boelen, Prof. dr. L. Schoonhoven, Prof. dr. A. Verbon, Dr . I. Bicanic, Prof. Dr . R. Ruiter, heel veel dank voor het beoordelen van het werk, het is een eer om zo'n mooie commissie achter me te hebben.

Collega's

Daarnaast wil ik mijn oprechte dank uitspreken aan alle collega's die, net als ik, deel uitmaken van de Verpleegkundige Consulten HIV (VCH). Zonder jullie betrokkenheid en samenwerking in al mijn onderzoeken zouden de behaalde resultaten niet mogelijk zijn geweest. Maar nog belangrijker: zonder jullie hadden we deze waardevolle training niet kunnen opzetten en verder uitrollen.

Een bijzondere dank gaat uit naar Aafke Cents, Gerjanne ter Beest en Natasja van Holten (voormalige voorzitters van VCH) voor jullie persoonlijke steun en het enthousiasme waarmee jullie dit onderzoek hebben omarmd. Tenslotte wil ik Jolanda Schippers bedanken. Jij hebt mij in maart 2002 ingewerkt en bent sindsdien een groot voorbeeld en bron van inspiratie voor mij.

Daarnaast ook dank aan; Hans, Frank, Claire, Annouschka, Inge, Laura, Femke, Marc, Narda, Marie-Jose, Gijs, Maria, Eva, Maaike, Angelique, Hetty, Loek, Hannah, Danielle, Belinda, Marc, Petra, Marcia, Yvette, Jan, Emma, Sieds, Melle, Margo, Linda, Dorien, Anneke, Marye, Nynke, Leontine, Jolanda, Sandra, Marjolein, Dorien, Robin, Mahasin, Kim, Koen, Manon, Martine, Riet, Marion, Nadine, Laura, Jan, Eileen, Linda, Jannigje, Anneke, Diane, Emma, Brigitte, Marjolein, Aniek, Inge, Marleen, Loeka, Mariska, Saskia, Lia, Astrid, Saskia.

Karin en Hans-Erik

We delen dezelfde passie, energie en liefde voor ons vak.
Lieve Karin, jij bent en blijft voor mij een groot voorbeeld als verpleegkundig specialist, vooral als het gaat om het leveren van de beste zorg voor onze patiënten. Een speciaal dankwoord gaat ook uit naar jou, als mijn paranimf. Je energie, enthousiasme, maar ook je kritische blik en rol als sparringpartner waardeer ik enorm. Het is voor mij een eer dat jij op 5 november naast mij staat tijdens mijn verdediging.

Lieve Hans-Erik, jij bent zorgzaam, grappig, eerlijk en hebt een enorme hoeveelheid kennis over seksualiteit. Ook persoonlijk hebben we elkaar goed leren kennen, en ik ervaar onze vriendschap als bijzonder en waardevol. Professioneel gezien ben jij een enorme aanvulling binnen de seksenzorg, en zonder jouw kennis over seksualiteit en intimiteit zou de training er niet zijn geweest.
Ik ben trots op ons werk samen en enorm dankbaar dat jullie op mijn pad zijn gekomen. We gaan samen verder, en ik kijk uit naar alles wat er nog zal gaan komen.

Lieve Tien

Wat hebben wij samen veel meegemaakt de afgelopen jaren. Jij bent er altijd – of ik er nu even doorheen zit of juist iets te vieren heb. Eén belletje is genoeg: jij neemt op, luistert, laat me mijn verhaal doen, en geeft – gevraagd of ongevraagd – advies. Het is bijzonder om zo'n vriendin te hebben die me door en door kent, met wie ik alles kan delen, en die er onvoorwaardelijk is. Ik ben ontzettend dankbaar voor onze vriendschap. In september 1998 begonnen we samen aan de Fonys HBO-V. Wat een avontuur was dat! Daar werd het zaadje geplant voor ons vak, en precies daarom voelt het zo passend dat jij, 25 jaar later, mijn paranimf bent. De afgelopen jaren stond je bijna dagelijks aan mijn zijde in het Cathrien – buiten op het bankje, met een kop koffie en een Liga. Je was er bij de mooie momenten, wanneer een gesprek of presentatie goed ging, maar ook bij de lastige, na een afwijzing of een feedbackronde met pagina's vol rood. Ook buiten het werk hebben we lief en leed gedeeld – met onze kinderen, partners en vakanties. Onze vriendschap is van onschatbare waarde. Ik ben trots dat jij op deze bijzondere dag aan mijn zijde staat, en kijk met plezier en vertrouwen uit naar alles wat nog voor ons ligt.

Collega's poli Interne

Lieve collega's van poli Interne, Heidi, Marjolijn, Mirjam, Jerome, Daan en Simone, Ik heb vaak tussen de spreekuren door (bij het uitvallen van een patiënt of in de pauze) nog even gewerkt aan een alinea van een artikel of ik had weer een van de vele teams meetings. Dank jullie wel voor het geduld dat jullie hiervoor hebben getoond. Het is zo fijn om te weten dat jullie mij steunen, of ik nu gefrustreerd was of juist erg blij, jullie waren er altijd gewoon voor mij.

Heidi, het betekent veel voor me dat je later nog bij mijn promotiecommissie van het Catharina Zienkenhuis aansloot; jouw kritische en doeltreffende feedback heeft mijn artikelen wezenlijk versterkt.

Daan, bedankt voor je koffiemomenten én je luisterend oor, die momenten van ontspanning heb ik enorm gewaardeerd.

Mirjam, van ons carpoolen tussen Den Bosch en Eindhoven tot samenwerken op Interne Geneeskunde: vorig jaar promoveerde jij en wat ben ik trots! Je was een grote inspiratie voor mijn proefschrift. Ik kijk uit naar onze volgende stappen als gepromoveerde verpleegkundig specialisten.

Polimedewerkers interne geneeskunde

Tot slot wil ik de polimedewerkers van de afdeling Interne Geneeskunde bedanken voor jullie onvermoeibare inzet, en voor de bezorgdheid en interesse die jullie toonden op dagen dat het even niet meezat. Ik waardeer enorm hoe jullie hielpen op drukke dagen en af en toe even kwamen binnen lopen in mijn spreekkamer.

Lieve Alcira en Maaike

Jullie hebben mij uit een diep dal geholpen. Juist op het moment dat ik het even niet meer zag zitten, leerde ik jullie kennen. Ineens was ik op woensdagen niet meer in het ziekenhuis, maar op de universiteit. Pas toen realiseerde ik me dat ik niet alleen ben in dit avontuur, en dat ook jullie soms tegenslagen hebben, wat er eigenlijk allemaal bij hoort. Maar wat heeft jullie tomeloze positieve instelling, liefdevolle chocolaatjes, koffietjes en vega wraps mij weer in balans gebracht! Dank jullie wel dat jullie er altijd voor mij waren. Jullie zijn fantastische PhD-studenten en geweldige vrouwen.

Vriendinnen

Verder zijn er nog een aantal lieve vriendinnen die ik graag wil bedanken. Lieve brunettes (en mannen) uit de Sonniusstraat, Jullie zijn vanaf het allereerste begin betrokken geweest bij de totstandkoming van mijn proefschrift. De afgelopen jaren keek ik altijd uit naar onze borrels en etentjes, waar ik jullie even kon bijpraten en jullie mij weer moed konden inspreken. Dank jullie wel voor jullie interesse, positieve energie en vooral jullie vriendschap.

Lieve muzerije dames (en mannen), In eerste instantie waren onze kinderen de verbindende factor, maar al snel werden ook wij echte vriendinnen. Hoe verschillend we allemaal ook zijn, ik waardeer onze vriendschap enorm. Ik geniet van onze jaarlijkse weekenden weg en ben dankbaar voor jullie vertrouwen in mij en altijd aanwezige luisterend oor en support.

Kat

In 2000 woonden we samen met Tineke in de Morsestraat; wat een avontuur was dat! Wat ben ik blij dat ik jou heb leren kennen. Ook al zien we elkaar niet vaak, wanneer we elkaar treffen is het altijd goed en vertrouwd. Ik ben superblij dat jij het grafisch ontwerp van mijn proefschrift op je hebt genomen, wat een prachtige en persoonlijke bijdrage!

Gabi

Onze jeugd op de atletiekbaan, later de rugbywedstrijden van onze zonen, de wandelingen en etentjes hebben een mooi tegenwicht geboden aan het geploeter in de totstandkoming van dit boekje. Dank voor je interesse en luisterend oor de afgelopen jaren.

Suus

Samen begonnen we eind jaren '90 in Eindhoven op de Fontys HBO-V. Hoewel we allebei ons eigen pad binnen de opleiding hebben gevolgd, hebben we samen het handboek hiv in de zorg geschreven als eindproduct. Nu, 25 jaar later, heeft het drukke leven – met werk en privé – ervoor gezorgd dat we elkaar helaas niet vaak hebben gezien. Maar nu ik klaar ben met dit proefschrift, hoop ik dat we elkaar vaker zullen treffen voor lekkere etentjes, saunadagen of weekendjes weg. Heel veel dank voor alles!

Monika

Via de SHM heb ik je in eerste instantie leren kennen in mijn ziekenhuis. Later, omdat jij ook in Den Bosch woonde, zijn we elkaar vaker gaan zien. Gedurende het proces van mijn proefschrift ben jij een waardevolle sparringpartner geworden. Je hebt ervoor gezorgd dat ik met veel meer vertrouwen mijn Engelse presentaties tegemoet ging. Dank je wel voor je geduld, je kennis presentaties maken, en vooral voor je steun gedurende dit traject.

Muriel

Dank je wel voor je vriendschap, de gezellige trainingen op de baan, en vooral voor je kritische vragen die je altijd blijft stellen en die mij telkens weer aan het denken zetten. Ik hoop dat we – of jij – nog vele jaren taarten blijven bakken, samen opeten en genieten van een goed gesprek.

Renske en Johan

Mijn vakantievrienden Renkse en Johan, dank voor jullie betrokkenheid en steun, zelfs op afstand vanuit Washington.

Lieve Tante Mineke

De afgelopen jaren heb ik meerdere keren het geluk gehad om in Woudenberg bij jou te zijn, waar ik ongestoord een paar dagen aan mijn onderzoek kon werken. Die tijd was niet alleen productief, maar ook heel gezellig. Ik heb genoten van onze koffie-momenten, altijd met iets lekkers erbij, van de heerlijke lunches die me de kans gaven om even op adem te komen, en natuurlijk van de culinaire diners waarmee we de dagen samen afsloten. Maar bovenal waren het de gesprekken die we hadden over relaties, vriendschappen en gezondheid die me zijn

bijgebleven. Kortom, dank je wel voor je gastvrijheid en voor de fijne momenten die we samen hebben gedeeld.

Robert en Jeroen

Lieve broers, ik ben dankbaar voor jullie beide, die altijd klaarstaan voor mij. Ik waardeer onze maandelijkse avondjes in de kroeg met bier en bitterballen, jullie eerlijke, ongezouten meningen en het relativeringsvermogen dat jullie me altijd bieden.

Manola

En ook dank aan mijn schoonzus, al 25 jaar, voor je interesse in mij.

Maike

Mijn andere schoonzus, dank voor de fijne gesprekken, je oprechte interesse en je luisterend oor.

Lieve mam

Jouw steun was – en is – onvervangbaar. Jij weet als geen ander hoe ik soms heb geworsteld met de combinatie van zorgen voor de kinderen, er zijn voor het gezin, en tegelijkertijd de druk voelen om weer iets op papier te zetten. Jij was altijd bereid om mee te denken en stond klaar om zowel voor mij als voor de kinderen te zorgen. Daar ben ik je ongelooflijk dankbaar voor. En ook nu nog, los van alles wat met het gezin te maken heeft, prijs ik mezelf gelukkig met jou in mijn leven. Ik hoop dat we, zeker nu het proefschrift achter de rug is, wat meer tijd samen kunnen doorbrengen

Lieve pap

Zonder jou was ik überhaupt nooit aan dit proefschrift begonnen. Jij bent degene die altijd onvoorwaardelijk in mij heeft geloofd en mij blijft stimuleren om het beste uit mezelf te halen. Op alle fronten – inhoudelijk, in het proces, bij presentaties – maar vooral in de vele gesprekken, heb jij bijgedragen aan het succesvol afronden van deze reis. Inmiddels ben je wat ouder geworden, en is je betrokkenheid bij dit promotietraject veranderd in waardevolle gesprekken over bezinning, de betekenis van de resultaten, maar ook over wie ik nu ben – en wat mijn toekomst is als gepromoveerd verpleegkundig specialist. Ik ben dankbaar wij dit op 5 november samen mogen beleven en dat we met mama kunnen proosten op dit bijzondere moment.

Lieve Julian en Katelijne

Jullie zijn opgegroeid met een moeder die in jullie tienertijd werkte aan een proefschrift – dat zal zeker niet altijd makkelijk zijn geweest. Jullie oprechte interesse in wat ik doe, zoals wanneer ik weer ergens iets heb gepresenteerd, en jullie betrokkenheid waardeer ik enorm. Ik ben ontzettend trots op twee fantastische kinderen, die zijn opgegroeid tot jongvolwassenen met het hart op de juiste plaats. Ik houd van jullie.

San

En als laatste lieve San, jij kent me al 25 jaar als geen ander. Je geeft me de ruimte om mijn eigen weg te gaan, maar was ook kritisch wanneer ik privé te veel tijd besteedde aan dit proefschrift – tijd die ten koste ging van het gezin. Dank je wel voor al je steun in de afgelopen jaren, het is niet altijd makkelijk geweest.

List of publications and contributions

Publications included in this thesis

de Munnik ES, Vervoort SCJM, Kraan L, Ammerlaan HSM, Grondhuis Palacio LA, Kok G, Elzevier HW, Wit JBF, den Daas C. Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands, AIDS Care. 2022 Jun; 34(6):734-740.

de Munnik ES, den Daas C, Raethke M, Kok G, Vervoort SCJM. Let's talk about sex: a qualitative study showing that discomfort and lack of structure prevent HIV nurses from discussing sexual risk behaviour. International Journal of Nursing Studies. 2017 Nov; 76 55–61.

de Munnik ES, Vervoort SCJM, Ammerlaan HSM, Kok G, den Daas C. (2017). From intention to STI prevention: an online questionnaire on barriers and facilitators for discussing sexual risk behaviour among HIV-nurses. Journal of Advanced Nursing. 2017 Dec; 73:2953–2961.

de Munnik ES, den Daas, C., Ammerlaan HSM., Kok, G, de Wit JBF., and Vervoort S. C.J.M. (2024). Observations of communication practices between HIV-positive men who have sex with men and HIV-nurses during HIV consultation regarding sexual health counselling; a multi method approach. The Journal of Association of Nurses in AIDS Care. 2024 Febr; (18).

de Munnik ES, de Wit JBF, Ammerlaan, HSM, Kok, G., Vervoort, SCMJ, den Daas, C. Developing an novel sexual health counseling training for HIV care providers. Submitted

Other publications

Grintjes K, de Munnik ES, Nobel HE. Training Seks & Zorg: wat zegt de wetenschap over seksualiteit. Sekssoa magazine. 2024 March

de Munnik ES, Grintjes K, Nobel HE. Van wetenschap naar de klinische praktijk, hoe praktische vaardigheden de kwaliteit van zorg ten aanzien van seksualiteit verbeteren. Vakblad "de Verpleegkundig Specialist". 2023 Dec; 4.

de Munnik ES, Vervoort SCJM, Nobel HE, Elzevier HW, Grintjes K. Bespreken van seksualiteit en intimiteit, taak van de verpleegkundig specialist? Vakblad "de Verpleegkundig Specialist". 2020 Jun;15 (2).

van der Ende-van Loon M, Brouwers M, de Munnik ES, Nieuwkerk P, Curvers W, Schoon E. Factors influencing health related quality of life in patients with Barrett's esophagus; a qualitative focusgroup study. European Journal Gastroenterology Hepatology. 2021 Jan; 18

den Daas, C., van den Berk, GEL, Kleene MJT, de Munnik ES, Lijmer JG, Brinkman K. Health-related quality of life among adult HIV positive patients: assessing comprehensive themes and interrelated associations. International journal of quality of life aspects of treatment, care and rehabilitation. 2019 Oct; 28(10):2685-2694.

de Munnik ES. Ammerlaan HSM, de Zeeuw B, Vervoort SCJM, Kok, G. Bespreken van seksueel risicogedrag: Sociaal-psychologische determinanten als handvatten voor HIV-verpleegkundigen. 2014. HIV-Bulletin.

Conference contributions

European AIDS Clinical Society (EACS)

de Munnik ES, Noorman, MAJ, Ammerlaan HSM, Vervoort SCJM, Grintjes K, de Wit, den Daas C. From pilot to practice: strengthening sexual health care counseling in HIV clinical practice through education and training. Presentation E-poster; 2025 Parijs

de Munnik ES, Vervoort SCJM, Kraan L, Ammerlaan HSM, Grondhuis Palacio LA, Kok G, Elzevier HW, Wit JBF, den Daas C. Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands. Poster presentation at EACS; 2018 nov; Glasgow, Scotland.

European Health Psychology Society (EHPS)

de Munnik ES, de Wit JBF, Ammerlaan, HSM, Kok, G., Vervoort, SCMJ, den Daas, C. Developing an novel sexual health counseling training for HIV care providers. Oral presentation; 2025 Groningen.

Netherlands conference on HIV pathogenesis, epidemiology, prevention and treatment (NCHIV)

de Munnik ES, Vervoort SCJM, Kraan L, Ammerlaan HSM, Grondhuis Palacio LA, Kok G, Elzevier HW, Wit JBF, den Daas C. Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands. Poster presentation; 2017 Amsterdam.

de Munnik ES, de Wit JBF, Ammerlaan, HSM, Kok, G., Vervoort, SCMJ, den Daas, C. Developing an novel sexual health counseling training for HIV care providers. Oral presentation 2023 Amsterdam.

HIV Nursing conference

de Munnik ES, Vervoort SCJM, Ammerlaan HSM, Kok G, den Daas C. Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands. Oral presentation 2017 Rome Italy.

V&VN VS Conference

de Munnik ES, Vervoort SCJM, Kraan L, Ammerlaan HSM, Grondhuis Palacio LA, Kok G, Elzevier HW, Wit JBF, den Daas C. Sexual health counselling by Dutch HIV care providers: A cross-sectional survey among physicians and nurses in the Netherlands. Poster presentation; 2018 Papendal.

AIDS impact

de Munnik ES, den Daas C, Raethke M, Kok G, Vervoort SCJM. Let's talk about sex: a qualitative study showing that discomfort and lack of structure prevent HIV nurses from discussing sexual risk behaviour. International Journal of Nursing Studies. Poster presentation 2015 Amsterdam.

Soa*hiv*seks congres

de Munnik ES, Nobel HE, Elzevier HW. Doorbraak naar een betere communicatie over seksualiteit en intimiteit anno 2018. Workshop at Soahivseks congres; 2018 Dec 1.

de Munnik ES, Nobel HE, Grintjes K. Sekspositieve counseling in de spreekkamer. Workshop at Soahivseks congres; 2022 Dec 1.

List of supplementary materials

The supplementary materials referred to in **Chapters 2** and **6** are listed here and can be found in the subsequent sections.

Chapter 2
Supplementary Table 2.1 Appendix Questionnaire HIV physicians and HIV specialist nurses

Chapter 6
Supplementary Table 6.1 Overview of PO 2. of sexual health counselling pilot program including methods, parameter and applications. The parameters for these methods can be found in Kok et al. (2016)

Supplementary Table 6.2 Overview of PO 3. of sexual health counselling pilot program including methods, parameter and applications

Supplementary Table 6.3 Questionnaire evaluating the content and process of the pilot training

Supplement 2.1 Questionnaire HIV physicians and HIV specialist nurses

Reason not to participate:
- ☐ No enhancement possible in this area.
- ☐ I don't work with HIV positive patients
- ☐ No interest
- ☐ No time
- ☐ Not enough experience
- ☐ Other . .. .

Please choose the most suitable answer for each question and please do not skip any questions. Thank you in advance for your effort.

DEMOGRAPHICS

1. What is your sex?
- ☐ Male
- ☐ Female

2. What is your age? ..... years

3A. What is your current position at work?
- ☐ HIV physician
- ☐ Internal medicine physician
- ☐ Resident
- ☐ Other: .....

3B. What is your current position at work?
- ☐ Nurse practitioner
- ☐ HIV nurse
- ☐ Nurse in training
- ☐ Other: .....

4. Years of practice in treating HIV positive patients?
- ☐ < 1 year
- ☐ 1-2 years
- ☐ 3-5 years
- ☐ 6–10 years
- ☐ 11-15 years
- ☐ >15 years

5. Type of clinic/practice? (multiple answers possible)
- ☐ Tertiary referral hospital (or university hospital)
- ☐ General teaching hospital
- ☐ District general hospital
- ☐ Other: .....

6A. Who do you work with in your daily practice concerning HIV care (multiple answers allowed)
- ☐ Nurse practitioner
- ☐ HIV nurse
- ☐ Nurse practitioner/ HIV nurse
- ☐ None of them
- ☐ Other: .....

6B. Who do you work with in your daily practice concerning HIV care (multiple answers allowed)
- ☐ HIV physician
- ☐ Internal medicine physician
- ☐ Resident
- ☐ None of them
- ☐ Other: .....

SEXUALITY AND HIV

Sexual health is being defined as

7. Do you suspect there is a change in sexual health in HIV positive patients due to HIV itself?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

8. Do you suspect there is a change in sexual health in HIV positive patients due to HIV medication?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

9. What percentage of sexual dysfunction as a result of HIV medication interacts with therapeutic compliance?
- ☐ 0-25%
- ☐ 25-50%
- ☐ 50-75%
- ☐ 75-100%

10. In which age range is the majority of the HIV positive patients you treat?
- ☐ 16-35 year
- ☐ 36-50 year
- ☐ 51-65 year
- ☐ 66-75 year
- ☐ > 76 year

11. What is the percentage of men and women among the HIV population you treat?
- ☐ .....% man
- ☐ .....% women

12. Have you been noticing that HIV positive patients do not want HIV medication in the form of a combination drug instead of different individual drugs.
- ☐ ..... yes
- ☐ ..... no

13. If yes, what do you think is the reason?
- ☐ Patients want to take drugs separately because they work differently
- ☐ Combination drugs interact more with sexual health
- ☐ Patients do not want to change out of habit
- ☐ Combination drugs are more expensive
- ☐ Other: .....

14. Do you ever prescribe PDE-5 inhibitors such as Viagra, Levitra or Cialis to patients suffering from erectile dysfunction?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

DISCUSSING SEXUALITY WITH HIV POSITIVE PATIENTS

15. How often do you discuss sexual health with a new patient?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

16. Do you ever ask about sexual health during routine consultations regardless whether this has been discussed previously?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

17. Please fill in how often you discuss sexuality in the following age ranges

	Never	Seldom	Frequently	Often
16-35 year	☐	☐	☐	☐
36-50 year	☐	☐	☐	☐
51-65 year	☐	☐	☐	☐
66-75 year	☐	☐	☐	☐
>76 year	☐	☐	☐	☐

18. Please fill in how often you discuss sexuality with:

	Never	Seldom	Frequently	Often
Men who have sex with men	☐	☐	☐	☐
Women who have sex with woman	☐	☐	☐	☐
Heterosexual men	☐	☐	☐	☐
Heterosexual woman	☐	☐	☐	☐

19. How often do patients express sexual dysfunction spontaneously?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

20. How often do you tell your patients about the possible effect s of HIV on sexual health?
- ☐ Never
- ☐ Seldom
- ☐ Frequently
- ☐ Often
- ☐ Always

21. How often do you tell your patients about the possible effects of HIV medication on sexual health?
- ☐ Never
- ☐ Seldom
- ☐ Frequently
- ☐ Often
- ☐ Always

22. When discussing sexual dysfunction with a male patient, which subject(s) do you discuss? (multiple answers possible)
- ☐ Tiredness
- ☐ Lack of experienced pleasure
- ☐ Loss of libido
- ☐ Erectile dysfunction
- ☐ Painful intercourse
- ☐ Experience of an orgasm
- ☐ Problems with arousal
- ☐ Insecurity due to changed appearance (gynecomastia)
- ☐ Insecurity due to changed self-image
- ☐ Insecurity about the future
- ☐ Hormonal changes
- ☐ Medication side effects
- ☐ Fear of transmitting HIV to partner
- ☐ Fear of talking about HIV with partner
- ☐ HIV stigma
- ☐ Other: .....

23. When discussing sexual dysfunction with a female patient, which subject(s) do you discuss? (multiple answers possible)

- ☐ Tiredness
- ☐ Lack of experienced pleasure
- ☐ Loss of libido
- ☐ Erectile dysfunction
- ☐ Painful intercourse
- ☐ Experience of an orgasm
- ☐ Problems with arousal
- ☐ Insecurity due to changed appearance (gynecomastia)
- ☐ Insecurity due to changed self-image
- ☐ Insecurity about the future
- ☐ Hormonal changes
- ☐ Medication side effects
- ☐ Fear of transmitting HIV to partner
- ☐ Fear of talking about HIV with partner
- ☐ HIV stigma
- ☐ Other: .....

24. Possible barriers towards discussing sexual dysfunction are listed below. To which extent are these barriers applicable to you? Please give only one answer for each barrier.

	Totally disagree	**Disagree**	**Slightly agree/ Slightly disagree**	**Agree**	**Totally agree**
Insufficient time	☐	☐	☐	☐	☐
Insufficient knowledge	☐	☐	☐	☐	☐
Insufficient training	☐	☐	☐	☐	☐
No priority	☐	☐	☐	☐	☐
Someone else is a ccountable for discussing sexual dysfunction	☐	☐	☐	☐	☐
No angle to start the conversation	☐	☐	☐	☐	☐
No effect on risk behaviour	☐	☐	☐	☐	☐
No referral options	☐	☐	☐	☐	☐
No DBC for sexual dysfunction	☐	☐	☐	☐	☐
Barriers based on culture or religion	☐	☐	☐	☐	☐
Barriers based on language or ethnicity	☐	☐	☐	☐	☐
Presence of a t hird person	☐	☐	☐	☐	☐
Afraid to offend the patient	☐	☐	☐	☐	☐
Patients do not express sexual dysfunction spontaneously	☐	☐	☐	☐	☐
Patient is of the opposite sex	☐	☐	☐	☐	☐
Patients have a different sexual orientation	☐	☐	☐	☐	☐
Patient is not ready to discuss sexual dysfunction	☐	☐	☐	☐	☐

	Totally disagree	Disagree	Slightly agree/ Slightly disagree	Agree	Totally agree
Age of the patient	☐	☐	☐	☐	☐
Age difference between yourself and the patient	☐	☐	☐	☐	☐
Sense of shame	☐	☐	☐	☐	☐
I feel uncomfortable to talk about sexual dysfunction	☐	☐	☐	☐	☐
Sex is private	☐	☐	☐	☐	☐
No connection with the patient	☐	☐	☐	☐	☐

25. Who is responsible for providing sexual health counselling?
- ☐ HIV-physician/ internal medicine physician (resident)
- ☐ HIV specialist nurse / nurse practitioner
- ☐ Sexologist
- ☐ General practitioner
- ☐ Social worker
- ☐ Sexologist
- ☐ Psychologist
- ☐ Psychiatrist
- ☐ Patient's own responsibility
- ☐ Partner of the patient
- ☐ Someone else: .....

26. What would help to discuss sexual health during consultation? (multiple answers possible)
- ☐ Training with tools to discuss sexual health issues
- ☐ Availability of written leaflets
- ☐ Website with information for patients
- ☐ Patient information video's

- ☐ Posters in waiting room which encourage patients to discuss this subject
- ☐ Nurses who routinely bring up sexual health issues
- ☐ Extra time to discuss sexual health issues
- ☐ Proper referral options
- ☐ It is irrelevant in my profession to discuss sexual health issues
- ☐ Other: .....

HIV POSITIVE PATIENTS AND THEIR PARTNERS

27. If the partner is present, do you ever ask if he/she has encountered problems regarding changed sexuality caused by HIV?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

28. Do you ever ask your patients to what extent HIV has effected the relationship with their partner?
- ☐ Never/ Almost never
- ☐ In less than half of the cases
- ☐ In half of the cases
- ☐ In more than half of the cases
- ☐ Almost always/ Always

QUESTIONS REGARDING KNOWLEDGE AND EDUCATION

29. How do you rate your own knowledge on sexual dysfunction in HIV positive patients?
- ☐ No knowledge at all
- ☐ Not a lot
- ☐ Some knowledge
- ☐ A lot of knowledge
- ☐ Extreme amount of knowledge

30. Do you feel competent in discussing sexuality?
- ☐ Yes
- ☐ No

31. Do you think that sufficient attention is paid to sexual problems during your education?
- ☐ Yes
- ☐ No

32. Have you ever followed in-service training or had education about discussing sexuality?
- ☐ Yes
- ☐ No

33. If yes, in what form? (multiple answers possible)
- ☐ Lecture
- ☐ E-learning
- ☐ Elective course during residence training
- ☐ Workshop with practical exercises
- ☐ Self study
- ☐ Referral evening
- ☐ Congress symposium
- ☐ Sexology course
- ☐ Other: .....

34. Do you feel the need to increase your knowledge on sexual dysfunction among HIV positive patients?
- ☐ Yes
- ☐ No

35. Are you in need of training in discussing sexuality with HIV positive patients?
- ☐ Yes
- ☐ No

QUESTIONS REGARDING YOUR CURRENT WORKPLACE

36. Is sufficient material about sexual health, in both written and digital form, available at your current workplace?
- ☐ Yes
- ☐ No
- ☐ Don't know

37. Is a protocol or guideline which addresses sexuality during routine consultation available at your current workplace?
- ☐ Yes
- ☐ No
- ☐ Don't know

38. Have agreements been made at your current workplace about who is responsible for discussing sexuality with HIV positive patients?
- ☐ Yes
- ☐ No
- ☐ Don't know

39. Do you know to whom you can refer patients for their sexual problems within your current workplace?
- ☐ No
- ☐ Yes, to.....

40. By estimate, what percentage of your patients do you refer to another care provider (specialized in sexology) for the counselling of their sexual problems in the past year?
.....%

Thank you very much for completing the survey!

Table 6.1
Overview of PO 2. of sexual health counselling pilot program including methods, parameter and applications. The parameters for these methods can be found in Kok et al. (2016)

PO2 Method & Nurses discuss and follow up SH topics more in depth	**Application parameter**	
Attitude		
Feels positive about discussing sexual health twice a year during consultation	Arguments: Using a set of one or more meaningful premises and a conclusion.	Many experts in the field were invited to provide new information of sexual health counseling and the benefits of having the conversation
	Shifting perspective; encouraging taking the perspective of the other	During the role play we discussed the case studies, practiced them and discussed the different cases from the perspective of the patient. E.g.; what questions can you ask to the patient to get a real conversation
	Direct experience; encouraging a process whereby knowledge is created through the interpretation of experience	The same case practiced several times through role play and previous feedback was taken into account.
	Elaboration; stimulating the learner to add meaning to information that is processed	The case studies submitted were discussed in small groups with the moderator leading the discussion. Attention was paid to probing, whereby the contributor was encouraged to include the new information in the conversation that was held again..
	Information about health consequences; provide information (e.g. written, verbal, visual) about health consequences of performing the behavior	During the presentation, the experts provided an explanation by means of a practical case about the consequences of not probing and/or not discussing 2x a year.
	Salience of consequences; use methods specifically designed to emphasise the consequences of performing the behavior with the aim of making them more memorable	During the presentations, experts showed example case studies in which SHC was not discussed or only discussed to a very limited extent, which ultimately led to addiction/acquiring an HIV diagnosis.
Perceived self-efficacy & skills		
Express confidence in the ability to discuss sexual health twice a year.	Planning coping responses. Prompting participants to list potential barriers and ways to overcome these.	The HIV nurses, with input of experts and actors define by themselves the cause of not having the conversation of sexual health. Then the nurse formulate solutions to solve or avoid the cause for not having the talk twice a year.
Express confidence in addressing 1)physical aspects of sexual health and 2)sexual dysfunction when necessary. Express confidence in applying the theory of chemsex/relation/libido/ desire linked to HIV to their patient	Verbal persuasion about capability Tell the person that they can successfully perform the wanted behavior, arguing against self-doubts and asserting that they can and will succeed	In a small group, the nurse demonstrates her knowledge of the theoretical models of SH. The nurse tells that she has applied the theory and involved the patient in some way. This is positively reinforced by the moderator during the session. On the skills day, case histories were discussed in a small setting in different compositions. Case studies were practiced and feedback was given. And again we

	Guided practice; prompting individuals to rehearse and repeat the behavior various times, discuss the experience and provide feedback.	practiced with the input of the feedback. Specific attention was paid to probing and theory.
	Verbal persuasion: Using messages that suggest that the participant possesses certain capabilities.	At the end of both training days, actors and moderators confirmed in different ways and several times that the nurse have (acquired) sufficient capacities to be able to conduct the conversation in its entirety.
	Cue altering; teaching changing a stimulus, either consciously or unconsciously perceived, that elicits or signals a behavior.	The nurse was advised to conduct the conversation, rather than intuitively, to very consciously apply the theoretical models during SHC. Hopefully, she will then sooner recognize what the experienced barriers are and convert them.
	Planning coping respons; prompting participants to list potential barriers and ways to overcome these	After a scientific talk about research results, it was discussed among themselves in small groups later in the day whether these were recognized, potential barriers were named and then discussed through a moderator how to reduce them.
Actively apply theoretical models e.g. the PLISSIT model and the response curve when discussing SH.	Problem solving (overlap planning coping respons); analyse, or prompt the person to analyse, factors influencing the behavior and generate or select strategies that include overcoming barriers and/ or increasing facilitators	During the practice of role play with moderator, actor and colleagues, it was discussed which limiting factors influence the questioning and its application to theoretical models. Subsequently, it was jointly discussed how this might also be possible in a different way so that the barriers are reduced.
	Instruction on how to perform behavior; advise or agree on how to perform the behavior	During 2 presentations, specific theory regarding theoretical models and their application was discussed. These models were then translated into a case study. After which the participants split into groups to practice probing with the help of instructions. The Instructions were also written down on paper.
	Demonstration of the behavior; provide an observable sample of the performance of the behavior, directly in person or indirectly e.g. via film, pictures, for person to aspire to or imitate	During both days there was a case that was fully worked out by 2 people via PowerPoint and discussed step by step in the entire group. This case study contained theoretical models with a focus on how to apply them in a conversation about SHC.
	Behavioral practice/ rehearsal; prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill	Role plays were practiced at different times and in different ways on both days.

	Social reward; arrange verbal or nonverbal reward if only if there has been effort and/ or progress in performing the behavior	On the return day, the nurse shares her experience with asking in-depth questions, using theoretical models. There is also attention for what she has learned from it and this was discussed in plenary. This was positively rewarded by moderators.
	Verbal persuasion about capability; tell the person that they can successfully perform wanted behavior, arguing against selfdoubts and asserting that they can and will succeed	After practicing through role plays with their own case studies with each other in small groups about their acquired knowledge. And that in principle they now have enough experience to fully discuss SHC. This has been confirmed several times and by different people.
	Focus on past success; advise to think about or list previous successes in performing the behavior	In the last part of the day, plenary successes were discussed and it was indicated that it is normal that this can be a bit more difficult in practice. The advice was given to think back to the 2 training days and to take in the theory and detailed case studies
The nurse demonstrates skills of discussing SHC in a practical setting	Behavioral practice/rehearsal Prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill	Day 1, through submitted case studies, feedback was given on the behavior of the nurses, accompanied by feedback and anonymously addressed in expert presentations. Day 2, case studies were discussed again, and the nurses were given the opportunity to practice in various roles multiple times in a practical setting: observer, nurse, and listener in order to increase habit and feel comfortable discussing SHC

Social norm		
The nurse acknowledge that the national organization of Nurses and physicians recognize that applying communication function and skill is important in discussing sexual health	Use a lay health workers; peer education. Mobilizing members of the target population to serve as boundary spanners, credible source information, and role model	Two colleagues (experts) in the field of HIV who are also specialized in sexuality are present at training and available for questions after training.

Table 6.2
Overview of PO 3. of sexual health counselling pilot program including methods, parameter and applications.

PO 3 Nurses apply effective communication for SHC.	**Method & parameter**	**Application**
Attitude		
Describe applying communication skills as necessary and important. Describe communication as being worth adopting.	Arguments: Using a set of one or more meaningful premises and a conclusion.	Nurses hearing for the first time about the benefits of applying communication skills when discussing SH twice a year.
	Shifting perspective; encouraging taking the perspective of the other	In a small group, the participants show that they have knowledge about the communication skills and bring in how the patient experiences this. This is positively reinforced by the moderator during the session.
	Direct experience; encouraging a process whereby knowledge is created through the interpretation of experience	On the skills day, case histories were linked to communication skills and theory in different compositions. This was discussed in a small setting and then practiced and given feedback again and this was repeated.

	Elaboration; stimulating the learner to add meaning to information that is processed	At the end of both days, actors and moderators confirmed in different ways and several times that the participant has (acquired) sufficient communication skills to be able to conduct the conversation in its entirety.
	Information about health consequences; provide information (e.g. written, verbal, visual) about health consequences of performing the behavior	The participant was advised to start the conversation instead of intuition, to very consciously apply the theoretical communication skills in the conversation, so that you avoid the conversation becoming inefficient.
	Salience of consequences; use methods specifically designed to emphasize the consequences of performing the behavior with the aim of making them more memorable	During the presentations, experts showed example case studies and video recordings in which the use of effective communication skills was absent or very limited. As a result, there was no effective conversation about SH. The consequences of this for the patient were discussed.
Perceived self-efficacy & skills		
Demonstrate the ability to communicate to patients. Express confidence in ability to actively using biopsychosocial model during SHC.	Planning coping responses; Prompting participants to list potential barriers and ways to overcome these.	The expert (peer) first models the target behavior a number of times and then asks the participants to do the same. Nurses rehearse and repeat the behavior various times, discuss the experience and provide feedback.
Demonstrate the ability to effectively apply the strategies of King and Hoppe (2013) to create an effective patient-provider dialogue regarding sexual health.	Verbal persuasion about capability Tell the person that they can successfully perform the wanted behavior, arguing against self-doubts and asserting that they can and will succeed	On day 2, experiences of hHIV nurses were shared among small groups, including success stories and the reason behind those successes. The experts. This is positively reinforced by the moderator during the session.
The nurse demonstrates communication skills in a practical setting	Guided practice; prompting individuals to rehearse and repeat the behavior various times, discuss the experience and provide feedback.	On the skills day, cases were discussed in different compositions and practiced in a small setting. Then provide feedback and apply it again during practice. This was repeated several times..
	Verbal persuasion: Using messages that suggest that the participant possesses certain capabilities.	After practicing through role plays and case studies, the participants split up into small groups. It was discussed that they now have sufficient knowledge and skills with regard to communication strategies and the biopsychosocial model and how to apply this during a consultation. This has been pointed out in different ways by different experts.
	Cue altering; teaching changing a stimulus, either consciously or unconsciously perceived, that elicits or signals a behavior	The participants were advised to enter into the conversation rather than intuitively, to consciously apply the theoretical models regarding the biopsychosocial model and communication skills in the conversation, thus avoiding that the conversation becomes inefficient

	Planning coping response; prompting participants to list potential barriers and ways to overcome these	Following the scientific presentation and the results of the barriers to discussing SHC, small groups discussed later in the day whether these were recognized. Potential barriers were mentioned in this and then discussed with moderators how to reduce them.
	Problem solving (overlap planning coping respons); analyze, or prompt the person to analyze, factors influencing the behavior and generate or select strategies that include overcoming barriers and/ or increasing facilitators	While practicing role play with moderator, actor and colleagues, it was discussed which limiting factors influence the application of the biopsychosocial model and communication techniques. Subsequently, it was jointly discussed how this might also be possible in a different way so that the barriers are reduced.
	Instruction on how to perform behavior; advise or agree on how to perform the behavior	During 2 presentations, specific theory underlying the biopsychosocial model and communication techniques was discussed and applied within an example case study. The participants then split up into 3 groups to practice with instructions. Instructions were also written down on paper.
	Demonstration of the behavior; provide an observable sample of the performance of the behavior, directly in person or indirectly e.g. via film, pictures, for person to aspire to or imitate	During both days, a case was discussed that was fully developed by 2 expert nurses via powerpoint and discussed step by step in the entire group. This case included application of biopsychosocial model, PLISSIT model and communication techniques.
	Behavioral practice/rehearsal; prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill	Role plays were practiced at different times and in different ways on both days.
	Social reward; arrange verbal or non verbal reward if only if there has been effort and/ or progress in performing the behavior	On the return day, the participants share their experience with regard to applying the biopsychosocial model and communication techniques and what they have learned from it. This was discussed in plenary and positively rewarded by moderators.
	Verbal persuasion about capability; tell the person that they can successfully perform wanted behavior, arguing against selfdoubts and asserting that they can and will succeed	After practicing through role plays and case studies, the participants split up into small groups. It was discussed that after following this training, the participants will have sufficient knowledge and skills about the biopsychosocial model and communication techniques to make SHC negotiable. This has been confirmed several times and by different people.
	Focus on past success; advise to think about or list previous successes in performing the behaviour	During the last part of days 1 and 2, the successes were discussed in plenary and it was indicated that it is normal that in practice things can be a bit more difficult. The advice was given to think back to the 2 training days and to take in the theory and detailed case studies.

Social norm		
Recognize that their colleagues find SHC relevant and that SHC is seen as part of their role.	Information about others 'approval. Providing information about what others think about the person's behavior and whether other will approve or disapprove of any proposed behavior change.	Nurse are given data showing the lack of structure of nurses in communication of SHC which is usually worse than the nurses predict.

Supplementary Table 6.3
Questionnaire evaluating the content and process of the pilot training

1. What is your gender?
- ☐ Man
- ☐ Woman
- ☐ Other, namely.....

2. What is your age? .....

3. What is your role? Choose the option that fits best.
- ☐ Infectious disease specialist/internal medicine (io)
- ☐ Nurse (io)
- ☐ Nurse specialist (io)
- ☐ General practitioner (io)
- ☐ Public health doctor (io)
- ☐ Other, namely.....

4. What is your field of work/specialization? Choose the option that fits best.
- ☐ HIV care
- ☐ STI care
- ☐ General practitioner care
- ☐ Other, namely.....

5. Discussing sexuality during a consultation is...
- ☐ Very unimportant
- ☐ Unimportant
- ☐ Neutral
- ☐ Important
- ☐ Very important

6. Discussing sexuality during a consultation is...
- ☐ Very useless
- ☐ Useless
- ☐ Neutral
- ☐ Useful
- ☐ Very useful

7. Discussing sexuality during a consultation is...
- ☐ Very unimportant
- ☐ Unimportant
- ☐ Neutral
- ☐ Important
- ☐ Very important

8. Discussing sexuality during a consultation has...
- ☐ Very low priority
- ☐ Low priority
- ☐ Neutral
- ☐ High priority
- ☐ Very high priority

9. Applying communication strategies around sexuality is...
- ☐ Very unimportant
- ☐ Unimportant
- ☐ Neutral
- ☐ Important
- ☐ Very important

10. Applying communication strategies around sexuality is...
- ☐ Very useless
- ☐ Useless
- ☐ Neutral
- ☐ Useful
- ☐ Very useful

11. Applying communication strategies around sexuality is...
- ☐ Very difficult
- ☐ Difficult
- ☐ Neutral
- ☐ Easy
- ☐ Very easy

12. Applying communication strategies around sexuality has...

- ☐ Very low priority
- ☐ Low priority
- ☐ Neutral
- ☐ High priority
- ☐ Very high priority

13. I think I can discuss sexuality in the following situations:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
In a standard consultation	☐	☐	☐	☐	☐
When a patient does not initiate the discussion about sexuality	☐	☐	☐	☐	☐
When a third person is present	☐	☐	☐	☐	☐
When a patient has a sexual problem	☐	☐	☐	☐	☐

14. I think I can handle discomfort when discussing sexuality

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

15. I think I have enough knowledge to discuss sexuality.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

16. I think I can apply the following communication strategies around sexuality

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Start discussing sexuality through other topics	☐	☐	☐	☐	☐
Ask follow-up questions about sexuality	☐	☐	☐	☐	☐
Ask open-ended questions	☐	☐	☐	☐	☐
Listen and summarize	☐	☐	☐	☐	☐
Non-verbal communication (eye contact, body posture, facial expression, intonation, e.g.)	☐	☐	☐	☐	☐

17. I think I can apply communication strategies around sexuality in the following situations:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
In a standard consultation	☐	☐	☐	☐	☐
When a patient does not initiate the discussion about sexuality	☐	☐	☐	☐	☐
When a third person is present	☐	☐	☐	☐	☐
When a patient has a sexual problem	☐	☐	☐	☐	☐

18. I think I can handle discomfort when applying communication strategies around sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

19. I think I have enough knowledge to apply communication strategies around sexuality
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

20. My colleagues expect me to initiate discussions about sexuality in a consultation
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

21. My colleagues expect me to discuss sexuality in a consultation
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

22. My colleagues expect me to apply communication strategies around sexuality in a consultation.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

23. The patient expects me to initiate discussions about sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

24. The patient expects me to discuss sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

25. The patient expects me to apply communication strategies around sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

26. I possess the necessary knowledge to initiate discussions about sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

27. I possess the necessary knowledge to discuss sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

28. I possess the necessary knowledge to apply communication strategies around sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

29. I possess the necessary skills to initiate discussions about sexuality.
- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

30. I possess the necessary skills to discuss sexuality.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

31. I possess the necessary skills to apply communication strategies around sexuality.

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

32. I plan to discuss sexuality...

	Strongly disagree	**Rather disagree**	**Disagree**	**Neutral**	**Agree**	**Rather agree**	**Strongly agree**
In a standard consultation	☐	☐	☐	☐	☐	☐	☐
When a patient does not initiate the discussion about sexuality	☐	☐	☐	☐	☐	☐	☐
When a third person is present	☐	☐	☐	☐	☐	☐	☐
When a patient has a sexual problem	☐	☐	☐	☐	☐	☐	☐

33. I plan to apply communication strategies around sexuality...

	Strongly disagree	**Rather disagree**	**Disagree**	**Neutral**	**Agree agree**	**Rather agree**	**Strongly**
In a standard consultation	☐	☐	☐	☐	☐	☐	☐
When a patient does not initiate the discussion about sexuality	☐	☐	☐	☐	☐	☐	☐
When a third person is present	☐	☐	☐	☐	☐	☐	☐
When a patient has a sexual problem	☐	☐	☐	☐	☐	☐	☐

34. In the past month, I have initiated discussions about sexuality.

- ☐ Very rarely
- ☐ Rarely
- ☐ Occasionally
- ☐ Neutral
- ☐ Often
- ☐ Quite often
- ☐ Very often

35. In the past month, I have discussed sexuality.

- ☐ Very rarely
- ☐ Rarely
- ☐ Occasionally
- ☐ Neutral
- ☐ Often
- ☐ Quite often
- ☐ Very often

36. In the past month, I have applied communication strategies around sexuality.

- ☐ Very rarely
- ☐ Rarely
- ☐ Occasionally
- ☐ Neutral
- ☐ Often
- ☐ Quite often
- ☐ Very often

Thank you for completing this questionnaire! Your contribution is valuable.