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A World of Difference

The sexual health of LGBT people in the Netherlands, 2013

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The three editors and the authors of this book are all employed by Rutgers, the national knowledge centre for sexuality.

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Foreword

Rutgers is pleased to present this first study on the sexual health of lesbian women, gay men, bisexual men and women, and transgender people (LGBT) in the Netherlands. Nearly 5000 LGBT individuals completed a questionnaire that included measures of sexual orientation, sexual behaviour, self-identification, the risk of HIV and STDs, sexual well-being, sexual problems and sexual victimisation. This provided insight into a broad range of aspects of sexual health and the variations that can occur within it, and it is a valuable addition to the existing knowledge in the Netherlands.

Entitled A World of Difference, this study reveals a unique view of the sexual health of LGBT people and associated factors. One thing that emerges very clearly from the results is that there is no such thing as 'the average LGBT person'. Sexual and gender diversity are even more varied than we had thought. It is encouraging to note that, regarding a number of areas, the sexual health of LGBT people is in good shape. Nevertheless, structural attention needs to be paid to experiences with victimization and harassment in all groups, the prevention of HIV and STDs amongst gay and bisexual men and the sexual well-being and problems of transgender people and of lesbian and bisexual women.

Several acknowledgements are in order. First, we are obviously very grateful to all of the LGBT individuals who were willing to entrust their experiences, opinions and feelings to us. Without them, it would not have been possible to obtain such a unique glimpse into the sexual health of LGBT people in the Netherlands. We would also like to thank the organisations involved in the recruitment of participants. They formed an indispensable link between the research team and the target group. Gratitude is also due to the members of the sounding board group, which played a very important role in this project. In addition to contributing to the results of this study by providing us with information and occasionally adjusting the research process, the sounding board group formed the foundation of a good, expert network for sharing LGBT-related knowledge and raising awareness of related issues and themes. The participants in the sounding board group are listed in Appendix 4. Finally, we would like to acknowledge our critical readers, the experts who read and provided skilled comments on each chapter in this book during its final phase of preparation: Janhuib Blans, Hanna Bos, Pieter Brokx, Ellen Laan, Joz Motmans, Peter Smit, Koenraad Vermey and Paul Zantkuijl.

This book contains the first report on the results, along with a description of the research methods. It is intended as a broad presentation of the research material. The results present many opportunities for further analysis and follow-up studies, and, most importantly, opportunities to translate the insights gained into health promotion policy and practice in the area of sexuality and sexual and gender diversity. Naturally we will be working on these areas in the time to come. It will not be possible to do this without the involvement of the field and the participation of people from the target group; therefore I cordially invite you to participate in this important process.

Dianda Veldman
Managing Director
Rutgers

Summary

Rutgers has been carrying out research into the sexual health of the Dutch population (Wijsen & De Haas, 2012) for many years. However, lesbian women, gay men, bisexual men and women and transgender people (LGBT) have so far remained underexposed in these studies. Other research (such as the Schorer Monitor) focused primarily on men who have sex with men (MSM) and the risk of STI/HIV. There are, however, signals which suggest that LGBTs are vulnerable in several aspects of their sexual health (Rutgers WPF, 2013). The Dutch National Institute for Public Health and the Environment (RIVM) therefore commissioned Rutgers to perform this first Dutch survey of the sexual health of LGBTs in a broader context. Almost 5,000 participants completed an electronic questionnaire containing questions relating to sexual behaviour, sexual pleasure and sexual problems, the use of condoms and other risk reduction strategies, testing behaviour and test results, experiences of sexual violence and factors that may be connected to these aspects of sexual health.

The findings show that there is considerable diversity within the LGBT group, not only in terms of sexual health, but also with regard to their sexual orientation and gender identity. Furthermore, there is great variety within the LGB group in the extent to which people are attracted to men and/or women. A large proportion of them is mainly attracted to the people of the opposite sex, but also to people of the same sex. While sexual attraction is closely linked to the way people identify themselves and their experiences of being in love, relationships and sexual relations with men and women, it is not entirely identical to these aspects of sexual orientation. Moreover, the overlap between sexual attraction and other aspects of sexual orientation is different for men and women. For instance, men who are primarily attracted to women (but also to men) usually refer to themselves as bisexual, while women who are primarily attracted to men (but also to women) generally refer to themselves as heterosexual.

There is a great deal of variety within the group of transgenders in terms of gender identity, self-labeling and wishes relating to gender expression and the desire to undergo transition. The differences are particularly large between trans men and trans women on the one hand (who feel entirely male or female respectively) and transgenderists on the other (who feel they are part male and part female, somewhere in between, or identify with neither of the two). The sexual orientation of transgenders is highly diverse, and by proportion relatively more often homosexual or bisexual than among the national population.

Approximately a quarter of the LGBs had not had sex during the past six months. This was more often the case among lesbian women. Approximately half the transgenders had not had sex during the past six months. Not being sexually active is not a problem as such. However, many LGBTs who do not have sex, do consider this a pity. This applies to two thirds of the gay and bisexual men, two fifths of the lesbian and bisexual women and half the transgenders who had not had sex during the past six months. Furthermore, the majority of the LGBTs who had had sex reported that they would like to do so more often.

Just over half the gay men and almost half the lesbian women and bisexual men and women were satisfied with their sex lives in general. However, this does not apply to transgenders: only around a quarter of the trans-women and approximately a third of the trans-men and transgenderists were satisfied. A minority of transgenders is satisfied about the way that they have sex. LGBTs nevertheless experience sexuality more positively than negatively on average. The majority of the LGBTs enjoys sex, feels relaxed during sexual activities, has sufficient self-confidence and harbours no feelings of guilt about sex. There is nevertheless a considerable level of insecurity during sex among all groups, both in terms of physical appearance and performance. A large proportion of transgenders in particular said they felt uncertain about their body, felt uncomfortable during sex and found it difficult to be honest about their feelings.

Sexual problems among LGBT are certainly not uncommon. One in eight gay men has a sexual problem, while the ratio is one in six among bisexual men, one in nine among lesbian women, and one in seven among bisexual women. Sexual problems are a more common occurrence among transgenders, namely one in four among trans-women, trans-men and male-to-female

transgenderists; and two in every five female-to-male transgenderists. Erection problems were the most common among gay and bisexual men, while lesbian women and male-to-female transgenders faced problems primarily in the area of arousal, desire and orgasm. While such problems were also common among bisexual women and female-to-male transgenders, they faced pain-related problems as well.

Of the gay and bisexual men, 57% had had sex with (at least) one male partner during the past six months. In this report, these men are called men who have sex with men (MSM). Two thirds of all MSM had had sex with one or more steady partners, and 58% with casual partners. Of the men who had sex with one or more casual partners, 26% had had unprotected anal sex with these partners during the past six months. This amounts to 15% of all MSM. The percentage among HIV-positive MSM, however, is much higher: 61% of the HIV-positive MSM had had unprotected anal sex with a casual partner during the past six months. Most HIV-positive men, however, are in treatment for HIV and the level of HIV in their blood is undetectable. 80% of the HIV-negative and untested MSM who had unprotected sex with a casual partner during the past six months considered the chance that they may have contracted HIV during this period (very) small, while 15% said they had run no risk at all. HIV-positive respondents with unprotected contacts estimated the risk that they transmitted HIV to a partner even lower.

Many of the men with unprotected contacts (also) apply different strategies to minimise the risk of HIV transmission. HIV-negative and untested men enquire about their partners' HIV status, opting to have sex with HIV-negative men only. The majority of the HIV-positive men applies serosorting, *viral load* sorting and strategic positioning. The conditions governing the effective application of these risk reduction strategies, however, are that both partners' HIV status has been established and that both are frank about their status. Neither of these conditions should be taken for granted though. HIV stigma makes it far from easy for HIV-positive men to admit that they have HIV. Almost 80% of the HIV-positive men confirmed that they had experienced that another person declined to have sex on hearing their HIV status. Moreover, there are many MSM who do not know their own HIV status. Forty percent of the MSM has never been tested for HIV. Twenty-six percent of the MSM, had been tested for HIV during the past twelve months.
The prevalence of sexual intimidating behaviour and sexual violence is high among LGBTs. Approximately one in seven gay and bisexual men, a quarter of the lesbian women and one in three bisexual women had been the victim of sexual violence. The same applies to one in five of the male-to-female transgenders, one in three trans-men and almost half the female-to-male transgenderists. Young LGBTs are particularly vulnerable. The perpetrators are almost invariably male and usually known to the victim. In the case of violence before the age of sixteen, it is often a family member or some other acquaintance. In the case of violence after the age of sixteen among gay or bisexual men, the perpetrator is often a casual sex partner or some other acquaintance. Among lesbian and bisexual women and transgenders, however, it is often a steady (ex-)partner or some other acquaintance. And finally, among gay and bisexual men and female-to-male-transgenders, the perpetrator is also relatively often a stranger.

This survey looked into a wide range of factors that may associate with the aforementioned aspects of sexual health. While some of these factors are related to one specific aspect of sexual health, such as having unprotected anal sex with casual partners or being the victim of sexual violence, others are connected to several aspects. Mental health is a factor which is linked to various aspects of sexual health. For example, among gay and bisexual men and lesbian and bisexual women, an association has been identified between good mental health and fewer sexual problems. In three of the four groups of transgenders, this is also linked to a positive sexual experience. In all groups of LGBTs, however, there is a link between experiencing sexual violence and impaired mental health. In all these associations, good mental health may therefore be either the result or a consequence of good sexual health. In existing literature pertaining to sexual violence, impaired psychosocial wellbeing is primarily considered a consequence of experiences with sexual violence. Minority stress is another factor which is associated with various aspects of sexual health, including a less positive sexual experience, experiencing sexual violence and testing behaviour.

Other factors are more closely related to a specific aspect of sexual health. For example, a sense of satisfaction with one's body is primarily linked to fewer sexual problems and a more positive sexual experience among transgenders. The use of drugs during sex is mainly connected to unprotected sex with casual partners among MSM. In terms of unprotected sex with casual partners and testing behaviour, attitudes in particular play a crucial role: the more positive people's attitude to condoms and testing is, the more consistent their use of condoms and the higher the frequency of testing. Gender non-conformity during childhood is primarily connected to the experience of sexual violence among LGBTs who were born male. There is a higher incidence of having experienced sexual violence among gay and bisexual men and male-to-female transgenders who felt, behaved and looked more feminine during childhood.

In short, the findings of this initial survey of the sexual health of LGBTs in the Netherlands show a high level of diversity. The majority of LGBTs experience sexuality in a positive way. However, there are also concerns. Many transgenders do not have sex, which they consider a pity. A minority of the transgenders is satisfied with their sex life, and in particular the way that they have sex. There is a high prevalence of sexual problems among all LGBTs. Fifteen percent of the MSM had had unprotected sex with casual partners within the past year. There are doubts as to the effectiveness of the other risk reduction strategies which MSM apply. Furthermore, the prevalence of sexual violence is high throughout all groups of LGBTs, though among bisexual women and female-to-male spectrum transgenders in particular. The findings were discussed in a sounding board, comprising parties operating the field of sexual health of LGBTs. More in-depth discussion is to take place at a number of working meetings with relevant parties during the course of 2014. At these meetings, the findings are to be interpreted, priorities set and recommendations drawn up with regard to interventions, policy and further research. We are keen to establish an agenda together with these parties, with a view to maintaining or possibly raising the levels of sexual health of LGBTs in those areas where it is currently favourable.

Content

1 Study design and method

Hanneke de Graaf

1.1 Introduction

For several years, Rutgers has been conducting the study entitled Sexual Health in the Netherlands, a periodical national representative study on the sexual health of the Dutch population between the ages of 15 and 70 years (Bakker, De Graaf, De Haas, Kedde, Kruijer & Wijsen, 2009; Bakker & Vanwesenbeeck, 2006; Wijsen & De Haas, 2012). To date, lesbian women, gay men, bisexual men and women and trans people (LGBT people) received not enough attention in these surveys. The groups of LGBT people participating in the monitors have always been small. In addition, the questionnaires used were not developed specifically for this target group. Other studies on the sexual health of LGBT groups have focused largely on men who have sex with men (MSM) and the risk of STDs and HIV (the EMIS Network, 2013; Van Empelen, Van Berkel, Roos, & Zuilhof, 2011). Most of the existing Dutch research into the sexual health of trans people is of a qualitative nature (Doorduin & Van Berlo, 2012).

A comparison between the small group of LGBT people and heterosexual men and women in the most recent Sexual Health in the Netherlands study suggested that LGBT people are vulnerable with regard to certain aspects of sexual health (Rutgers WPF, 2013). That is why the National Institute for Public Health and the Environment (RIVM) commissioned Rutgers WPF to extend the topic of condom usage and STDs/HIV amongst MSM – addressed in the previous Schorer Monitor (Van Empelen et al., 2011) – to include sexual health in the broadest sense and across the broader group of LGBT people. Sexual Health in the Netherlands provides a suitable foundation for conducting this first survey study on the sexual health of LGBT people in the Netherlands.

Sexual health is a multi-dimensional concept. In 2006, the World Health Organisation (WHO) formulated the following working definition: 'a state of physical, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled'. (WHO, 2010, p. 3.) In addition to this working definition, the WHO has formulated several key areas as points of attention for national policy, including sexually transmitted diseases (including HIV), sexual problems, sexual victimization and satisfying sexual experiences (WHO, 2010). The current survey investigates the current state of each of these core areas amongst LGBT people.

1.2 Purpose and research questions

The purpose of this study is to generate insight into the sexual health of LGBT people, including the risk of STDs and HIV in MSM. This study also addresses correlates of sexual health amongst lesbian and bisexual women, gay and bisexual men and trans people. The results of this research can be used in the development or revision of policy and prevention activities focused on improving the sexual health of LGBT people.

This study answers the following research questions:

- What is the state of sexual health amongst lesbian women, gay men, bisexual men and women and trans people (LGBT people)?
- What is the state of risk for STDs and HIV amongst men who have sex with men (MSM)?
- Which demographic and psychosocial factors are associated with sexual health and sexual risk behaviour?

1.3 Involvement of stakeholders

In order to generate support for this study and to maximise its relevance for practice, various parties working in the field of sexual health amongst LGBT people were involved in this research. They provided input regarding the content of the questionnaire and the recruitment and intended composition of the sample, as well as the interpretation of the results. They did so during sounding board group meetings and in other ways. The LGB sounding board group included representatives of Soa Aids Nederland, COC Nederland, Landelijk Netwerk Biseksualiteit (LnBi, Trimbos, SCP, RIVM/CIb, GGD Amsterdam, HIV Vereniging Nederland and MOVISIE. The transgender sounding board group included representatives of Soa Aids Nederland, Patiëntenorganisatie Transvisie, Transgender Netwerk Nederland (TNN), Transvisie Zorg, MOVISIE, Universiteit Antwerpen, SCP, RIVM/CIb, Genderteams VUmc en UMCG, Transgendervereniging Nederland, Trimbos, TNO and Universiteit van Amsterdam. The sounding board groups met twice in order to provide input regarding the LGBT Survey. In the spring of 2013, separate meetings of the LGB and transgender sounding board groups were held in order to exchange ideas about the content of the questionnaires and to discuss recruitment methods. In the autumn of 2013, the initial results were discussed in a single joint sounding board group consisting of experts on both LGB and trans people. Initial reactions to these results were provided in this session, and the participants provided input regarding the interpretation of the results. In addition, the first conclusions and recommendations were formulated, based on these results. In addition to their participation in the sounding board group, several experts contributed additional efforts relating to the design and implementation of the research. For example, they reviewed and commented on the questionnaires and initial reports.

1.4 Samples

Recruitment

In the process of recruitment and data collection, it became apparent that group-specific approaches were needed. Therefore LGB people (lesbian women, gay men, bisexual men and bisexual women who are not transgender) were categorised separately from trans people (homosexual, bisexual or heterosexual). For both groups, recruitment took place primarily through a commercial online-access research panel (from Intomart GfK). In the recruitment of LGB participants, all panel members (100,000) received a brief screening questionnaire (containing questions on birth-assigned sex and sexual orientation), which was used to determine whether they belonged to the target group of this study. People who reported feeling attracted to people of the same sex were invited to participate in our study. People fitting our definition of transgender people in terms of birth-assigned sex and current gender identity were asked to complete the questionnaire for trans people. The LGB sample thus includes only participants who were not transgender (i.e. all LGB participants were cisgender). Participants were also invited to recruit people from within their own networks (snowball method). Participants received a small reward for participation. Data collection took place from mid-June through late July 2013.

It was expected that this panel would not include enough HIV-positive men and men with more than two sexual partners in the last six months to justify any conclusions regarding these smaller sub-groups. A power calculation indicated that each group should consist of at least 65 people. In order to allow even smaller selections from within these sub-groups (e.g. HIV-positive MSM with casual sex partners), the total sub-groups would have to be even larger. These groups were therefore also recruited outside of the panel. This was done through banners on websites (dating and general) and through flyers at the STD polyclinics of the Public Health service (GGD) and HIV treatment centres. The data file and report consistently distinguish between members of the Intomart GfK panel and participants who were recruited through other methods, so that it is always clear exactly which groups we are drawing conclusions about.

Trans people were also initially recruited through the Intomart GfK panel. One component of this panel is a monthly screening in which various questions are posed to all panel members. This allowed us to ask the panel members if they knew any trans people personally. Panel members

responding to this question with 'yes' were invited to complete the selection questions (birth-assigned sex and current gender identity). People whose gender identities did not completely or exclusively correspond to the sex that they had been assigned at birth were invited to complete the transgender survey. The same applied to people who were selected for the LGB survey based on their sex at birth and sexual orientation and whose birth-assigned sex and current gender identity fit our current definition of transgender people. They were notified that a separate study was being conducted amongst people with transgender feelings or a transgender history, and they were asked whether they would like to participate in this study. Panel members who responded positively to this question received an invitation for the transgender questionnaire.

Because the number of trans people recruited through the panel (N=131) was too small to allow us to test for differences between small sub-groups, supplementary recruitment was necessary for this group as well. To this end, a call for participation in the study was distributed through a wide range of transgender organisations and channels, including the genderteams of VUmc and UMCG, Transvisie Zorg, Patient Organisation Transvisie, Transgendervereniging Nederland, TNN, the Transman Foundation, Transvrouw.nl, Transman.nl, the Gender Zone Facebook group, FM Mailinglist, Het Continuüm and TranScreen. We asked these organisations and channels to distribute our call through websites, journal articles, mailings through the address files of organisations, flyers and social media and at transgender events and activities. Organisations could also formulate their own calls in their own wording. The supplementary recruitment of trans people took place between mid-July and late August 2013.

Representativeness and weighting

In all, 3054 lesbian and bisexual women and gay and bisexual men were recruited through the panel (the LGB panel sample). Because the demographic composition of the LGB population in the Netherlands is not known, the LGB sample could not be tested for representativeness. For the general population, these figures are available from Statistics Netherlands, but such figures are not available for the LGB target group. Within the boundary conditions of this study, recruitment through a panel was the best option for composing a group of LGB participants to serve as an indication of the LGB population in the Netherlands, as panel members are not recruited through channels that have anything to do with their sexual orientation or gender identity. The sample was thus formed independently of sexual health or sexual orientation.

After the end of the recruitment period, it became apparent that the LGB sample included a relatively large number of participants between the ages of 35 and 54 years. We had expected to observe a balanced age distribution in the LGB sample, similar to that in the national population. The LGB panel sample has therefore been weighted by age. This makes the age distribution the same as that amongst men and women in the national population. The weighting factors vary from 0.685 to 3.161. Table 1.1 shows the distribution of the weighted LGB panel sample in terms of demographic characteristics. The transgender sample was recruited in a largely selective manner through channels related to their transgender status or history. For that reason, this sample has not been weighted.

Scope and composition of the samples

The participants in the LGB panel sample were divided into four groups, according to their birth-assigned sex: 333 lesbian women (women who are exclusively attracted women), 815 gay men (men who are exclusively attracted to men), 1141 bisexual women (women who are attracted primarily to women, equally attracted to men and women, or attracted primarily to men) and 765 bisexual men (men who are attracted primarily to men, equally attracted to men and women, or who are attracted primarily to women). A more detailed explanation of the reasons for this categorisation is provided in Chapter 2. Figure 1.1 provides an overview of the various samples in this study. Some questions were posed to sub-groups. In addition, for several questions, participants had the option of not answering or selecting the response option 'I don't know'. The number of participants (N) can therefore differ among the analyses.

Some of the gay and bisexual men in the LGB panel sample are MSM (men who have had sex with one or more men in the past six months, N=883). In addition, 1025 MSM were recruited through several channels specific to MSM. This supplementary group of MSM is described in Chapter 5. In addition, HIV-positive men are included in both the LGB panel sample and the supplementary sample of MSM. The composition of the group of HIV-positive men is addressed in Chapter 6.

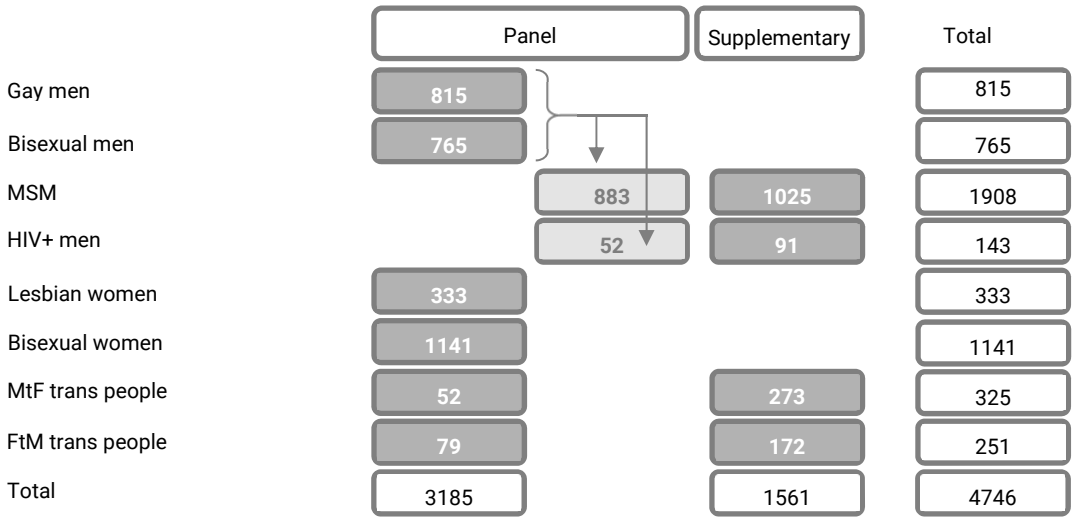
A total of 576 participants completed the transgender survey. They were divided into two categories, based on the sex they had been assigned at birth: trans people in the male-to-female spectrum (N=325) and trans people in the female-to-male spectrum (N=251). The distribution of these groups according to demographic characteristics is provided in Table 1.2. Within these groups, we also distinguish between trans men and trans women (who feel that they are completely male or completely female, respectively) and gender variant people (who identify themselves as part male, part female, something in between or neither).

As Figure 1.1 shows, the composition of the research group is complex. Depending on the topic, relevant samples have been composed in the various chapters of this book. The following principles were followed in this regard:

- The LGB panel sample was used whenever possible, as it allowed us to stay as close possible to the population of LGB people in the Netherlands.
- The supplementary samples were used for groups that are too small in the panel sample. This is the case for the chapters (or parts of chapters) on trans people and HIV-positive men, as well as for specific sub-groups of MSM (e.g. MSM with unprotected casual contacts).

Each chapter explicitly states the research group that was used.

Figure 1 Sample composition



1.5 Measurements

The description of sexual health amongst LGBT people in the broadest sense and its relevance for policy and prevention served as guides for the selection of topics. To this end, we used input from the field by involving stakeholders in sounding-board group sessions. In the interest of relevance for policy and prevention, we have preferred not to limit ourselves to describing sexual health alone; we also wish to stress the importance of factors that are associated with the sexual health of LGBT people. For this reason, there are three categories of variables:

- Demographic background variables.
- Indicators of sexual health (i.e. outcome measures).
- Factors associated with the outcome measures.

In the selection and operationalisation of relevant concepts, we drew upon other studies wherever possible, including the Schorer Monitor, Sexual Health in the Netherlands and EMIS.

Two separate questionnaires were developed: one for cisgender lesbian women, gay men, bisexual men and bisexual women, and one for trans men and women. This choice was made because trans people could be expected to face different problems, to the extent that many items would need to be worded differently.

The concepts addressed in the LGB questionnaire are included in Appendix 1, and the concepts used in the transgender questionnaire are included in Appendix 2. The operationalisations of the outcome measures are described in the relevant chapters. Outcome measures include sexual behaviour, sexual well-being, sexual problems, condom use, testing behaviour and experiences with sexual victimisation. The operationalisations of the factors associated with sexual health are provided in Appendix 3. These factors include traumatic childhood experiences, psychological and physical health, self-esteem, excitement-seeking, substance use during sex, gender non-conformity and minority stress.

1.6 Analyses

For tests of differences between groups (e.g. between gay and bisexual men, or between trans women and male-to-female gender variant people), various statistical techniques were used. Differences between groups of participants with regard to outcomes expressed in percentages (e.g. the percentage of gay and bisexual men exhibiting specific behaviours) were tested using the Chi2 test. Comparisons of means between groups (e.g. the mean scores of gay and bisexual men on an attitude scale) were performed using analysis of variance. For sub-groups with an unweighted size of 30 or more, we only present descriptive statistics.

We distinguish between very small differences (Cramer's V < .10 or Eta2 < .02) and small differences (Cramer's V > .10 or Eta2 > .02). Small significant differences are indicated with ▲ and ▼, and very small significant differences are indicated with △ or ▽. The symbol ▽ indicates that a percentage for one group is lower than the corresponding percentage for the other group and that the difference is very small. We used a significance level of .05. This means that the likelihood that the differences identified are due to chance is less than 5%.

Most chapters also address factors associated with sexual health, including sexual satisfaction (an interval-level variable) or functional problems (a dichotomous outcome measure). Associations with dichotomous outcome measures were tested using binary logistic regression. The tables report odds ratios (OR) and confidence intervals (CI). An OR indicates how much larger or smaller the chances of the outcome measure are within a given group (e.g. within the group of people with stable partners) or if an individual's score on a scale (e.g. the psychological health scale) were to increase by one point. An OR lower than 1 indicates a negative relationship, and an OR higher than 1 indicates a positive relationship.

Associations with an interval-level outcome measure were tested using linear regression. Where this is the case, standardised regression coefficients (β) are displayed in the table. These coefficients indicate the direction and strength of the relationship with the outcome measure. A positive regression coefficient indicates a positive relationship, and a negative regression coefficient indicates a negative relationship. The closer a regression coefficient is to -1 or +1, the stronger the identified relationship is. In cases where only bivariate associations are examined, we use Pearson's product-moment correlations (for interval-level outcome measures) or Spearman correlations (for dichotomous outcome measures). These correlation coefficients can be interpreted in the same manner as the standardised regression coefficients.

Some chapters report results from both bivariate and multivariate regression analyses, as each type of regression yields valuable information. The bivariate analyses reveal factors that are independently related to the outcome measure. This primarily yields information about groups at risk (e.g. that men who are less healthy psychologically have unprotected sex more frequently, as do men with a high score on sexual sensation seeking and those with negative attitudes about condom

usage). The multivariate analyses subsequently identify which of these factors remain after controlling for the other factors. In essence, it reveals the factors that are most strongly associated with the outcome measure. It provides prevention workers with information regarding which factors should be addressed in order to maximise the likelihood of change in the outcome measure. In the example mentioned above, if the multivariate analyses reveal that only the attitude towards condoms is associated with having unprotected sex, the likelihood that individuals will use condoms should increase primarily if their attitudes in this area change.

1.7 Reading guide

The following chapter provides information on the concepts of sexual orientation and gender identity, in addition to descriptions of the prevalence of various sexual orientations and gender identities. Chapters 3 and 4 concern sexual behaviour, sexual well-being and sexual problems of LGB and trans people, respectively. Chapter 5 focuses on condom use amongst MSM, along with other strategies that MSM could use to reduce the risk of STDs and HIV. Chapter 6 addresses the sexual health of men with HIV, and testing behaviour among MSM is described in Chapter 7. The prevalence of sexual victimization and harassment amongst LGBT people is the topic of Chapter 8. The concluding chapter provides a summary of the most important results and presents recommendations for prevention, policy and future research based on these results.

Table 1.1. Composition of LGB panel sample, weighted by age (%)[1]

	Men		Women	
	Gay	Bi	Lesbian	Bi
	N=815	N=765	N=333	N=1141
Age				
16-24	16.7	13.2	9.9	15.9
25-34	17.9	14.7	12.3	17.4
35-54	41.0	35.8	42.1	37.3
55-88	24.4	36.2	35.7	29.4
Educational level[2]				
Low	14.6	20.5	16.0	15.1
Middle	35.5	36.9	34.0	38.5
High	49.9	42.6	50.1	46.4
Ethnicity				
Non-Western ethnicity[2]	1.4	1.6	1.5	2.9
Religion				
Religious	36.2	39.8	33.3	31.9
Place of residence				
Village	16.5	23.2	19.7	20.3
Small or mid-sized city	44.4	52.3	54.7	51.3
Large city	39.1	24.5	25.5	28.4
Relationship status				
Married	24.4	43.3	36.9	34.4
Cohabiting	18.8	11.3	19.6	19.8
LAT relationship	15.1	9.2	11.6	13.4
No steady partner	41.7	36.1	31.9	32.3
Children				
Yes	9.4	49.2	38.1	50.4

[1] This refers to men and women who are not transgender. Lesbian, homosexual and bisexual trans people completed a different questionnaire.

[2] The guidelines of Statistics Netherlands were adopted for the specification of educational level and the definition of non-Western minority status (Statline, 2013).

Table 1.2. Composition of transgender sample (%)

	MtF		FtM	
	Trans woman	MtF gender variant person	Trans man	FtM gender variant person
	N=183	N=142	N=148	N=103
Recruitment				
Through panel	4.9	30.3	9.5	63.1
Age				
18-24	8.2	9.2	38.5	11.7
25-34	16.9	12.8	18.2	25.2
35-54	46.4	47.5	35.8	46.6
55-88	28.4	30.5	7.4	16.5
Educational level[1]				
Low	20.1	22.5	25.2	13.0
Middle	41.3	42.8	42.7	41.0
High	38.5	34.8	32.2	46.0
Ethnicity				
Non-Western ethnicity[1]	3.3	2.8	11.5	3.9
Religion				
Religious	34.3	38.4	30.8	35.1
Place of residence				
Village	26.8	31.7	28.4	21.4
Small/mid-sized city	39.3	46.5	39.8	49.5
Large city	33.9	21.8	31.8	29.1
Relationship status				
Married	24.6	33.1	14.2	21.4
Cohabiting	10.4	10.6	6.1	18.4
LAT relationship	12.0	8.5	19.6	6.8
No stable partner	53.0	47.9	60.1	53.4
Children				
Yes	38.3	46.5	14.9	33.0

[1] The guidelines of Statistics Netherlands were adopted for the specification of educational level and the definition of non-Western minority status (Statline, 2013).

2 Sexual orientation, gender identity and desire for transition

Tamar Doorduin

2.1 Introduction

In the Netherlands, use of the abbreviation LGBT, or LHBT in Dutch, is becoming increasingly common. This abbreviation stands for lesbian women, gay men, bisexual men, bisexual women and trans people. Lesbian women and gay men feel attracted exclusively to people of the same sex, while bisexual men and women feel attracted to people of both sexes. For trans people, their birth-assigned sex not (completely) corresponds to their gender identity. Briefly stated, the abbreviation LGBT refers to minorities in the area of gender and sexuality. The abbreviation is confusing in some respects. It may seem to suggest that L, G, B and T individuals constitute four homogeneous groups that can easily be distinguished from each other. It actually involves two sexual minorities (i.e. gay people and bisexual people) and one minority based on gender identity (trans people). There are partial overlaps between people in the LGB people and T categories: Some LGB people are transgender, and some trans people are LGB.

Moreover, evidence suggests that there are variations in the sexual identities of lesbian and bisexual women and those of gay and bisexual men (Diamond, 2008; Kooiman & Keuzenkamp, 2012; Savin-Williams, Joyner & Rieger, 2012; Thompson & Morgan, 2008; Van Lisdonk & Van Bergen, 2010; Vrangalova & Savin-Williams, 2012), in addition to wide internal variation amongst trans people with regard to gender identity and the desire for transition. In short, sexual and gender minorities do not constitute homogeneous groups when it comes to those very aspects that define them as LGBT people: sexual orientation, gender identity and desire for transition.

It is important to gain additional insight into this 'heterogeneity' in sexual orientation, gender identity and desire for transition within the LGBT population. First, such insight is important for LGBT people themselves, particularly in their search for their identity. Results from a needs assessment amongst young LGBT people indicate that they can experience a long period of ambivalence regarding their identity, especially if their sexual orientation, gender identity or desire for transition do not correspond to the image they have of LGBT people (Doorduin & Van Lee, 2013). Professionals working with LGBT people or providing information about them to the general population also need to have sufficient knowledge about the variation in feelings and identities that exist within the LGBT population.
This chapter focuses on three research questions:

- How much variation is there in the sexual orientation of LGB people?
- How much variation is there in terms of gender identity and actual or desired transition amongst trans people?
- What is the prevalence of various sexual orientations amongst trans people?

We will first describe the existing knowledge in this area, before presenting the results of the current study.

Variations in sexual orientation
Sexual orientation refers to the extent to which an individual is sexually and romantically oriented towards men, women or both. It is usually seen as a relatively stable characteristic that can be expressed through sexual behaviour or self-identification as gay, bisexual or heterosexual (Sell, 2007). In research, sexual orientation is measured in a number of ways. The most common measures in this regard concern sexual attraction, self-identification and sexual behaviour. These types of questions yield a variety of results (Kooiman & Keuzenkamp, 2012; Rutgers WPF, 2013). For example, men who report sometimes having sex with men (behaviour) do not necessarily refer to themselves as gay or bisexual (self-identification) or report that they necessarily feel sexually attracted (exclusively or non-exclusively) to men (attraction). Sexual attraction, self-identification and sexual behaviour thus do not always correspond exactly.

This means sexual orientation is not a one-dimensional concept, but instead consists of several facets. Which of these facets is best suited as a basis for distinguishing between heterosexual, gay and bisexual people is a question that has elicited considerable discussion (Sell, 1997; Sell & Becker, 2001; Saewyc et al., 2004; Friedman et al., 2004; Savin-Williams, 2006; Kooiman & Keuzenkamp, 2012). In many cases, the conclusion is that the distinction depends upon the research objective (Savin-Williams, 2006; Friedman et al., 2004). Recent studies have revealed yet other measurements: LGB people also consider romantic feelings for men, women or both, as well as the sex of their steady partners (actual or desired) to be aspects of their sexual orientation (Friedman et al., 2004).

The multi-faceted nature of sexual preference means that some people cannot be easily classified under a given category. For example, this is the case for men who have sex with men, while identifying as heterosexual. In other aspects as well, sexual minorities do not constitute homogeneous groups. In recent years, studies on sexual orientation have devoted considerable attention to the variation in sexual orientation existing amongst gay and bisexual people.

First, many of the studies currently being conducted in the Netherlands distinguish between lesbian and bisexual women and gay and bisexual men (Keuzenkamp, Kooiman & Van Lisdonk, 2012; Rutgers WPF, 2013), where previous studies have tended to group them together. Bisexual men and women have been shown to differ from gay men and lesbian women with regard to coming out (Keuzenkamp, Kooiman & Van Lisdonk, 2012) and sexual health (Rutgers WPF, 2013).

Second, considerable attention has been paid to the variations and fluctuations in sexual orientation that go beyond the distinction between gay and bisexual orientation. Diamond (2008) uses the term ‘sexual fluidity’ in this context. Sexual fluidity refers both to non-exclusive attraction (sexual attraction that is not directed solely towards people of a specific sex) and the possibility of fluctuations in an individual’s sexual attraction and sexual identity label. In a study of 100 non-heterosexual women, Diamond reports that the sexual attraction of the majority of these women was non-exclusive throughout the period of study. About half agreed (either slightly or completely) with the statement that they usually felt attracted to ‘the person, not the gender’. Slightly less than half reported that the extent to which they feel attracted to men and/or women had changed over the years. This was particularly true for women who had been more non-exclusive in their sexual attraction from the outset. Finally, the majority of the women in the study reported that they primarily felt attracted to men, but also felt attracted to women (Diamond, 2008).

Other studies on a larger scale have confirmed these results. In a larger group of young adult men and women, a minority had changed their ‘labels’. This was particularly the case for bisexual people. People regarding themselves as ‘100% straight’ or ‘100% gay/lesbian’ are more stable in their sexual self-identification. In this study, the group of participants identifying as ‘mostly straight’ is relatively large, exceeding the size of all other sexual minorities (Savin-Williams, Joyner & Rieger, 2012). Thompson and Morgan (2008) and Vrangalova and Savin-Williams (2012) studied the sexual and relational behaviour of this ‘mostly straight’ group. The results indicate that the sexual and relational behaviour of this group does indeed lie ‘between’ that of the straight and bisexual control groups. Participants in this group experience identity exploration and identity uncertainty to the same extent that gay and bisexual people do (Thompson & Morgan, 2008).

Finally, researchers have devoted considerable attention to the (often younger) group of LGB people who prefer not to assign any label to their sexual orientation. According to Savin-Williams (2001), some young LGB people reject sexual labels for personal or political reasons. In a study of young LGB people in the Netherlands, 20% indicated that they prefer not to assign any names to their sexual preferences (Van Lisdonk & Van Bergen, 2010). The term 'unlabelled' was also mentioned frequently in the study by Diamond (2008).

Variations in gender identity and transition (or desire for transition)

The conceptual framework surrounding transgender identity is continuously in development. In this study, ‘trans’ is regarded as an ‘umbrella term’ for people whose birth-assigned sex is not (entirely) consistent with their gender identity. Birth-assigned sex refers to the sex that an individual was assigned at birth, based on bodily characteristics. Gender identity refers to the deeply-felt conviction

of being male, female, both, neither or something in between. In this study, we distinguish between trans women and trans men on the one hand, and gender-variant people on the other. Trans women are people who feel that they are female and to whom the male sex was assigned at birth. The opposite applies to trans men. The terms 'trans woman' and 'trans man' leave open the question of whether an individual wishes to undergo sex-reassignment treatment. The term 'gender-variant person' is used to refer to people who feel that they are something other than either male or female. The abbreviations FtM and MtF stand for female-to-male and male-to-female. In this study, these terms are used in reference to two spectra: the female-to-male spectrum and the male-to-female spectrum. We use the terms 'FtM trans' and 'MtF trans' to refer to all trans people within the respective spectrums.

Before the term 'transgender' came into common usage in the 1990s - now often replaced by the more inclusive shorthand 'trans' - a sharp distinction was usually made between two distinct groups of trans people: cross-dressers and transsexuals. The term 'cross-dresser' was then used in reference to people who identify with their birth-assigned sex but who occasionally enjoy dressing and acting like a member of the opposite sex. 'Transsexual' was used in reference to people who identify completely with the sex opposite to their birth-assigned sex and who feel a need to undergo hormone treatments and sex-reassignment surgery. The concepts 'transgender' and 'trans' assume a continuum of different gender identities and degrees in the desire for treatment. For example, it includes people who feel that they belong somewhere 'in between', people who wish to undergo hormone treatment, but not surgery, and people who do not feel either completely male or completely female, despite their desire for treatment (Stryker, 2008). The question remains, however, whether there truly is a continuum of gender identities and desire for transition, or whether it is actually possible to distinguish particular groups. In other words, what are the similarities and differences between trans people, and are these differences absolute or gradual? To date, little research into these questions has been conducted in the Netherlands.

Kuyper (2012) investigated the prevalence of transgender feelings in the Netherlands. Participants were asked about their gender identities, dissatisfaction with their bodies and their desire for treatment. Only a minority of those who reported that they psychologically identified with the other sex at least as much as with their birth-assigned sex experienced dissatisfaction with their bodies or had a desire for treatment. These results clearly reveal a large degree of variation among trans people in terms of gender identity, body dissatisfaction and desire for treatment.

In 2012, the Netherlands Institute for Social Research (SCP) conducted a study on the situation of trans people in the Netherlands (Keuzenkamp, 2012). The study focused primarily on equal opportunities and quality of life. In addition, the study provided some data on variation amongst trans people. The majority of the participants in this study reported either having taken or desiring to take steps to enter transition. In contrast to Kuyper's sample, this sample was composed primarily of trans people identifying as either male or female. This raises questions concerning the desire for transition amongst trans people identifying as something other than either female or male.

The sexual orientation of trans people

There is some degree of overlap between LGB people and T people: some trans people are lesbian, gay or bisexual. In various studies of trans people, participants have been asked about their sexual orientation. The results vary widely. They are difficult to compare with each other, due to differences in the operationalisation of sexual orientation and the sample composition. None of the samples can be regarded as representative, as it is impossible to draw a random sample of all trans people in the Netherlands. In some cases participants were recruited from the patient files of a gender team (clinical context) and in other cases through trans organisations.

Most of the studies indicate that the majority of trans men feel attracted exclusively or primarily[1] to women, with percentages ranging from 61% (Vennix, 2010), 70% (Smith et al., 2005a) and 73% (Motmans, T'Sjoen and Meier, 2011) to 91% (De Cuypere et al., 2005). The sexual orientation of trans women differs per study. The percentage pf participants who feel attracted to men ranges from 20%

[1] Depending upon the manner of categorisation.

(Vennix, 2010) and 26% (Motmans, T'Sjoen and Meier, 2011) to 54% (Smith et al., 2005) and 56% (De Cuypere et al., 2005). Only one study asked about the sexual preferences of trans people who do not wish to undergo treatment. According to these results, 72% of the MtF trans people were attracted primarily to women, while 4% were attracted primarily to men and 20% were attracted equally to both. Of the FtM trans people not desiring treatment, 52% were attracted primarily to women, 26% were attracted primarily to men and 13% were attracted equally to both (Vennix, 2010).

Some differences might be due to recruitment in a clinical context, as opposed to recruitment through trans organisations. The percentages of heterosexual (based on gender identity) trans women and trans men are usually higher in studies involving clinical samples. The way in which sexual orientation is measured is likely to play a role as well. In studies allowing greater variation in answer categories, bisexuality and asexuality are mentioned relatively frequently (Bockting, Benner & Coleman, 2009; Coleman, Bockting, & Gooren, 1993; Vennix, 2010). Motmans, T'Sjoen and Meier (2011) also investigated the extent to which the sexual orientation of trans people who were already living as the desired gender had changed since the period before the start of their sex-reassignment treatment. In total, 24% of the participants reported that their sexual orientation had changed. This was primarily the case for trans women.

2.2 Methods

This chapter describes the results of a study of 1474 lesbian and bisexual women, 1580 gay and bisexual men, 325 MtF trans people and 251 FtM trans people. The results for the LGB group are based on the LGB panel sample. The trans participants were recruited through a panel, as well as through trans organisations and other transgender-specific channels. A detailed description of the recruitment and sample is provided in Chapter 1. Table 2.1 provides descriptions of the concepts addressed in this chapter, along with the way they were measured.

2.3 Results

Variations in sexual orientation amongst cisgender LGB people

The results presented in Table 2.2 indicate the extent to which cisgender LGB people (LGB people who are not trans) feel attracted to people of the same sex and of the opposite sex, as well as how they describe their sexual orientation (self-identification). With regard to sexual attraction, it is interesting to note that the categories 'exclusively to the same sex' and 'primarily to the opposite sex, but also to the same sex' are the most common for both men and women. The distribution between men and women varies widely. Slightly more than half of the men reported feeling attracted exclusively to their own sex. Amongst women, the group responding that they feel attracted primarily to the opposite sex but also to their own sex was the largest.

Table 2.1. Overview of concepts and operationalisation of sexual orientation, gender identity and sexual behaviour

Concept	Question	Categories
Sexual attraction	Do you feel sexually attracted to men, to women or to men and women?	1=only to (trans)*men to 5=only to (trans)*women / 6=neither* /7= I don't know* / 8=other*
Changes in sexual attraction*	Was this also the case in the past (before your transition or role change)?	1=yes, these feelings have remained the same / 2=no, these feelings have changed somewhat / 3=no, these feelings have changed greatly
Sexual self-identification	How do you describe yourself?	1=gay / 2=lesbian / 3=bisexual / 4=heterosexual /5=other
Gender of lifetime sex partners	Who have you had sex with?	1=only (trans) *men to 5=only (trans) *women / 6=only or primarily with people who do not feel completely male or female*
Gender of sex partners in the last six months	LGB people: Who have you had sex with in the past six months?	1=steady male partner / 2=steady female partner / 3=casual male partner/ 4=casual female partner
	T: Who have you had sex with in the past six months?	1=only (trans) men to 5=only (trans) women / 6=only or primarily with people who do not feel completely male or female
Romantic feelings	Have you ever had romantic feelings for a) a man b) a woman?	1=yes / 2=no
Gender of lifetime relationship partners	Have you ever had a relationship with a) a man b) a woman?	1=yes / 2=no
Gender identity of current partner	LGB people: Is your partner a man or a woman?	1= a man / 2 = a woman
	T: What is the gender identity of your partner?	1=male / 2=female / 3=partly male, partly female / 4=neither male nor female / 5=I and/or my partner don't know / 6=other
Birth-assigned sex	How were you registered in the public records at birth?	1=as a boy / 2=as a girl
Gender identity (categorical)	Based on the way you feel, you are:	See Table 2.6
Gender identity (continuous)	To what extent do you feel that you are a a) woman b) man?	1=not at all to 10=entirely
Trans identity	Which of the terms below is most applicable to you?	See Table 2.8
Transition	Which statement do you feel best expresses your situation?	See Table 2.9
Expression of gender identity	To what extent do you express your gender identity in your daily life?	See Table 2.10
Unfulfilled need for expression	Would you like to express (or give greater expression to) your gender identity?	1=yes / 2=no / 3=I don't know
Use of hormones	Do you use hormones or hormone inhibitors?	1=I have never used them / 2=I am currently using them / 3=I have temporarily stopped / 4=I have used them in the past, but have now stopped completely
Unfulfilled wish for hormones	Would you like to use hormones or puberty inhibitors?	1=yes / 2=no / 3=I don't know
Has undergone surgery	Have you had one or more of the following surgeries?	See Table 2.12
Unfulfilled wish for surgery	Would you like to have one of the following surgeries?	See Table 2.12

Significant differences between men and women with non-heterosexual preferences also emerge with regard to self-identification. Slightly more than half of the men identified as gay, with a third identifying as bisexual. Only a small group (2%) identified as something else. More than one third of the women identified as heterosexual, with another third identifying as bisexual and one fourth identifying as lesbian (or gay).

Table 2.2. Sexual attraction and self-identification of LGB people[2] (%)

	Male	Female
	N=1580	N=1474
Sexual attraction		
Exclusively to the same sex	51.6	22.6▼
Primarily to the same sex, but also to the opposite sex	10.0	9.4
To both sexes equally	6.7	8.8
Primarily to the opposite sex, but also to the same sex	31.7	59.3▲
Self-identification		
Gay/lesbian	54.9	24.6▼
Bisexual	31.5	33.9
Heterosexual	11.6	35.1▲
Other, (please specify)	2.0	6.4▲

▲▼ = higher/lower than amongst men, p<.05 and Cramer's V>.10.

Self-described identities frequently indicated under 'Other, please specify':

- do not (or do not wish to) identify (e.g. 'not thinking in terms of boxes'; 'I don't assign labels', 'human being' or 'myself'.
- Being attracted to people, sometimes adding that gender does not matter: 'I love people, not a gender'.
- Something between heterosexual and bisexual, for example: 'bi-curious', 'hetero-flexible', 'heterosexual with bisexual feelings' or 'heterosexual with additional desires'.
- Something between gay and bisexual, for example: 'gay-flexible' of '90% gay/10% heterosexual'.
- Pansexual, in a couple of cases combined with the explanation that one is attracted to people, and not to a gender.
- Additional descriptions that were provided included 'queer', 'normal', 'polyamoric', a difference between sexual and romantic attraction, a time reference ('at this moment, I'm gay'), only mentioning sexual attraction ('man's man', 'woman lover'), or not (yet) knowing.

The relationship between sexual attraction and sexual self-identification is presented in Table 2.3. Almost all of the men and women who reported feeling attracted exclusively to the same sex identified as gay or lesbian. The majority of men and women who reported being equally attracted to men and women identified as bisexual.

The variation occurred primarily in the 'intermediate categories' – 'primarily to the same, but also to the opposite sex' and 'primarily to the opposite, but also to the same sex'. Although most of the participants in these categories did select common labels (gay, heterosexual or bisexual), the variation is greater within these groups. People in these categories were more likely than those in other categories to qualify their identification with something other than gay, bisexual or heterosexual.

It is interesting to note the difference between men and women with regard to the relationship between attraction and self-identification. The majority of the men who reported being attracted primarily to the opposite, but also to the same sex, identified as bisexual, while women reporting the same pattern were more likely to identify as heterosexual than bisexual. Women were also more likely to identify as something other than gay, bisexual or heterosexual.

[2] All figures refer to LGB people who are not trans. The reason that trans people are not represented in this sample is that lesbian, gay and bisexual trans people were asked to complete the other questionnaire, which was designed especially for trans people.

Table 2.3. The relationship between sexual attraction and self-identification (%)

	Sexual attraction			
	Exclusively the same sex	**Primarily the same, but also the opposite sex**	**Both sexes equally**	**Primarily the opposite, but also the same sex**
GB men	**N=792**	**N=155**	**N=112**	**N=521**
Self-identification				
Gay	98.0	42.8▼	1.0	0.0
Bisexual	0.7	50.8▲	89.1	63.4▼
Heterosexual	0.4	1.5	8.5	33.7▲
Other	0.9	4.9▲	1.4	2.9
LB women	**N=330**	**N=130**	**N=126**	**N=888**
Self-identification				
Lesbian	94.8	31.7▼	2.7	0.0
Bisexual	0.3	60.4▲	82.2	35.3▼
Heterosexual	0.8	3.0	8.6	57.2▲
Other	4.1	4.8	6.6	7.5▲

▲▼ = higher/lower than for the entire group, p<.05 and Cramer's V>.10.

The figures reported in Tables 2.4.a. and 2.4.b. indicate how sexual and relational behaviour is associated with sexual attraction to men and women. Experience of being in love, relationships and sex with men and women are clearly associated with the extent to which an individual is attracted to men or to women. Participants who reported feeling more attracted to women also reported having more experience with women, and those who reported feeling more attracted to men also reported having more experiences with men.

At the same time, it is clear that being in love, sex and relationships do not correspond perfectly to attraction to men and women. For example, gay men and lesbian women reported feeling attracted exclusively to members of their own sex, although many also reported having been in love with someone of the opposite sex. This applied most strongly to women: about half of the lesbian women reported having been in love with a man, three of every five reported having had sex with a man, and two of every five reported having had a relationship with a man. Gay men were more exclusive in their behaviour.

Table 2.4.a. Sexual and relational behaviour of gay and bisexual men (%)

	Sexual attraction			
	Exclusively M	**Predominantly M**	**Equally M and F**	**Predominantly F**
	N=792	**N=155**	**N=112**	**N=521**
In the past, has been in love with…				
a man	97.3▲	86.1▲	73.2	34.4
a woman	31.4	89.9▲	91.6▲	98.8▲
Has had sex with…				
a man	96.0▲	86.6	74.9	67.8
a woman	29.0	75.0▲	88.0▲	93.6▲
In the past six months, had sex with…				
a man	77.4▲	59.4	34.1	24.2
a woman	0.6	8.5	34.9▲	63.4▲
In the past, has had a relationship with…				
a man	84.2▲	52.6	15.5	6.0
a woman	19.3	59.1▲	77.4▲	92.3▲
Currently in a relationship with…				
a man	57.2▲	34.5	4.7	0.9
a woman	1.1	12.1	45.8▲	71.2▲

▲ = higher than for the total group, p<.05 and Cramer's V>.10.

Table 2.4.b. Sexual and relational behaviour of lesbian and bisexual women (%)

	Sexual attraction			
	Exclusively F	**Predominantly F**	**Equally M and F**	**Predominantly M**
	N=330	**N=130**	**N=126**	**N=888**
In the past has been in love with…				
a woman	98.5▲	97.6▲	90.2▲	57.7
a man	54.8	95.7▲	100.0▲	99.4▲
In the past, has had sex with…				
a woman	92.0▲	88.6▲	77.9▲	53.0
a man	62.9	88.8	98.2▲	97.5▲
In the past six months, had sex with…				
a woman	58.2▲	47.5▲	30.2	6.1
a man	0.7	12.3	42.4	71.9▲
In the past, has had a relationship with…				
a woman	90.0▲	77.5▲	52.7▲	12.4
a man	40.8	81.7	93.1▲	94.5▲
Currently in a relationship with…				
a woman	67.8▲	49.7▲	24.1	1.9
a man	0.3	9.5	41.4	67.4▲

▲ = higher than for the total group, p<.05 and Cramer's V>.10.

In this report, we distinguish between gay and bisexual men and between lesbian and bisexual women. The aforementioned description of the various aspects of sexual orientation and the overlap between them nevertheless demonstrates that these aspects do not always generate the right categorisation. We therefore conducted a cluster analysis in order to categorise gay and bisexual orientation. Cluster analysis involves forming groups that are as internally homogeneous as possible, with as much mutual difference as possible. In this analysis, we included sexual attraction, the sex of the sexual partners in the past six months, self-identification and the sex of previous steady partners. Because not all of these variables were measured at the interval level, a two-step cluster analysis was the most appropriate method (Everitt, Landau, Leese, & Stahl, 2011). We specified in advance that we wanted to arrive at two clusters. This resulted in a cluster of individuals who reported being attracted exclusively to members of their own sex (gay men and lesbian women) and a cluster of individuals who reported that they were not exclusively attracted to members of their own sex (bisexual men and women; see Table 2.5). Based on this result, we have applied this categorisation throughout the rest of this report.

Table 2.5. Cluster analysis for the categorisation of LGB participants (n)

	Men		Women	
	Cluster 1	**Cluster 2**	**Cluster 1**	**Cluster 2**
Only same sex	9	778	8	303
Predominantly same sex	123	16	129	2
Both sexes equally	96	0	128	0
Predominantly the opposite sex	476	0	855	0
Total	704	794	1120	305

Variation in gender identity and transition amongst trans people

As shown in Table 2.6, a slight majority of the trans people in the sample reported feeling either male or female. Slightly less than half reported feeling something other than either male or female. Most felt that the response 'partly male, partly female' was best suited to their situations. We tested to see whether there were differences in the distribution of gender identities between the MtF spectrum and the FtM spectrum (taking 'feeling either male OR female' as a single category). This was not the case. The distribution across various types of gender identities is thus approximately the same for individuals whose birth-assigned sex was male or female.

Where possible, in the remainder of this chapter and in the rest of this book, results for the participants in the sample of trans people have been divided into subgroups according to the answers to this question. We use the term 'trans women' to refer to participants with the birth-assigned sex of 'boy' and the gender identity 'female'; the term 'trans men' refers to participants with the birth-assigned sex of 'girl' and the gender identity 'male'. Participants with the birth-assigned sex of 'boy' who reported feeling something other than male or female are referred to as 'male-to-female-spectrum gender-variant people', abbreviated to 'MtF gender-variant people'. Participants with the birth-assigned sex of 'girl' who reported feeling something other than male or female are referred to as 'female-to-male-spectrum gender-variant people', abbreviated to 'FtM gender-variant people'. This chapter clearly demonstrates that these designations sometimes differ from the terms used by the participants themselves.

Table 2.6. Gender identity (categorical) by birth-assigned sex (%)

	MtF trans people	FtM trans people
	N=325	N=251
Male	-	59.0
Female	56.3	-
Partly male, partly female	32.0	27.9
Not male and not female	4.9	8.0
I don't know (yet)	4.3	3.6
Other, (please specify) ...	2.5	1.6

▲▼ = higher/lower than amongst MtF trans people, p<.05 and Cramer's V>.10.

Gender identities frequently indicated under 'Other, please specify':

- Something other than male or female (e.g. 'partly male, partly female but actually something entirely different at the same time' or 'a she, but of a third sex. Genetically and biologically incomparable to either. A cross-breed or hybrid, in other words').
- Does not wish to place oneself in a category.
- Does nor regard the categories 'male' and 'female' as meaningful.
- Human being.
- Partly one sex, not the other sex at all (e.g. 'partly genderless (30%), partly male (70%)' or 'I don't feel male, but I also don't feel entirely female'.
- Gender identities that were, ultimately, assigned to one of the other categories (e.g. individuals reporting that they feel female, despite not entering transition).

The figures reported in Table 2.7 reflect the extent to which the participants feel either male or female (on average), based on a 10-point scale. As could be expected, trans men and women differed substantially from gender-variant people. Trans women and trans men reported hardly any identification with their birth-assigned sex, while identifying very strongly with the sex opposite to their birth-assigned sex. Gender-variant people consistently adopted a position somewhere in between.

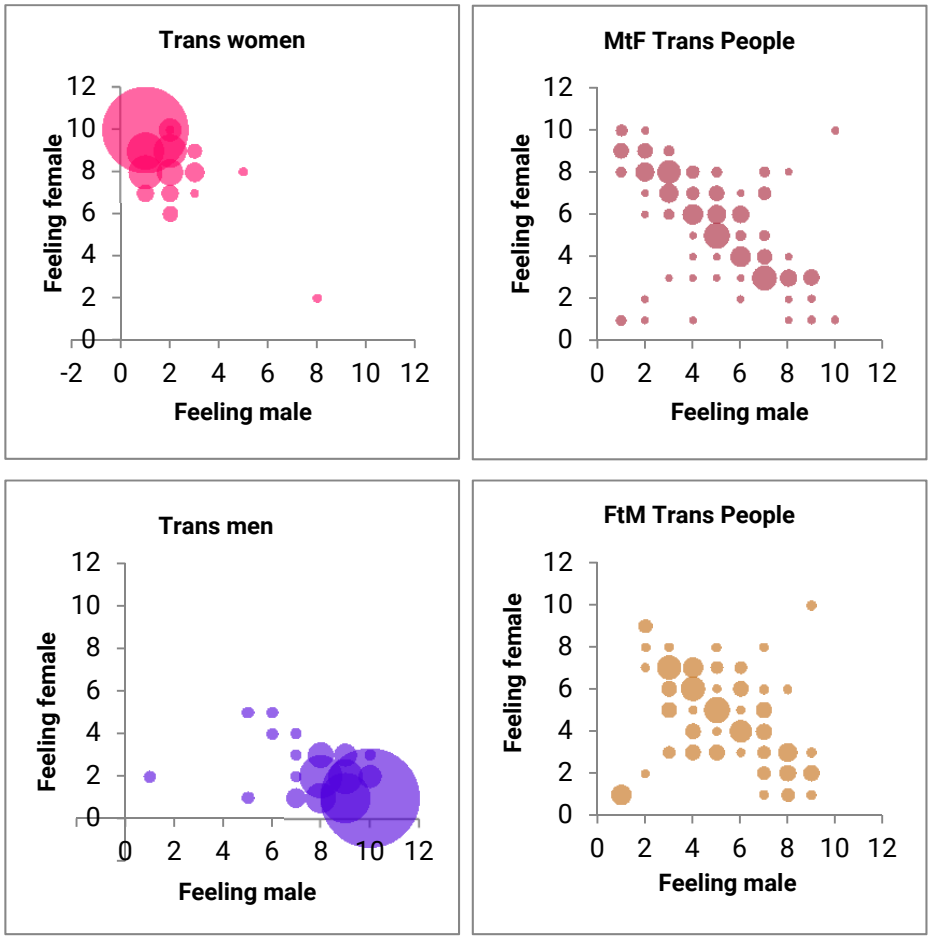
Table 2.7. Feeling male and/or female (average score on a 10-point scale)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	N=142	N=148	N=103
Feeling female	9.2	5.7▼	1.4	4.7▲
Feeling male	1.4	4.9▲	9.1	5.1▼

▲▼ = higher/lower than amongst trans women/trans men, p<.05 and Cramer's V>.10.

The table above reports means, but not the distributions of gender identities. This distribution is indicated in the scatter plots presented in Figure 2.1.

Figure 2.1. Variation in the gender identities of trans people



The horizontal axis represents the extent to which individuals identified as male, and the vertical axis represents the extent to which they identified as female. The larger the dot, the more participants reported feeling male or female to that extent. Gender-variant people were particularly likely to vary in terms of their gender identity. In general, the more individuals identify with one gender, the less likely they are to identify with the other gender. A number of gender-variant people reported identifying either very little as either male or female, or very strongly as both.

The figures reported in Table 2.8 indicate how the participants referred to their status of being transgender. Most of the participants referred to in this study as trans women or trans men according to their birth-assigned sex and gender identity also referred to themselves as trans women or trans men.

The identification of gender-variant people is more widely distributed across different categories. A significant group of MtF gender-variant people identified as transvestite, cross-dresser or part-time woman, while almost none of the participants in the FtM spectrum placed themselves in this category. The FtM gender-variant people were more likely to select the categories 'I don't know' or 'other, please specify'.

Table 2.8. Trans identity: describing trans status (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	N=142	N=148	N=103
Trans woman/man, transsexual woman/man or woman/man (with transsexual past)	68.9	4.9▼	72.3	4.9▼
Transgenderist3, transgender, genderqueer or intergender person	21.9	32.4▲	20.3	26.2
Transvestite4, cross-dresser or part-time woman/man	3.3	38.7▲	0.7	2.9
I don't know (yet)	0.5	16.9▲	4.1	42.7▲
Other	5.5	7.0	2.7	23.3▲

▲▼ = higher/lower than amongst trans women/trans men, p<.05 and Cramer's V>.10.

Transgender identities frequently indicated under 'Other, please specify':

- Description of gender identity only (e.g. 'male and female', 'boy/man', or 'when I am finished, I will no longer be a trans woman but a woman').
- Description of gender role (e.g. 'I am simply a masculine woman', 'tough woman' and 'man who is strongly in touch with his feminine side').
- Terms used for sexual orientation (e.g. 'lesbian', 'hetero', 'bi').
- Human being.
- Description comprising multiple categories (e.g. 'transsexual transgenderist').
- Never entered transition: two participants noted that they were assigned male sex at birth and felt female, but that they had never entered transition and could live with this fact.
- Other descriptions mentioned were 'gender dysphoric', 'transsexual person' and 'androgynous'.

As shown in Table 2.9, a minority of the participants in this study had completed transition. The majority reported that they were in transition, that they did not wish to enter transition or that they had doubts in this regard. Of trans men and trans women, the majority reported that they were in transition or that they had completed transition, while most gender-variant people reported not wishing to enter transition, not knowing (yet) whether they wanted this, or having a different narrative about transition. In addition, a relatively large number of MtF gender-variant people reported being at the beginning of a transition.

Table 2.9. Desire for transition and phase of transition (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	N=142	N=148	N=103
I do not want to enter transition	0.5	40.1▲	4.1	57.3▲
I don't know (yet) whether I want to enter transition	7.1	31.7▲	6.1	17.5▲
I am at the beginning of my transition	12.6	11.3	18.2	1.9▼
I am in the process of transitioning	30.1	4.2▼	27.0	7.8▼
I have nearly completed my transition	14.2	2.8▼	16.2	1.9▼
I have completed my transition	29.0	3.5▼	25.0	3.9▼
Other, (please specify) ...	6.6	6.3	3.4	9.7▲

▲▼ = higher/lower than amongst trans women/trans men, p<.05 and Cramer's V>.10.

Transition phases frequently indicated under 'other, please specify':

- Role change took place long before the start of the sex-reassignment treatment.
- Role change has taken place, but no desire for transition.
- Transition has no start or end point.
- Doubts concerning an additional step.
- My social environment does not allow me to undergo transition.

[3] "Transgenderist" is a Dutch term for "Gender-variant person".

[4] In Dutch, the term "transvestite" (translated as "travestiet") is not considered a derogatory term.

As shown in Table 2.10. trans women and trans men were more likely to give complete expression to their gender identities than were gender-variant people. For nearly all groups, the majority reported that they would like to express their gender identities more often. This applied most strongly in the case of trans men and trans women. Gender-variant people were more likely than trans men and trans women to report not knowing (or not yet knowing) whether they would like to give more expression to their gender identities.

Table 2.10. Expression of gender identity (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	**N=142**	**N=148**	**N=103**
Expression of gender identity				
Complete	65.6	5.6▼	66.2	5.8▼
To a large extent	15.8	10.6	11.5	21.4▲
Partly yes, partly no	12.0	31.0▲	12.8	30.1▲
To some extent	4.4	39.4▲	4.7	21.4▲
Not at all	2.2	13.4▲	4.7	21.4▲
Participants who do not express their gender identities completely	**N=63**	**N=134**	**N=50**	**N=97**
Would like to express it more				
Yes	90.5	64.2▼	72.0	28.9▼
No	6.3	17.2▲	20.0	37.1▲
Don't know	3.2	18.7▲	8.0	34.0▲

▲▼ = higher/lower than amongst trans women/trans men, p<.05 and Cramer's V>.10.

As shown in Table 2.11, most trans women and trans men reported that they had registered with a gender team. The majority of the gender-variant people had never done so. On average, trans men reported having registered at an earlier age than was the case for trans women: the average age at registration for MtF trans people was around 10 years older than that of the FtM trans people. Trans women and trans men also differed greatly from gender-variant people with regard to hormone treatment. The majority of trans women and trans men reported that they were undergoing hormone treatment. The majority of gender-variant people reported that they did not feel a need for hormone treatment. A similar pattern emerged with regard to surgery. By a large margin, most trans men and trans women reported a wish to undergo surgery, while most gender-variant people did not. A minority reported having undergone one or more surgeries.

Table 2.11. Sex re-assignment treatment (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	**N=142**	**N=148**	**N=103**
Has registered with a gender team at some point	83.1	23.2▼	87.2	13.6▼
Hormone treatment				
Receiving hormone treatment	65.6	7.7▼	62.2	10.7▼
Not receiving hormone treatment, but wants to	20.8	8.5▼	25.7	4.9▼
No hormone treatment and no need/don't know	13.7	83.8▲	12.2	84.5▲
Surgery				
Had surgery (or surgeries)	38.8	7.0▼	45.9	10.7▼
Does not want any more surgery	27.3	7.0▼	23.6	9.7▼
Would still like to undergo one or more surgeries	11.5	0.0▼	22.3	1.0▼
Has not had any surgery	61.2	93.0▲	54.1	89.3▲
Would like to undergo one or more surgeries	47.0	13.4▼	41.9	6.8▼
Does not want any surgery	14.2	79.6▲	12.2	82.5▲
Participants who registered with a gender team at some point	**N=152**	**N=33**	**N=129**	**-**
Average age at first registration	36.9	36.5	27.0	-

▲▼ = higher/lower than amongst trans women/trans men, p<.05 and Cramer's V>.10.

The figures reported in Table 2.12 indicate which surgeries trans women and trans men would like to undergo, and which they have already undergone. For trans women, vaginoplasty and (to a somewhat lesser extent) breast augmentation were particularly important surgeries. For trans men, breast surgery, hysterectomy and oophorectomy were the most important. Only a minority of trans men desired or had undergone penile surgery (phalloplasty or metaidoioplasty), although a large group indicated they were considering it but were not sure. Given that only a small percentage of gender-variant people reported desiring surgery, these percentages are not reported here. Amongst MtF gender-variant people, the surgeries that are most visible to the outside world (e.g. breast augmentation) were the most desired.

Table 2.12. Desire for and completion of each type of surgery (%)

	Completed	Desired	Maybe desired
Trans men	**N=148**	**N=148**	**N=148**
Breast surgery	44.6	41.9	2.7
Hysterectomy	39.9	33.1	11.5
Oophorectomy	39.9	31.8	13.5
Phalloplasty*	5.4	14.2	27.0
Metaidoioplasty**	7.4	15.5	39.9
Vaginectomy	10.1	23.6	29.1
Erectile prosthesis (with phalloplasty)	2.7	10.1	35.8
Trans women	**N=183**	**N=183**	**N=183**
Vaginoplasty, penile inversion technique***	30.6	41.5	10.9
Vaginoplasty, colon-graft technique****	2.2	19.1	24.6
Orchiectomy/scrotal removal*****	2.2	0.5	1.1
Breast augmentation	22.4	27.9	19.1
Other surgery	9.8	26.2	27.3

* Penile surgery in which skin tissue from the underarm or thigh is used.
** Penile surgery that involves stretching the clitoris, which has already become enlarged through hormone treatment.
*** The creation of a vagina using skin from the penis.
**** The creation of a vagina using skin from the penis and the intestinal wall.
***** Reported only if the participant neither had nor desired to undergo a vaginoplasty.

The sexual orientation of trans people

As shown in Table 2.13, feelings of sexual attraction amongst trans people are quite diverse. The majority of people in the general population report feeling attracted exclusively to people of the opposite sex (90% of men, 89% of women; Rutgers WPF, 2013).

Table 2.13. Sexual orientation: Attraction to men and women, and self-identification (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
	N=183	**N=142**	**N=148**	**N=103**
Sexual attraction				
Only to men	13.7	10.6	17.0	10.7
Primarily to men, but also to women	9.3	5.6	15.6	27.2▲
To men and women equally	9.8	10.6	6.8	11.7
Primarily to women, but also to men	15.3	30.3▲	18.4	13.6
Only to women	41.5	35.2	34.7	24.3
To no one	1.1	2.1	2.0	5.8
Don't know	6.6	2.1	2.7	3.9
Other	2.7	3.5	2.7	2.9
Self-identification				
Gay/lesbian	38.8	14.8▲	27.7	34.0
Bisexual	28.4	36.6	19.6	23.3
Heterosexual	22.4	33.1▲	35.8	24.3
Other, (please specify) ...	10.4	15.5	16.9	18.4

▲ = higher than amongst trans women/trans men, p<.05 and Cramer's V>.10.

Of the trans women in this study, 14% reported feeling exclusively attracted to men, with 35% of the trans men reporting feeling exclusively attracted to women. Based on their gender identity, the minority of trans men and trans women are thus heterosexual. The majority of the participants also identified as something other than heterosexual.

Sexual attraction frequently indicated under 'other, please specify':

- Pansexual.
- Potentially attracted to all combinations of birth-assigned sex and gender identity.
- Feeling attracted 'to people'.
- Distinction between trans and cisgender men and women (e.g. 'trans men, (trans) women, other identifications, everyone except bio men, actually'.
- Sexual attraction has changed over time.
- Sexual attraction is different physically than emotionally.
- Sexual attraction is exclusively directed towards the partner.
- Not excluding any possibilities.

Self-described identities frequently indicated under 'Other, please specify':

- Pansexual.
- Asexual.
- Queer.
- Do not know (yet).
- Description of sexual attraction only.
- Description of trans identity rather than sexual identity.
- Expect a change during future transition.
- Between categories.
- Bicurious.

In addition to the wide variation, several patterns can be identified. First, all sub-groups of trans people were relatively likely to report feeling attracted to both men and women. In addition, trans women, MtF gender-variant people and trans men were relatively likely to report feeling attracted to women; this was not the case for FtM gender-variant people. The groups responding 'to no one', 'don't know' and 'other' are relatively large as compared to the general population, in which only 0.5% of men and 0.7% of women report feeling attracted to no one, with respectively 0.6% and 0.8% not knowing (Rutgers WPF, 2011).

As shown in Table 2.14, the majority of the trans people in this sample reported that their sexual orientation had been the same before the transition or role change. About a third of the MtF trans people and two fifths of the FtM trans people did note changes.

Table 2.14. Change in sexual attraction since before transition or role change (%)

	MtF trans people	FtM trans people
Participants who had (nearly) completed their transition	**N=149**	**N=115**
Remained the same	67.1	60.9
Changed somewhat	17.4	27.0
Changed considerably	15.4	12.2

▲▼ = higher/lower than amongst MtF trans people, p<.05 and Cramer's V>.10.

As shown in Table 2.15, the majority of the trans people who reported being in a relationship had a female partner. Only amongst FtM gender-variant people did more than half of the participants report having a male partner. This group was also more likely to report that their partner identifies as something other than male or female. Trans women and MtF trans people were more likely to have had female sexual partners. A small group reported having had sex only or primarily with people who do not feel completely male or female.

Table 2.15. Relational and sexual behaviour (%)

	Trans woman	MtF gender-variant person	Trans man	FtM gender-variant person
Participants with steady partners	**N=86**	**N=74**	**N=59**	**N=48**
Current steady partner*				
Male	16.3	8.1*	32.2	54.2*
Female	79.1	90.5*	66.1	31.3*
Something other than male or female	4.7	1.4*	1.7	14.6*
Participants with lifetime experience of sex	**N=164**	**N=131**	**N=118**	**N=93**
Lifetime sex partners*				
Only men	10.4	6.1*	22.9	34.4*
Men and women	36.0	42.0*	41.5	39.8*
Only women	48.8	45.0*	33.1	20.4*
Only/primarily others	4.9	6.9*	2.5	5.4*
Participants with experience of sex in the past six months	**N=76**	**N=84**	**N=70**	**N=52**
Sex partners in the past six months*				
Only men	27.6	21.4*	37.1	46.2*
Men and women	13.2	14.3*	7.1	13.5*
Only women	55.3	57.1*	55.7	30.8*
Only/primarily others	3.9	7.1*	0.0	9.6*

* Number too small to test differences.

2.4 Summary and conclusions

Variations in sexual orientation amongst cisgender LGB people

The current study confirms the results from previous research (Kooiman & Keuzenkamp, 2012; Rutgers WPF, 2013), in the sense that various aspects of sexual orientation do not correspond with each other exactly. Sexual attraction, self-identification and romantic behaviour do not always correspond throughout the entire lifetime. The sexual and romantic behaviour of LGB people in the past six months does largely correspond to their sexual attraction during the same period.

A large group of participants reported feeling attracted primarily to the opposite sex, but also to their own sex. The self-identifications within this group differ. Of the women in this group, more than half identified as heterosexual, with a third identifying as bisexual. For men, the pattern is reversed: the majority of men identified as bisexual, with a third identifying as heterosexual.
The vast majority of the participants could identify with a gay, heterosexual or bisexual label. This was the case for participants reporting all categories of sexual attraction. The dividing line between heterosexuality and bisexuality is not always easy to draw. Some of the participants appeared to feel that they belonged somewhere in between. In the category 'other, please specify', many respondents entered terms such as 'bi-curious' and 'hetero-flexible' or descriptions such as 'heterosexual with bisexual feelings'. This raises the question of whether this preference should be regarded as a separate sexual preference in subsequent research, as suggested by Thompson and Morgan (2008) and by Vrangalova and Savin-Williams (2012).

Previous research has indicated that young LGB people have difficulty discovering and identifying their sexual orientations, as they are often unaware of the wide variations that exist in terms of attraction, self-identification and behaviour amongst LGB people (Doorduin & Van Lee, 2013). It is therefore advisable to make them more aware of this variation, perhaps by paying more attention to it in sex education. The results of the current study could provide a starting point for such efforts.

The sexual orientation of trans people

The sexual orientation of trans people is highly diverse. From the perspective of their gender identities, the majority of trans men and trans women are not attracted exclusively to people of the

opposite sex, and identify as something other than heterosexual. Trans women, MtF gendervariant people and trans men feel more attracted to women than to men.

The results are largely consistent with those reported by Vennix (2010), which also indicate that trans men and trans women are more likely than members of the general population to be gay or bisexual (based on gender identity) and that, across the entire range, trans people tend to be more attracted to women than they are to men. Our results nevertheless differ from those reported in several other studies based on clinical samples (De Cuypere et al., 2005; Smith et al., 2005a). In these studies, the majority of the trans men and trans women are heterosexual (based on gender identity). The exact cause of these differences is unclear. It could be that the two recruitment methods attract different types of participants. For example, there could be a difference with regard to the participants' stage of transition. According to results from the current study and those reported by Motmans, T'Sjoen and Meier (2011), the sexual orientations of between one fourth and one third of trans people have changed strongly since the period before the transition or role change.

Although many trans people are attracted to men (either exclusively or in combination), a large majority of the partners of trans people are female. This raises the question of why there are not more male partners. Qualitative research has demonstrated that trans women tend to have had negative experiences with cisgender men, with homophobia and transphobia apparently playing an important role (Doorduin & Van Berlo, 2012). It is also known that men are less accepting of gender non-conformity than women are (Kuyper, 2012). It could be that trans people who are attracted to men (either exclusively or in combination) have less luck to find a male than to find a female partner.

In a qualitative study, a number of trans people noted that, before coming out as trans, they had assumed that trans people would be heterosexual after their transition. This made it more difficult for them to discover and acknowledge their gender identity (Doorduin & Van Berlo, 2012). It would therefore be advisable to use the results from the current study to raise awareness of the diversity of sexual orientations amongst trans people.

Gender identity and desire for transition amongst gender-variant people, trans men and trans women

In terms of gender identity, trans women and trans men constitute very homogeneous groups, while the group of gender-variant people is highly heterogeneous. Trans men and trans women identify very strongly with one sex and very weakly with the other. In other words, they have an 'either/or' gender identity (Roen, 2002): they feel either one or the other gender. Gender-variant people differ widely amongst each other with regard to gender identity. There is a wide distribution within this group with regard to the extent to which they feel male and female. At the same time, however, they have something in common: identification with both sexes or with neither sex – they have a 'both/neither' gender identity (Roen, 2002).

Trans men and trans women also differ from gender-variant people in their desire to transition. They are more likely to have a desire to transition, receive hormone treatment and have surgery. They consider surgery to their breasts and genitals particularly important, although many trans men are not sure whether they wish to have penile surgery (and if so, which type).

Gender-variant people feel less of a need for transition, hormone treatment and surgery than do trans men and trans women. When gender-variant people do desire surgery, it tends to involve the body parts that are most visible to the outside world (i.e. breasts and face).

Expression of gender identity

Gender-variant people express their gender identities to a lesser extent than trans men and trans women do. The majority would nevertheless like to do so to a greater extent. This result has several possible implications. It could be that they would like to give more expression to their gender identities, but that this is less important to them than it is for trans men and trans women. It could also mean that it is relatively difficult for gender-variant people to express their gender identities, due to the dichotomous manner in which society tends to regard gender. The majority of people in the Netherlands consider it important to know whether an individual is male or female, and one in five Dutch people would prefer not to interact with someone whose gender is unclear (Kuyper, 2012). It

might therefore be easier for trans men and trans women wishing to live as men or as women to give full expression to their gender identities than it is for gender-variant people who would prefer to live as something other than either a man or a woman. The results thus also emphasise the importance of increased acceptance of gender expressions outside the male/female dichotomy.

Self-identification

One interesting difference between trans people in the MtF spectrum and those in the FtM spectrum concerns self-identification. Both gender spectrums have similar distributions among different gender identities. Nevertheless, the way in which such people refer to their trans status differs. For example, MtF trans people are more likely to place themselves in the category of transvestite/crossdresser/part-time woman (or man), while FtM trans people are more likely to select the responses 'other, please specify' or 'don't know'. This finding suggests a scarcity of words with which trans people in the FtM spectrum can refer to their trans status.

Categories without sharp dividing lines

In conclusion, we can state that there is considerable variation in sexual orientation, gender identity and desire for transition within the LGBT population. It is not always possible to draw clear dividing lines between the various categories. This does not mean, however, that categorisation is impossible. If asked, most LGBT people are able to select labels for themselves and, upon comparison, these categories differ significantly from each other in a wide range of aspects. These differences are gradual, however, and not absolute.

3 Sexual behaviour, well-being and problems of gay and bisexual men and lesbian and bisexual women

Hanneke de Graaf and Charles Picavet

3.1 Introduction

To a large extent, sexual behaviour (or the absence thereof) forms the basis of sexual health. Without sexual behaviour, individuals are generally at little risk of negative consequences and they are also unlikely to experience sexual pleasure. However, it is only really possible to draw meaningful conclusions from sexual behaviour in relation to the way it is valued or to its consequences. For example, the fact that someone seldom or never has sex with a partner is not a concern unless the person considers this fact problematic. The question of whether individuals have sex with many different partners is relevant only in terms of whether they enjoy this and whether they protect themselves from the negative consequences. Insight into sexual behaviour is also important because it forms the foundation for research into sexual problems. Many sexual problems in de DSM-5 (an American diagnostic and statistical manual for psychological conditions) refer exclusively to sex with a partner (American Psychiatric Association, 2013). If someone does not have sex with a partner, it is impossible to determine whether that person experiences problems when engaging in sexual activities with a partner.

Sexual well-being is a crucial concept in the working definition of sexual health: 'Sexual health is a state of physical, emotional, mental and social well-being in relation to sexuality' (WHO, 2010, p. 3). In other words, sexual well-being is more than simply the absence of problems, although its exact meaning is unclear. In the vast majority of studies, sexual well-being is defined as sexual satisfaction. Sexual pleasure or enjoyment is a slightly different concept, and it usually does not appear in definitions. Population studies in the Netherlands have indicated that satisfaction and enjoyment are two different things. For example, women are less likely than men to say that they enjoy sex, although men and women are equally satisfied with their sex lives (De Graaf, 2012). We have therefore included both aspects of well-being – satisfaction and pleasure – in our current research.

People can experience various problems related to sex. This chapter addresses problems relating to sexual function and pain: problems with arousal and desire, orgasm problems, erectile problems, lubrication problems, premature orgasm and genito-pelvic pain/penetration problems. We follow the DSM-5 as closely as possible in this regard, although we draw fewer distinctions between men and women than is the case in the DSM-5. For example, in the DSM-5, orgasm problems are identified as such only for women. For men, the manual refers to 'delayed ejaculation'. Whenever possible, we posed the same questions to men and women, and use the same terms in mentioning problems for both sexes. We do follow the DSM-5 in referring to something as a sexual problem only if it causes distress. Whenever possible, we also try to follow the DSM-5 frequency criterion, which requires a sexual problem to occur at least 75% of the time. According to this definition, an individual who occasionally does not have an orgasm thus does not have a sexual problem.

In this chapter, we also address hyperactive sexual desire. This problem differs from those previously mentioned, as it is not included in the DSM-5. The proposal to include 'hyper-sexual disorder' in the DSM-5 was not carried through, but the criteria for the condition included the following: time spent on (thinking about) sex interferes with other obligations, inability to stop the behaviour, continuation in spite of negative consequences for self or others, using sex as a reaction to negative mood or stress.

There is evidence that lesbian women, gay men, and bisexual men and women (LGB people) differ from heterosexual people with regard to sexual behaviour, well-being and sexual problems. According to the study *Sexual Health in the Netherlands* (Rutgers WPF, 2013), gay and bisexual men

engage in masturbation or sex with a partner more often than heterosexual men do. The same applies to bisexual women, as compared to heterosexual women. Gay and bisexual men experience less sexual pleasure, and bisexual men are less satisfied with their sex lives than heterosexual men are. Lesbian women are also less satisfied than bisexual women are. Based on a review of large-scale population studies, it has been estimated that 40%–45% of all women and 20%–30% of all men have at least one sexual problem (Lewis et al., 2010). As reported in *Sexual Health in the Netherlands*, 19% of men and 27% of women reported having at least one sexual problem (Kedde, 2012). In this study, sexual problems were most common for bisexual men and women (Rutgers WPF, 2013). Results from an American study indicate that erectile problems are more common for gay men, while premature orgasm occurs relatively rarely in gay men (Bancroft, Carnes, Janssen, Goodrich & Scott Long, 2005). The insights described here are based on either the small group of LGB people included in *Sexual Health in the Netherlands* or on convenience samples in international studies. In this chapter, we therefore describe the state of sexual behaviour, sexual well-being and the sexual problems of lesbian women, gay men, bisexual men and bisexual women in the Netherlands. At the end of the chapter these insights are elaborated into recommendations for prevention and care.

The realisation of these recommendations will require insight into factors associated with sexual well-being and sexual problems, in addition to the aforementioned description of these outcomes. First, sexual behaviour, sexual well-being and sexual problems are interrelated. For example, people who have not had sex in the past six months are less satisfied with their sex lives than are those who have had sex during that period (De Graaf, 2012). In addition, having a sexual problem is associated moderately to strongly with reduced sexual well-being (Chang, Klein & Gorzalka, 2013; Dunn, Croft, & Hackett, 2000). Sexual satisfaction is therefore often included in tools for measuring sexual problems (Corona, Jannini & Maggi, 2006). However, some people whose levels of desire, arousal and orgasm are lower than expected or absent are nevertheless satisfied with their sex lives (e.g. with regard to the level of emotional intimacy). Moreover, satisfaction is often more strongly related to any sexual problems the partner might have than it is to an individual's own problems (Dunn, Croft, & Hackett, 2000; Fugl-Meyer & Fugl-Meyer, 2002). We do not know the causal direction of these associations.

Sexual well-being and problems are affected by other factors as well. These factors are often specific to particular sexual problems, and they can be either physical or psycho-social. Physical factors such as testosterone levels, neurological defects or damage, illness and medication usage are not considered in this study, as we have limited our investigation to the psycho-social aspects of sexuality. Research conducted within the general population has shown that problems involving aspects such as sexual desire and arousal are associated with negative evaluations of sexual stimuli or situations, being easily distracted, psycho-social well-being and relationship problems. Orgasm problems in women can also be related to anxiety or being easily distracted. Erectile problems are related primarily to age, although they can also be affected by factors such as fear of failure and depression. Premature orgasm is slightly more common in people with anxiety disorders (Van Lankveld, Ter Kuile & Leusink, 2010).

Some factors that are associated with the occurrence of sexual problems appear to be more common for lesbian and bisexual women or for gay and bisexual men. For example, it is known that gay men experience more performance anxiety or performance pressure than heterosexual men do (Bancroft et al., 2005). We also know that certain anxiety and mood disorders are more common amongst gay and bisexual men (Sandfort, De Graaf, Bijl & Schnabel, 2001). In previous studies, this has also been advanced as an explanation for differences in sexual desire or erectile problems between heterosexual and gay men (Bancroft, Janssen, Strong & Vukadinovic, 2003). Connections are frequently drawn between minority stress and the increased prevalence of anxiety and mood disorders amongst lesbian women, gay men, bisexual men and bisexual women (Meyer, 2003). Through its effect on psycho-social well-being, minority stress could therefore also be associated with sexual well-being and sexual problems.

3.2 Methods

Participants
The results reported in this chapter refer to the LGB panel sample, consisting of 333 lesbian women, 815 gay men, 1141 bisexual women and 765 bisexual men. These are men and women who had no transgender feelings or transgender history. Lesbian, homosexual and bisexual trans people completed a questionnaire specifically designed for that target group (see Chapter 1). The recruitment procedure and composition of the sample are described in Chapter 1.

Measurements
The complete questionnaire contains questions on demographic background variables and various aspects of sexual health. The analyses reported in this chapter address the following concepts:

Sexual behaviour. Participants were asked whether they had ever had sex with a partner (lifetime experience of sex). In this context, sex is defined broadly: 'Sex can refer to a wide variety of practices, including stroking (e.g. breasts, penis or vagina), oral sex, anal sex or vaginal sex'. People with steady partners were further asked whether they had engaged in sex with their steady partners and/or others in the past six months. People without steady partners were asked whether they had engaged in sex with anyone in the past six months. People with lifetime experience of sex were asked to indicate how often they had had sex recently, using a seven-point scale (1=less than once a month, 7=several times a day). An open question was used to determine the total number of people with whom respondents had engaged in sex during the past six months. People with casual partners were asked about the locations (including the internet) where they had met these casual partners. These respondents were also asked whether they had paid for sex (with money or other means) and whether they had received money or other means for sex.

Sexual well-being. Sexual well-being was investigated using two scales and three separate questions. The 'sexual satisfaction' scale consists of five items, and the 'positive feelings about sex' scale of eight, six of which form a reliable scale. The items and psychometric characteristics of these scales are provided in Appendix 3. All respondents were asked whether they would like to have sex more or less frequently (1=much more frequently, 5=much less frequently). People who had not engaged in sex in the past six months were asked how they felt about this (1=very positive, 5=very negative). People with steady partners were asked how satisfied they were with their current relationships (1=very satisfied, 5=very unsatisfied).

Sexual problems. Sexual problems were measured with questions based on existing questionnaires: the Sexual Dysfunction Questionnaire (VSD; Vroege, 2003), the International Index of Erectile Function (IIEF; Rosen, Riley, Wagner, Osterloh, Kirkpatrick, & Mishra, 1997), the Female Sexual Function Index (FSFI; Rosen, Brown, Heiman, Leiblum, Meston, Shabsigh, Ferguson, & D'Agostino, 2000) and the Sexual Function Questionnaire (SFQ; Quirk, Heiman, Rosen, Laan, Smith, & Boolell, 2002). These tools were adapted to make them suitable for a population study, as well as for gay and bisexual men and for lesbian and bisexual women. We also tried to formulate the questions as concretely as possible: for example, instead of the question 'Are you sometimes not able to maintain your erection as long as you would like?' we asked 'How often are you able to maintain your erection until the sexual activity is completed?'. The adjustments were made in consultation with a number of experts.

Participants were asked about the frequency and intensity of their sexual desires, the intensity of feelings of arousal, the extent to which and time during which the penis is erect or the vagina is lubricated, the frequency with which they reach orgasm within one minute, the frequency and ease or difficulty with which they achieve orgasm during sex, the frequency with which they experience pain during or after sex and whether they fear this pain. For each of the aspects the table indicates the number of people who often or always had these impediments (in order to meet the DSM-5 criterion that a problem must occur at least 75% of the times that a person is sexually active). The tables also indicate the number of people who consider this to be a problem. Consistent with the DSM-5, problems with arousal and desire are also presented in combination. Hyperactive sexual desire was

examined using a scale consisting of seven items (1=completely agree, 5=completely disagree). The psychometric characteristics of this scale are provided in Appendix 3.

3.3 Results

Behaviour

Tables 3.1.a and 3.1.b present information on the sexual behaviour of gay and bisexual men and of lesbian and bisexual women, respectively. Almost all of the respondents had lifetime experience of sex, although one fourth had not had sex in the past six months. For lesbian women, this was more than one third. Half of the respondents with lifetime experience of sex reported that they had recently had sex more than once a month. More men than women reported having more than one sex partner in the past six months (one in three men, as compared to one in 10 women). Bisexual women reported having sex more frequently and with more different partners than was the case for lesbian women.

Table 3.1.a. Sexual behaviour of gay and bisexual men (%)

	Gay	Bisexual	Total
	N=815	**N=763**	**N=1577**
Lifetime experience of sex	96.6	92.9▽	94.8
Frequency of masturbation			
Never	3.4	2.8	3.1
Once a month or less	7.7	9.7	8.7
Once a week or less	22.0	23.0	22.5
More than once a week	66.9	64.5	65.7
Men with lifetime experience of sex	**N=787**	**N=709**	**N=1496**
Frequency of sex*			
Never	17.8	23.7▲	20.6
Once a month or less	21.0	25.4▲	23.0
Once a week or less	34.7	32.7	33.7
More than once a week	26.6	18.3▼	22.6
More than one sex partner*	34.8	30.5	32.7
Meeting sex partners online*	22.9	16.9▽	20.0
Sex under the influence of alcohol*	41.6	37.0	39.4
Sex under the influence of drugs*	22.5	12.0▼	17.5
Paid money for sex*	3.9	5.7	4.7
Received money for sex*	1.2	1.1	1.2

* In the past six months.

▲▼ = higher/lower than amongst gay men, p<.05, Cramer's V>.10.

△▽ = higher/lower than amongst gay men, p<.05, Cramer's V<.10.

Women almost never meet sex partners online. Amongst men, this is quite common. One in five men, particularly gay men, reported having had sex in the past six months with someone they had met online. Paid sex is rare, in contrast to sex under the influence of alcohol or drugs. More than 22% of the gay men and 12% of the bisexual men had used drugs before or during sex. With regard to women, drug usage occurred primarily amongst bisexual women. One out of every 10 bisexual women reported having had sex under the influence of drugs in the past year.

Table 3.1.b. Sexual behaviour of lesbian and bisexual women (%)

	Lesbian	Bisexual	Total
	N=333	**N=1141**	**N=1474**
Lifetime experience of sex*	93.4	97.6△	96.7
Frequency of masturbation*			
Never	21.0	8.8▼	11.4
Once a month or less	39.4	33.0▼	34.4
Once a week or less	28.7	38.2▲	36.2
More than once a week	11.0	20.0▲	18.1
Women with lifetime experience of sex	**N=311**	**N=1114**	**N=1425**
Frequency of sex*			
Never	37.3	26.5▼	28.8
Once a month or less	27.7	23.6	24.5
Once a week or less	24.8	29.2	28.2
More than once a week	10.3	20.7▲	18.5
More than one sex partner*	2.6	12.5▲	10.4
Meeting sex partners online*	0.7	2.6	2.2
Sex under the influence of alcohol*	23.1	43.0▲	38.6
Sex under the influence of drugs*	2.3	10.4▲	8.6
Paid money for sex*	0.0	0.0	0.0
Received money for sex*	0.0	0.5	0.4

* In the past six months.
▲▼ = higher/lower than amongst lesbian women, p<.05, Cramer's V>.10.
△▽ = higher/lower than amongst lesbian women, p<.05, Cramer's V<.10.

Sexual well-being

Table 3.2 provides information on the extent to which gay and bisexual men and lesbian and bisexual women are satisfied with various aspects of their sex lives. It also contains information on positive and negative feelings that they experience relating to sexuality.

Table 3.2. Sexual satisfaction and well-being

	Men		Women	
	Gay	**Bisexual**	**Lesbian**	**Bisexual**
	N=815	**N=763**	**N=333**	**N=1141**
Sexual satisfaction (% satisfied)				
With feelings of sexual desire	79.0	74.7▽	59.8	61.3
With feelings of sexual arousal	77.2	76.2	64.8	65.5
With emotional attachment	68.1	63.1▽	64.6	63.2
With the way of having sex	68.3	57.1▼	62.2	59.4
With sex life in general	57.2	47.8▽	48.2	46.0
Average on a five-point scale	3.8	3.6▼	3.7	3.6
Everyone with lifetime experience of sex	**N=787**	**N=709**	**N=311**	**N=1114**
Positive sexual feelings (% agree)				
I really enjoy having sex	90.6	89.8	73.6	74.6
Sex makes me feel relaxed	85.4	85.2	75.6	75.4
Performance anxiety during sex	14.1	15.9	11.9	16.6△
Body insecurity during sex	19.4	16.2	15.8	25.0△
Completely at ease during sex	65.9	68.1	61.7	52.9▽
Feelings of guilt*	6.6	16.6▲	4.2	7.6△
I enjoy watching porn*	63.8	63.9	16.7	31.4▲
Likes to explore sexuality	70.8	73.3	47.3	57.0△
Average on a five-point scale	3.9	3.9	3.7	3.7

▲▼ = higher/lower than amongst gay men/lesbian women, p<.05, Cramer's V>.10.
△▽ = higher/lower than amongst gay men/lesbian women, p<.05, Cramer's V<.10.
* These items were not included in the scale for positive sexual feelings.

On a scale from 1 to 5, the average score was about 4 for sexual well-being and slightly lower for sexual satisfaction. The vast majority of men and women enjoy sex, with men enjoying it somewhat more than women. Nevertheless, 12%–17% feel performance anxiety during sex. About one out of every five LGB people reported feeling insecure about their own body during sex. Gay men are more satisfied with their sex lives than bisexual men are. We observed no such difference with regard to positive sexual feelings. Feelings of guilt were reported primarily by bisexual men. Men enjoy watching pornography more than women do. Compared to lesbian women, bisexual women reported more feelings of insecurity, although they are more likely to feel at ease, to enjoy watching pornography and to state that they like exploring their sexuality.

Table 3.3. Satisfaction with frequency of sex and relationship (%)

	Men		Women	
	Gay	**Bisexual**	**Lesbian**	**Bisexual**
Had sex in the past six months	**N=647**	**N=543**	**N=196**	**N=820**
Desired frequency (%)				
More often/much more often	60.1	65.6	46.4	54.9
Fine as it is	39.7	33.9▽	52.6	42.0
Less often/much less often	0.2	0.6	1.0	3.1
Lifetime experience of sex, but not in the past six months[5]	**N=136**	**N=165**	**N=114**	**N=295**
Perception of not having sex in the past six months (%)				
Good/very good	5.9	6.1	17.5	13.6
Sometimes positive/sometimes regrettable	34.6	29.1	39.5	42.0
Regrettable/very regrettable	59.6	64.8	43.0	44.4
Participants with steady partners	**N=475**	**N=491**	**N=226**	**N=770**
Relationship satisfaction (%)				
Satisfied/very satisfied	90.8	82.3▼	96.9	84.3▼
Not satisfied/not dissatisfied	7.1	13.3▲	2.2	12.3▲
Dissatisfied/very dissatisfied	2.1	4.3	0.9	3.4▲

▲▼ = higher/lower than amongst gay men/lesbian women, p<.05, Cramer's V>.10.
▽ = lower than amongst gay men, p<.05, Cramer's V<.10.

Of the gay and bisexual men and the lesbian and bisexual women who reported having had sex in the past six months, a considerable group was not (completely) satisfied with their frequency of sex in the recent period (see Table 3.3). Almost two thirds of the men and nearly half of the women who had not had sex in the past six months considered this regrettable. Amongst respondents with steady relationships, satisfaction with these relationships was relatively high, although bisexual people were somewhat less satisfied than gay men and lesbian women were.

Prevalence of sexual problems

Tables 3.4a and 3.4b indicate how many gay and bisexual men and how many lesbian and bisexual women reported experiencing sexual problems. In this regard, we distinguish between impediments that occur structurally and those that occur structurally and are actually regarded as problematic.

The tables also reveal a clear difference between these two aspects. For example, 14% of the gay men reported that their erections were never or only sometimes hard enough to penetrate when they would like and/or that they were able to maintain their erection until they consider the sexual activity complete. Nevertheless, a majority of these men does not experience this as problematic.

[5] Unintentionally, the question about how respondents feel about not having sex was not posed to respondents who have no lifetime experience of sex. This group comprises 70 people.

Table 3.4.a. Sexual problems amongst gay and bisexual men (%)

	Occurs		Occurs and is considered problematic	
	Gay	**Bisexual**	**Gay**	**Bisexual**
	N=815	**N=765**	**N=815**	**N=765**
Hyperactive sexual desire	0.5	1.5△		
Never (hardly ever)/very weak feelings of desire	1.6	1.9	0.5	0.5*
Men who had sex in the past six months	**N=653**	**N=547**	**N=653**	**N=547**
Weak/very weak feelings of arousal	1.7	2.0	0.9	1.7
Little desire or arousal[a]	2.6	2.6	1.4	2.3
Never or only sometimes an erection (for sufficient	14.4	16.7	5.5	9.4△
Often/always reaches orgasm within one minute	2.9	2.9	0.9	1.8
Never/hardly ever achieves orgasm, or difficulty achieving	7.8	9.1	3.0	4.4
Pain (or fear of pain) during/after sex	4.5	4.2	-	-
At least one sexual problem	-	-	11.6	16.2△

* Number too low to test differences.

[a] Never/hardly ever or weak/very weak feelings of desire and/or arousal.

△ Higher than amongst gay men, p<.05, Cramer's V<.10.

For both gay and bisexual men, erectile problems are the most common (occurring in 5.5% of gay men and nearly 9.4% of bisexual men), followed by orgasm problems (difficult or impossible to achieve orgasm and regarding this as problematic) and pain problems (pain during or after sex, or fear of pain). The results indicate few differences between gay and bisexual men with regard to sexual problems. Although bisexual men were slightly more likely to report erectile problems or hyperactive sexual desire, the difference is marginal.

Table 3.4.b. Sexual problems amongst lesbian and bisexual women (%)

	Occurs		Occurs and is considered problematic	
	Lesbian	**Bisexual**	**Lesbian**	**Bisexual**
	N=333	**N=1141**	**N=333**	**N=1141**
Hyperactive sexual desire	0.0	0.5		
Rare or weak desire	21.0	10.2▼	2.8	2.6
Women who had sex in the past six months	**N=195**	**N=820**	**N=195**	**N=820**
Weak/very weak feelings of arousal	2.0	6.0△	1.5	3.6
Little desire or arousal[a]	15.3	9.2▽	5.1	6.0
Vagina never/sometimes moist	16.4	14.5	4.2	5.2
Often/always orgasm within one minute	1.4	3.3	0.0	0.0*
Never/hardly ever achieves orgasm, or difficulty achieving	18.4	31.0▲	5.7	8.0
Pain (or fear of pain) during/after sex	3.3	10.8▲	-	-
Penetration never (or hardly ever) possible	15.2	5.9▼	0.5	1.2
At least one sexual problem	-	-	13.7	20.9△

* Number too small to test differences.

[a] Never/hardly ever or weak/very weak feelings of desire and/or arousal.

△▽ = Higher/lower than amongst lesbian women, p<.05, Cramer's V<.10.

▲▼ = Higher/lower than amongst lesbian women, p<.05, Cramer's V<.10.

Amongst lesbian and bisexual women, the most common problems had to do with arousal and desire, orgasm and pain, although lesbian and bisexual women differed in the extent to which these problems occur. For lesbian women, never achieving orgasm (or having difficulty achieving orgasm) – and regarding this as problematic – was most common (5.7%), followed by problems involving arousal and desire (5.1%) and pain problems (3.3%). Bisexual women were troubled most by pain (10.8%), followed by orgasm problems (8.0%) and lubrication problems (5.2%). Disregarding the extent to which the women actually regarded these situations as problematic, the results indicate differences between lesbian and bisexual women. For example, a relatively large share of lesbian women reported never/hardly ever having feelings of sexual desire, or having only weak/very weak feelings of sexual desire. Bisexual women were more likely than lesbian women were to report

never/hardly ever achieving orgasm during sex or having difficulty achieving orgasm. When the extent to which the women actually regarded these situations as problematic is taken into account, however, the differences between lesbian and bisexual women virtually disappear.

In the past 12 months, 110 gay and bisexual men and lesbian and bisexual women sought professional help for a sexual problem: 3.0% of the gay men, 4.6% of the bisexual men, 2.4% of the lesbian women and 3.7% of the bisexual women. They were most likely to seek assistance from general practitioners, medical specialists (e.g. gynaecologists or urologists) or from independent psychologists, psychiatrists or psychotherapists. On average, the assistance provided was rated as more than adequate, with men assigning an average score of 7.6 and women assigning an average score of 7.2. Nearly all respondents (95% of the men and 86% of the women) reported that they had been treated respectfully. A smaller share (around three quarters of both men and women) regarded the care provider as gay-friendly.

Table 3.5. Evaluation of most recent care provider for assistance with sexual problems (% agree or completely agree)

	Gay and bisexual men	Lesbian and bisexual women
	N=60	N=50
The care provider was very helpful	72.6	52.0
The care provider was knowledgeable	77.0	71.4
I could trust the care provider	91.9	84.0
The care provider treated me with respect	95.2	86.0
The care provider was gay-friendly	74.4	75.9
Rating (average)	7.6	7.2

Factors associated with positive sexual feelings and sexual problems

The factors associated with positive sexual feelings are described using bivariate and multivariate linear regression analyses. Bivariate analyses identify the groups within which feelings about sex were more positive. In multivariate analyses, every association is controlled for other factors, making it possible to conclude which of these contributes most to how positive participants feel about sex. Acting upon these factors in the practice of service provision and care is likely to contribute the most to improving sexual well-being.

Table 3.6. Factors associated with positive sexual feelings (β)

	Gay and bisexual men		Lesbian and bisexual women	
	Bivariate	Multivariate	Bivariate	Multivariate
Age	.08***	.05**	-.04	.12***
Steady partner	.20***	.02	.16***	-.19**
Health	.18***	.04	.14***	-.05
Psychological health	.27***	-.02	.26***	.06
Self-esteem	.45***	.36***	.41***	.36***
Frequency of sex	.38***	.26***	.39***	.40***
Sex under the influence of alcohol	.09***	-.05*	.19***	.00
Sex under the influence of drugs	.13***	.00	.09***	.01
Sexual victimisation before the age of 16	-.07***	-.02	-.02	.03
Homonegative experiences	-.10***	-.06***	-.03	.00
Visibility of sexual orientation	-.14***	-.05**	-.26***	-.18***
Sensation seeking	.27***	.22***	.31***	.28***

* = p<.05; ** = p<.01; *** = p<.001.

Table 3.6 indicates the factors associated with positive sexual feelings. For men, every factor that we investigated was associated with positive sexual feelings. For women, age, sexual aggression before the age of 16 and experiences with homonegativity were not associated with positive sexual feelings. After controlling for the other factors in a multivariate analysis, self-esteem, frequency of sex and sexual sensation seeking still play a role for both men and women. Age plays a role for

women as well, with older women's feelings about sex being more positive. In addition, the visibility of sexual orientation is associated with less positive feelings about sex in women.

Factors associated with having a sexual problem are described according to the results of bivariate and multivariate logistic regression analyses. The odds ratios (OR) and confidence intervals (95% CI) are displayed in Tables 3.7.a and 3.7.b. Odds ratios show how much greater the likelihood of having a sexual problem is for participants from particular groups (e.g. people with a steady partner) or for those scoring one point higher on a given scale (e.g. the psychological health scale). For example, gay and bisexual men were 0.51 times more likely (i.e. about two times less likely) to have a sexual problem if they scored one point higher on the psychological health scale.

Table 3.7.a. Factors associated with having a sexual problem amongst gay and bisexual men (N=1202)

	Bivariate		Multivariate	
	OR	95% CI	OR	95% CI
Age	1.02***	1.01-1.03	1.02***	1.01-1.04
Steady partner	0.76	0.54-1.08	0.81	0.56-1.18
Health	0.54***	0.43-0.66	0.73*	0.57-0.93
Psychological health	0.51***	0.41-0.62	0.62**	0.46-0.82
Self-esteem	0.55***	0.43-0.71	0.78	0.57-1.07
Sex under the influence of alcohol	0.94	0.68-1.30	0.98	0.69-1.40
Sex under the influence of drugs	1.40	0.97-2.03	1.42	0.94-2.14
Sexual victimisation before the age of 16	1.98*	1.09-3.57	1.17	0.61-2.23
Homonegative experiences	1.03	0.70-1.53	0.98	0.64-1.49
Sensation seeking	1.08	0.84-1.40	0.91	0.69-1.21

* = p<.05; ** = p<.01; *** = p<.001.

For both men and women, age is associated with having a sexual problem, although in opposite directions. For men, the likelihood of sexual problems increases with age, while it decreases for women. In addition to age, other factors that play an important role are health, psychological health and self-esteem, although some of these associations disappear in the multivariate analyses. For example, this is the case for the associations with self-esteem or with having been sexually abused as a child for men and the association with health for women. These bivariate associations can thus be explained in part by the other variables in the analysis, such as psychological health. People who have been abused as children are thus at risk for sexual problems, but it would probably be more effective to focus on health (particularly psychological health) in order to influence sexual problems. For women, sexual sensation seeking correlates with sexual problems in a positive way, with women with higher scores on sexual sensation seeking being less likely to report having sexual problems.

Table 3.7.b. Factors associated with having a sexual problem amongst lesbian and bisexual women (N=1067)

	Bivariate		Multivariate	
	OR	95% CI	OR	95% CI
Age	0.97***	0.96-0.98	0.97***	0.96-0.98
Steady partner	0.75	0.50-1.11	0.88	0.57-1.35
Health	0.78**	0.65-0.94	0.91	0.73-1.14
Psychological health	0.58***	0.48-0.70	0.71*	0.55-0.93
Self-esteem	0.51***	0.41-0.63	0.72*	0.54-0.96
Sex under the influence of alcohol	0.96	0.70-1.30	0.91	0.64-1.28
Sex under the influence of drugs	0.91	0.56-1.47	0.74	0.43-1.25
Sexual victimisation before the age of 16	1.44	0.98-2.13	1.23	0.81-1.87
Homonegative experiences	0.81	0.46-1.42	0.58	0.32-1.08
Excitement-seeking	0.78*	0.62-0.98	0.61***	0.47-0.80

* = p<.05; ** = p<.01; *** = p<.001.

3.4 Summary and conclusions

About one fourth of the entire group of lesbian women, gay men, bisexual men and bisexual women did not have sex in the past six months. This corresponds to the national population of heterosexual, gay and bisexual men and women (De Graaf, 2012). Slightly more gay men had engaged in sex in the past six months, while fewer lesbian women had done so. People who do not have sex or who have sex less often than they would like tend to receive less attention in terms of policy, prevention and care than do people who score above average for frequency of sex. This is because the latter group is at the greatest risk of experiencing the negative consequences of sex. Many gay and bisexual men and many lesbian and bisexual women would like to have sex more often. Moreover, two thirds of the gay and bisexual men who had not had sex in the past six months considered this regrettable. The same applies to just over two fifths of the women. Service and care practitioners would do well to determine whether people are sexually active, their reasons for not being sexually active and how they feel about this. Clients could be offered support in finding partners, in resuming sexual activity with their current partners or in accepting their current sex lives (or the absence thereof).

About one in every three gay and bisexual men and one in every ten bisexual women had more than one sex partner in the past six months. This is slightly more than in the Dutch population as a whole (De Graaf, 2012). Meeting sex partners online, paid sex and sex under the influence of substances is nearly non-existent amongst lesbian women. Gay and bisexual men are relatively more likely to have sex with people they have met online or to have sex under the influence of alcohol and drugs. The latter applies to bisexual women as well. Meeting sex partners online and sex under the influence are associated with certain risks. In most cases, the partners that people meet online are casual partners whom they have not known very long, which means that with these partners there is a greater risk of contracting STDs and HIV and of victimisation. In cases of sex under the influence, it is more difficult to translate the intention to use condoms into actual behaviour or to retain control over the sexual contact. It thus also increases the risk of STDs and HIV and of victimisation. The risks that these types of sex pose for the target group therefore call for more attention. This could be realised within the context of services involving STDs, HIV and victimisation, as well as in connection with the provision of information to these target groups.

Most of the lesbian women, gay men, and bisexual men and women are satisfied with their sex lives and experience their sexuality in a positive way. Nevertheless, all groups experience considerable insecurity regarding their appearance, as well as their performance. With regard to sexual problems, erectile problems are the most common for men (slightly more so for bisexual men than for gay men), while women are more likely to experience problems with arousal and desire, orgasm and, (particularly for bisexual women) pain. It is difficult to determine whether these problems are more or less common in this group than they are in the national population, as previous population studies used different tools. This limits comparability. In any case, it is clear that many people have sexual problems: one in eight gay men, one in six bisexual men, one in seven lesbian women and one in five bisexual women. It is therefore important for care providers to pay attention to sexual problems and insecurities in the area of sexuality. To this end, practitioners should be capable of talking about sexuality with the target group in a professional manner. Patients should feel free to put forward their questions or problems. Professionals can then provide patients with information, reassure them or help them to search for the causes of their problems and find solutions. For those who have not (yet) found their way to care providers for sexual problems, sufficient quality information should be available, and the threshold for requesting services should be as low as possible.

Men and women differ very little with regard to factors associated with sexual well-being or with having a sexual problem. A good sense of self-esteem, greater frequency of sex and higher scores on sexual sensation seeking are the greatest contributors to positive sexual feelings. Sexual problems are most prominently affected by age (older for men, younger for women), health, psychological health and self-esteem. The association between childhood sexual abuse and sexual problems in men disappears when controlling for the aforementioned factors. This could mean that the abuse led to a reduction in psychological health, thereby increasing the likelihood of having a sexual problem. The cross-sectional nature of this study makes it impossible to establish the direction of the associations that have been identified. Reduced psychological health could obviously lead to a less

positive experience of sexuality and to more sexual problems, although it is equally possible that this effect works in the opposite direction. As long as the direction of these associations remains undetermined, an integrated approach would appear to be best. For patients who receive assistance with problems involving psychological health, it is important that care providers ask about and, where relevant, treat any sexual problems. For patients seeking help for sexual problems, it is important to consider the possibility of underlying psychological problems.

4 Sexual behaviour, well-being and problems of trans people

Tamar Doorduin, Hanneke de Graaf and Charles Picavet

4.1 Introduction

Sexual behaviour, sexual well-being and sexual problems are important aspects of sexual health, and this applies equally to trans people. Evidence indicates that trans people differ from non-trans people with regard to these aspects. Results from a Dutch population study indicate that people who have transgender feelings have sex less frequently, report less sexual satisfaction and have more frequent sexual problems than do people who do not have transgender feelings (Rutgers WPF, 2013). This is not completely surprising, as the experience of being transgender is closely related to identity and body image. For some trans people, it also involves medical interventions relating to the endocrine system and sexual characteristics. These aspects are crucial for sexual behaviour, well-being and problems. Previous studies have generated various indications that the experience of being transgender can affect sexual behaviour, well-being and problems in several ways.
Research on the sexual behaviour, well-being and problems of trans people has thus far focused primarily on the impact of sex reassignment treatment. Sexual function and sexual satisfaction after surgery play an important role in satisfaction with both the surgery and the quality of life after the surgery (De Cuypere et al., 2005; Lawrence, 2003). Expectations with regard to sexual function after surgery can also play a role in decisions on whether to have particular surgeries or not (Doorduin & Van Berlo, 2012; Klein & Gorzalka, 2009).

Results from the most recent Dutch study on sexual satisfaction after sex reassignment treatment indicate that the majority of all post-operative6 trans men and trans women in committed relationships are satisfied with their sex lives (Smith, Van Goozen, Kuiper & Cohen-Kettenis, 2005b). Recent Flemish research has yielded different results (De Cuypere et al., 2005): while three fourths of the trans men in this study reported being satisfied with their sex lives and being more sexually satisfied than they had been before their sex reassignment treatment(s), only 48% of the trans women reported being sexually satisfied. Three quarters of the trans women did note that they were more sexually satisfied than they had been before their vaginoplasty. This means that some of the trans women were not satisfied with their sex lives after their vaginoplasty, but more satisfied than they had been before.

Results from studies on sexual function and sexual problems vary widely (Klein & Gorzalka, 2009), but several new studies published in recent years have helped to fill some of the gaps in the existing knowledge (Wierckx et al., 2011, Wierckx et al., 2013).

Studies on sexual desire amongst MtF trans people who have completed sex reassignment treatment contradict each other sharply. Approximately equal evidence suggests that sexual desire increases, decreases or remains stable following sex reassignment treatment (Klein & Gorzalka, 2009). A recent Flemish study of 214 trans women indicated that 63% reported a decrease in sexual desire after the start of hormone treatment, and that 73% of these women seldom or never experienced sexual desire (Wierckx et al., 2013). It is known that some MtF trans people with a neovagina have a small amount of lubrication and that physical arousal can be manifested in the contraction of the vagina, as is the case with cisgender women. The percentage of MtF trans people who are able to experience orgasm after surgery varies strongly across studies, ranging from 27% to 100% of the MtF trans people in 19 samples studied between 1986 and 2005. Results from the two most recent studies with the largest samples indicate that respectively 85% and 82% of all participants were able to achieve orgasm (Klein & Gorzalka, 2009).
Less is known about FtM trans people than about MtF people. However, a number of recent studies have been published on trans men who have completed sex reassignment treatment, in which

[6] 'Post-operative' refers to individuals who have undergone penis or vagina construction. 'Pre-operative' refers to those who have applied for and desire to have sex reassignment treatment, but who have not yet undergone the procedures.

participants were asked about sexual desire, sexual behaviour, sexual arousal and/or the ability to achieve orgasm. Results from retrospective research on the effects of hormone treatment indicate that, for the majority of trans men (71%), sexual desire had increased after the start of hormone treatment (Wierckx et al., 2013). A prospective study reports that, 12 months after starting hormone treatment, trans men reported significantly more frequent masturbation, desire for sex, sexual fantasies and arousal sensations (Constantino et al., 2013). After sex reassignment treatment,[7] 23% of the trans men reported being easily aroused more than half of the time, 48% about half the time and 28% less than half of the time. The results also indicate that 65% of the trans men were nearly always able to achieve orgasm through masturbation following a penis construction (metaidoioplasty or phalloplasty) (Wierckx et al., 2011).

Sexual well-being and problems are relevant not only for trans people who have completed their sex reassignment treatment, but also for those who have just begun or are in the midst of their treatment. In a recent qualitative study, however, trans people report that feelings of genderdysphoria – the sense that a person's body or gender role does not 'fit' with how the person feels - can make it difficult to enjoy sex. They also associated such feelings with sexual problems, also with regard to subjective arousal or diminished sexual desire (Doorduin & Van Berlo, 2012).
Little is known about the sexual behaviour, well-being and problems of trans people who do not wish to undergo treatment. To our knowledge, the only Dutch study is one on crossdressing in the Netherlands and Flanders (Vennix, 1997). The results of this study indicate that people who identify themselves as crossdresser[8] and who have a steady partner rate their sex lives significantly lower (6.6) than do members of the general population (7.3). They also have sex less frequently (Vennix, 1997).

In chapter 3, it is already described which factors are associated with sexual behaviour, sexual well-being and sexual problems in the adult population in the Netherlands. In addition, previous research has pointed out a number of trans-specific factors associated with sexual behaviour, sexual well-being and sexual problems. First, birth-assigned sex is related to sexual satisfaction: trans men are more sexually satisfied than trans women are (De Cuypere et al., 2005). There are several indications that dissatisfaction with one's body or appearance and feelings of gender dysphoria can make it more difficult to enjoy sex or to be sexually satisfied (Doorduin & Van Berlo, 2012; Vennix, 1997; Weyers et al., 2009).

There are also strong indications that hormone treatment increases sexual desire and sexual arousal in FtM trans people, while decreasing these aspects for MtF trans people (Constantino et al., 2013; Klein & Gorzalka, 2009; Wierckx et al., 2013). Insights into the role of the partner emerged from the study into crossdressers, which found that crossdressers' sex frequency was lower for those whose partners were more troubled by their cross-dressing, as well as for those crossdressers who felt that they were unable to express their cross-dressing (Vennix, 1997). Finally, after having sex reassignment treatment, trans people are often more sexually satisfied than they were before treatment (De Cuypere et al., 2005; Doorduin & Van Berlo, 2012). This increase in satisfaction might be related to a decrease in or the elimination of feelings of gender dysphoria.

At the same time, qualitative research has revealed that trans people are not always satisfied with the sexual functioning of their post-operative genitals. Reasons include reduced intensity of certain sensations, the need to adjust to their new body parts and complications occurring during surgery (Doorduin & Van Berlo, 2012). Results from quantitative studies indicate that sexual satisfaction after surgery is strongly related to the extent to which individuals are satisfied with the physical results of the surgery (De Cuypere et al., 2005, Rehman, Lazer, Benet, Schaefer & Melman, 1999).

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[7] Nearly all participants in this study had undergone phalloplasty, and a few had undergone metoidioplasty.

[8] In 1997, the word 'transgender' was not in common usage in the Netherlands. It is possible that some of the people who identified themselves as 'crossdresser' in 1997 would now identify themselves as 'transgender'.

The current study addresses aspects of sexual behaviour, sexual well-being and sexual problems amongst trans women, trans men and gender-variant people in all stages of transition. The study provides insight into the situations of those who do not wish to undergo treatment or who are in the midst of treatment, while also supplementing the existing knowledge concerning the situations of trans people who have completed a transition. In addition to a descriptive analysis, the study examines factors associated with sexual well-being and sexual problems. Factors that have been shown to play a role in qualitative studies are tested on a larger scale to determine whether they are demonstrably related to sexual problems and well-being.

4.2 Methods

Sample
This chapter reports results from a study of 576 trans people, consisting of 325 individuals in the male-to-female spectrum and 251 in the female-to-male spectrum.[9] Most were recruited through transgender organisations and other transgender-specific channels. A small number was recruited through a panel. A detailed description of the sample and recruitment methods is provided in Chapter 1.

Measurements
In chapter 3 it is described how the various outcome measures of sexual behaviour, sexual well-being and sexual problems were measured in the questionnaires for cisgender gay and bisexual men and women. These measures were adjusted in a number of ways to make them suitable for the trans population. For example, the questions on sexual problems take into account feelings of body dissatisfaction. In general population studies, it is often assumed that the inability to have an erection is experienced as problematic, while MtF trans people may instead experience having an erection as negative or unpleasant.

The same applies to FtM trans people with regard to vaginal lubrication. Several aspects specific to the experiences of trans people were added to the questions on sexual feelings, based on qualitative research (Doorduin & Van Berlo, 2012). These aspects include ‘fantasising during sex about a body that fits your identity’, ‘experiencing sex as enjoyable and unpleasant at the same time’ and ‘not wanting to be touched on the genitals during sex’. The operationalisation of the factors associated with sexual well-being and problems can be found in Appendix 3.

4.3 Results

Sexual behaviour
About half of the trans people with experience of sex reported that they had not done so in the past six months (see Tables 4.1a and 4.1b). This was particularly true of trans women. A relatively large share of the trans men (20%) had never had sex. Trans men and MtF gender variant people masturbated the most frequently, and trans women the least.

In both spectra the number of trans people paying for sex during the past six months amounted to about 3% of everyone with lifetime experience of sex.

[9] See Chapter 2 for additional information on the concepts.

Table 4.1.a. Sexual behaviour of MtF trans people (%)

	Trans woman	Gender variant person	Total
	N=183	**N=142**	**N=325**
Lifetime experience of sex	89.6	92.3	90.8
Frequency of masturbation			
Never	20.8	5.2▼	14.1
Once a month or less	29.2	10.4▼	21.1
Once a week or less	29.8	23.7	27.2
More than once a week	20.2	60.7▲	37.7
Participants with lifetime experience of sex	**N=164**	**N=131**	**N=295**
Sexual partners in the past six months			
0	58.3	40.7▼	50.6
1	25.6	27.1	26.3
More than 1	16.1	32.1▲	23.1
Frequency of sex in the past six months			
Never	58.0	40.7▼	50.3
Once a month or less	13.8	28.4▲	20.2
Once a week or less	18.2	18.4	18.3
More than once a week	9.9	12.8	11.2
Received money for sex	2.7	2.8	2.8

▲▼ = higher/lower than amongst trans women, p<.05 and Cramer's V>.10.

Table 4.1.b. Sexual behaviour of FtM trans people (%)

	Trans man	Gender variant person	Total
	N=148	**N=103**	**N=251**
Lifetime experience of sex	79.7	90.3▲	84.1
Frequency of masturbation			
Never	11.1	10.9	11.0
Once a month or less	13.9	25.7▲	18.8
Once a week or less	14.6	31.7▲	21.6
More than once a week	60.4	31.7▼	48.6
Participants with lifetime experience of sex	**N=118**	**N=93**	**N=211**
Sex partners in the past six months			
0	52.7	49.5	51.4
1	22.6	30.7	25.9
More than 1	24.7	19.8	22.7
Frequency of sex in the past six months			
Never	52.4	49.0	51.0
Once a month or less	17.0	24.5	20.1
Once a week or less	18.4	18.6	18.5
More than once a week	12.2	7.8	10.4
Received money for sex	1.4	1.9	2.8

▲▼ = higher/lower than amongst trans men, p<.05 and Cramer's V>.10.

Sexual well-being

Tables 4.2a and 4.2b present results on the importance that trans gender people attach to sex and how satisfied they are with how frequent they have sex. Sex was important for about half of the participants. Most would have liked to have sex more often. Of those having sex in the past six months, about two thirds reported that they would like to have sex more often. Half of those who had not had sex reported regretting it.

Table 4.2.a. Importance of sex and satisfaction with frequency of sex amongst MtF trans people (%)

	Trans woman	Gender variant person	Total
	N=183	**N=142**	**N=325**
Importance of sex			
Important/very important	45.4	56.3▲	50.2
Not important, not unimportant	27.9	31.0	29.2
Unimportant/very unimportant	26.8	12.7▼	20.6
Participants with experience of sex in the past six months	**N=76**	**N=84**	**N=160**
Desired frequency			
More often/much more often	53.9	70.2△	62.5
Fine as it is	44.7	28.6▽	36.3
Less often/much less often	1.3	1.2	1.3
Participants with lifetime experience of sex, but not in the past six months*	**N=86**	**N=46**	**N=133**
Evaluation of having had no sex in the past six months*			
Positive (or very positive)	20.7	10.9	17.3
Sometimes positive, sometimes regrettable	31.0	32.6	31.6
Regrettable (or very regrettable)	48.3	56.5	51.1

▲▼ = higher/lower than amongst trans women, p<.05 and Cramer's V>.10.
△▽ = higher/lower than amongst trans women, p<.05 and Cramer's V<.10.
*Unintentionally, this question was not posed to trans people who had never had sex.

Table 4.2.b. Importance of sex and satisfaction with frequency of sex amongst FtM trans people (%)

	Trans man	Gender variant person	Total
	N=148	**N=103**	**N=251**
Importance of sex			
Important/very important	55.4	44.7	51.0
Not important, not unimportant	28.4	29.1	28.7
Unimportant/very unimportant	16.2	26.2	20.3
Participants with experience of sex in the past six months	**N=70**	**N=52**	**N=122**
Desired frequency			
More often/much more often	65.7	53.8	60.7
Fine as it is	32.9	38.5	35.2
Less often/much less often	1.4	7.7	4.1
Participants with lifetime experience of sex, but not in the past six months*	**N=47**	**N=41**	**N=88**
Evaluation of having had no sex in the past six months*			
Positive (or very positive)	12.8	29.3	20.5
Sometimes positive, sometimes regrettable	31.9	31.7	31.8
Regrettable (or very regrettable)	55.3	39.0	47.7

* Unintentionally, this question was not posed to trans people who had never had sex.

As shown in Tables 4.3.a and 4.3.b, the average score on the five-point scale for sexual satisfaction was slightly higher than the midpoint. This indicates that, on average, the MtF trans people studied are more positive than negative about their sexual lives. At the same time, only one fourth (MtF trans people) to one third (FtM trans people) responded affirmatively to the question whether they were satisfied with their sex lives in general. A minority reported that they were satisfied with the manner in which they had sex. About half were satisfied with their level of sexual desire, sexual arousal and emotional attachment.

Table 4.3.a. Sexual satisfaction amongst MtF trans people (%)

	Trans woman	Gender variant person	Total
	N=183	N=142	N=325
With feelings of sexual desire	50.8	52.1	51.4
With feelings of sexual arousal	42.6	57.0▲	48.9
With emotional attachment	47.0	54.9	50.5
With the way of having sex	33.9	38.0	35.7
With their sex life in general	23.5	30.3	26.5
Average on a five-point scale	3.24	3.32	3.27

▲▼ = higher/lower than amongst trans women, p<.05 and Cramer's V>.10.

Table 4.3b. Sexual satisfaction amongst FtM trans people (%)

	Trans man	Gender variant person	Total
	N=148	N=103	N=251
With feelings of sexual desire	63.5	50.5▼	58.2
With feelings of sexual arousal	58.8	45.6▼	53.4
With emotional attachment	50.7	45.6	48.6
With the way of having sex	31.8	37.9	34.3
With their sex life in general	33.1	30.1	31.9
Average on a five-point scale	3.44	3.29	3.38

▲▼ = higher/lower than amongst trans men, p<.05 and Cramer's V>.10.

Tables 4.4.a and 4.4.b show the positive or negative sexual feelings of trans people. For all groups, the average score on the scale is slightly above the midpoint. The majority reported enjoying sex and feeling relaxed during sex. Between one and three of every ten participants reported not wanting to be touched near or on the genitals during sex. A minority reported that they found themselves attractive and completely at ease during sex. More than half reported fantasising during sex about having a body that fits their identity.

Table 4.4.a. Sexual feelings amongst MtF trans people (%)

	Trans woman	Gender variant person	Total
Participants with lifetime experience of sex	N=164	N=131	N=295
Greatly enjoying sex	56.1	72.1▲	63.5
Feeling relaxed	59.9	72.1	65.6
Performance insecurity	21.1	41.7▲	30.9
Body insecurity	48.3	40.6	44.7
Feeling completely at ease	36.4	51.5▲	43.6
Feelings of guilt about sexual thoughts and feelings	18.1	35.4▲	26.2
Finding themselves relatively attractive	37.0	43.5	40.0
Ambivalent feelings during sex	39.9	36.2	38.1
Fantasising about a fitting body*	59.0	59.2	59.1
Difficulty with being honest about sexual feelings	26.5	52.3▲	38.2
Little control over what happens	11.8	16.8	14.2
Immediately indicating if something is not pleasant	67.4	64.5	66.0
Difficulty with taking the initiative	41.1	38.3	39.8
Indicating what I like	72.5	68.9	70.8
Doing things that I find unpleasant*	12.4	9.7	11.1
Asking the other what he/she likes*	75.7	71.8	73.8
Not wanting to be touched on the chest/breasts	2.8	5.9	4.2
Not wanting to be touched on the genitals	30.9	10.2▼	21.3
Focusing primarily on sexual partner	55.7	53.6	54.7
Average on a five-point scale	3.31	3.35	3.33

▲▼ = higher/lower than amongst trans women, p<.05 and Cramer's V>.10.

* These items were not included in the scale for positive sexual feelings.

Table 4.4.b. Sexual feelings amongst FtM trans people (%)

	Trans man	Gender variant person	Total
Participants with lifetime experience of sex	**N=118**	**N=93**	**N=211**
Greatly enjoying sex	77.6	61.8▼	70.4
Feeling relaxed	72.7	59.1▼	66.7
Performance insecuriy	26.9	31.8	29.2
Body insecurity	49.5	46.1	47.9
Feeling completely at ease	38.9	30.7	35.2
Feelings of guilt about sexual thoughts and feelings	11.9	28.9▲	19.6
Finding themselves relatively attractive	49.1	34.1▼	42.4
Ambivalent feelings during sex	40.4	38.6	39.6
Fantasising about a fitting body*	66.0	41.4▼	54.9
Difficulty with being honest about sexual feelings	26.6	52.3▲	38.1
Little control over what happens	8.9	16.3	12.3
Immediately indicating if something is not pleasant	79.0	57.6▼	69.2
Difficulty with taking the initiative	25.0	36.9	30.3
Indicating what I like	74.0	66.3	70.4
Doing things that I find unpleasant*	6.8	20.9▲	13.2
Asking the other what he/she likes*	78.6	64.7▼	72.3
Not wanting to be touched on the chest/breasts	33.7	21.2	28.0
Not wanting to be touched on the genitals	21.9	14.0	18.3
Focusing primarily on sexual partner	54.5	57.6	55.9
Average on a five-point scale	3.49	3.21▼	3.37

▲▼ = higher/lower than amongst trans men, p<.05 and Cramer's V>.10.

* These items were not included in the scale for positive sexual feelings.

Sexual problems

The figures presented in Table 4.5.a indicate the extent to which MtF trans people experience impediments with regard to sexual functioning and pain during sex, as well as the extent to which these impediments are experienced as problematic.

Table 4.5.a. Sexual problems amongst MtF trans people (%)

	Occur		Occur and are considered problematic	
	Trans woman	**Gender variant person**	**Trans woman**	**Gender variant person**
	N=183	**N=142**	**N=183**	**N=142**
Hyperactive sexual desire	0.5	4.9*		
Often/always sexual aversion	11.9	3.6▼	6.2	2.9
(Almost) never/very weak desire	23.5	6.3▼	4.9	0.7▼
Participants with experience of sex in the past six months	**N=78**	**N=85**	**N=78**	**N=85**
Not/barely aroused	36.8	26.2	11.7	14.1
Little arousal or desire[a]	58.4	31.1	13.0	14.1
Never (or hardly ever) or difficulty achieving orgasm	50.0	28.4▼	15.3	13.6
Often/always orgasm within one minute	0.0	2.4*	0.0	1.2*
Pain (or concerns about pain) during/after sex	6.6	6.0	-	-
At least one sexual problem[b]	-	-	24.4	23.5

* Number too small to test differences.

[a] Never (or hardly ever)/very weak desire and/or never/barely aroused.

[b] Exclusively hyperactive sexual desire.

▼ Significantly lower than amongst trans women, p<.05, Cramer's V>.10.

In many cases, impediments in sexual functioning were not experienced as problematic. For example, nearly one fourth of the trans women responding reported that they never (or hardly ever) experienced sexual desire, or experiencing very weak feelings sexual desire, but only 5% of all trans

women considered the fact that they experienced such feelings seldom or only very weakly to be a problem. In addition, half of the trans women reported never (or hardly ever) achieving orgasm during sex or only achieving this with difficulty, but most of these women did not regard this as a problem: 15% of the trans women reported having difficulty achieving orgasm and experiencing this as a problem.

If we consider only what the participants themselves experience as problematic, the most common problems for MtF trans people have to do with arousal, desire and orgasm. Of the participants with experience of sex within the past six months, 15% of the trans women and 14% of the MtF gender variant people reported experiencing orgasm problems. Of those with experience of sex, 13% of the trans women and nearly 14% of the MtF gender variant people had problems related to arousal and desire. Trans women were more likely than MtF gender variant people to report sexual aversion, less frequent and weaker desire, and greater difficulties with achieving orgasm. When we focus on whether participants were bothered by these sexual problems, the only difference we find between trans women and MtF trans people has to do with problems related to sexual desire.

The results for FtM trans people also reveal differences between experiencing impediments in sexual functioning and regarding them as problematic (Table 4.5.b). For example, 21% of the trans men reported that they do not become aroused or hardly become aroused, or that they almost never become aroused until after the sexual activity has been completed. Of these men, 4% said that they experienced this as a problem. Orgasm-related problems were most common amongst the FtM trans people: A quarter of the trans men and 48% of the FtM gender variant people never (or hardly ever) or only with difficulty achieve orgasm during sex; 16% of the trans men and 21% of the FtM gender variant people are also bothered by this. Problems related to pain and with regard to arousal and desire occur regularly. There are some problems that occur more often for FtM gender variant people than they do for trans men, and these are problems relating to subjective arousal, achieving orgasm rarely or only with difficulty, and pain during or after sex.

Table 4.5.b. Sexual problems amongst FtM trans people (%)

	Occur		Occur and are considered problematic	
	Trans man	**Gender variant person**	**Trans man**	**Gender variant person**
	N=148	**N=103**	**N=148**	**N=103**
Hyperactive sexual desire	2.0	1.0*		
Often/always experiences aversion	10.3	10.8	6.9	4.9
Never (hardly ever)/very weak desire	12.2	13.6	1.4	4.9
Participants with experience of sex in the past six months	**N=71**	**N=53**	**N=71**	**N=53**
Not/barely aroused	21.4	30.8	4.2	17.0▲
Little arousal or desire[a]	37.6	45.2	4.2	18.9
Never (hardly ever) or difficulty achieving orgasm	25.4	48.1▲	16.4	21.2
Often/always orgasm within one minute	2.9	2.0*	0.0	0.0*
Pain (or concerns about pain) during/after sex	7.2	21.2▲	-	-
At least one sexual problem[b]	-	-	23.9	39.6

* Number too small to test differences.

[a] Never (hardly ever)/very weak desire and/or never/barely aroused.

[b] Exclusively hyperactive sexual desire.

▲ Significantly higher than amongst trans men, p<.05, Cramer's V>.10.

Problems related to erection and lubrication are reported in In Table 4.6. One fourth of the MtF trans people with a penis, who were or had been in transition (at or before the time of the study) considered it a problem that they occasionally get an erection during sex, and 15% considered it a problem that they did not always get an erection. Of the FtM trans people with a vagina, who were or had been in transition (at or before the time of the study), 20% considered it a problem that the vagina became lubricated during sex, and 6% considered it a problem that the vagina did not (or almost did not) become lubricated during sex. Most of the MtF trans people with a vagina reported

that the vagina became at least slightly lubricated during sex, and none of them considered this a problem. Nevertheless, 43% of the MtF trans people with a vagina considered it a problem that the vagina did not become lubricated (or hardly so). Too few FtM trans people with a penis were involved in this study to investigate erectile problems (and how they are experienced) amongst this group.

Table 4.6. Erectile and lubrication problems amongst trans people (%)

	MtF with penis[a]	FtM with penis[a]
Participants with experience of sex in the past six months	**N=59**	**N=14[b]**
Penis frequently or always erect	37.3	-
Penis sometimes or usually erect	39.1	-
Penis never erect	23.7	-
Erection (occasionally) is considered problematic	25.4	-
No problem with erection	59.3	-
Insufficient erection viewed as problem	15.3	-
	MtF with vagina[a]	**FtM with vagina[a]**
Participants with experience of sex in the past six months	**N=32**	**N=68**
Vagina becomes very/extremely lubricated	15.6	70.6
Vagina becomes somewhat/slightly lubricated	59.4	28.0
Vagina does not become lubricated at all	25.0	1.5
Problem that vagina becomes lubricated at least occasionally	0.0	20.0
No problem with extent of lubrication	58.1	74.3
Insufficient lubrication viewed as a problem	41.9	5.7

[a] Unintentionally, this question was posed only to people who were or had been in transition.
[b] Number too small to present percentages.

In addition to the prevalence of sexual problems, we examined the extent to which trans people had sought professional help for these problems and the extent to which they were satisfied with such assistance. In all, 29 MtF trans persons (8.9%) and 11 FtM trans persons (4.4%) had sought professional help for a sexual problem. Most of them had sought help from general practitioners or psychologists, psychiatrists or psychotherapists in independent practice. The MtF trans people assigned their last care providers an average score of 7.1, with the MtF trans people assigning an average score of 7.6. Due to the small numbers, it is not possible to provide any further details about this group with regard to the type of care providers they visited for sexual problems or with regard to their evaluations of these care providers.

Factors associated with positive sexual feelings and sexual problems

The results reported in Table 4.7 indicate weak to moderate associations amongst frequency of sex, positive sexual feelings, sexual satisfaction and sexual problems. The strongest associations are found between the absence of sexual problems and positive sexual feelings and satisfaction, as well as between positive sexual feelings and frequency of sex.

Table 4.7. Association between frequency of sex, satisfaction, feelings and sexual problems (Pearson's correlations)

		1	2	3	4
1.	**Frequency of sex (r)**	1			
	N	**571**			
2.	**Positive sexual feelings (r)**	.15**	1		
	N	**501**	**506**		
3.	**Sexual satisfaction (r)**	.41***	.46***	1	
	N	**553**	**497**	**558**	
4.	**At least one sexual problem (r)**	-.23***	-.46***	-.50***	1
	N	**282**	**287**	**285**	**287**

** = p<.01; ***= p<.001.

As shown in Table 4.8. the sexual feelings of trans people are associated with general factors, as well as with factors specific to the trans population. The correlated factors for the MtF trans people largely correspond to those of FtM trans people. Results from the bivariate regression analysis

indicate that, for all trans participants, health, psychological health, frequency of sex and having undergone surgery are associated with sexual feelings. Multivariate analysis was performed in order to identify which of these factors continue to show a correlation when controlling for other factors. The results indicate that, in both spectrums, only psychological health, frequency of sex and openness about being/having been transgender exhibited correlations. For MtF trans people, body satisfaction was also related. For FtM trans people, age was related. Positive sexual feelings are most strongly associated with psychological health and frequency of sex. The direction of this correlation is unclear.

Table 4.8. Factors correlating with positive sexual feelings (β)

	MtF trans people		FtM trans people	
	Bivariate	**Multivariate**	**Bivariate**	**Multivariate**
Age	.11	.06	.11	.17*
Has a steady partner	.15*	-.07	.03	-.16
Health	.18**	.04	.24**	.03
Psychological health	.31**	.24**	.44**	.30**
Frequency of sex	.43**	.42**	.29**	.35*
Sexual violence before the 16th year	.09	.10	-.16*	-.04
Transsexual versus gender variant	.03	.08	-.19**	-.08
Body satisfaction	.19**	.19*	.13	.08
Undergone surgery	.29**	.13	.18*	-.01
Unfulfilled desire for transition	-.25**	-.07	-.02	-.02
Transnegative experiences	-.05	-.10	-.09	-.04
Openness about being/having been transgender	.11	.11*	.26**	.16*

* = p<.05; ** = p<.01.

The results presented in Tables 4.9.a and 4.9.b indicate associations between having at least one sexual problem and general factors, as well as factors specific to the trans population. Odds ratios (OR) and confidence intervals (95% CI) are indicated. Odds ratios show how much more or less likely sexual problems were for participants from particular groups (e.g. gender variant people) or for those scoring one point higher on a given scale (e.g. the psychological health scale). For example, MtF trans people were 0.56 times more likely (i.e. about two times less likely) to have a sexual problem if someone scored one point higher (on a five-point scale) for body satisfaction. In this group, this is the only variable that is significantly related to having a sexual problem.

Table 4.9.a. Factors correlated with having a sexual problem[a] amongst the MtF trans people (N=136)

	Bivariate[b]	
	OR	**95% CI**
Age	1.02	(0.99-1.05)
Steady partner	0.48	(0.22-1.04)
Health	0.73	(0.47-1.14)
Psychological health	0.73	(0.46-1.15)
Sex under the influence	1.80	(0.84-3.85)
Sexual violence before the 16th year	0.33	(0.07-1.51)
Body satisfaction	0.56**	(0.36-0.85)
Gender variant person	0.94	(0.46-1.93)
Unfulfilled desire for transition	0.99	(0.46-2.13)
Treatment		
Hormones, no surgery	0.63	(0.20-2.04)
Surgery	1.10	(0.48-2.53)

[a] Hyperactive sexual desire was not included here.

[b] No multivariate analyses due to limited bivariate correlations

** = p<.01.

Table 4.9.b. Factors correlated with having a sexual problem[a] amongst FtM trans people (N=122)

	Bivariate		Multivariate	
	OR	**95% CI**	**OR**	**95% CI**
Age	0.99	(0.97-1.02)	1.01	(0.97-1.05)
Steady partner	0.82	(0.36-1.85)	0.47	(0.17-1.30)
Health	0.58*	(0.85-0.90)	0.65	(0.37-1.17)
Psychological health	0.47**	(0.31-0.72)	0.52*	(0.29-0.93)
Sex under the influence	1.14	(0.52-2.52)	1.53	(0.55-4.24)
Sexual violence before the 16th year	1.18	(0.51-2.73)	0.59	(0.20-1.73)
Body satisfaction	0.56**	(0.37-0.87)	0.38**	(0.19-0.79)
Gender variant person	2.11	(0.97-4.60)	3.37	(0.96-11.87)
Unfulfilled desire for transition	0.96	(0.45-2.08)	0.65	(0.20-2.11)
Treatment				
Hormones, no surgery	0.87	(0.24-3.15)	1.02	(0.18-5.82)
Surgery	0.75	(0.33-1.71)	3.15	(0.79-12.56)

[a] Problem with aversion, arousal or desire, orgasm or pain.

* = p<.05; **= p<.01.

In addition, for the FtM trans people, health and psychological health play a role, but the correlation with health disappears when controlling for all other factors. The results thus indicate that FtM trans people who are less healthy have sexual problems more frequently, but that efforts to improve sexual well-being amongst this trans group would be most effective if focused on body satisfaction.

4.4 Summary and conclusions

Trans people have sex less frequently than they would like

About half of the trans people does not have sex at all. This is not necessarily a problem in itself. However, about half of them did considers it regrettable (or very regrettable). This means that about a quarter of the trans people are not happy about the lack of sexual activity. Moreover, 60% of those who have sex would like to have sex more often. In general, therefore, we can conclude that the majority of trans people are having less sex than they would like.

The results of this study are unclear with regard to why trans people are either having no sex or having sex less frequently than they would like. One obvious explanation for why many trans people do not have sex is that many of them (five to six of every ten) have no steady partner. Results from qualitative research have shown that some trans people consciously choose not to enter a relationship during their transition, that some terminate their existing relationships as a result of the transition process and that some face rejection (or the fear of rejection) due to their being transgender (Doorduin & Van Berlo, 2012; Doorduin & Van Lee, 2013). Qualitative studies have also revealed that feelings of body dissatisfaction can lead to having little or no sex. When people are not comfortable with their own bodies, it can be difficult for them to enjoy sex. For this reason, some trans people avoid sex, while missing it at the same time (Doorduin & Van Berlo, 2012).

Trans people enjoy sex, but they would prefer to have sex differently

The sexual feelings of the transgender people reveal an ambivalent image. The majority of the trans people who have ever had sex enjoy sex a great deal, feel relaxed during sex, are not insecure about their bodies and do not feel guilty about sex. A minority do not wish to be touched on or near the genitals during sex. At the same time, the majority of transgender people are dissatisfied with their sex lives in general, particularly with regard to the way they have sex. Only a minority considers themselves attractive during sex, and most do not feel completely at ease during sex. More than half fantasises during sex about having a body that fits their identity.

Several factors are associated with having positive sexual feelings. Not controlling for other factors, health, psychological health, frequency of sex and having undergone surgery are associated with sexual feelings. Having an unfulfilled desire for transition and having experienced sexual violence are related to having less positive sexual feelings. These factors identify the trans people who are at risk

for lower levels of sexual well-being. The direction of the relationship, however, is unclear; in other words, we cannot identify cause and effect. In the multivariate analysis, most of the associations disappear, leaving only psychological health and frequency of sex. This can have several implications. For example, it could mean that trans people with an unfulfilled desire for transition are generally more likely to have negative sexual feelings, although this is actually because, on average, their psychological state is less favourable and they tend not to have much sex. The reverse is also plausible, however, with positive sexual feelings contributing to better psychological health and having more sex.

Qualitative studies have provided several clues for interpreting these results. The results of these studies suggest that dissatisfaction with one's body can make it difficult to enjoy sex. This might explain the finding that some trans people do not feel at ease during sex and that many of them fantasise about a body that fits their gender identity. Trans people who are dissatisfied with their bodies sometimes avoid genital contact for this reason, although they do have sex in other ways. In addition, some trans people reported being bothered when the way they had sex did not confirm their gender identity, for example because of their sexual position ('on top' or 'on bottom'). Studies have also shown that, from the moment of 'coming out', trans people greatly enjoy the intimacy that they associate with sex. Before their transition, some had experienced somewhat less intimacy, as they had been unable to be completely themselves (Doorduin & Van Berlo, 2012).

One out of every four trans people suffers from a sexual problem

About one quarter of the trans women, trans men and MtF gender variant people in this study have at least one sexual problem. This percentage is even greater for MtF trans people. For MtF trans people, the most common problems are related to arousal and orgasm, while those of FtM trans people are primarily related to orgasms, pain, arousal and desire.

One difference between these results and those of previous studies on sexual desire, sexual arousal and capacity for orgasm amongst trans people is that the participants in this study were also asked whether they experienced the impediments they had as problematic. Impediments relating to desire, arousal and ability to achieve orgasm are more common amongst trans people than the above-mentioned figure of one in four, but many of them do not experience these impediments as problematic.

Body dissatisfaction proved to be a correlating factor. The less satisfied trans people are with their bodies, the more likely they are to have sexual problems. For FtM trans people, psychological health is also related to sexual functioning.

The role of sex reassignment treatment is unclear

According to the results of this study, hormone treatment and having undergone surgery are not associated with having sexual problems. This is remarkable, given the association between having a sexual problem and body satisfaction. Sex reassignment treatment reduces or resolves such feelings of dissatisfaction (Cohen-Kettenis & Goozen, 1997; Smith et al., 2005b). The results of our study show that having undergone surgery is associated with positive sexual feelings, but not when controlling for psychological health, frequency of sex and other variables.

This also raises the question of why the association of hormone treatment and surgeries with sexual well-being and problems is not stronger. A first possible explanation is that methodological factors may have played a role. The participants in this study included only a small number of trans people who had undergone surgery, and some of them were still waiting for other surgeries. Second, it might be that sex reassignment treatment can have both positive and negative effects on sexual problems and well-being, and that these two types of effects cancel each other out when observing average effects. Previous studies have produced results that support this second explanation. In one Flemish study, the majority of trans people were more satisfied with their sexuality after their sex reassignment treatment (including surgery), although a small number were less satisfied (De Cuypere et al., 2005). Qualitative studies have also indicated that, for some trans people, hormone treatment and surgery have a negative effect on sexual well-being and problems. For example, some had been reasonably sexually satisfied before their transition, and others had experienced

complications from the surgeries that had a negative influence on their sexual well-being (Doorduin & Van Berlo, 2012; Doorduin & Van Lee, 2013). Therefore it is also possible that the effect of sex reassignment treatment on sexual well-being and problems is something that can vary widely from one person to the other, depending on such factors as the presence or absence of complications during medical interventions.

Appropriate care for the sexual problems of trans people is important

The majority of the trans participants enjoys sex. At the same time, a considerable number of trans people do not have sex, although they would like to, has a sexual problem, and/or has negative sexual feelings. It is particularly important for the latter group to be able to find help, if desired, in order to address these sexual problems or negative feelings.

Not all trans people with sexual problems seek help. This could mean that, for these people, the problems do not have enough priority to merit doing something about them; it could also mean that the barriers to seeking help are too high or that they do not know where to turn. Trans people who seek help for sexual problems tend to seek help from general practitioners and independent psychologists, psychotherapists and psychiatrists. It is therefore important for these groups of professionals to have access to sufficient knowledge in order to treat the sexual problems of trans people, or at least to refer them to appropriate help.

This therefore leads to a subsequent question: what exactly constitutes appropriate help for trans people with sexual problems? In any case, as demonstrated in this study, body dissatisfaction plays a role in the sexual problems of trans people. It is therefore important that the scope of treatment includes eliminating or learning to cope with such feelings of body dissatisfaction. Sex reassignment treatment is one way of reducing or resolving body dissatisfaction (Cohen-Kettenis & Goozen, 1997; Smith, Van Goozen, Kuiper & Cohen-Kettenis, 2005b). Nevertheless, not all trans people wish to undergo treatment. Moreover, in some cases, trans people must endure a long waiting period for sex reassignment treatment, and qualitative studies have shown that completed treatment does not always offer sufficient relief for sexual issues, or that surgeries sometimes contribute to such issues (Doorduin & Van Berlo, 2012).

It is therefore important that other forms of help are also available to trans people with sexual problems. To date, there is insufficient insight into the availability of sexuological services for trans people. Results from an expert meeting in 2012 revealed that the services currently offered are not sufficient (Doorduin & Van Berlo, 2012). It is important to gain additional insight in this regard and to resolve any limitations in the array of services offered. Solutions could include the development of treatment methods for trans people with sexual issues, expertise training for interested care providers and offering an overview of specialised care providers in specific regions.

Informational resources, self-help groups and therapy groups could also play a role. Previous studies have indicated that trans people have a need for accessible, reliable and comprehensible informational resources on sexuality, and that few such resources currently exist (Doorduin & Van Berlo, 2012; Doorduin & Van Lee, 2013). The results of this study also suggest that many trans people appreciate the opportunity to exchange experiences and tips on sexuality with other trans people, as long as such conversations are safe and respectful.

5 Protective behaviour of men who have sex with men

Maaike Goenee and Charles Picavet

5.1 Introduction

In the Netherlands, men who have sex with men (MSM) constitute the largest at-risk group for HIV and other STDs. In 2012, two thirds of new HIV cases were diagnosed amongst MSM. Although the number of new HIV infections amongst MSM appears to have stabilised in recent years, around 700-750 new cases of HIV are diagnosed amongst this group each year (Van Sighem et al., 2013). Compared to heterosexual men and women, the percentage of diagnoses of other STDs is also higher for MSM (Soetens et al., 2013). An optimum level of prevention of STDs and HIV infections in MSM requires monitoring the sexual risk behaviour of MSM in the Netherlands, with due consideration for factors that affect this behaviour. This knowledge could be used to design and implement national and regional prevention activities and to adjust existing initiatives to meet the needs of this target group.

Sexual risk behaviour is an underlying factor in the majority of new STD and HIV infections. Sexual risk behaviour occurs when individuals have sex without using a condom, particularly if the STD-infection status of the partner is not known. A substantial portion of the population in the Netherlands does not use condoms during sex. According to the results of the most recent Sexual Health in the Netherlands study, 48% of men and 60% of women do not use condoms during vaginal sex with casual partners (Goenee, Kedde, & Picavet, 2012). Compared to heterosexual men, gay men were more likely to have used a condom the last time they had anal sex with a casual partner (72% versus 45%; Rutgers WPF, 2013).

In 2011, Schorer published its most recent report on the sexual behaviour of a large, sexually active group of MSM in the Netherlands (Van Empelen, Van Berkel, Roos, & Zuilhof, 2011). Of all the participants in this study who had engaged in sex (in the broadest sense) with casual partners during the past six months, 36% reported having unprotected anal sex at least once. The sexual behaviour of MSM was also charted in a European study published in 2010 (The EMIS Network, 2013; The European Men-Who-Have-Sex-With-Men Internet Survey). In all, 38 different European countries participated. Of the men with casual partners, 39% reported having engaged in unprotected anal sex in the past 12 months. For men in the Netherlands, this figure was 41%.

Risk factors

The likelihood of STD infection increases along with the number of sex partners (Ostrow et al., 2009, Plankey et al., 2007). Gay and bisexual men have more sex partners than heterosexual men (Rutgers WPF, 2013). Of all gay men, 40% reported having three or more partners in the past six months. For bisexual men, the figure was 26%, and for heterosexual men, it was 9%. In the Schorer Monitor sample, which was recruited through dating sites, 65% of all MSM had engaged in sex with two or more partners in the past six months, with 19% reporting more than 10 partners (Van Empelen et al., 2011). According to results from the Schorer Monitor, men whose sexual self-profiles focus on 'excitement' are more likely to have multiple partners than are men who seek a feeling of security. Having casual male sex contacts is also associated with spending many hours online; frequently searching for partners through the internet; visiting sex locations and bars and dance clubs; and using drugs on a regular basis. Finally, the results indicate that HIV-positive men tend to have a relatively large number of sex partners compared to men who have not been tested and those who are HIV-negative. Several factors play a role in sexual risk behaviour. In the Schorer monitor, unprotected sexual contact with the most recent casual partner is relatively common in the case of repeated sexual contacts, contacts where an exchange regarding HIV status has taken place, and sex under the influence of drugs. In addition, MSM with a low level of education are more likely to have unprotected sexual contact (Van Empelen et al., 2011). Experiences with sexual abuse also affect sexual risk behaviour amongst MSM. According to a systematic review by Lloyd and Operario (2012), MSM who experienced sexual abuse during childhood are more likely to be infected with HIV,

to have more unprotected anal sex and more casual partners, and to use more alcohol and other drugs during sex. Sexual problems can also increase the likelihood of unprotected anal sex (Cove & Petrak, 2004; Tsui et al., 2014). For example, an erectile disorder could make it difficult or impossible to use a condom. Apart from this, the use of a condom could also be seen as an obstacle to sexual pleasure or the experience of intimacy (Golub, Starks, Payton, & Parsons, 2012).

The stress associated with belonging to a sexual minority can also contribute to sexual risk behaviour amongst MSM. Minority stress involves experiences of discrimination or rejection, the expectation of such experiences, having negative thoughts about homosexuality (internalised homonegativity) and concealing one's sexual identity (Meyer, 1995, 2003). However, the association between minority stress and unprotected sexual contact is not clear. For example, Ratti, Bakeman and Peterson (2000) report a direct association between internalised homophobia and unprotected anal sex amongst Canadian MSM. Other studies have identified no direct connection (Flores, Mansergh, Marks, Guzman, & Colfax, 2009), and yet others have revealed a positive association between risk behaviour and the acceptance of homosexuality in the family (Preston et al., 2004). A meta-analysis by Newcomb and Mustanski (2009) reveals only a small effect for the relationship between internalised homophobia and sexual risk behaviour. The connection between perceived homonegativity and sexual risk behaviour might be explained in terms of psychological health, for example with reference to levels of depression, fear and self-esteem (De Graaf, Sandfort, & Dörfler, 2011; Ross et al., 2013). The reasoning behind such explanations is that men who do not feel good about themselves might not protect themselves as well during sexual contact and that minority stress can reduce psychological health.

Risk-reduction strategies

In addition to condom usage, MSM have other strategies for reducing the risk of HIV for themselves or for their partners. Frequently described strategies include serosorting (having unprotected sex only with partners who have the same HIV status) (Rietmeijer, Lloyd, & McLean, 2007) and strategic positioning (anal sex in which a partner who is or might be HIV-positive assumes the receptive position (Parsons et al., 2005; Van de Ven et al., 2002). However, the extent to which these risk-reduction strategies are always valid is not clear. For example, serosorting by HIV-negative people cannot be considered valid unless the partners are 100% certain of each other's HIV-negative status. For HIV-positive people, serosorting offers no protection from STDs other than HIV (Hart & Elford, 2010). A third factor that is increasingly being considered with regard to the decision whether to use a condom is 'viral load' (Van den Boom et al., 2013). This term refers to the number of virus particles in the blood of an individual who is HIV-positive. For all intents and purposes, an HIV-positive man whose viral load is undetectable due to treatment no longer poses a risk of infection to his partners. Finally, within a steady relationship, agreements can be made in order to counteract the communication of HIV and other STDs (*negotiated safety)*. In this strategy, two partners who have both tested HIV-negative make agreements regarding sex within the relationship (i.e. without a condom) and outside the relationship (monogamy, no anal sex or always using a condom). In this way, the partners can avoid contracting HIV due to having sex with casual partners and subsequently passing it on to the steady partner (Davidovich, De Wit, & Stroebe, 2000).

The current study

In this chapter we describe the sexual behaviour of MSM. We do this based on the following questions:

- With whom do MSM have sex?
- What do MSM do during sex with men?
- To what extent are MSM consistent in using condoms during sex with men?
- Which factors are associated with having unprotected sex with casual male partners?
- How high do MSM who have had unprotected sex with casual partners estimate the likelihood to be that they have been infected with HIV?
- Which risk-reduction strategies are applied by MSM who have unprotected sex with casual male partners?
- Which agreements do MSM with steady partners make regarding sex with others, and to what extent do they live up to the agreements that they have made?

5.2 Methods

Sample

The recruitment procedure and sample are described in Chapter 1. Two different samples were used for the analyses discussed within this chapter. The first part of this chapter contains a description of the sexual behaviour and condom usage of MSM. Because it is important to describe this behaviour for a group of people who were not recruited according to sexual behaviour, we use the LGB panel sample for this purpose. For the analyses discussed in this chapter, we selected the gay and bisexual men from this sample who had engaged in sex with at least one male partner in the past six months (N=883; 57% of all gay and bisexual men). The second part of this chapter focuses on a specific group of MSM: those who have unprotected sex with casual partners. For this group, we describe factors associated with unprotected sex with casual male partners, as well as risk perceptions regarding HIV and risk-reduction strategies that are applied during sex with casual partners. We then focus specifically on MSM with steady partners who have sex with others outside their relationships. In order to make reliable statements about these specific groups, we used another sample. The participants (N=1908) for these analyses were selected from both the LGB panel sample (N=883) and the supplementary sample (N=1025). In Table 5.1. we present the composition of both samples in terms of age, ethnicity, religion, children, relationship status, educational level, sexual orientation and HIV status.

Table 5.1. Characteristics of MSM in the samples used (%)

	MSM in the LGB panel sample	MSM in the supplementary sample
	N=883	N=1025
Age		
18 - 24 years	13.5	28.4
25 - 34 years	19.9	21.0
35 - 54 years	41.1	35.8
55 - 88 years	25.5	14.8
Ethnicity		
Dutch/Western ethnicity	98.8	95.7
Non-Western ethnicity	1.2	4.3
Education		
Low	49.6	57.4
High	50.4	42.6
Religion		
Not religious	62.7	67.5
Religious	37.3	32.5
Relationship status		
Married	31.0	19.9
Cohabiting	20.3	14.4
LAT relationship	16.5	16.2
No steady partner	32.2	49.5
Children		
Yes	19.4	17.3
No	80.6	82.7
Sexual orientation		
Gay	71.8	74.0
Bisexual	28.2	26.0
HIV status		
Unknown	40.5	29.3
Negative	55.2	62.2
Positive	4.3	8.5

Given that we would like to make statements based on the LGB panel sample that could be generalised to all MSM in the Netherlands, we weighted the sample by age in order to achieve the best possible reflection of this group. This was not possible for the supplementary sample, as we do not know the age distribution of this group within the general population.

Measurements

Data were collected using an online questionnaire. The survey was used to ask participants about a wide range of topics relating to sexual health. The following concepts are addressed in this chapter:

Sexual behaviour in the past six months. Participants were asked if and with whom they had engaged in sex in the past six months. In this context, sex was defined broadly: 'Sex can refer to a wide variety of practices, including stroking (e.g. breasts, penis or vagina), oral sex, anal sex or vaginal sex'. A distinction was made between the current steady partner, another steady partner (e.g. a former partner or a sex buddy) and a casual partner. Participants with more than one steady partner were asked to base their responses to questions about the steady partner on the partner with whom they felt the strongest connection. Participants were also asked to indicate the gender of the various types of partners. They were then asked which sex techniques they had used (receiving oral sex, giving oral sex, receptive anal sex, insertive anal sex and vaginal sex). The sex techniques were adjusted according to the gender of the sex partners. An open question was used to determine the number of people with whom the men had engaged in sex in the past six months.

Condom usage during anal sex was investigated for men who had engaged in sex with one or more male partners in the past six months. Separate questions about condom usage were asked for steady and casual partners, and a further distinction was made between insertive and receptive anal sex (depending on the sex techniques that they had used with each partner). With regard to condom usage with steady partners, no distinction was made between the current steady relationship and any other steady partners. For the variable *unprotected anal sex*, insertive and receptive anal sex were combined. Unprotected anal sex was defined as inconsistent or no condom usage during insertive and/or receptive anal sex.

Meeting sex partners online. All men who had engaged in sex with casual partners in the past six months were asked where they had met casual partners for sex (e.g. internet, through friends or acquaintances, clubs or bars, darkroom, sauna). Men who had met casual sex partners online were asked to indicate the number of sex partners they had met online (open question).

Paid sex was investigated using two questions posed to participants who had engaged in sex with casual partners in the past six months. They were first asked whether they had paid anyone (with money or something else) for sex (1=yes, once, 2=yes, more than once, 3=no), and then they were asked whether they had received money or something else in exchange for sex (1=yes, once, 2=yes, more than once, 3=no).

Risk perception concerning HIV was investigated using the question, 'Please estimate the likelihood that you have been infected with HIV in the past six months' (1=not likely at all, 5=highly likely). This question was posed only to HIV-negative and non-tested MSM who had engaged in unprotected sex with a casual male partner in the past six months.

Risk-reduction strategies. Four different risk-reduction strategies were presented to HIV-negative and non-tested MSM who had engaged in unprotected sex with a casual male partner in the past six months (e.g. 'Having unprotected anal sex only with men who are HIV-negative'). Participants were asked to indicate how frequently they had applied each strategy in the past six months, according to a five-point scale (1=never, 5=always).

Agreements with steady partners. The MSM with steady partners who had engaged in sex with casual male partners in the past six months were asked whether they had told their steady partners that they had engaged in sex with others (1=yes, 2=sometimes, 3=no). A multiple-choice question was then used to identify any agreements that the participants had made with their steady partners concerning sex with others (e.g. 'we can have sex with other people, but not anal intercourse'). Those

who had made agreements were subsequently asked whether they lived up to these agreements (1=never, 5=always) and, if not, whether they told their partners (1=never, 5=always).

5.3 Results

The sexual behaviour of MSM in the past six months

Nearly all of the MSM with a steady partner (N=605) had engaged in sex with their partners in the past six months, with gay MSM having done so slightly more frequently than bisexual MSM had done (94% versus 89%; (χ^2 (1, *N*=605) = 4,30, *p*=.038, Cramer's V =.08). In addition, 8% of the MSM with a steady partner had also engaged in sex with another steady partner (e.g. a former partner or a sex buddy). Of the men with a steady partner, 41% had engaged in sex with casual partners in the past six months, as compared to 93% of the men with no steady partner (χ^2 (1, *N*=876) = 215,77, *p* <.001, Cramer's V=.50).

Table 5.2. Sexual behaviour of gay and bisexual MSM (%)

	Gay	Bisexual	Total
	N=614	N=269	N=833
In the past six months			
Had sex with			
Steady male partner	71.3	31.9▼	60.2
Steady female partner	0.2	38.6▲	11.1
Casual male partner	50.2	77.8▲	58.0
Casual female partner	-	28.3▲	8.1
Sex with steady/casual partners			
Steady partner(s) only	48.9	21.1▼	41.7
Both steady and casual partner(s)	21.0	34.3	27.7
Casual partners only	29.2	44.6▲	30.6
Number of sex partners			
1	57.1	30.8▼	49.6
2	11.3	19.0▲	13.5
More than 2	31.6	50.2▲	36.9
Number of internet sex partners			
0	71.9	58.7▼	68.2
1	8.0	12.4▲	9.3
2	4.9	10.3▲	6.5
More than 2	15.1	18.6	16.1
Paid for sex	4.6	11.5	6.6
Received money for sex[a]	1.6	2.4	1.8
Sex under the influence of alcohol	51.2	44.6	49.3
Sex under the influence of drugs	31.9	34.3	32.6

[a] Number too small to test differences.
▼▲ = higher/lower than amongst gay MSM, p<.05, Cramer's V>.10.

In the rest of this chapter, no distinction is made between the current steady partner and any other steady partner, unless stated otherwise. More than two thirds of the MSM had engaged in sex with one or more steady partners in the past six months (Table 5.2.). Gay MSM had engaged in sex almost exclusively with male partners. While gay MSM had engaged in sex primarily with steady partners, bisexual MSM had done so primarily with casual partners. One fourth of the MSM had engaged in sex with both steady and casual partners in the past six months. Bisexual MSM were more likely than their gay counterparts were to have had sex with two or more partners and to have had sex through the internet in the past six months. MSM reported very few instances of commercial sex. Sex under the influence of stimulants was more common: half of the men had engaged in sex under the influence of alcohol, and one in three had sex under the influence of drugs in the past six months. The substances used consisted largely of nitric oxide donors or 'poppers' (65%), erectogenics (55%), cannabis/marijuana (22%), XTC (15%) and GHB/GBL (12%). Of the participants,

8% reported using cocaine, 6% speed, 4% ketamine, 2% crystal meth and 1% mephedrone. No one had used heroin or LSD in the past six months.

Table 5.3. Sex techniques used for sex with men (%)

	Gay	Bisexual	Total
During sex with a steady partner	**N=433**	**N=84**	**N=517**
Oral sex	91.4	92.0	91.5
Giving	85.9	78.7	84.8
Receiving	83.0	84.0	83.2
Anal sex	67.4	59.5	66.2
Insertive	53.0	48.0	52.2
Receptive	49.2	33.3▼	46.7
Anilinguis ('rimming')	35.5	29.3	34.3
Fisting[a]	3.8	2.7	3.7
Toys	16.3	8.1	15.1
During sex with a casual partner	**N=316**	**N=212**	**N=528**
Oral sex	91.7	86.3	89.6
Giving	86.4	75.8▼	82.2
Receiving	86.7	77.9▼	83.3
Anal sex	64.8	52.1▼	59.9
Insertive	50.8	36.0▼	45.1
Receptive	41.9	36.3	39.7
Anilinguis ('rimming')	41.5	22.2▼	34.1
Fisting	5.6	5.3	5.5
Toys	17.9	14.7	16.7

[a] Number too small to test percentages.
▼ = less than amongst gay MSM, p<.05, Cramer's V>.10.

The sex techniques used with both steady and casual male partners are presented in Table 5.3. A large majority of the MSM had engaged in oral sex with their steady partners, and two thirds had engaged in anal sex. Gay MSM were more likely than their bisexual counterparts were to have engaged in receptive anal sex. The sex techniques that MSM used with casual partners did not differ from their behaviour with steady partners. Gay MSM had more experience with nearly all of the sex techniques during sex with casual contacts than did their bisexual counterparts.

Unprotected sex

Some of the MSM who had engaged in sex in the past six months had done so without using protection: they had sex without a condom at least once in the past six months. The percentages for sex with steady partners and with casual partners are reported in Figures 5.1.a and 5.1.b, respectively.

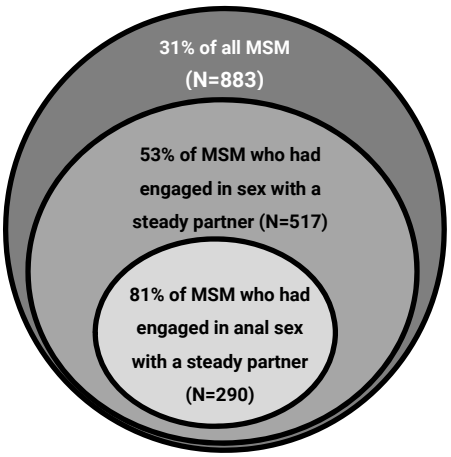


Figure 5.1.a. Unprotected sex with a steady partner in the past six months

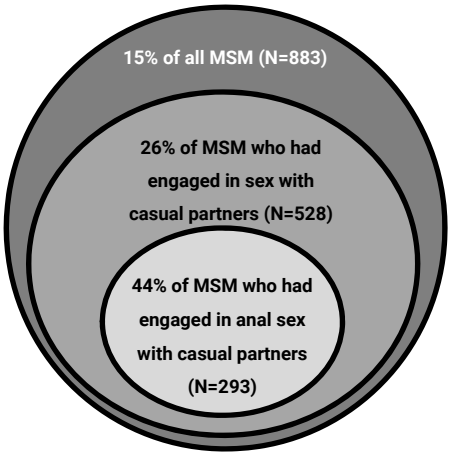


Figure 5.1.b. Unprotected sex with a casual partner in the past six months

There was a certain extent of overlap between these two groups. Of all MSM, 5% (N=43) had engaged in unprotected anal sex with both steady and casual male partners. The use of condoms by MSM according to serostatus is discussed in Chapter 6. Of the bisexual MSM, 53% had engaged in sex with both men and women. Nevertheless, very few bisexual men (2.3%; N=22) had engaged in unprotected sex with both men or women.

Which MSM have unprotected sex with casual male partners?
Binary logistical regression was performed in order to identify the characteristics of the MSM who had engaged in unprotected sex with casual male partners. The analyses were performed using data on MSM from both the LGB panel sample (N=833) and the supplementary sample (N=1025). As described in the previous section, 15% of all MSM participants from the LGB panel sample had engaged in unprotected sex with at least one casual male partner in the past six months. For the MSM in the supplementary sample, this figure was 28%. Taking the MSM from the panel and the supplementary sample together, 22% had engaged in unprotected sex with at least one casual male partner in the past six months.

Bivariate and multivariate regression analyses were used to determine whether the following factors were associated with having unprotected sex with casual male partners: age, religion, education, sexual orientation, relationship status, early sexual onset, sexual abuse, psychological health, self-esteem, sensation seeking, openness about sexual orientation, internalised homonegativity, homonegative experiences, number of sex partners, sex under the influence of alcohol, sex under the influence of drugs, erectile problems and having a positive attitude towards condom usage. Descriptions of the concepts included in these analyses are provided in Appendix 3.

Results from the bivariate analyses reveal the factors that are independently associated with the outcome measure. This is particularly useful in terms of providing information about at-risk groups. Multivariate analysis allows us to see which of these factors remain after controlling for the others. It thus identifies the factors that are most strongly associated with or in the closest proximity to the outcome measure.

Table 5.4. Factors associated with unprotected sex with casual male partners (N=1592).

	Bivariate	Multivariate
	OR (95% CI)	**OR (95% CI)**
Bisexual orientation (as compared to gay)	0.83 (0.65 - 1.06)	0.76 (0.50 - 1.15)
Age (in years)	1.00 (0.99 - 1.01)	0.98 (0.97 - 0.99)**
Religious	1.08 (0.85 - 1.37)	1.22 (0.88 - 1.70)
High level of education	0.75 (0.60 - 0.94)*	0.71 (0.51 - 0.98)*
Steady relationship	0.41 (0.33 - 0.51)***	0.39 (0.28 - 0.54)***
First sexual experience < 14 years	1.53 (1.14 - 2.05)**	1.02 (0.67 - 1.55)
Experienced sexual abuse	1.48 (0.97 - 2.24)	1.59 (0.88 - 2.88)
Psychological health	0.76 (0.66 - 0.88)***	0.90 (0.68 - 1.18)
Self-esteem	0.88 (0.75 - 1.03)	1.15 (0.85 - 1.56)
Sensation seeking	2.45 (2.06 - 2.92)***	1.14 (0.89 - 1.46)
Openness about sexual orientation	1.12 (0.99 - 1.27)	0.95 (0.76 - 1.18)
Internalised homonegativity	0.93 (0.84 - 1.03)	0.86 (0.74 - 1.01)
Homonegative experiences	1.06 (0.83 - 1.35)	0.73 (0.52 - 1.04)
Number of partners[1]	1.39 (1.34 - 1.44)***	1.39 (1.31 - 1.47)***
Sex under the influence of alcohol	1.29 (1.03 - 1.61)*	1.00 (0.72 - 1.38)
Sex under the influence of drugs	3.37 (2.68 - 4.23)***	1.69 (1.21 - 2.34)**
Erectile problems	1.83 (1.30 - 2.56)**	1.16 (0.72 - 1.88)
Positive attitude towards condom usage	0.40 (0.35 - 0.45)***	0.35 (0.29 - 0.41)***
R^2/ Nagelkerke R^2		.46

* = p<.05; ** = p<.01; *** = p<.001.
[1] Continuous variable; 1=1 partner, 9=9 or more partners.

The results of the bivariate analyses indicate that various factors are associated with having unprotected sex with casual male partners (Table 5.4). According to these results, MSM who had unprotected sex had a relatively low level of education, were more likely not to have a steady partner, were more likely to have started having sex before the age of 14 years, were in poorer psychological health, had a higher score on sexual sensation seeking, had more casual partners in the past six months, were more likely to have sex under the influence of alcohol and drugs, were more likely to have erectile problem and adopted a more negative attitude towards condom usage.

The results of multivariate regression analysis eliminated several associations with unprotected anal sex. The remaining factors are those most strongly associated with having unprotected sex. According to these results, age was associated with having unprotected sex with casual partners, with younger MSM doing so more frequently than older MSM. In comparison to men with a high level of education and men with a steady partner, MSM with a low level of education and those with no steady partner reported engaging in unprotected sex more often. The attitude towards condom usage was a protective factor: men with a positive attitude used condoms more consistently. The likelihood of unprotected sex increased with the number partners in the past six months, and men who were occasionally under the influence of drugs during sex reported having unprotected sex 1.7 times more frequently than was the case for men who had never used drugs during sex. Taken together, the variables in the model explain 46% of the total variance in unprotected sex with casual partners. This means that 54% of all unprotected sex contacts with casual partners can be explained by variables that were not included in the model.

Risk perception and risk-reduction strategies

All HIV-negative and non-tested MSM who had engaged in unprotected sex with a casual male partner in the past six months (from both the panel and the supplementary sample, N=322) were asked to estimate the likelihood that they had been infected with HIV in the past six months. Of these participants, 15% reported that they had been at absolutely no risk. Eight in ten (80%) assessed the likelihood of HIV as slight (or very slight), and 6% reported that they were likely (or very likely) to have contracted HIV.

The fact that HIV-negative and non-tested MSM estimated their risk of being infected with HIV as low might indicate that they had employed strategies other than condom usage in order to reduce the risk of HIV. They were therefore asked whether they had adopted strategies other than consistent condom usage to reduce the risk of HIV during sex with casual partners. The most commonly applied strategies involved asking about the partner's HIV status and having unprotected anal sex only with men who were HIV-negative (see Table 5.5). These strategies were more frequently applied by HIV-negative MSM than by non-tested MSM. About one in six MSM who had engaged in unprotected anal sex with casual partners had used sorting according to viral load, and an equivalent share had used strategic positioning.

It is interesting to note that a large number of men (N=56) did not know what an undetectable viral load was. Other methods for reducing the risk of HIV were mentioned by 21 MSM:

- Being selective in their choice of partner; Having sex only with familiar or trustworthy people.
- Not ejaculating in the anus.
- Observing proper hygiene measures.
- Using lubricants and/or gloves.

The MSM who reported having three or more sex partners in the past six months applied the strategies just as often as did those who reported fewer than three partners.

Table 5.5. Risk-reduction strategies used during sex with casual male partner(s) (% applied at least once)

	Non-tested MSM	HIV-negative MSM	Total
	N=82	N=240	N=322
In the past six months			
Asked partner's HIV-status before having sex	39.0	65.8▲	59.0
Had unprotected anal sex only with HIV-negative men	55.8	68.4▲	65.3
Had unprotected anal sex with HIV-positive men only if they had an undetectable viral load	9.7	17.0	15.0
Had only unprotected insertive anal sex with HIV-positive men	12.7	18.2	16.8

Agreements in steady relationships concerning sex with others

The MSM (from both the panel and the supplementary sample) who had a steady partner and who had engaged in sex with a casual male partner at least once in the past six months (N=578) were asked about the agreements they had made with their steady partner concerning sex with others. First, they were asked if they had told their steady partner that they had engaged in sex with others. Of those responding, 48% had always done so, 7% sometimes and 45% never.

The fact that sex with others was not discussed within many relationships is also reflected in the agreements that were made in this regard. Of the MSM responding, 45% had made no agreements aimed at preventing the spread of HIV*:* 27% had made no such agreements with their steady partners, and 18% had left the matter entirely open. About one in six (15%) had agreed to be monogamous; 5% had agreed that sex with others would be acceptable, with the exception of anal sex, and 27% also agreed to allow anal sex, as long as condoms were used. For 6%, the agreement was that sex with others was acceptable if the steady partner was also present (trio). Other agreements that were mentioned (4%) included that sex with others was allowed, but that it was not to be discussed with each other (*don't ask, don't tell*) or that sex was allowed only with certain casual contacts.

Of those who had made agreements (N=256), 56% had lived up to them. Of those not living up to the agreements (N=112), only four had admitted this to their partners.

5.4 Summary and conclusions

This chapter provides a global overview of the sexual behaviour of MSM. In this framework, we focused more specifically on men who had engaged in unprotected anal sex with casual male partners, as well as on correlates of this behaviour and on risk-reduction strategies that had been applied by these men. Half of the men reported having had two or more sex partners in the past six months. Bisexual MSM had more sex partners in the past six months than was the case for gay MSM. Gay MSM had engaged in sex only with men, while more than half of the bisexual MSM had also had sex with women. Bisexual MSM are nevertheless unlikely to constitute a 'bridge' for spreading HIV to women. Unprotected sex with both women and men was uncommon amongst the bisexual MSM.

Not all MSM engage in anal sex with their steady and casual partners. Two thirds of the MSM does so with steady male partners, and 60% does so with casual partners. Four of every five men who had engaged in anal sex did not always use condoms with their steady partner(s). In this study we could not distinguish the use of condoms with the partner in a current steady relationship, with other steady partners, with sex buddies or with former partners. Condom usage nevertheless differs according to the type of partner (Van Empelen et al., 2011; Van den Boom et al., 2012). In order to gain a complete view of the protective behaviour of MSM, therefore, future research should distinguish between the various types of partners: partners in steady relationships, sex buddies, casual partners with whom individuals happen to have sex multiple times, and one night stands.

Although condom usage is the safest method to date for preventing the spread of HIV, 26% of all MSM who had sex with casual partners in the past six months did not use condoms consistently. The figures reported in the Schorer monitor and the EMIS study were 36% and 41%, respectively. This

difference can probably be attributed to differences in recruitment methods. The MSM in the current study were part of an internet panel, while the Schorer Monitor and the EMIS study are based largely on data from MSM recruited through dating sites. One effect of this is that participants in the Schorer Monitor and the EMIS study reported having had more sex partners than the participants in the current study, for example. Because the current study is the first LGBT survey to recruit participants through an internet panel, the results do not allow for any conclusions regarding trends in condom usage. Nevertheless, the percentage of MSM engaging in unprotected sex with casual partners appears to be lower than has been estimated based on previous monitors.

The fact that some of the MSM do not use condoms consistently during sex with casual male partners does not mean that these men are actually at risk of being infected with HIV or other STDs. Of the HIV-negative and non-tested MSM who had engaged in unprotected sex with casual partners in the past six months, the majority estimates the risk that they have been infected with HIV as low, very low or non-existent. One possible explanation for this is that these men take other measures. According to the results of the current study, the HIV-negative and non-tested men who had engaged in unprotected sex with casual partners are most likely to inquire about the HIV status of their partners (59%) and to have sex only with men who are HIV-negative (65%). Strategic positioning and sorting according to *viral load* are less common (17% and 15%, respectively). It is quite possible that a large share of the HIV-negative and non-tested MSM correctly estimate their risk of HIV as low, as they had engaged in unprotected sex only with casual partners who were HIV-negative. Nevertheless, we did not ask about the serostatus of the partners in the past six months. Another question concerns the extent to which MSM can trust that their partners are being honest about their HIV status and whether explicit communications takes place regarding HIV status or not (*seroguessing).* It is thus possible that MSM who have unprotected sex with casual partners tend to be unrealistically low in estimating their chances of being infected with HIV, assuming that they are using a strategy to reduce the risk of HIV, even though they are actually at risk.

Various subgroups of MSM are at greater risk for HIV and STDs by having unprotected sex with casual partners. Young MSM and those with low levels of education are more likely to have unprotected sex with casual partners. This finding is also reported in the most recent Schorer Monitor (Van Empelen et al., 2011). It is therefore important to continue emphasising these two groups in terms of prevention policy.

Men with a steady partner are more likely than single men are to use condoms during sex with casual partners. These men are thus protecting both themselves and their partner in the steady relationship. Openness regarding sex with others deserves attention. More than half of MSM noted that they do not always tell their partners that they are having sex outside the relationship. Few agreements are made with regard to the possibility of spreading HIV. Although nearly half of all couples make agreements in this regard, more than half of those who do are not always consistent in terms of living up to these agreements. Only very rarely do partners tell each other when they have broken an agreement. Within the context of HIV and STD prevention, it is therefore important to offer MSM guidelines and tools for discussing such matters with their steady partners.

Sensation seeking, psychological health, an early sexual debut, alcohol use and erectile problems were associated with having unprotected sex, but only in the bivariate analysis. Focusing on these factors is unlikely to reduce the percentage of men having unprotected sex. These associations can nevertheless help to identify the groups in which unprotected sex is most common. Prevention efforts should pay attention to the associations reported above. For example, men seeking help for erectile problems could be asked about the extent to which these problems also impede the use of condoms. This could help practitioners in other disciplines (e.g. sexologists, general practitioners, urologists) to play a role in preventing HIV, along with the staff of STD polyclinics, mental health services and hospitals. The same applies to men with poorer psychological health and those with a tendency for sexual sensation seeking. The effectiveness of interventions could be improved by considering psychological health (amongst other factors). Conversely, in addition to psychological problems, psychologists and psychiatrists could discuss the sexual health of their clients.

According to our results, the attitude to condoms is one of the most important predictors. With an eye towards preventing STDs and HIV, therefore, it would be desirable to address attitudes towards condom usage (and the improvement of such attitudes) during counselling sessions.

In addition to attitudes towards condom usage, drug use clearly plays a role in having unprotected anal sex with casual partners. This is consistent with national studies (Heiligenberg et al., 2012; Van Empelen et al., 2011), as well as with international research (Balán et al., 2012; McCarty-Caplan, Jantz, & Swartz, 2013). One study conducted in the Netherlands reports a direct link between sex-related drug use and the increased prevalence of STDs (Heiligenberg et al., 2012). For MSM, this was the case for all forms of drug use, but particularly for the use of nitric oxide donors or 'poppers'. In the current study, one third of the MSM had used drugs during sex in the past six months, with poppers being the most commonly used. In addition to poppers, MSM also frequently used Viagra and other erectile stimulants. The use of erectogenics increases the likelihood of condom tears and anal bleeding (Rosen et al., 2006), which could increase the likelihood of HIV transmission during anal sex. The risks of using poppers and Viagra during sex could be included as part of the counselling session. In addition, MSM should be well informed about the effects of drug use on protection behaviour.

In conclusion, we can state that a substantial proportion of MSM has anal sex with casual male partners without using condoms. Several specific at-risk groups can be distinguished in this regard, including young MSM, single MSM, MSM with a low level of education, MSM with multiple sex partners, MSM who have sex under the influence of drugs and MSM with a negative attitude to condom usage. Our results indicate the presence of several potentially mutually reinforcing health problems (syndemics) in MSM: the increased prevalence of HIV and other STDs, the copious use of recreational drugs, commonly occurring sexual functioning problems and reduced psychological health (Stall et al., 2003; Vanden Berghe, 2013). It would thus be advisable to develop integrated interventions that combine different health care domains to a greater degree. This would give other professionals (e.g. sexologists, general practitioners, urologists and psychologists/psychiatrists) an important role within efforts aimed at the prevention of STDs and HIV.

The results of this study reveal that a large share of MSM who have unprotected sex with casual partners use strategies other than condom usage to reduce the likelihood of being infected with HIV. When developing interventions and prevention messages, it is important to acknowledge that supplementary strategies are being used, in addition to addressing the safety of these strategies quickly and more effectively. In addition, MSM need to be truly convinced of the advantages of protecting themselves and their partners from HIV and other STDs, such that they are able to make better-informed choices.

6 The sexual health of HIV-positive gay and bisexual men

Maaike Goenee and Charles Picavet

6.1 Introduction

Since the introduction of combination therapies in 1996, HIV has become a chronic disease. In addition to increasing life expectancies, the treatments have also led to improvements in quality of life. As a result of these developments, the focus of care targeted at HIV-positive people has shifted from services focusing on terminal care to services designed to help people living with HIV. The fact that HIV-positive people are living longer and continuing to feel healthy has ensured that they can also have an active sex life. Qualitative studies of men who have sex with men (MSM) have demonstrated that receiving positive HIV test results is usually followed by a period of complete abstinence from sex. After a time, once HIV-positive MSM start to have sex again, such activity tends to be dominated by the fear of spreading HIV. They feel responsible for protecting their sex partners (Van Kesteren, Hospers, Kok, & Van Empelen, 2005). The extent to which they translate this sense of responsibility into actual behaviour depends on personal and contextual factors. Even for those who strongly intend to engage in protected sex, it is not easy to use condoms consistently for longer periods (De Wit & Adam, 2007). Other factors have been shown to play a role as well. For example, sexual problems are relatively common amongst HIV-positive men (Guaraldi et al., 2007; Moreno-Pérez et al., 2010), and this group also reports psychological problems relatively often (Schadé, Boenink, & Danner, 2010). Increased sexual activity, more sexual problems and reduced psychological health can all have negative effects on the protection behaviour of HIV-positive MSM (Kelly, Bimbi, Izienicki, & Parsons, 2009; Plankey et al., 2007; Radcliffe et al., 2010; Tsui et al., 2014). This is relevant with regard to the further spread of HIV, as well as for new STD infections in HIV-positive men.

Since 2008, about 1,100 new diagnoses of HIV have been confirmed each year in the Netherlands. Between 700 and 750 of these diagnoses involve men who have sex with men (MSM). The number of MSM infected with HIV is estimated to be around 14,000, of which group more than 70% has been diagnosed and is being monitored by one of the HIV treatment centres (Van Sighem et al., 2013). Although the number of new diagnoses of HIV in MSM appears to have stabilised, the number is increasing amongst men younger than 25 years and those aged 55 years or older (Van Sighem et al., 2013). Condom usage by HIV-positive MSM in the Netherlands was the subject of a recent study based on a large sample of sexually active MSM, most of whom were recruited through dating sites (Van Empelen, Van Berkel, Roos, & Zuilhof, 2011). Of those who were in a steady relationship in which both partners were HIV-positive, 67% reported that they do not always use condoms within this relationship. Of the men in a serodiscordant relationship (i.e. one partner has HIV and the other does not), 32% reported that they sometimes or always have anal sex without using condoms. Of the HIV-positive MSM who had engaged in sex with one or more casual partners in the past six months, 70% reported having engaged in unprotected anal sex. The reasons why HIV-positive MSM engage in unprotected anal sex are not entirely clear. According to Van Kesteren, Hospers and Kok (2007), a number of factors could play a role in this regard, including optimism with regard to HIV and treatment; 'HIV burnout' (i.e. a degree of fatigue resulting from the constant need to pay attention to precautions); 'barebacking' (i.e. a conscious choice to have unprotected sex); internet and e-dating; sex locations and sex culture; and the use of party drugs. It appears that some HIV-positive MSM also find it difficult to stand up for themselves to protect their health, negotiate about condom usage and resist pressure to engage in risky sex (Van Kesteren et al., 2005). Romantic feelings and a high degree of arousal can also obstruct the intention to engage in protected sex (Van Kesteren, Hospers, Van Empelen, Van Breukelen, & Kok, 2007).

Not all HIV-positive men who do not use condoms can in fact spread HIV. It is becoming increasingly common for MSM to begin anti-retroviral treatment immediately after being diagnosed with HIV. The earlier such treatment is started, the less the immune system is affected. Moreover, studies have indicated that the likelihood of HIV transmission is very low if treatment has reduced the virus to a

level that is undetectable in the blood. When treatment has brought the virus under control for most HIV-positive people, the community viral load (the amount of transmissible virus within a certain community) is reduced. Early testing and immediately starting treatment have become important prevention strategies in this regard (Lange, 2011). For this reason, STI AIDS Netherlands has included early treatment as one of the priorities in its prevention activities and in its information services for MSM (Soa Aids Nederland, 2013a).

When choosing to engage in unprotected sex (anal or otherwise), HIV-positive MSM can also use other strategies to prevent the transmission of HIV (Crepaz et al., 2009; Van den Boom et al., 2013). Serosorting is the best-known of these strategies. In serosorting, HIV-positive individuals select sex partners with the same serostatus. Serosorting is not always effective, however, and it does not reduce the risk of contracting STDs other than HIV (Hart, & Elford, 2010). A second strategy involves sorting according to viral load. In this strategy, HIV-positive individuals whose viral loads are undetectable can engage in unprotected sex with HIV-negative individuals under certain conditions (see *Nederlands Advies condoomgebruik aan vaste partners met ongelijke hiv-status* [Netherlands Recommendations regarding condom usage for partners with unequal HIV status], Soa Aids Nederland, 2013b). The third strategy is strategic positioning, in which the HIV-positive man assumes the receptive role during anal sex with a man who is HIV negative, doing so in order to reduce the risk of HIV-transmission.

Studies have indicated that HIV-positive men are more likely to have reduced sexual desire, in addition to erectile and orgasm disorders (Platteau & Van Lankveld, 2005). A variety of factors can contribute to the development of sexual problems in HIV-positive men, some of which are physical in nature. For example, neuropathy can cause a reduction in genital sensitivity. Hypogonadism (a deficiency in free testosterone) is another possible result of HIV and HIV medication. Lipodystrophy (the disappearance of fat in one place and the increase of fat in another place) can cause men to feel less attractive or to develop a negative self-image (Sadeghi-Nejad, Wasserman, Weidner, Richardson, & Goldmeier, 2010). Psychological factors can also play a role in the emergence of sexual problems. Depression, grief and anxiety can have a negative effect on sexual functioning (Platteau & Van Lankveld, 2005). About half of all HIV-positive individuals have at least one psychological symptom (Schadé et al., 2010). Belonging to a minority group could play a role in this regard. The minority stress model developed by Meyer (2003) assumes that stigma, prejudice and discrimination create a hostile and stressful environment, which can lead to psychological problems. Stigma related to HIV has been shown to be common. In a study conducted in the Netherlands involving 667 HIV-positive people, the majority of whom were homosexual, all of the participants reported having experienced one or more forms of stigma. It is interesting to note that 70% of the homosexual participants experienced stigma from within the homosexual community (Stutterheim, Bos, & Schaalma, 2008). HIV-related stigma can reduce openness about HIV (Pulerwitz, Michaelis, Weiss, Brown, & Mahendra, 2010). A high degree of HIV-related stigma can also have other negative consequences, including reduced mental and emotional health (Courtenay-Quirk, Wolitski, Parsons, & Gomez, 2006; Grov, Golub, Parsons, Brennan, & Karpiak, 2010), decreased confidence in therapy, reduced accessibility of medical care (Sayles, Wong, Kinsler, Martins, & Cunningham, 2009) and unprotected sexual behaviour (Hatzenbuehler, O'Cleirigh, Mayer, Mimiaga, & Safren, 2011; Rao et al., 2012).

This chapter focuses on the sexual health of HIV-positive gay and bisexual men. The following research questions have been formulated in this regard:

- With whom do HIV-positive gay and bisexual men have sex?
- What do HIV-positive gay and bisexual men do during sex?
- How do HIV-positive gay and bisexual men perceive sexuality?
- To what extent do HIV-positive gay and bisexual men use condoms?
- Which risk-reduction strategies are applied by HIV-positive men who engage in unprotected sex with casual male partners?
- What do men in serodiscordant relationships do in order to reduce the transmission of HIV?
- To what extent do HIV-positive gay and bisexual men experience sexual problems?
- Are HIV-positive men undergoing treatment and, if so, how do they evaluate such care?
- What percentage of HIV-positive gay and bisexual men experience HIV-related stigma?

6.2 Methods

Sample

HIV-positive gay and bisexual men were selected as the research group for this chapter. As discussed in the introductory chapter, the LGB panel sample did not include enough HIV-positive men. This target group was therefore supplemented through dating sites, flyers, STD clinics and HIV treatment centres. In all, 143 HIV-positive men completed the questionnaire.

Table 6.1. Demographic characteristics of HIV-positive gay and bisexual men (%)

	N=143
Age	
18 – 24 years	0.7
25 - 34 years	13.3
35 - 54 years	55.9
55 - 88 years	30.1
Ethnicity	
Native Dutch/Western	97.9
Non-Western	2.1
Education	
Low	43.7
High	56.3
Religion	
Not religious	60.0
Religious	40.0
Relationship status	
Married	35.0
Cohabiting	12.6
LAT relationship	11.9
No steady partner	40.6
Children	
Yes	14.7
No	85.3
Sexual orientation	
Gay	90.9
Bisexual	9.1

The demographic characteristics of the sample of HIV-positive men are displayed in Table 6.1. A large majority of the men in a steady relationship (N=85) had a male partner (91%). Of these men, 34 had a male partner whose HIV status was negative or unknown. In addition, 30 participants whose own HIV status was negative or unknown had a HIV-positive male partner. In all, the panel and the supplementary sample contained 64 men who were in a serodiscordant relationship with a male partner, with 46 of these participants having had sex (in the broadest sense) with these partners in the past six months. These men were included in the analyses concerning the risk-reduction strategies of men within serodiscordant relationships.

Measurements

Data were collected using an online questionnaire. The survey was used to ask participants about a wide range of topics relating to sexual health. The concepts addressed in this chapter are described below:

Sexual behaviour in the past six months. Participants were asked if and with whom they had engaged in sex in the past six months. In this context, sex was defined broadly: 'Sex can refer to a wide variety of practices, including stroking (e.g. breasts, penis or vagina), oral sex, anal sex or vaginal sex'. A distinction was made between the current steady partner, another steady partner (e.g. a former partner or a sex buddy) and a casual partner. Participants with more than one steady partner were

asked to base their responses to questions about the steady partner on the partner with whom they felt the strongest connection. Participants were also asked to indicate the gender of the various types of partners. They were then asked which sex techniques they had used (receiving oral sex, giving oral sex, receptive anal sex, insertive anal sex and vaginal sex). The sex techniques were adjusted to the gender of the sex partners. An open question was used to determine the number of people with whom the men had engaged in sex in the past six months.

Sexual well-being. Sexual well-being was investigated according to two scales and three separate questions. The 'sexual satisfaction' scale consists of five items, and the 'positive feelings about sex' scale of eight, six of which form a reliable scale. The items and psychometric characteristics of these scales are provided in Appendix 3.

Condom usage during anal sex was investigated for men who had engaged in sex with one or more male partners in the past six months. Separate questions about condom usage were asked for steady and casual partners, and a further distinction was made between insertive and receptive anal sex (depending on the sex techniques that they had used with each partner). With regard to condom usage with steady partners, no distinction was made between the current steady partner and any other steady partners (e.g. former partners or sex buddies). For the variable *unprotected anal sex*, insertive and receptive anal sex were combined. Unprotected anal sex was defined in terms of inconsistent or no condom usage during insertive and/or receptive anal sex.

Risk perceptions regarding the transmission of HIV were investigated according to the question, 'Please estimate the likelihood that you have transmitted HIV to someone else in the past six months' (1=not likely at all, 5=highly likely). This question was posed only to HIV-positive men who had engaged in unprotected sex with a casual male partner in the past six months.

Risk-reduction strategies. The HIV-positive men who had engaged in unprotected sex with a casual male partner in the past six months were asked to indicate the risk-reduction strategies that they had used (e.g. 'Having unprotected anal sex only with men who are HIV-positive'). Participants were asked to indicate how frequently they had applied each strategy in the past six months, using a five-point scale (1=never, 5=always). Also men in serodiscordant relationships who had engaged in sex in past six months were asked this question.

Sexual problems. Sexual problems were measured according to existing questionnaires: the Sexual Dysfunction Questionnaire (VSD; Vroege, 2003), the International Index of Erectile Function (IIEF; Rosen, Riley, Wagner, Osterloh, Kirkpatrick, & Mishra, 1997), the Female Sexual Function Index (FSFI; Rosen, Brown, Heiman, Leiblum, Meston, Shabsigh, Ferguson, & D'Agostino, 2000) and the Sexual Function Questionnaire (SFQ; Quirk, Heiman, Rosen, Laan, Smith, & Boolell, 2002). These questionnaires were adjusted to make them suitable for a population study and for men who have sex with men. We also tried to formulate the questions as concretely as possible: for example, instead of the question 'Are you sometimes not able to maintain your erection as long as you would like?' we asked 'How often are you able to maintain your erection until the sexual activity is completed?'. The adjustments were made in consultation with several experts.

HIV treatment. HIV-positive men were asked whether they were undergoing treatment and whether they were taking HIV medication (1=yes, 2=yes, but I am currently in a therapy pause, 3=no). Those who were taking HIV medication were asked about the length of time that had elapsed between the HIV diagnosis and the start of HIV medication (1=less than one month, 6=longer than two years), whether their viral load was detectable (1=yes, 2=no) and whether they were taking the HIV medication as prescribed (1=always, 4=never). HIV-positive men who were not taking HIV inhibitors were asked to indicate the reason (e.g. 'My doctor says that I do not need to use HIV inhibitors at this time'). Participants were asked to evaluate each care provider, by indicating their agreement with five statements (e.g. 'The internist is skilled') using a five-point scale (1=completely agree, 5=completely disagree) and by rating a general score.

Experience of HIV stigma was investigated according to a scale consisting of eight items (1=never, 5=always). This scale is based on the Consumer's Experience of Stigma Questionnaire (CESQ), as

adjusted by Stutterheim, Bos and Schaalma (2008) for people with HIV infections. The original scale consists of 11 items, but factor analysis revealed that three items fell outside this scale. Appendix 3 provides information on the items that were included and the psychometric characteristics of this scale.

6.3 Results

Sexual behaviour

Of the HIV-positive men, 91% had engaged in sex in the past six months. Almost all of the men who had engaged in sex (N=130) had done so only with male partners (97%). Two men had engaged in sex exclusively with women, and two men had done so with both men and women. In all, 17% of the participants reported having engaged in sex with one partner, 7% with two partners and 67% with three or more partners.

Table 6.2 provides an overview of the sexual behaviour of HIV-positive men with both steady[10] and casual male partners. Sexual behaviour with women is not discussed here, as only four men reported having sex with women in the past six months. Of the HIV-positive men who had engaged in sex with men in the past six months, 16% had done so exclusively with steady male partners, 44% only with casual male partners and 40% with both steady and casual male partners.

Oral sex was mentioned most frequently. Although HIV-positive men had engaged in oral sex equally with casual and steady male partners, they received oral sex more frequently from casual partners. Only a small share of the HIV-positive men reported not having anal sex when engaging in physical intimacy with men. The results indicate that HIV-positive men were more likely to engage in anal sex with casual partners than they were with steady partners. This is particularly the case for receptive anal sex. A minority reported that they had experience with fisting and the use of toys. The sex techniques mentioned under the category of 'other' included sex with bondage and watersports (urolagnia).

Table 6.2. Sex techniques used with steady and casual male partners (%)

	With steady partners	With casual partners
	N=72	N=108
Stroking, touching, kissing	85.7	83.2
Genital touching	80.0	78.5
Oral sex	91.4	95.3
Active	84.3	92.5▲
Passive	82.9	87.9
Anal sex	81.4	93.5▲
Top	61.4	66.4
Bottom	70.0	81.3▲
Anilinguis ('rimming')	75.7	68.2
Fisting	27.1	30.8
Toys	37.1	34.6
Other	4.3	4.7

▲ = percentage significantly higher for casual partners, evaluated according to non-parametric chi-square test, p<.05.

Sexual well-being

As shown in Table 6.3, the sexual perceptions of HIV-positive men were somewhat more positive than those of HIV-negative or non-tested men. The HIV-positive men were more satisfied than HIV-negative or non-tested men were with the manner in which they had sex, and they were more likely to report feeling at ease during sex. These men were also less likely to feel guilty or to be concerned about their performance during sex.

[10] In this chapter, the term 'steady partner' refers to the current steady partner, as well as to any other steady partners (e.g. former partners or sex buddies), unless stated otherwise.

Table 6.3. Sexual well-being, by HIV status (%)

	HIV-negative or non-tested	HIV-positive
	N=2558	**N=137**
Sexual satisfaction (% satisfied)		
With feelings of sexual desire	80.2	82.8
With feelings of sexual arousal	81.8	84.0
With emotional attachment	69.0	68.9
With manner of having sex	68.6	78.1△
With sex life in general	56.3	64.9
Average on a five-point scale	3.71	3.83△
Men with lifetime experience of sex	**N=2467**	**N=130**
Positive sexual perceptions (% agree)		
I really enjoy sex	90.8	87.1
Sex makes me feel relaxed	85.2	87.0
Insecure about performance during sex	18.4	10.3▽
Insecure about body during sex	21.2	17.1
Completely at ease during sex	65.2	74.3△
Feelings of guilt*	12.3	4.4▽
I enjoy watching porn*	68.5	73.0
Likes to discover sexuality	76.0	79.0
Average on a five-point scale	4.67	4.77

△▽ = higher/lower than amongst HIV-negative and non-tested men, p<.05, Cramer's V<.10.

* These items were not included in the scale for positive sexual perceptions.

Unprotected sex and risk reduction

Some of the HIV-positive MSM who had engaged in sex in the past six months had done so without using protection: they have engaged in sex without a condom with male partners at least once in the past six months. The percentages for sex with steady partners and with casual partners are reported in Figures 6.1.a and 6.1.b, respectively.

Of the HIV-positive MSM who had engaged in anal sex with their steady partners, 63% reported having unprotected insertive anal sex, while 70% reported having unprotected receptive anal sex. HIV-positive men were just as likely not to use condoms during anal sex with their steady partners as HIV-negative MSM (80%) and non-tested MSM (81%) were.

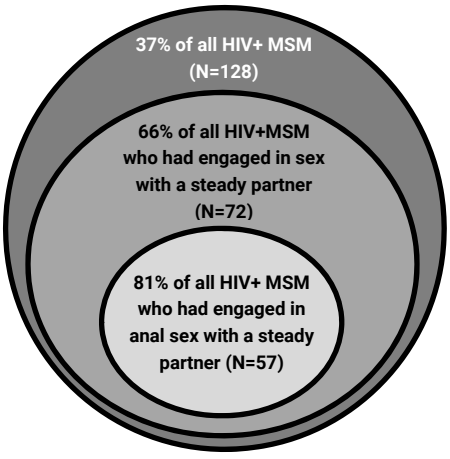


Figure 6.1a. Unprotected sex with a steady partner in the past six months

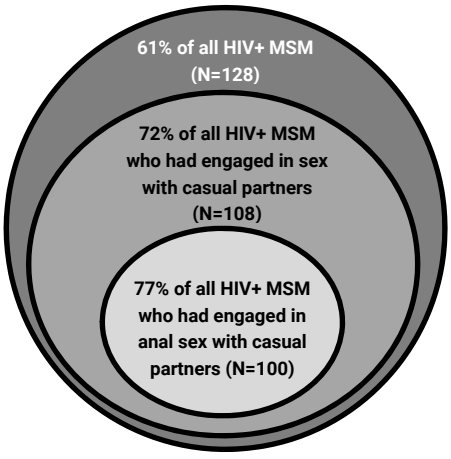


Figure 6.1b. Unprotected sex with a casual partner in the past six months

Of the HIV-positive men who had engaged in anal sex with casual partners in the past six months, 58% reported having unprotected insertive anal sex and 66% reported having unprotected receptive anal sex. Having unprotected anal sex with casual partners was associated with HIV status.

According to the results, 46% of the HIV-negative men and 40% of the non-tested men who had engaged in anal sex with casual partners not always used protection (χ^2 (1, *N*=829) = 39,76, *p* <.001, Cramer's V=.22).

Although a relatively large group of men reported having unprotected anal sex with casual partners, 44% thought that there was no chance that they had transmitted HIV to others. About half (55%) estimated that it was highly unlikely, and one man indicated that it was reasonably likely.

In addition to the use of condoms, HIV-positive men apply other strategies to reduce the likelihood of HIV transmission. Men who had engaged in unprotected sex with a casual partner at least once (N=77) frequently used supplementary risk-reduction strategies (see Table 6.4). More than a third of the men had engaged in unprotected sex only with others who also had HIV (serosorting) or when their viral load was undetectable (sorting by viral load). As shown in Table 6.4, 27% of the men always used one of the strategies listed when having sex with a casual male partner.

In addition to the strategies listed in Table 6.4, 12 men indicated that they had done other things to reduce the likelihood of transmitting HIV (e.g. not ejaculating inside the partner and communicating about HIV status).

Table 6.4. Risk-reduction strategies of men during sex with casual male partners (N=77; %)

	Never	Sometimes	Always
In the past six months			
Had unprotected anal sex only with HIV-positive men	20.5	42.5	37.0
Had unprotected anal sex with HIV-negative men if their own viral load was undetectable	27.8	34.7	37.5
Had unprotected receptive anal sex only with HIV-negative men	27.0	51.4	21.6

The strategies applied by men in serodiscordant relationships are displayed in Table 6.5 (N=46). Nearly all of the strategies had been used occasionally by more than half of the men. The most commonly used strategy was to avoid having semen enter the mouth of the HIV-negative partner. Seven men reported doing other things as well, including being careful with blood and small wounds, using latex gloves, not ejaculating during anal sex and getting tested regularly for STDs.

Table 6.5. Risk-reduction strategies of men in serodiscordant relationships (N=46; %)

	Never	Sometimes	Always
In the past six months			
Ensured that no semen entered the mouth of the HIV-negative partner	18.2	9.1	72.7
Avoided anal sex	52.3	27.3	20.5
Used a condom	31.1	22.2	46.7
Engaged in unprotected anal sex only if the viral load of the HIV-positive partner was undetectable	46.2	7.7	46.2
Engaged in unprotected anal sex in which the HIV-negative partner was insertive	38.1	28.6	33.3

HIV treatment

With the exception of one HIV-positive participant, everyone reported being treated for HIV. Nearly all of the men were being treated by an internist (92%); 41% were seeing a HIV consultant as well, and 7% were being treated by a general practitioner. Most of the HIV-positive participants (91%) were taking HIV medication. At the time of the survey, one participant was in a therapy pause, and 12 reported that they were not taking HIV medication.

Of those taking HIV medication (N=130), 33% had started within one month after being diagnosed with HIV. About three in ten (29%) participants had started treatment within a period of 2-12 months; 15% started within one or two years, and 22% had started longer than two years after the diagnosis. Of the men taking HIV medication, 89% reported having an undetectable viral load. The HIV-positive men demonstrated a high degree of commitment to therapy. A large majority (86%) reported always taking the medication in the proper dosage, at the proper time and according to the proper nutritional guidelines, with 12% reporting that they usually did this. Those who were not taking HIV medication

(N=13) were asked to indicate their reasons.[11] Almost all were doing this on the advice of a physician (Table 6.6).

Table 6.6. Reasons for not taking HIV medication, raw numbers (n)

My physician says that I do not need to take HIV medication at this time	11
In order to prevent side effects	3
I do not consider it necessary	3
I do not wish to be reminded of HIV every day	2
Other reason	2
I am afraid of the treatment	1
I am afraid that people will see that I am taking HIV medication	0

Note: Participants could give more than one answer.

The ratings that the HIV-positive men under treatment assigned to the professionals from whom they were receiving treatment are displayed in Table 6.7. Because only 10 HIV-positive men were undergoing treatment by general practitioners, only the ratings for internists and HIV consultants are reported in this table. Nearly all of the HIV-positive men indicated that they were being treated properly, skilfully and respectfully. The ratings also reflect that the HIV-positive men were generally satisfied with the treatment that they were receiving. The internist and HIV consultant to whom the men had been for their most recent check-ups received average ratings of 8.7 and 8.8, respectively.

Table 6.7. Rating of the counselling provided by professionals (% agree)

	Internist	HIV consultant
	N=132	N=59
Provides me with good assistance	94.7	98.3
Is skilful	95.5	98.3
Is trustworthy	94.7	96.6
Treats me with respect	97.7	96.6
Is gay/lesbian/bi-friendly	90.2	98.3

Sexual problems

The sexual problems occurring amongst HIV-positive men are reported in Table 6.8. As shown in the table, HIV-positive men were more likely than HIV-negative men and non-tested men were to report having erectile problems.

Table 6.8. Sexual problems, by HIV status (%)

	Occurs		Occurs and considered problematic	
	HIV-negative or non-tested	HIV-positive	HIV-negative or non-tested	HIV-positive
	N=2141	N=126	N=2141	N=126
Excessive sexual desire	2.4	4.8*		
Never (hardly ever)/very weak feelings of desire	0.7	1.6*	0.1	0.8*
Weak/very weak feelings of arousal	1.6	2.4*	1.2	2.4*
Little desire or arousal	2.2	3.2	1.3	2.4
Penis never or only sometimes hard (for sufficient time)	15.8	30.6△	7.9	16.8△
Often/always achieves orgasm within one minute	3.0	0.8*	1.7	0.8*
Never/hardly ever achieves orgasm, or difficulty achieving orgasm	8.4	21.0△	3.7	4.8*
Pain during/after sex, or concerns about pain	5.7	3.5	-	-
At least one sexual problem	-	-	16.0	19.8

△ = higher than amongst HIV negative and non-tested men, p<.05, Cramer's V<.10

* Cell population too small to test differences

[11] Because of the small number of HIV-positive participants who were not taking HIV inhibitors, only raw numbers and no percentages are displayed in Table 6.6.

With regard to problems related to orgasm, it is interesting to note that HIV-positive men had more difficulty achieving orgasm and achieved orgasm less frequently relative to HIV-negative and non-tested men, although they were not more likely to report experiencing this as a problem. One in five HIV-positive men had at least one sexual problem.

HIV-related stigma

HIV-positive men reported that they regularly encountered rejection or discrimination due to HIV (see Table 6.9). This might have caused them to have more concerns about openness regarding their HIV-status. For example, 86% reported that they had sometimes avoided telling someone that they were infected with HIV. Eight in ten reported having been rejected for sex because they had HIV, and nearly nine in ten HIV-positive men reported having read, heard or seen something painful or offensive in the media about HIV-positive people. Taking all types of stigma together, all of the participants had encountered one or more types of stigma.

Table 6.9. Extent to which HIV-positive men encountered HIV-related stigma in their surroundings (N=143; %)

	Never	Sometimes/ regularly	Often/ always
I avoid telling others outside my immediate family that I have HIV	14.3	32.1	53.6
Others avoid or evade me when they hear that I have HIV	55.9	40.2	3.9
Others say that I should not expect as much from life because I have HIV	74.1	24.1	1.9
I hear others saying negative or offensive things about HIV-positive people	31.3	61.9	6.7
People who know that I have HIV treat me fairly	3.5	11.8	83.6
In the media, I read, see or hear painful or offensive things about HIV-positive people	12.0	78.9	9.0
I worry that others will see me in a negative light because I have HIV	48.1	35.9	16.0
Others do not wish to have sex with me when they hear that I have HIV	21.6	66.7	11.7

6.4 Summary and conclusions

Nearly all HIV-positive men are sexually active. In general, HIV-positive men are satisfied with the manner in which they have sex, and have positive sexual feelings. The sexual well-being of HIV-positive men is slightly more positively than that of HIV-negative or non-tested men. Of all participants, 75% had engaged in sex with more than one partner in the six months preceding the study. These figures are high compared to those reported in Chapter 3 on the entire group of gay and bisexual men. Far from all HIV-positive men use condoms during sex with their partners. Unprotected anal sex with casual male partners is more common amongst HIV-positive men than it is amongst HIV-negative and non-tested men (40%). These results correspond to those reported in the most recent Schorer Monitor (Van Empelen et al., 2011). Several explanations are possible for the difference between HIV-positive MSM and other MSM. It could be that men who are more active sexually are also the ones who had been at more risk for HIV, and that their lifestyles have not changed drastically after they were diagnosed. Alternatively, some men might start to have more sex and to use condoms less after being diagnosed as HIV-positive, for example because they are no longer afraid of contracting HIV or because their treatment has made them non-infectious. However, the results of this cross-sectional survey do not allow us to draw any conclusions in this regard.

Serosorting, viral-load sorting and strategic positioning are applied by the majority of the HIV-positive men who had engaged in unprotected anal sex with casual partners in the past six months. More than half of the men in serodiscordant relationships use sorting according to viral load and strategic positioning as strategies (additional or otherwise). In general, it appears that men estimate the possible risk involved in each separate situation and decide whether to use condoms on that basis. Often, however, these estimations of risk turn out not to be rationally founded (Stall & Van Griensven, 2005). For example, Zablotska and colleagues (2009) report that 27% of the HIV-positive MSM in their study who applied serosorting could better be described as engaging in *'seroguessing'*, as they were more likely to think that they knew the HIV status of their partners than they were to be certain of it. Moreover, the aforementioned strategies do not eliminate the likelihood of HIV superinfection or infection with another STD, which could have negative health consequences. This points to

opportunities for prevention, which should strongly emphasise information and mutual communication on the application of various risk-reduction strategies.

Nearly all of the HIV-positive men in this study are undergoing treatment for HIV, and about 90% of these men have an undetectable viral load. In addition, the majority (62%) of the men have started taking HIV medication within one year of diagnosis. These figures correspond to those reported by Stichting HIV Monitoring (Van Sighem et al., 2013). The percentage of men starting within one month was higher in the current study (33%, as compared to 17%). Given the increasing importance of 'treatment as prevention' in relation to HIV, periodical monitoring of this indicator is essential. The vast majority of the HIV-positive men who participated in this study report that they are careful to take the medication as prescribed. With proper therapy compliance, the virus can be kept well under control for most HIV-positive individuals. Such compliance could also reduce the community viral load. Proper compliance with therapy thus contributes to the collective prevention of HIV. Care providers should be aware that the use of HIV medication can increase the likelihood of sexual problems; it is therefore important for those providing HIV treatment (and possibly other physicians) to open the door to discussing sexual problems resulting from HIV medication. The psychological aspects of these problems could be addressed by HIV consultants. The HIV-positive men are highly satisfied with the care that they are receiving from internists and HIV consultants.

All of the HIV-positive men have experienced one or more forms of stigma. Stigmatisation and ways of coping with it should be discussed, and not only within the context of care provision. General prevention efforts should also address the fact that counteracting rejection and exclusion can have advantageous effects for HIV-positive individuals, as well as for the community as a whole. For example, as indicated by the information reported in Chapter 5, HIV-negative MSM use serosorting as a strategy for reducing the likelihood of HIV. This strategy will not work if HIV-positive men are less open about their HIV status due to HIV-related stigma.

In conclusion, we can state that HIV-positive men constitute a sexually active group with high levels of sexual well-being. Although a large proportion of these men are not consistent in using condoms during sex with men, the likelihood of transmitting HIV is very small. This is because many of the sexually active men in this study had an undetectable viral load, thus eliminating the chance of HIV-transmission. In addition, other risk-reduction strategies are also applied frequently. Aspects that require continued attention are the validity of various risk-reduction strategies, the discussion of sexual problems within the context of care provision and HIV-related stigma within the community.

7 Testing for HIV and STDs amongst MSM

Maaike Goenee, Charles Picavet and Bouko Bakker

7.1 Introduction

Policies regarding testing for HIV have changed significantly over the past decade. In the late 1980s, the official policy regarding testing was still quite reserved. In theory, it was assumed that testing was unnecessary in the absence of symptoms. Given the lack of effective treatment for HIV and HIV-related symptoms, the prevailing notion was that knowledge of one's own HIV status would only generate uncertainty without offering any other advantage. The situation changed in 1996, with the introduction of combination therapies. From that time on, various parties began calling for the implementation of a more active testing policy (Van Kerkhof, 1999). This meant that at-risk groups – particularly men who had multiple sexual contacts with men – were more strongly urged to have themselves tested regularly. The initial recommendation was for people to get themselves tested annually. This later changed to twice-yearly testing, and Soa Aids Nederland has recently begun to advise MSM with increased risk to have themselves tested every three to six months, for both HIV and other STDs. This advice, to have yourself tested for STDs every three months, was already being given to men who were HIV-positive (Soa Aids Nederland, 2013a).

Only in recent years have we been certain that, in addition to its advantages for the patient, early treatment can help to prevent the transmission of HIV (Cohen et al., 2011). An unknown and untreated HIV infection is more easily transmitted, particularly if it is acute. In addition to regular testing, early treatment is seen as another strategy for preventing the further spread of HIV. This strategy of treatment as prevention can have major benefits with regard to collective prevention (Cohen et al., 2011; Das et al., 2010; Montaner et al., 2010).

Most new HIV infections in MSM are caused by men who do not know that they are infected with HIV (Bezemer et al., 2010). It has been estimated that approximately 14,000 MSM are infected with HIV, and 25%-29% of these men have not been diagnosed and referred to treatment (Van Sighem et al, 2013). Of the MSM who participated in the most recent Schorer Monitor (Van Empelen et al., 2011), 22% had never been tested for HIV, and more than half had not been tested in the past year. In the European study of MSM in the Netherlands, 21% had never been tested, and 38% had not been tested in the past year (The EMIS Network, 2013). The men who never have themselves tested for HIV appear to differ in several aspects from those who do have themselves tested. First, non-tested men tend to be somewhat younger, have a lower level of education and are less likely to live in a large city. Second, non-tested men are less open about their homosexual or bisexual orientation. Third, non-tested men tend to profile themselves as being more oriented towards intimacy and security, are less likely to visit sex locations and to use drugs, and their sexual satisfaction is lower. These men also exhibit less sexual risk behaviour (Van Empelen et al., 2011).

Barriers to HIV testing can arise at several levels. Deblonde and colleagues (2010) distinguish the individual level (low perceived risk, fear of HIV, fear of disclosure, limited access to care), the level of the care provider (not addressing risk behaviour and not pro-actively offering HIV testing or referring patients to other facilities for HIV testing) and the structural level (policy, financing). Results from a study of MSM in Scotland on MSM indicate that, after the implementation of a more active testing policy, several obstacles persist: fear of a positive test, norms regarding HIV testing behaviour, not seeing the perceived benefits of HIV testing and the negative attitudes of HIV-negative and non-tested men regarding sex with HIV-positive partners (Flowers, Knussen, Li, & McDaid, 2013). The literature review by Smit (2012) on HIV-related stigma also identifies negative social consequences and discrimination as reasons for some people not to have themselves tested for HIV and to forgo treatment. In addition, certain symptoms of seroconversion are not always recognised as such by either patients or health professionals. This can lead HIV-positive individuals to delay starting treatment for their HIV infections (Sudarshi et al., 2008; Sullivan, Curtis, Sabin, & Johnson, 2005).

In 2011, 76% of the MSM in the Schorer Monitor had been tested for STDs at least once. Half had been tested in the past year, with 40% of them having been tested in the past six months. The HIV-

negative men who follow the advice to be tested twice each year tend to be more highly educated and single, in addition to being more likely to use the internet to search for sex dates, to spend many hours online, to visit sex locations and to be regular drug users (Van Empelen et al., 2011).

Traditionally, HIV and STD tests have been performed by either general practitioners or by STD clinics operated by public health services or hospitals. More recently, it has become possible to request HIV and STD tests online through the TestLab service offered by MantotMan. This facility has since become operational in various regions (Soa Aids Nederland, 2013c). In addition, several self-tests for STDs and HIV can be purchased through the internet. Nevertheless, Soa Aids Nederland advises going to general practitioners or public health services, as the quality of such self-tests can vary, and they are likely to be less reliable than laboratory tests. Moreover, the information accompanying self-tests is usually very concise (Pars & Van Bergen, 2013). Other self-testing methods for HIV are being developed. For example, people can now use smartphones to determine whether the HIV virus is present in their blood (Mudanyali et al., 2012, Wang et al., 2014). This method is not yet commercially available in the Netherlands, however.

Vaccinations for a number of viral STDs are either already available or under development. People at high risk of infection with Hepatitis B have been receiving free vaccinations since the late 1990s. This group includes MSM. The successful programme has led to a reduction in the number of new cases of Hepatitis B (Van Rijckevorsel et al., 2013). Of the MSM participating in the Schorer Monitor, 10% reported having been diagnosed with Hepatitis B at some point. Of the participants who had not been diagnosed with Hepatitis B, 61% had been fully vaccinated; 9% had been vaccinated, but not (or not yet) completely, and 30% had not been vaccinated (Van Empelen et al., 2011). In the EMIS study, 59% of the Dutch MSM had received full vaccinations (The EMIS Network, 2013). Vaccines for HIV have not yet been made commercially available. Nevertheless, the risk of HIV transmission can be reduced by medication to be taken before unprotected sex or after an accident (e.g. a ruptured condom). Medication taken after an accident is known as post-exposure prophylaxis (PEP), and medication used preventively is known as pre-exposure prophylaxis (PrEP). Of the MSM with negative or unknown HIV status who participated in the Schorer Monitor, 47% were certain of the meaning of PEP, while 19% had some idea. Despite the potential that PrEP offers for HIV prevention, the medication that is needed has yet to be registered for such an application in the Netherlands. For example, according SeksHAG (a group of members of NHG [the Netherlands Society of General Practitioners] who are specialised in sexual health), too little is known about the effectiveness of PrEP to introduce it in the Netherlands (Boeke & Heijnen, 2013). The topics addressed in the Amsterdam Cohort Study (ACS) conducted by GGD Amsterdam (Amsterdam Public Health Services) amongst gay and bisexual men (also identified as the '*homocohort*') include familiarity with PrEP and willingness to use PrEP if it becomes available on the market (Bil, Davidovich, Van der Veldt, & Stolte, 2013). Of the HIV-negative MSM in this study, more than half (54%) were familiar with PrEP, but only 9% intended to use PrEP in the future. Those intending to use PrEP consisted largely of men with HIV-positive or non-tested partners and men with a low levels of education. Sexual risk behaviour was not associated with this intention, which suggests that the men for whom the use of PrEP could be most important are not particularly interested in it.

This chapter provides answers to the following questions:

- What percentage of MSM have been tested for HIV and other STDs, and how often have they been tested?
- Where did MSM go to have themselves tested most recently?
- How many MSM have been diagnosed with HIV and/or another STD?
- To what extent do MSM notify their partners when they have been diagnosed with HIV and/or STD?
- What reasons do MSM have for not getting tested regularly?
- Which factors have been associated with testing for HIV and STDs in the past year?
- Do MSM intend to be tested in the future, and where would they prefer to do this?
- What percentage of MSM have been vaccinated for Hepatitis B?
- How familiar are MSM with PEP, PrEP and the symptoms of a primary infection?

7.2 Methods

Sample
The procedure and sample are described in Chapter 1. For the analyses concerning the testing behaviour of MSM (HIV testing, STD testing, partner notification, intent to be tested, Hepatitis B vaccination, familiarity with PEP and PrEP, primary infections), gay and bisexual men who had engaged in sex with at least one male partner in the past six months were selected from the LGB panel sample (N=883; 57% of all gay and bisexual men). These participants were selected because it was important to describe this behaviour for a group that was not recruited on the basis of sexual behaviour. Chapter 5 provides an overview of the demographic characteristics of this sample.

To increase the power for the regression analyses to the factors associated with being tested (or not being tested) for HIV and STD in the past year, MSM from the supplementary recruited sample (N=1025) were included, along with the MSM from the LGB panel sample (N=883). For the purposes of analysing the associations, it is less important for the sample to have been recruited as randomly as possible.

Measurements
This survey investigates a broad range of concepts relating to sexual health. The following concepts are addressed in this chapter:

Testing behaviour with regard to HIV and STD infections. Testing behaviour for HIV and for STD was examined separately. This was done largely according to the same questions, replacing the acronym 'HIV' with the phrase 'any STD other than HIV'. The participants were first asked whether they had ever been tested for HIV or another STD (1=yes, 2=no). Participants who had been tested at least once were then asked when they had been tested most recently (1=less than three months ago, 4=longer than one year ago), where they had been tested and/or whether they had ever been diagnosed with HIV and/or another STD. Those who had been diagnosed with any STD other than HIV were asked which STDs had been diagnosed in the past year. An open question was used to determine the frequency with which participants had got themselves tested in the past 12 months. Participants who did not get themselves been tested in the past year were asked to state their reasons (e.g. 'Because I was afraid of receiving an unpleasant result'). Those with a positive diagnosis of HIV were asked how much time had elapsed between the last HIV-negative test and the positive test, or whether they had ever been tested for Hepatitis C and/or whether they had ever been diagnosed with Hepatitis C.

Partner notification was investigated amongst men who had been diagnosed with HIV and/or another STD, using the following question: 'When you were diagnosed with the STD, did you notify your sex partner (or partners)?' (1=no, none of the partners, 2=some partners, 3=all partners). Those who had notified some or all of their partners were asked about the manner in which they had informed these partners (e.g. 'These sex partners were notified by a health and social care nurse').

Intention to be tested. All MSM were asked whether they intended to have themselves tested for STDs other than HIV every six months in the future (1=definitely not, 5=definitely). The HIV-negative MSM were asked the same question with regard to testing for HIV, in addition to the question of where they would prefer to have themselves tested for HIV (e.g. 'via the Test Lab on MantotMan.nl').

Hepatitis B vaccinations All MSM were first asked whether they had ever been diagnosed with Hepatitis B (1=yes, 2=no). They could then indicate whether they had ever been vaccinated for Hepatitis B (1=no, 2=yes, but not [or not yet] completely, 3=yes, completely). Those who had not been vaccinated were asked whether they knew that they could have themselves vaccinated free of charge in the Netherlands (1=yes, 2=no).

Familiarity with PEP. All MSM were asked whether they were familiar with PEP (1=no, 2=yes, but have never been treated with it, 3=yes, and have been treated with it) and how they had learned about PEP (e.g. 'Someone with whom I had engaged in unsafe sex told me about PEP'). Men who had been treated with PEP at least once were presented with four statements (e.g. 'It was easy to find out

where I could get PEP'). Answers to these statements could be given based on a five-point scale (1=completely agree, 5=completely disagree).

PrEP. Familiarity with PrEP was investigated according to the following question: 'Are you familiar with the concept of offering HIV medication preventively to at-risk individuals in order to reduce the likelihood of HIV infection?' They were then asked what they thought of the idea (1=highly undesirable, 5=highly desirable) and/or whether they would consider using PrEP if it were to be offered to them (1=definitely not, 5=definitely).

Recognition of primary infections was asked of HIV-negative and non-tested MSM, using the following question: 'If you experience flu-like symptoms (e.g. fever, swollen glands, a rash, sore throat, diarrhoea and night sweats), do you ever consider that they could indicate an acute HIV infection?'.

7.3 Results

Testing for HIV

Six in ten MSM reported that they had been tested for HIV at least once. Slightly more than one fourth (26%) had done so in the past year, with 16% having been tested in the past six months. Nearly one in 10 (9%) MSM had themselves tested for HIV at least twice in the past 12 months. Of those who had been tested (N=545), 93% reported a HIV-negative status and 7% reported a HIV-positive status (4% of all MSM were HIV-positive). Another 13 men did not wish to state the results of their most recent HIV tests, and three men said that they had been tested but did not yet know their status. The majority (57%) of the men who had received the diagnosis HIV-negative had been tested longer than one year before, with 19% having been tested 6-12 months before and 25% in the past six months.

Table 7.1. Locations where MSM had been tested for HIV most recently (%)

	N=545
Via their general practitioner	34.9
Via an STD clinic operated by a public health service	37.2
Via an STD clinic operated by a hospital	17.2
Via Out of the closet	0.3
Via Testlab on MantotMan.nl	1.8
Through a home test purchased via the internet or a chemists	0.6
Via a blood bank/blood donation	0.8
Other location	7.1

The locations where MSM had themselves tested most recently are listed in Table 7.1. The majority had themselves tested via their general practitioner or STD clinic operated by public health services or hospitals. Other locations mentioned included hospitals (not STD polyclinics) where MSM are tested for HIV during regular examinations. Others had got themselves tested in connection with insurance. Those who had not been tested for HIV in the past six months (74%) stated various reasons (Table 7.2). The following were the three most common: 1) I had not run any risk, 2) I had no physical symptoms and 3) I had not gotten around to it.

Table 7.2. Reasons why MSM had not been tested for HIV in the past year (%)

	N=626
Because I had not gotten around to it	19.4
Because I had not run any risk	72.2
Because I never have any symptoms	23.2
Because I am afraid of medical examinations and shots	2.8
Because I am afraid of receiving an unpleasant result	4.9
Because I do not wish to talk with others about my sex life	4.6
Because of the costs or financial consequences	1.5
Because I do not know where I can get myself tested	2.0
Another reason	1.4
Note: Participants could give more than one answer.	

Binary regression analysis was performed in order to determine which factors are associated with the decision to be tested for HIV in the past year. The analyses were performed using data on MSM from both the LGB panel sample (N=833) and the supplementary recruited sample (N=1025). HIV-positive MSM were not included in the analysis, because it was not known which MSM had learned of their HIV-positive status in the past year.

Bivariate and multivariate regression analyses were performed to find out whether the following factors are associated with having been tested for HIV in the past year: age, education, sexual orientation, relationship status, openness about sexual orientation, psychological health, self-esteem, physical health, sexual sensation seeking, positive feelings about sex, number of sex partners, unprotected sex with casual partners, social norm regarding testing and attitude towards testing. Descriptions of the concepts addressed in these analyses are provided in Appendix 3.

The outcomes of the bivariate and multivariate analyses are displayed in Table 7.3. Results from the bivariate analyses reveal the factors that are independently associated with the outcome measure. This is particularly useful in terms of providing information about at-risk groups. Multivariate analysis allows us to see which of these factors remain when controlling for the others. It thus identifies the factors that are most strongly associated with or in the closest proximity to the outcome measure.

The MSM who had been tested for HIV in the past year were distinguished according to several characteristics. With the exception of health, self-esteem and level of education, all the factors investigated had bivariate associations with testing behaviour. The multivariate analyses revealed that the social norm and a positive attitude towards testing were associated most strongly with having been tested for HIV in the past six months. Taken together, the variables in the model explained 32% of all HIV testing in the past year.

Of the non-tested and HIV-negative MSM (N=825), a small share (14%) had plans to be tested for HIV twice a year in future. Those who had been tested in the past year were also more likely to have plans to do so in the future, as compared to those who had not been tested (46% versus 4%; (χ^2 (1, *N*=825) = 236,94, *p* <.001, Cramer's V=.51). When asked where they would prefer to be tested twice a year, 53% selected STD polyclinics operated by public health services or hospitals, 33% selected general practitioners, 10% selected home tests (obtained through the internet) and 3% the test lab MantotMan. Three men mentioned *Out of the Closet*, and 14 men mentioned other locations (e.g. the spa, the '*homocohort*' operated by the public health service in Amsterdam) or stated that the location would not matter as long as it was anonymous and easily accessible.

Table 7.3. Factors associated with HIV testing in the past year (N=1754)

	Bivariate	Multivariate
	OR (95% CI)	**OR (95% CI)**
Bisexual orientation (as compared to gay)	0.61 (0.49 - 0.76)***	0.82 (0.60 - 1.11)
Age (in years)	0.99 (0.98 - 0.99)***	0.99 (0.98 - 1.00)**
High level of education	1.03 (0.85 - 1.24)	1.17 (0.92 - 1.48)
Steady relationship	0.55 (0.46 - 0.67)***	0.83 (0.65 - 1.06)
Openness about sexual orientation	1.42 (1.26 - 1.59)***	1.23 (1.05 - 1.44)*
Psychological health	0.78 (0.69 - 0.89)***	0.86 (0.69 - 1.06)
Self-esteem	0.96 (0.83 - 1.10)	0.95 (0.76 - 1.20)
Health	1.11 (0.97 - 1.27)	0.99 (0.83 - 1.18)
Sensation seeking	1.56 (1.35 - 1.80)***	0.96 (0.79 - 1.16)
Positive feelings about sex	1.35 (1.15 - 1.58)***	1.11 (0.89 - 1.38)
Number of sex partners[1]	1.27 (1.23 - 1.31)***	1.23 (1.18 - 1.29)***
Unprotected sex with casual partners	2.45 (1.96 - 3.06)***	1.03 (0.77 - 1.38)
Positive social norm concerning testing	2.58 (2.29 - 2.90)***	1.75 (1.51 - 2.02)***
Positive attitude towards testing	2.90 (2.46 - 3.42)***	1.82 (1.48 - 2.23)***
R^2/ Nagelkerke R^2		.32

* = p<.05; ** = p<.01; *** = p<.001.

[1] Continuous variable; 1=1 partner, 9=9 or more partners.

One in 10 (11%) HIV-negative or non-tested MSM was aware the flu-like symptoms (e.g. fever, swollen glands, night sweats) could indicate a primary infection. In this case as well, those who were aware of this were more likely to have been tested for HIV in the past year (25% versus 6%; (χ^2 (1, *N*=825) = 61,08, *p* <.001, Cramer's V=.27).

Tested positive for HIV

For a large share (42%) of the HIV-positive men, the first HIV test was also the test that revealed the HIV-positive status. For one fourth (26%) of the HIV-positive men, six months had elapsed between the last HIV-negative result and the HIV-positive result; for 6%, the period was 6-12 months and 26% reported that it had been longer than one year. The HIV-positive men were asked whether they had notified their sex partners upon learning that they were HIV-positive. The results indicate that 15% had notified all of their partners, 40% had notified some but not all of their partners, and 15% had not notified any of their partners. Nearly all of the men (92%) had notified their partners themselves, while 8% had done so (also) via a health and social care nurse. None of the men had informed their partners through a general practitioner or through a special website (e.g. suggestatest.nl or gay.nl). A majority (87%) of the men with HIV had also been tested for Hepatitis C. The virus was confirmed in four of those who were tested (N=36).

Testing for STDs

Slightly more than half of the MSM (55%) had been tested for STDs at least once. A quarter reported that they had been tested for STDs in the past year, with 15% having been tested in the past six months. About one in 12 MSM (9%) had been tested for STDs other than HIV at least twice in the past year. The most common locations for the most recent test were STD clinics operated by public health services (42%), their general practitioner (32%) and STD clinics operated by hospitals (18%). Another 11 men (2%) had themselves tested for STDs via a test lab of MantotMan, and two had themselves tested using home tests (1%). The other men (6%, N=28) had undergone STD tests through other medical specialists (e.g. urologists, dermatologists or internists) or had been tested in connection with a cohort study (or other research project).

Of the MSM who had been tested, 23% had been diagnosed with an STD at some point, and 4% had received such a diagnosis in the past year. Compared to HIV-negative and non-tested MSM, HIV-positive MSM were more likely to have been diagnosed with an STD (78% for HIV-positive MSM versus 20% for HIV-negative and non-tested MSM; (χ^2 (1, *N*=865) = 69,34, *p* <.001, Cramer's V=.28). With regard to the number of STD diagnoses in the past six months, no significant differences were

found between the two groups (8% versus 3%). The STDs detected are listed in Table 7.4. Chlamydia, syphilis and gonorrhoea were the most commonly confirmed.

Table 7.4. STD diagnoses in the past year (%)

	Of all MSM who were tested in the past year	Of all MSM with one or more STDs
	N=206	N=30
Chlamydia	5.9	42.0
Syphilis	4.6	32.8
Gonorrhoea	3.3	23.4
Genital herpes	0.0	0.0
Genital warts	0.9	6.6
LGV	0.4	2.6
Another STD[1]	0.7	4.7

Note: Participants could give more than one answer.

[1] One participant reported a diagnosis of Hepatitis B, and one participant reported a diagnosis of Hepatitis C.

A majority (55%) of the men who had been diagnosed with an STD at some point had notified all of their partners. About one in five (19%) had done so for some but not all of their partners and 26% had not notified anyone. Of the MSM who did notify their partners, almost all of them (98%) had done so themselves. Seven men enlisted the help of a health and social care nurse, and one man did so via a special website (e.g. suggestatest.nl).

Of the MSM who had not had themselves tested for STDs in the past year (75%), most had not done so because they had not run any risk of contracting STDs. For one third, the absence of physical symptoms was the reason they stated for not having themselves tested, and 17% reported that they had just not gotten around to it (Table 7.5).

Table 7.5. Reasons why MSM were not tested for STDs other than HIV (%)

	N=672
Because I had not gotten around to it	16.8
Because I had not run any risk	67.6
Because I never have symptoms	35.2
Because I am afraid of medical examinations and injections	3.8
Because I am afraid of receiving an unpleasant result	3.6
Because I do not wish to talk with others about my sex life	4.3
Because of the costs or financial consequences	1.2
Because I do not know where I can have myself tested	1.3
Another reason	1.1

Note: Participants could give more than one answer.

Factors affecting STD testing in the past year were also investigated. The analyses included the same independent variables that were included in the regression analyses for HIV testing in the past six months.

The outcomes of the bivariate and multivariate analyses are displayed in Table 7.6. The results were nearly the same as those for HIV testing. The multivariate analyses revealed that those who were more positive about testing (attitude) and who thought that those around them were also more positive about it (social norm) were also the most likely to have themselves tested for STDs. The multivariate model explained 39% of the total variance with regard to testing for STDs in the past year.

Table 7.6. Factors associated with STD testing in the past year (N=1754)

	Bivariate	Multivariate
	OR (95% BI)	**OR (95% BI)**
Bisexual orientation (as compared to gay)	0.65 (0.52 - 0.80)***	0.91 (0.67 - 1.25)
Age (in years)	0.98 (0.98 - 0.99)***	0.97 (0.97 - 0.98)***
High level of education	1.15 (0.95 - 1.38)	1.37 (1.07 - 1.76)*
Steady relationship	0.49 (0.41 - 0.60)***	0.75 (0.58 - 0.97)*
Openness about sexual orientation	1.36 (1.22 - 1.52)***	1.14 (0.97 - 1.34)
Psychological health	0.79 (0.69 - 0.90)***	0.84 (0.68 - 1.05)
Self-esteem	1.04 (0.90 - 1.20)	1.09 (0.85 - 1.39)
Health	1.15 (1.01 - 1.32)*	0.97 (0.80 - 1.17)
Sensation seeking	1.67 (1.44 - 1.93)***	0.94 (0.77 - 1.14)
Positive feelings about sex	1.49 (1.27 - 1.75)***	1.25 (1.00 - 1.57)
Number of sex partners[1]	1.33 (1.29 - 1.38)***	1.29 (1.23 - 1.35)***
Unprotected sex with casual partners	3.51 (2.80 - 4.41)***	1.47 (1.09 - 1.99)*
Positive social norm with regard to testing	2.78 (2.46 - 3.14)***	1.97 (1.70 - 2.29)***
Positive attitude to testing	2.96 (2.51 - 3.49) ***	1.66 (1.35 - 2.05)***
R2/ Nagelkerke R2		.39

* = p<.05; ** = p<.01; *** = p<.001.

[1] Continuous variable; 1=1 partner, 9=9 or more partners.

Of all MSM, 16% planned to have themselves tested for STDs every six months in future. One in five (22%) stated that they were not sure about these plans, and 62% did definitely not plan to do this. In this context as well, MSM who had been tested for STDs in the past year were also more likely to plan to have themselves tested regularly in future, as compared to those who had not been tested for STDs in the past year (50% versus 4%; (χ^2 (1, *N*=883) = 264,47, *p* <.001, Cramer's V=.54). The results also revealed an association with HIV status, with HIV-positive MSM being more likely to plan to have themselves tested regularly for STDs, as compared to HIV-negative and non-tested MSM (46% versus 14%; (χ^2 (1, *N*=867) = 28,56, *p* <.001, Cramer's V=.18).

Finally, all MSM were asked to indicate the extent to which they consider themselves responsible for limiting the spread of STDs and HIV. A large majority (88%) agreed (or completely agreed) with the statement that individuals are responsible for protecting themselves against STDs and HIV, and 86% agreed (or completely agreed) with the statement that individuals are responsible for protecting their sex partners against STDs and HIV.

Hepatitis B

Hepatitis B had been diagnosed in 8% of the MSM. More than half (52%) of the men had been completely vaccinated for Hepatitis B, while 7% had been partially vaccinated and 28% had not been vaccinated. Another 14% did not know whether they had been vaccinated, partially or otherwise. Of those who had not yet been vaccinated for Hepatitis B, a considerable share (46%) were not aware that they could get this vaccination free of charge.

PEP and PrEP

All the MSM were asked whether they were familiar with PEP as a preventive medical treatment that must be started very soon after unprotected anal (or other) sex with an HIV-positive partner. More than half of the MSM (55%) had never heard of this; 44% knew what PEP was but had never been treated with it, and 1% (N=8)[12] had been treated with it. Of those who knew what PEP was, a large majority had learned about PEP by reading information on the internet, in brochures or in gay magazines (Table 7.7). One in ten MSM had learned about PEP from professionals.

[12] Of the eight men who had undergone PEP treatment, seven stated that it was easy to find out where to receive PEP, six considered it easy to obtain PEP and five received good advice regarding the advantages and disadvantages of PEP. Four men considered the PEP treatment difficult.

Table 7.7. Manner in which MSM learned about PEP (%)

	N=376
Read about PEP on the internet, in a brochure or in a gay magazine	79.6
An STD physician or health and social care nurse had referred to PEP	11.1
Friends had referred to PEP	7.4
Through job or studies	4.7
Learned about PEP in another way	2.6
Someone with whom participant had engaged in unsafe sex had referred to PEP	0.4

Note: Participants could give more than one answer.

In addition to PEP, all HIV-negative and non-tested MSM (N=825) were asked what they thought of the idea of offering HIV medication to MSM preventively in order to reduce the likelihood of HIV infection for people who are at risk due to unprotected anal sex (a preventative strategy better known as PrEP). A small share (15%) of these men were familiar with the idea. Slightly less than half (45%) considered it desirable to offer HIV medication preventively; 31% considered the concept neither undesirable nor desirable, and the remaining 24% considered it undesirable (or highly undesirable). One in five (22%) would consider the preventive use of HIV medication if offered to them; 28% did not know if they would use it, and 51% stated that they would not (or definitely would not) accept such an offer.

7.4 Summary and conclusions

Slightly more than half of the MSM has never been tested for HIV (40%) or STDs (45%). For more than half of those who has been tested at least once, the most recent time was more than six months before the survey. To date, the prevailing recommendation was for all MSM to get themselves tested for HIV and other STDs every six months. A small share of the men (9%-15%) has been tested for STDs or HIV in the past six months. Now that current recommendations have been tightened for high-risk MSM, who are advised to test themselves every three months in some cases, the gap between the prevailing recommendations and actual practice is increasing. This is a cause for concern, as some of the MSM who have not been tested (or at least not recently) are truly at risk of becoming infected with HIV or other STDs. It is unclear whether the best strategy would be to call for all MSM to be tested regularly or whether it would be better to differentiate such efforts, specifically targeting those groups that are at a higher risk. More attention needs to be paid to motivating those who have not been tested in the past year (or ever), partly because these are also the men who do not intend to be tested in the future. Although these men might be less active sexually, they could still be at risk and are less likely to be reached through existing channels (e.g. MantotMan.nl) and outreach activities (e.g. Pink Saturday and at gay festivals).

For some MSM, the absence of physical symptoms is a reason not to get themselves tested for HIV (23%) or other STDs (35%). This is not a valid reason, given that STDs can also occur without physical symptoms. In addition, only one in ten MSM is aware of the symptoms of primary HIV infections. About 70% of those who were not tested in the past six months state that they had not run any risk as the reason. For some MSM, this could be valid, for example if they are in a steady monogamous relationship or if they are consistent in applying valid risk-reduction strategies. Others may underestimate their risk, due to the application of risk-reduction strategies that are less valid.

Interventions focused on encouraging testing could direct attention to the individual advantages of testing and to the importance of knowing one's current HIV status and early treatment of HIV infections. Attention should also be paid to the further prevention of HIV-related stigma, such that it no longer poses an obstacle. In this regard, more emphasis could be placed on the low contagiousness of HIV-positive individuals whose viral load is undetectable. Within the context of HIV transmission, additional emphasis could be placed on those who do not have themselves tested regularly. Testing for both HIV and other STDs appears to be primarily associated with attitudes towards testing, as well as with perceived social norms. These factors could be influenced through activities developed in consultation with the target group. In designing such activities, it is also important to consider individuals with particular personality characteristics (e.g. narcissism and an

increased need for excitement), for whom any emphasis on norms could evoke counter-productive reactions (Smit, 2010).

Those who do have themselves tested tend to do so at traditional testing locations (e.g. their general practitioner or an STD clinic). Clinics operated by public health services was the category that was mentioned most often. It seems reasonable to assume people would prefer to go to anonymous locations rather than to their own general practitioner. Although it has become more common for general practitioners to test for and discuss HIV over the years, there is still room for improvement in the form of a more active testing policy and open communications regarding sexual health (Donker, Dorsman, Spreeuwenberg, Van den Broek, & Van Bergen, 2013). Assigning a more prominent place to sexual health and HIV testing within primary care is likely to reach groups other than those who already approach STD polyclinics or general practitioners on their own initiative. Testing could also be made easier by focusing additional efforts on outreach testing (e.g. offering HIV and STD testing in sex locations). Self-testing is currently used only sporadically. When asked how participants would prefer to be tested for HIV in the future, about 10% responded that they would prefer to use self-testing. This could mean that home testing could play a larger role in the future, on the condition that such tests are sufficiently reliable.

Slightly less than half of the MSM are familiar with PEP, and a few have used it. The MSM participating in the Schorer Monitor – who were more active sexually – were slightly better informed, with 66% being familiar (or somewhat familiar) with PEP (Van Empelen et al., 2011). The participants in the current survey are likely be at less risk, making them less aware of this possibility. Given that PEP sharply reduces the likelihood of transmitting HIV when risks have been taken, it would be good for the groups who are at the greatest risk to be more aware of this option. Physicians and other care providers could play a role in this regard, as only a few men reported that they had learned about the possibility from their physicians. The concept of PrEP is less well-known. Nevertheless, nearly half of the MSM considers it desirable for PrEP to be made available, with one in five men stating that they would seriously consider using PrEP. Before PrEP is introduced to the market in the Netherlands, it would be advisable to devote careful attention to identifying the groups that should be eligible for such treatment and under which conditions.

8 Sexual victimisation

Stans de Haas

8.1 Introduction

Prevalence of sexual victimisation: Previous research

In the past decades, it has become clear that sexual victimisation occurs quite frequently. Exact figures are difficult to state, as the percentages that have been found vary across different studies, depending upon the research method used and other factors (for an overview, see e.g. Krahé, Tomaszewska, Kuyper, & Vanwesenbeeck, 2014; and Vanwesenbeeck, 2008). According to the most recent results of *Sexual Health in the Netherlands*, a study that is conducted periodically by Rutgers, 11% of men and 31% of women between the ages of 15 and 25 years have experienced some form of sexual victimisation in their lives (ranging from being kissed against their will to being forced to have sexual intercourse against their will). For men and women between the ages of 25 and 70 years, these figures were 13% and 42%, respectively (De Haas, 2012). Lesbian women, gay men, bisexual men and women, and people with transgender feelings were also represented in this sample. Sexual victimisation was shown to occur more often amongst gay and bisexual men than amongst heterosexual men. For bisexual women (but not for lesbian women), the percentage who had experienced sexual victimisation was also higher than it was for heterosexual women. People with trans feelings had also experience sexual victimisation more often, as compared to non-trans people (Rutgers WPF, 2013). Because these insights are based on a small group of LGBT people, however, they do not allow any statement about the nature of the sexual victimisation. For example, previous studies have indicated that 30% of men who had been abused in their youth experience sexual victimisation again after the age of 16. For women, this figure was 50%. Both men and women are thus at substantial risk for re-victimisation (De Haas, Van Berlo, Bakker, & Vanwesenbeeck, 2012). For the LGBT population, such figures concerning the nature of the sexual victimisation are not yet available.

Research in other countries has also demonstrated that sexual victimisation occurs frequently amongst LGBT people. For example, a meta-analysis of 17 studies reveals that sexual abuse is more common amongst young people who belong to a sexual minority than amongst young people who do not belong to such minorities (Friedman et al., 2011). Adult LGBT people have also been shown to be particularly vulnerable. Results from a review of 75 studies indicate that sexual victimisation is more common amongst gay and bisexual men and amongst lesbian and bisexual women than it is amongst heterosexual men and women (Rothman, Exner, & Baughman, 2013). The European Agency for Fundamental Rights (2014) recently conducted a study on violence against women. In all, 42,000 women from 28 European countries participated in this study. The results indicate that women who regarded themselves as lesbian or bisexual were more likely to have experienced some form of physical or sexual victimisation than heterosexual women. This was the case for violence committed by a partner, as well as for violence committed by someone other than a partner. A review of studies amongst trans people demonstrates that they are also more vulnerable to sexual victimisation (Stotzer, 2009).

Previous research on factors associated with sexual victimisation

Previous studies conducted in the Netherlands have indicated that, for bisexual women, the following factors are associated with having experienced sexual victimisation: having a relatively high number of sex partners, being single, having a lower level of education and experiencing minority stress (having experienced negative reactions with regard to sexual orientation). The same study shows that, for gay and bisexual men, a relatively high number of sex partners and experience of negative reactions are associated with experience of sexual victimisation (Kuyper & Vanwesenbeeck, 2011). For women with bisexual contacts, a German study found an association between the number of sex partners and experience of sexual victimisation (Krahé & Berger, 2013). Another German study on gay men indicates that men who had experienced sexual abuse in their youth, who had many sexual partners or who had paid or received money for sex tended to experience sexual victimisation relatively frequently (Krahé, Scheinberger-Olwig, & Schütze, 2001).

However, the direction of these associations is not yet clear. It could be that these factors increase an individual's vulnerability to sexual victimisation, but they could also be consequences of victimisation. Some evidence does suggest that gender non-conformity makes people more vulnerable to experiencing sexual victimisation. Many trans people with experience of sexual victimisation report that the perpetrator carried out the victimisation in response to their (the trans person's) gender identity or the way in which they expressed this identity (Stotzer, 2009).

Minority stress appears to play an additional role in sexual victimisation. Previous studies have indicated that LGBT victims suffer more from acute stress and anxiety following sexual victimisation than heterosexual victims do (Cramer, McNiel, Holley, Shumway, & Boccellari, 2012). This might be due to the combined influences of sexual victimisation and minority stress (Gold, Dickstein, Marx & Lexington, 2009; Gold, Marx & Lexington, 2007). It could be that the consequences of sexual victimisation are more severe for LGBT people than they are for people who do not belong to this group. Known consequences of sexual victimisation include poorer psychological and physical health, sexual problems (Van Berlo & Mooren, 2009) and reduced social participation, for example in the form of early school leaving, absenteeism and unemployment (Vanwesenbeeck, 2008).

Current study

This study investigates the nature and scope of sexual victimisation for LGBT people in the Netherlands. The description is guided by the following questions:

- How frequently does sexual victimisation occur amongst LGBT people in the Netherlands?
- How frequently does re-victimisation occur in this population?
- What is the nature of such victimisation?
- What are the characteristics of victims and perpetrators?
- What percentage of victims seek professional help, and how satisfied are they with these services?
- What percentage of victims press charges?
- Which factors are associated with experiencing sexual victimisation?

Additional insight into the nature and scope of sexual victimisation LGBT people is needed, as studies of sexual victimisation in the Netherlands have thus far been conducted only within small groups of LGBT people. In the current study, participants were specifically recruited from the LGBT target group. This allows for a more focused examination of the nature and scope of sexual victimisation and the need for support and assistance within this group. In addition, this study investigates whether associations found in previous studies also emerge within the current sample. This offers essential starting points for prevention and for the treatment of victims of sexual victimisation. At the end of this chapter, we will make a number of recommendations in this regard.

8.2 Methods

Definition of sexual victimisation

Although the term 'sexual victimisation' is sometimes construed as referring only to rape with physical violence, it is actually much broader. Sexual victimisation consists of all sexual behaviours or approaches that violate the boundaries of the victim (e.g. assault, rape, sexual mistreatment, sexual intimidation, incest and sexual abuse). Sexual victimisation does not have to be physical in nature; one example of non-physical sexual victimisation is making sexually offensive remarks. In this chapter, non-physical sexual victimisation is referred to as sexual harassment. Unwanted sexual touching and kissing against an individual's will are also addressed in this chapter under the heading of sexual harassment. In cases of physical sexual victimisation, the victim must undergo or carry out sexual acts without consent or under coercion. Consent means that there was fully conscious agreement, without confusion or misunderstanding, with an awareness of the consequences of the behaviour. Coercion refers to all situations in which the victim is unable to refuse or escape, as well as to situations where there is no voluntary participation, for example due to threatening behaviour, physical violence or verbal pressure (e.g. blackmail) or an inability to resist (e.g. because of alcohol or drug use).

Sample
The manner in which the participants were recruited is described in Chapter 1. This chapter is based on data gathered from 815 gay men, 765 bisexual men, 333 lesbian women, 1141 bisexual women, 183 trans women, 142 MtF gender-variant people, 148 trans men and 103 FtM gender-variant people.

Measurements
In this study, various types of sexual victimisation were presented to all participants. These questions were also presented to participants who had stated earlier in the questionnaire that they did not have any sexual experience. This was done in order to avoid excluding anyone from the outset. There could be a group who had experienced sexual victimisation but not consensual sexual contact. Some participants in this group might report that they have never had sexual contact. The questions on sexual victimisation were presented to all participants, in order to reduce the likelihood of under-reporting. In the questions on sexual victimisation, the type of sexual contact and the form of coercion are described as concretely as possible. Participants could indicate whether and how often (never, once, more than once) they had experienced each form of victimisation. With regard to the first and last experience with sexual victimisation, follow-up questions were asked concerning characteristics of the perpetrator, whether they pressed charges and used care.

The behaviour (the type of sexual contact) and the form of coercion were described as concretely as possible, in order to minimise the likelihood of varying interpretations (Hamby & Koss, 2003). The word 'rape' was not used in the questionnaire, as previous research has shown that participants tend to mention rape only in connection with an unknown perpetrator (Hamby & Koss, 2003). The questions on sexual victimisation are based on previous measures used in the population study on sexual and reproductive health (Van Berlo & Hoïng, 2006; De Haas, et al., 2012, De Haas, 2012). In contrast to previous measurements, the various behaviours (ranging from unwanted touching to forced anal sex) and the forms of coercion (physical violence, abusing the fact that an individual is unable to resist and the use of blackmail or other types of verbal pressure) were presented to participants using cross-classifications. In other words, for each behaviour (e.g. vaginal sex), participants could indicate whether they had experienced it because the perpetrator had used a specific type of coercion (e.g. physical violence). This was based on a questionnaire developed by Krahé and Berger (2013) (e.g. 'vaginal sex against your will, because someone used physical violence or threatened to use physical violence').

8.3 Results

Prevalence of sexual victimisation and re-victimisation
In the analyses, distinctions are made between sexual harassment (e.g. unwanted sexual touching), sexual victimisation (e.g. forced sexual intercourse) and sexual victimisation before the age of 16. The analyses also investigate how many participants had experienced sexual victimisation multiple times – both before and after the age of 16 (re-victimisation).

The prevalence of sexual victimisation was between 14% (bisexual men) and 50% (FtM gender-variant people). The prevalence of sexual harassment ranged from 34% (for bisexual men) to 79% for FtM gender-variant people (see Tables 8.1 and 8.2).

Examination of differences within the LGBT group reveals several specific at-risk groups. The prevalence of sexual harassment was slightly higher amongst gay men than it was amongst bisexual men. In particular, offensive remarks were reported more frequently by gay men. Bisexual men were more likely to have experienced sexual abuse in their youth. For nearly all forms of sexual victimisation, the percentages were higher for bisexual women than they were for lesbian women (see Table 8.1). For trans people, the percentages were particularly high amongst FtM gender-variant people. For example, one in three participants from this group had experienced sexual victimisation before the age of 16, and 18% had experienced sexual victimisation both before and after the age of 16 (re-victimisation) (see Table 8.2).

Table 8.1.a. Sexual victimisation and harassment amongst gay and bisexual men (%)

	Gay men	Bisexual men
	N=792	N=788
Experienced at least once		
Sexual harassment		
Sexually offensive remarks	37.0	22.6▼
Sexual touching against your will	26.6	22.0▽
Kissing against your will	15.7	11.6▽
Sexual victimisation		
Genital touching against your will, through…		
Physical violence (or the threat of physical violence)*	5.3	5.3
Abuse of the situation**	4.2	5.0
Verbal pressure***	5.5	5.6
Total	9.4	10.2
Oral sex against your will, through…		
Physical violence (or the threat of physical violence)*	5.0	3.3
Abuse of the situation **	3.5	3.2
Verbal pressure***	3.8	4.0
Total	8.2	6.9
Vaginal sex against your will, through…		
Physical violence (or the threat of physical violence)*	0.5	0.5
Abuse of the situation **	0.9	0.5
Verbal pressure***	0.5	0.9
Total	0.9	1.3
Anal sex against your will, through…		
Physical violence (or the threat of physical violence)*	5.5	2.8▽
Abuse of the situation **	4.5	2.6▽
Verbal pressure***	2.7	2.1
Total	8.9	4.8▽
At least 1 form of….		
Sexual harassment	49.1	34.4
Sexual victimisation	15.3	13.5
Sexual victimisation in the past year	0.3	0.7
Sexual victimisation before the age of 16	4.5	7.1△
Re-victimisation	1.1	1.7

▼ = percentage is significantly lower than amongst gay men, p<.05, Cramers V>.10.

▽△ = percentage is significantly lower/higher than amongst gay men, p<.05, Cramers V<.10.

* because someone used physical victimisation or threatened to use physical victimisation.

** because someone abused the fact that you were unable to resist (e.g. because you had used alcohol or drugs).

*** because someone pressured you with words (e.g. blackmail).

Table 8.1.b. Sexual victimisation amongst lesbian and bisexual women (%)

	Lesbian women	Bisexual women
	N=330	N=1144
Experienced at least once		
Sexual harassment		
Sexually offensive remarks	45.3	41.2
Sexual touching against your will	50.2	64.6▲
Kissing against your will	30.4	42.9▲
Sexual victimisation		
Genital touching against your will, through…		
Physical violence (or the threat of physical violence)	7.7	14.2△
Abuse of the situation	5.1	13.3▲
Verbal pressure	12.0	15.6
Total	16.5	26.9▲
Oral sex against your will, through…		
Physical violence (or the threat of physical violence)	4.4	8.9△
Abuse of the situation	3.9	7.8△
Verbal pressure	6.5	11.6△
Total	9.6	16.8△
Vaginal sex against your will, through…		
Physical violence (or the threat of physical violence)	6.1	14.7▲
Abuse of the situation	3.4	11.4▲
Verbal pressure	11.6	16.0
Total	13.9	25.3▲
Anal sex against your will, through…		
Physical violence (or the threat of physical violence)	1.5	4.0△
Abuse of the situation	0.9	4.3△
Verbal pressure	1.8	5.7△
Total	2.7	8.7△
At least 1 form of….		
Sexual harassment	63.0	72.8
Sexual victimisation	22.8	36.3▲
Sexual victimisation in the past year	0.0	2.0▲
Sexual victimisation before the age of 16	11.5	16.9▲
Re-victimisation	2.8	6.9▲

▲ = percentage is significantly higher than amongst lesbian women, p<.05, Cramers V>.10.

△ = percentage is significantly higher than amongst lesbian women, p<.05, Cramers V<.10.

Table 8.2.a. Sexual victimisation and harassment amongst MtF trans people (%)

	Trans women	MtF gender-variant people
	N=183	**N=142**
Experienced at least once		
Sexual harassment		
Sexually offensive remarks	48.1	43.7
Sexual touching against your will	37.2	33.8
Kissing against your will	21.9	25.4
Sexual victimisation		
Genital touching against your will, through…		
Physical violence (or the threat of physical violence)	9.8	6.3
Abuse of the situation	6.0	6.3
Verbal pressure	8.2	8.5
Total	15.8	13.4
Oral sex against your will, through…		
Physical violence (or the threat of physical violence)	7.7	4.9
Abuse of the situation	6.0	4.2
Verbal pressure	6.0	7.0
Total	12.0	9.9
Vaginal sex against your will, through…		
Physical violence (or the threat of physical violence)	4.4	1.4
Abuse of the situation	2.2	0.7
Verbal pressure	3.3	0.7
Total	4.9	1.4
Anal sex against your will, through…		
Physical violence (or the threat of physical violence)	6.0	4.9
Abuse of the situation	3.8	5.6
Verbal pressure	4.9	5.6
Total	9.8	8.5
At least one form of….		
Sexual harassment	59.6	60.6
Sexual victimisation	21.3	19.0
Sexual victimisation in the past year	1.6	0.0
Sexual victimisation before the age of 16	8.7	9.2
Re-victimisation	4.4	3.6

N.B.: Trans women and MtF gender variant people did not differ on all of these measures.

Table 8.2.b. Sexual victimisation and harassment amongst FtM trans people (%)

	Trans men	FtM gender-variant people
	N=148	N=103
Experienced at least once		
Sexual harassment		
Sexually offensive remarks	39.2	62.1▲
Sexual touching against your will	48.6	71.8▲
Kissing against your will	29.7	53.4▲
Sexual victimisation		
Genital touching against your will, through…		
Physical violence (or the threat of physical violence)	16.9	25.2
Abuse of the situation	15.5	20.4
Verbal pressure	20.9	27.2
Total	28.4	41.7▲
Oral sex against your will, through…		
Physical violence (or the threat of physical violence)	6.8	19.4▲
Abuse of the situation	8.1	9.7
Verbal pressure	10.1	19.4▲
Total	13.5	27.2▲
Vaginal sex against your will, through…		
Physical violence (or the threat of physical violence)	14.9	26.2▲
Abuse of the situation	10.8	13.6
Verbal pressure	16.2	21.4
Total	24.3	33.0▲
Anal sex against your will, through…		
Physical violence (or the threat of physical violence)	3.4	10.7▲
Abuse of the situation	4.1	3.9
Verbal pressure	4.1	6.8
Total	7.4	11.7
At least 1 form of….		
Sexual harassment	60.8	78.6▲
Sexual victimisation	34.5	49.5▲
Sexual victimisation in the past year	1.4	6.8▲
Sexual victimisation before the age of 16	16.9	33.0▲
Re-victimisation	5.4	18.4▲

▲ = percentage is significantly higher than amongst trans men, p<.05, Cramers V>.10.

Age of victims of sexual victimisation

Most victims were youths or young adults (see Figures 8.1 and 8.2). In the LGB group, 11% of the victims were younger than 12 years of age at the time of the last incident; 20% were between the ages of 12 and 16, with 38% being between the ages of 16 and 25 and 32% 25 years or older. Amongst the trans people, 14% of the victims were younger than 12 years of age at the time of the last incident; 16% were between the ages of 12 and 16, with 38% being between the ages of 16 and 25 and 32% 25 years or older.

Figure 8.1. Age of victims (LGB people) of sexual victimisation

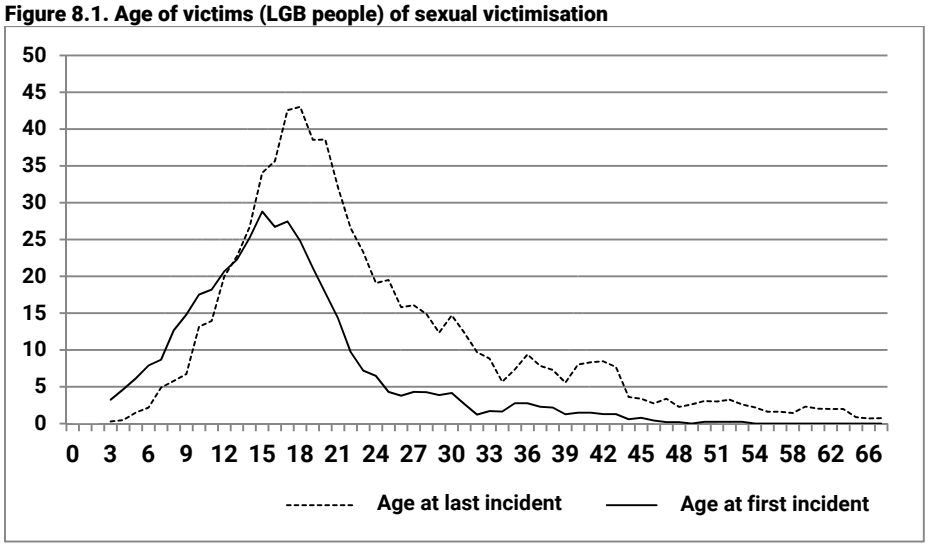
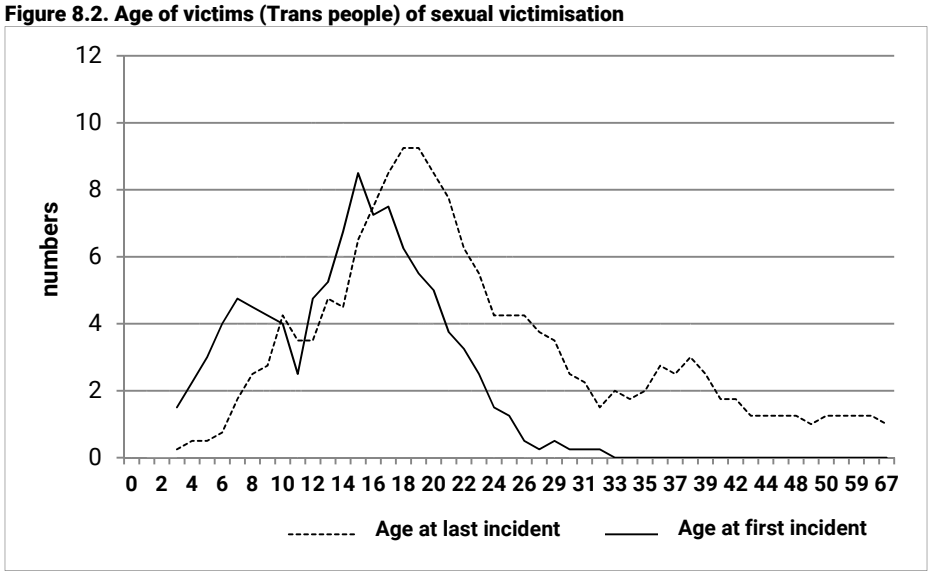


Figure 8.2. Age of victims (Trans people) of sexual victimisation



Characteristics of the perpetrator

For the LGB group, nearly all of the perpetrators were men. Within this group, the percentages indicating one or more male perpetrators varied between 91% and 99% (see Table 8.3). For trans people as well, the perpetrator was often a man. This was true in 74% to 95% of the cases (see Table 8.4).

In many cases, the perpetrator was known to the victim, although the percentage of unknown perpetrators was relatively high for gay and bisexual men, as well as for MtF trans people who had been victims of sexual victimisation after the age of 16. With regard to abuse before the age of 16, the perpetrator was usually a family member or other known person. For gay and bisexual men who had experienced sexual victimisation after the age of 16, the perpetrator was often a casual partner or other acquaintance. For lesbian and bisexual women and for FtM trans people, the perpetrator was often a (former) steady partner or other acquaintance (see Tables 8.3 and 8.4, respectively).

In cases of abuse during childhood, many of the perpetrators were more than five years older than the victim, although this large age difference was also observed quite frequently for victimisation experienced after the age of 16 (see Tables 8.3 and 8.4). Particularly for men who had experienced sexual victimisation after the age of 16, the perpetrator was likely to know or suspect the victim's sexual orientation (see Table 8.3). For MtF trans people as well, the perpetrator often knew or suspected that the victim either was trans or had a trans history (see Table 8.4).

The type of perpetrator was not associated with the type of coercion that was used (physical violence, abuse of the situation or verbal pressure). For all forms of coercion, the various types of perpetrators occurred in comparable percentages (not reflected in Table). For example, the percentage of unknown perpetrators was not higher in cases of physical violence than it was in cases of verbal pressure.

Table 8.3. Characteristics of the perpetrator for LGB people who reported having experienced sexual victimisation at least once (%)

	Victimisation before the age of 16		Victimisation after the age of 16	
	Men	Women	Men	Women
	N=103	N=243	N=128	N=252
Perpetrator more than five years older	71.5	63.4	47.1	33.8
Perpetrator knew (or suspected) the victim's sexual orientation	27.3	6.3	68.0	33.6
Sex of the perpetrator(s)				
One boy/man	83.8	96.1	84.4	95.7
One girl/woman	8.7	0.3	4.9	1.9
Two or more boys/men	7.5	3.1	8.9	2.4
Two or more girls/women	0.0	0.0	0.0	0.0
Boys/men and girls/women	0.0	0.4	1.8	0.0
Type of perpetrator (multiple				
My steady partner or former partner	0.0	8.1	8.9	36.7
A casual sex partner	2.5	1.0	23.8	11.4
A family member (e.g. father or uncle)	19.2	37.9	6.1	4.1
Someone else, known to the victim	57.0	37.1	31.1	30.7
Someone else, a stranger	19.1	12.9	33.0	15.7

Table 8.4. Characteristics of the perpetrator for trans people who reported having experienced sexual victimisation at least once (%)

	Victimisation before the age of 16		Victimisation after the age of 16	
	MtF	FtM	MtF	FtM
	N=29	N=59	N=34	N=43
Perpetrator more than five years older	69.0	67.8	38.2	37.2
Perpetrator knew (or suspected) the victim's trans status or history	10.3	1.7	41.2	11.6
Sex of the perpetrator(s)				
One boy/man	75.9	86.4	58.8	81.4
One girl/woman	13.8	3.4	17.6	14.0
Two or more boys/men	3.4	8.5	14.7	4.7
Two or more girls/women	3.4	0.0	2.9	0.0
Boys/men and girls/women	3.4	1.7	5.9	0.0
Type of perpetrator (multiple responses possible)				
My steady partner or former partner	3.4	3.4	11.8	37.2
A casual sex partner	0.0	3.4	5.9	11.6
A family member (e.g. father or uncle)	31.0	40.7	2.9	2.3
Someone else, known to the victim	34.5	42.4	23.5	30.2
Someone else, a stranger	31.0	13.6	44.1	14.0

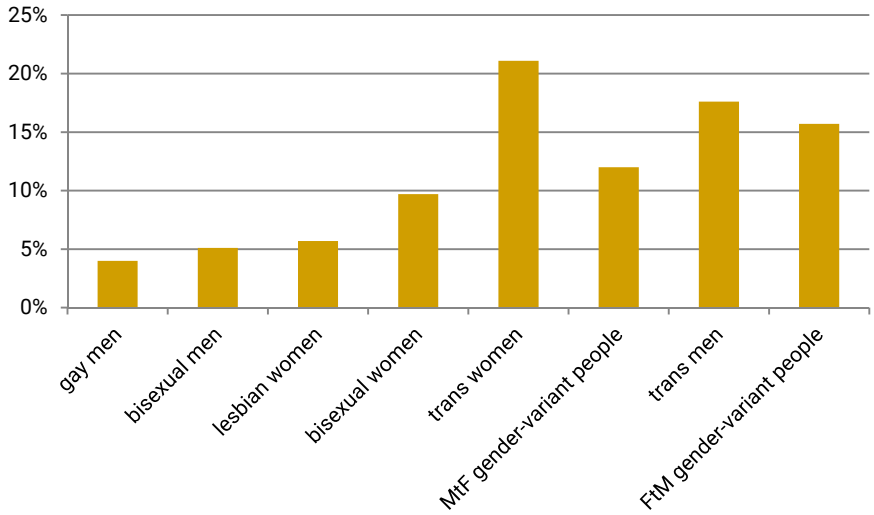
Satisfaction with care providers

Between 4% and 21% of the victims had sought help for problems relating to the sexual victimisation within the past 12 months from a professional care provider or institution (see Figure 8.3), including

mental health institutions or independent psychologists, psychiatrists or psychotherapists. The rest of the victims might had also sought help longer than a year before completing the questionnaire. In the LGB group, the victims who had sought help assigned their most recent care providers an average rating of 7.8 (sd=1.58), with 10% rating them as unsatisfactory and 90% rating them as satisfactory. Most of these participants indicated that they had received satisfactory care (74%), that their care providers had been skilled (83%), that they had been able to trust them (85%) and that they had been treated with respect (90%). The participants who had sought help were less satisfied in terms of the gay-friendly character of the care providers: 60% reported that their care providers had been gay-friendly, while 30% reported that this had not been the case and 10% had no opinion in this regard.

Trans people who had experienced sexual victimisation and who had sought help in this regard within the past 12 months rated their care providers with an average score of 7.0 (sd=2.33). Of this group, 25% rated their care providers as unsatisfactory, and 75% rated them as satisfactory. Slightly more than half (57%) reported that they had received satisfactory care. A slight majority reported that their care providers had been skilled (68%), that they had been able to trust them (64%) and that they had been treated with respect (71%). Some of the participants were less satisfied with regard to the attitudes of the care providers regarding their gender identities: 61% reported that their care providers had been trans-friendly, while 25% reported this had not been the case and 14% had no opinion in this regard.

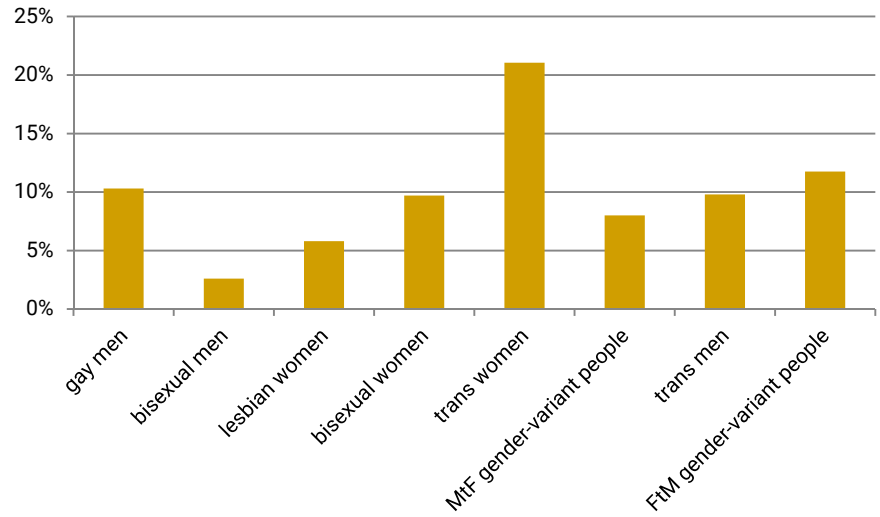
Figure 8.3. Use of care (%) in the past year amongst people who had experienced at least one form of sexual victimisation



Pressing charges

The percentage of people who had experienced sexual victimisation and who had filed a police report ranged from 3% to 21% (see Figure 8.4). People who had experienced a form of sexual victimisation in which the perpetrator had used or threatened to use physical violence were more likely to report this than victims who had been pressured in other ways (LGB people: $X^2(2)=23{,}512$, $p<.001$; trans people: $X^2(2)=9{,}208$, $p<.010$).

Figure 8.4. Charges pressed (%) amongst people who had experienced at least one form of sexual victimisation



Which factors are associated with experience of sexual victimisation?
Spearman correlation coefficients were used to investigate whether the following factors were associated with the experience of sexual victimisation: educational level, relationship status, number of sex partners in the past six months, experience with paid sex in the past six months, negative reactions to sexual orientation or gender identity in the past 12 months, gender non-conformity in childhood, sexual problems, health, psychological health, and social participation.

Sexual victimisation had been experienced more often amongst LGB men and women with lower levels of education. For all groups, sexual victimisation was more common for people who had occupational disabilities, were looking for jobs, were unemployed or were receiving social benefit payments. Gay and bisexual men who had been paid for sex in the past six months had experienced sexual victimisation more often. In addition, with the exception of trans men and FtM gender-variant people, victims of sexual victimisation had more frequently encountered negative reactions concerning their sexual orientation or gender identity. For gay and bisexual men and for trans women and MtF gender-variant people, gender non-conformity was associated with sexual victimisation. Participants from these groups who had felt, acted or looked more feminine during their youth experienced sexual victimisation more often. Sexual problems occurred relatively frequently in gay and bisexual men and in trans men and FtM gender-variant people who had experienced sexual victimisation. In all groups, victims of sexual victimisation had poorer health and psychological health compared to people who had not experienced sexual victimisation (see Table 8.5).

Table 8.5. Factors associated with the experience of sexual victimisation (Spearman correlation coefficients)

	GB men	LB women	MtF trans people	FtM trans people
Level of education	-.06*	-.05*	-.06	-.08
Participation in society	-.15**	-.17**	-.18**	-.27**
Relationship status	-.04	.04	.06	-.04
Number of sex partners	-.05	.03	-.01	.18
Having paid for sex[1]	.03	-	.01	-.04
Having been paid for sex	.08**	-.01	-.01	.12
Negative reactions	.16**	.08**	.13*	-.01
Gender non-conformity	.09**	.02	.13*	-.08
Sexual problems	.13**	.04	-.08	.14*
Health	-.15**	-.16**	-.24**	-.14*
Psychological health	-.19**	-.22**	-.23**	-.23**

* = p<.05; ** = p<.01.
[1] There were no lesbian or bisexual women who had paid for sex.

8.4 Summary and conclusions

Prevalence of sexual victimisation amongst LBGT people is high
The prevalence of sexual victimisation ranges from 14% to 50% in the various groups of LGBT people. Bisexual women and FtM gender-variant people are particularly vulnerable. These figures cannot be compared one-to-one with figures on sexual victimisation from previous studies conducted amongst the population in the Netherlands, as the formulations in the questionnaires used in the current study were different from those used in previous research. Previous studies in the Netherlands have indicated that the experience of sexual victimisation is more common amongst LGBT people (with the exception of lesbian women) than it is amongst men and women who do not belong to these groups. The experience of sexual victimisation before the age of 16 is also more common amongst gay and bisexual men, bisexual women and MtF trans people than it is for people who do not belong to the LGBT group (Rutgers WPF, 2013). This conclusion has also been found in various international overview studies. Results from a meta-analysis of 17 studies reveal that the experience of sexual victimisation is more common amongst young LGBT people than it is amongst young people who do not belong to this group (Friedman, et al., 2011). Results from a review of 75 studies indicate that the experience of sexual victimisation is more common amongst gay and bisexual men and amongst lesbian and bisexual women than it is amongst heterosexual men and women (Rothman, et al., 2013). A review of studies amongst trans people demonstrates that they are also more vulnerable to sexual victimisation (Stotzer, 2009).

This raises the question of why sexual victimisation is more common in these groups. According to previous research conducted amongst trans people, victims report that their experiences of sexual victimisation could have been caused by their gender identities or the ways in which these identities are expressed (Stotzer, 2009). Research amongst LGB people suggests that experiencing sexual victimisation is related to sexual lifestyle, as well as to feelings of minority stress. For example, results from previous studies of heterosexual and LGB men and women have suggested that having relatively many sex partners and having encountered negative reactions concerning one's sexual orientation could possibly explain the likelihood of experiencing sexual victimisation amongst gay and bisexual men. The same study indicates that the difference between bisexual and heterosexual women can be explained by having relatively many sex partners, being single, having less education and having experienced negative reactions concerning one's sexual orientation (Kuyper & Vanwesenbeeck, 2011). German studies have also revealed that women with bisexual contacts are particularly vulnerable to sexual victimisation and that this is associated with the number of sex partners (Krahé & Berger, 2013).

Youth and young adults are particularly vulnerable
In this study, most of the victims of sexual victimisation were youths and young adults. This is consistent with results from previous research conducted within the broad population of the Netherlands (De Haas, 2012), as well as with those of international research. A review of studies conducted in 27 European countries reveals that the experience of sexual victimisation is common amongst youths and young adults (Krahé, et al., 2014).

It could be that people in these age categories are more likely to experience sexual victimisation because they tend to react more impulsively, without having sufficient insight into the choices they make (Crone, 2008). Lack of experience could play a role as well. Because they are naive to a certain extent, young people sometimes react less quickly to risky situations (Livingston, Testa, & Vanzile-Tamsen, 2007), while their age makes them more likely to find themselves in risky situations. For example, younger women tend to have more different sex partners than adult women do. The likelihood of experiencing sexual victimisation increases with the number of sex partners an individual has (De Graaf, Meijer, Poelman, & Vanwesenbeeck, 2005). Young people also go out more often than adults do. Girls who go out more often are more likely to encounter sexual harassment than are girls who do not go out (Harreveld, 2009).

The experience of sexual victimisation threatens the welfare of young people. During adolescence and early adulthood, young people experience important developments. Experiences during this critical period form the foundation for attitudes and convictions concerning sexuality, self-confidence

and skills, and they can be decisive in determining later sexual behaviour. The prevention of sexual victimisation during this phase of life is therefore essential (Krahé, et al., 2014).

Most perpetrators are men
Previous studies conducted amongst the Dutch population have indicated that most perpetrators of sexual victimisation are men (De Haas, 2012). In the current study, too, the perpetrators in the vast majority of cases were men. Previous qualitative research amongst gay and bisexual men has indicated that, in some cases, perpetrators are older, more experienced men, who take advantage of men who are new to the homosexual community and who have little knowledge of the prevailing norms within this community. In interviews, men have described situations in the context of casual or steady relationships, in which they had complied with the other partner's wishes and suggestions, because they had assumed that 'this is what gay men do' or because they had felt that they could not refuse, due to their lack of experience (Braun, Schmidt, Gavey, & Fenaughty, 2009).

A relatively large number of lesbian and bisexual women who had experienced sexual victimisation after the age of 16 reported that the perpetrator had been a steady partner (or former steady partner). For this group as well, most of the perpetrators had been men. German research has indicated that women with bisexual contacts who had experienced sexual victimisation tended to have relatively active sexual lifestyles, which increased their chances of meeting men who would go beyond their boundaries (Krahé & Berger, 2013).

For trans people as well, most perpetrators were men. This result has also been found in other studies. A literature review by Stotzer (2009) indicates that, according to the victims, these male perpetrators were often motivated by negative attitudes towards trans people.

Most perpetrators are known
In most cases, the perpetrators were known to the victim. In cases of victimisation experienced before the age of 16, the perpetrator was usually a family member or other known person. In cases experienced after the age of 16, perpetrators of sexual victimisation on gay or bisexual men were often casual sex partners or other acquaintances. Within this group, many perpetrators were also strangers. For lesbian and bisexual women and for trans people, sexual victimisation was often committed by a steady partner (or former partner) or other person known to the victim. Many of the perpetrators of sexual victimisation against FtM trans people were strangers.

Gender non-conformity is primarily an issue for boys
For participants who had been born as boys, gender non-conformity appears to have played a role in the likelihood of their experiencing sexual victimisation. Gay and bisexual men and MtF trans people who had felt, acted or looked more feminine during their youth experienced sexual victimisation more often. It could be that boys who deviate from societal or social norms are likely to encounter stigmatisation and, ultimately, sexual victimisation as well. This appears to be less the case for girls who deviate from social norms.

Sexual victimisation is associated with the extent to which people participate in society
In all groups (LGB people and trans people), an association was found between participation in society and experience of sexual victimisation. The results indicate that many victims were occupationally disabled, seeking work, unemployed or receiving social welfare benefits. Results from an overview study by Vanwesenbeeck (2008) indicate that sexual victimisation can have far-reaching economic consequences, as victims are likely to take sick leave, drop out of school or quit their jobs (either temporarily or permanently).

Sexual victimisation is associated with psychological and physical health
A relatively large number of victims of sexual victimisation have poorer health and psychological health. In the literature, this is regarded as a consequence of sexual victimisation (Van Berlo & Mooren, 2009). Some evidence suggests that the consequences of sexual victimisation are more severe for LGB people (Hines, 2007) and for trans people than they are for heterosexual people. For example, LGBT victims appear to suffer more from acute stress and anxiety following sexual victimisation than heterosexual victims do (Cramer, et al., 2012). This could be due to the combined

influences of sexual victimisation and minority stress (Gold, et al., 2009; Gold, et al., 2007). Many trans people with experience of sexual victimisation report that the perpetrator carried out the victimisation in response to their (the trans person's) gender identity or the way in which they expressed this identity (Stotzer, 2009). This can cause additional stress, as it can lead to internalised transphobia and a person developing an aversion to an important part of their identity (Testa, et al. 2012).

Relatively few victims press charges in cases of sexual victimisation that do not involve physical violence

Most victims of sexual victimisation do not press charges. In cases involving physical violence (such as rape, in which the perpetrator uses physical violence to coerce the victim) victims are more likely to press charges. They are less likely to press charges in cases involving verbal pressure or in which the perpetrator takes advantage of the fact that the victim cannot resist (e.g. due to the use of alcohol or drugs). Such cases might involve victims who have been pressured through blackmail or who have been raped while they were intoxicated. These situations are not necessarily less serious than those in which physical violence is used. It could be that, in cases of verbal pressure or abuse of the situation, victims are less likely to press charges because they are more likely to be troubled by feelings of guilt and shame. If the perpetrator exerts verbal pressure repeatedly and intensively, the victim might be unable to resist. Such victims might feel that they had ultimately consented, even though they had been unable to escape from the situation. Previous studies have indicated that, when perpetrators use (or threaten to use) physical violence, sexual contact is more likely to be seen as sexual victimisation than is the case when perpetrators apply verbal pressure, including psychological and emotional manipulation (Christopher & Pflieger, 2007). This could make victims of verbal pressure less likely to press charges.

Prevention and treatment are needed

Sexual victimisation is a major problem. It is common, and it often has serious consequences for the psychological and physical health of victims, as well as for their participation in society. These associations have been found in previous studies, as well as in the current study. Prevention for this group is thus also of major importance.

In addition to primary prevention, secondary prevention is essential. Once perpetrators have victimised people, it is extremely important to prevent them from targeting new victims and that they participate in effective interventions in order to prevent recidivism. For this to happen, victims must press charges. In order to increase the likelihood of pressing charges, increased awareness is needed of the fact that it is also legitimate to press charges for sexual victimisation even if the perpetrator did not use physical violence. In-depth research is needed to determine how to increase the willingness of victims to press charges and whether LGBT status plays a role in this regard.

In both prevention and treatment, LGBT youths and young adults deserve additional attention, given that they are more likely to experience sexual victimisation. In addition, previous studies have indicated that treatment of the consequences of sexual assault should take minority stress into consideration, as it could have a reinforcing effect. The results of the current study also indicate that participants who had sought help were relatively satisfied with the care that they received, although there is room for improvement, particularly in the area of gay-friendliness and trans-friendliness. One way to address this could be through training for care providers. These professionals should be able to discuss gender identity and expressions of gender identity with their clients. Care providers should also be able to help their clients to find support within their own communities (Testa, et al., 2012). This will require insight into specific issues facing LGBT people, as well as knowledge of LGBT networks.

9 Conclusions and recommendations

Hanneke de Graaf, Bouko H.W. Bakker and Ciel Wijsen

The study of which the results are described in this book is the first to comprehensively describe the sexual health of lesbian women, gay men, bisexual men and women and trans people (LGBT people). This final chapter summarises the most important findings, presents conclusions and offers recommendations for prevention, service delivery, policy and further research.

9.1 The sexual health of gay and bisexual men

Of the non-trans gay and bisexual men, more than half reported being sexually attracted exclusively to men (gay men). Slightly less than half of the men reported also feeling sexually attracted to women (bisexual men). The largest share of the bisexual men (about two thirds) reported feeling attracted primarily to women, but also to men. Most of these men referred to themselves as bisexual. Many bisexual men reported that they have sex or relationships with both men and women. A minority of the gay men had had sex or a relationship with a woman at some point in their lives.

Gay and bisexual men are sexually active. Two thirds reported masturbating at least a few times per week, and 85% of the gay men and 75% of the bisexual men had engaged in sex with a partner in the past six months. In both groups, one in three had done so with multiple sex partners. One in five men had engaged in sex with someone he had met on the internet, and one in six had engaged in sex under the influence of drugs in the past six months. Compared to bisexual men, gay men reported having sex more frequently, and they were more likely to have sex with internet partners or under the influence of drugs.

Some of the sexually active men are at risk for HIV or other STDs. Of all gay and bisexual men, 57% had engaged in sex with a man (MSM) in the past six months. Of the gay and bisexual MSM, 58% had engaged in sex with one or more casual partners in the past six months. Of the MSM with casual partners, 26% did not use condoms consistently when engaging in anal sex with these partners. Two thirds reported that they did try to have unprotected sex only with HIV-negative partners (serosorting), although this practice was usually based largely on implicit assumptions. These assumptions are not always correct. Of all homosexual and bisexual MSM, about one fourth had been tested for HIV in the past year, and a similar share had been tested for STDs, although men with a relatively high number of sex partners reported that they had done so more frequently. The HIV-positive men in the sample reported that they do not always communicate explicitly about their HIV status. Of the MSM who engaged in sex with others in addition to their steady partners, almost half had not made any risk-reduction agreements with their partners, and more than half of those who had made such agreements reported that they did not always abide by them.

HIV-positive men are more likely to engage in unprotected sex with casual partners than HIV-negative or non-tested men, although these men know their own HIV-status and nearly all are undergoing treatment. Eight in 10 HIV-positive men had an undetectable viral load. Men who do not know that they are infected with HIV are thus the ones causing most of the new HIV infections amongst MSM (Bezemer et al., 2010). Due to their sexual behaviour, however, HIV-positive men are at risk for HIV superinfection and infection with other STDs.

In general, gay and bisexual men perceive sexuality in a positive way: nine in 10 gay and bisexual men reported that they enjoy sex a great deal. Gay men and HIV-positive men were particularly likely to report positive sexual well-being, as compared to bisexual men and HIV-negative or non-tested men. Of all LGBT groups, gay men reported the highest satisfaction with their sex lives. Self-esteem, frequency of sex and sexual sensation seeking are associated with positive sexual feelings. Nevertheless, there are several points of concern regarding the sexual well-being of this group. About two thirds of the gay and bisexual men reported that they would like to have sex more often. Both groups reported considerable insecurity regarding their appearance and performance in bed (15% to 20%). In addition, one in six reported having feelings of guilt about their sexual feelings or behaviour. Bisexual men were somewhat less satisfied with their relationships than gay men were.

One in eight gay men and one in six bisexual men have at least one sexual problem (in most cases, erectile problems). Gay and bisexual men are also likely to encounter sexual harassment, for example in the form of unwanted remarks or touching. Half of the gay men and one third of the bisexual men had experienced this kind of behaviour at some point. Sexual victimisation is equally common for both groups: one in seven men had experienced this. Compared to bisexual men, gay men were more likely to report having engaged in anal sex against their will. In many cases, the perpetrator of sexual victimisation after the age of 16 was a stranger, an acquaintance or a casual partner and, in nearly half of all cases, the perpetrator was more than five years older than the victim. Almost two thirds of the men reported that the perpetrator had been aware of their sexual orientation.

HIV-positive men are somewhat more likely to have erectile problems than HIV-negative or non-tested men. A relatively large number of older gay and bisexual men also reported having one or more sexual problems. The experience of sexual victimisation was found to be more common amongst young gay and bisexual men. Psychological health is associated with having sexual problems, as well as with having experienced sexual victimisation. The direction of these associations is not always clear. In the literature, poorer psychological health is usually regarded as a consequence of sexual victimisation, but it can also be a factor that makes an individual more vulnerable. Poorer psychological health could be both a cause and a consequence of having a sexual problem. Moreover, for gay and bisexual men, an association was found between experience of sexual victimisation and sexual problems. Gender non-conformity during childhood and experiences with homo-negativity are also associated with having experienced sexual victimisation. Gay and bisexual men who had felt, acted or looked more feminine during childhood had also experienced sexual victimisation more frequently. Because this explicitly involves behaviour and feelings during childhood, we can assume that it is mainly a risk factor and not a consequence of having experienced sexual victimisation.

9.2 The sexual health of lesbian and bisexual women

Of the non-trans women, one fourth reported feeling sexually attracted only to women (lesbian women), and three fourths reported feeling attracted to both men and women (bisexual women). As in the case of bisexual men, the largest share of the bisexual women reported that they felt attracted primarily to the opposite sex (although they were also attracted to members of the same sex). This was the case for three fourths of the bisexual women. Whereas the men in this category were most likely to identify themselves as bisexual, half of the women who reported being more attracted to men than to women referred to themselves as straight. Compared with gay men, lesbian women reported having had more sexual experiences and relationships with the opposite sex in the course of their life. Almost two thirds of these women had had sex with a man at least once, and two in five had been in a relationship with a man.

Two thirds of the lesbian women and three fourths of the bisexual women had engaged in sex in the past six months. Four in five lesbian women reported occasional masturbation. Compared to the general population, lesbian women engaged in sex with a partner less frequently, although they masturbated somewhat more frequently (De Graaf, 2012). Bisexual women were relatively sexually active, both alone and with a partner. Nine in ten bisexual women reported masturbating occasionally, one in eight had engaged in sex with a partner in the past six months, two in five had engaged in sex under the influence of alcohol and one in ten had engaged in sex under the influence of drugs. Compared to lesbian women, bisexual women were also more likely to report that they enjoyed watching pornography and that they liked to explore their sexuality.

Lesbian and bisexual women did not differ in their level of satisfaction with their sex lives. Three fourths of these women reported enjoying sex a great deal. With regard to most aspects of their sex lives (e.g. the degree of intimacy or the manner in which they had sex), the majority of the women reported that they were satisfied, although this did not apply to their sex lives in general. This might be due to dissatisfaction with the frequency or lack of sex. Of the women who had engaged in sex in the past six months, almost half reported that they would like to have sex more often, and almost

half of the group who had not engaged in sex found this regrettable. Bisexual women were somewhat less satisfied with their relationships than lesbian women. Bisexual women also reported more insecurity: one in six reported feeling insecure about performance during sex, and one in four reported insecurity about appearance.

One in seven lesbian women and one in five bisexual women reported having at least one sexual problem. Lesbian women were most likely to report the absence or weakness of sexual desire, and bisexual women were most likely to report low levels of arousal, difficulty achieving orgasm and pain when engaging in physical intimacy. Lesbian and bisexual women did not differ with regard to the impairments that they regarded as problematic. Bisexual women were particularly likely to have experienced sexual harassment and victimisation, although these experiences were also common amongst lesbian women. Two thirds of the lesbian women and three fourths of the bisexual women had experienced sexual harassment (e.g. cat-calls or touching). Almost one fourth of the lesbian women and more than one third of the bisexual women had experienced sexual victimisation. Many perpetrators of sexual victimisation against lesbian and bisexual women were male partners (or former partners) or acquaintances.

For lesbian and bisexual women, positive sexual feelings and fewer sexual problems were associated primarily with growing older, self-esteem and sexual sensation seeking. Positive sexual feelings were also associated with frequency of sex. Women who reported positive sexual feelings had sex more often or, conversely, women who had sex more often felt more positively about sex. As with the men, poorer psychological health was associated with having experienced sexual victimisation and with having sexual problems. In this case as well, psychological health can be regarded as both a risk factor and a consequence. For women, experience of sexual victimisation was not associated with having sexual problems or gender non-conformity.

9.3 The sexual health of trans people

The group of trans people comprises widely varying gender identities, self-identifications and desires with regard to gender expression and the desire for transition. Slightly more than half of the trans people in this sample reported feeling either completely female (trans women) or completely male (trans men). Most of the people in this group were either undergoing transition or had completed it. A majority of the trans women and trans men were using hormones, and some of them – albeit a minority – had undergone sex-reassignment surgery. Two thirds reported that they gave full expression to their gender identities.

Slightly more than half of the trans people in this sample identified themselves with both or neither of the two sexes (gender-variant people). Most of the gender-variant people reported feeling part male and part female, although they varied widely in their gender identities and self-identification. Most of them either had no desire for transition or did not know whether they wanted this. A very small number of gender-variant people used hormones or had undergone surgery. In addition, only a very few reported giving full expression to their gender identities.

A large share of the trans people had not engaged in sex with a partner in the past six months. This was the case for three in five trans women, two in five MtF gender-variant people and about half of the FtM trans people. This could be explained in part by the fact that 48% to 60% of the trans people had no steady partner. Most of the trans people did masturbate: four in five trans women, 19 in 20 MtF gender-variant people and nine in ten FtM trans people reported occasional masturbation. A large share of the trans people who had not engaged in sex – particularly trans men and MtF gender-variant people – regretted this.

Most trans people greatly enjoy sex. They are quite capable of indicating what they do and do not like during sex, and many of them reported that they ask their partners what they like. Nevertheless, a minority of the trans people reported being satisfied with their sex lives in general and with the way in which they have sex in particular. A large number reported feeling insecure about their bodies, not feeling at ease during sex and having difficulty being honest about their feelings. Gender-variant

people reported often feeling guilty about their sexual behaviour or feelings. A large share of the trans people reported impediments in their sexual functioning, although they did not experience this as a problem. Nevertheless, still a large group did report having at least one sexual problem. This was the case for one in four trans women, trans men and MtF gender-variant people, as well as for two in five FtM gender-variant people. Problems with arousal and orgasm were the most common amongst this target group. In several aspects, sexual functioning is experienced differently than is the case for cisgender people. For example, cisgender men are most likely to regard it as problematic if they cannot get an erection, while most MtF trans people with a penis consider it unpleasant when their penis becomes erect.

Many trans people had been victims of sexual victimisation or harassment at some point in their lives. Three in five MtF trans people and trans men had experienced harassment (e.g. sexual touching against their will). The same applied to four in five FtM gender-variant people. About one in five MtF trans people, one in three trans men and almost half of the FtM gender-variant people had experienced sexual victimisation. Sexual victimisation before the age of 16 was also common, particularly for trans people in the FtM spectrum. In cases of sexual victimisation after the age of 16, the perpetrator was often a steady partner (or former partner) or other person known to the victim. For FtM trans people, the perpetrator was often a stranger. Many of the MtF trans people reported that the perpetrator had probably been aware of their trans status or history. As was the case for gay and bisexual men, for this group an association was also found between gender non-conformity during childhood and having experience of sexual victimisation.

9.4 Recommendations for prevention, care provision and policy

The results of this study indicate that sexual diversity and gender diversity amongst LGBT people is even more varied than we had originally thought. The members of the LGBT population cannot be lumped together: 'There is no such thing as the typical LGBT person'. It is also important to distinguish between sexual diversity and gender diversity. Structural attention is apparently needed with regard to experiences with victimisation and harassment in all groups, as well as with regard to the prevention of HIV and STDs amongst gay and bisexual men, and the sexual well-being and problems of trans people, as well as those of lesbian and bisexual women.

Sexual victimisation and harassment
Sexual victimisation and harassment are common amongst LGBT. It is known that such experiences can have serious consequences for the psychological and physical health of victims, as well as for their participation in society. As demonstrated by the current study, this applies to the LGBT population as well, and prevention is thus of major importance. LGBT youths and young adults also deserve additional attention (also in the context of care provision), given that they are more likely to experience sexual victimisation.

Prevention involves preventing sexual victimisation, early recognition of signals and preventing recurrence. Various prevention and resilience programmes are being carried out, in which greater attention could be paid to sexual and gender diversity. The fact that sexual and relational education (including sexual diversity and gender diversity, resilience and respect for one's own boundaries and those of others) has been included as a compulsory component in the educational curriculum in the Netherlands could, in the long run, have a preventive effect. Because talking about sexual diversity and gender diversity is likely to be more difficult or uncomfortable for some teachers or instructors than it is for others, sufficient teacher support and instructional materials should be available to make it possible to start working with these topics.

Participants who had sought help with regard to sexual victimisation were reasonably satisfied with the assistance they had received, although there is room for improvement in terms of gay-friendliness and trans-friendliness. Support could be given to care providers in relation to discussing sexuality, sexual diversity, gender diversity and the expression thereof with their clients. An up-to-date overview of the available options would also make it easier for care providers to assist their clients in finding social support or additional services. Such support could be linked to existing

initiatives (e.g. the website seksindepraktijk.nl [sexualityinpractice.nl], which will be launched soon) in order to facilitate professionals in discussing sexuality and the problems that could be associated with it.

Regular support and care services should also be accessible to LGBT people. Efforts in this regard could be connected to existing structures, including the Steunpunten Huiselijk Geweld [Domestic Violence Support Centres] – on the condition that sexual assault is addressed there as well – in addition to the initiatives aiming to improve the chain approach (including the Centra voor Seksueel geweld [Centres for Sexual Violence]). In addition to insight into the specific issues facing LGBT people, this will require knowledge of LGBT lifestyles and networks, in addition to services specialising in LGBT people.

Prevention of HIV and STDs amongst gay and bisexual men

Cases of HIV and STDs are common amongst gay and bisexual men. In this study, particular attention was paid to sexual behaviour in relation to HIV and STDs in men who had engaged in sex with one or more men (MSM) in the last six months. The study charts the various ways in which these men protected themselves and others from HIV and STDs, as well as the ways they used (or used to try) to prevent the spread of HIV in 2013. The results have revealed several issues that should receive further attention in prevention, care provision and policy concerning HIV and STDs.

For example, testing for HIV and STDs is not an obvious priority for everyone. The number of men who had not been tested recently or at all was relatively high, although it was not as high for men with multiple sex partners. At the same time, we know that men who do not know that they are infected with HIV are the ones most likely to continue the spread of HIV. The identification of these HIV infections (some old and some new) should therefore be a priority. To this end, calls for regular testing for HIV could be further differentiated for specific groups of MSM where considerable gains can be made in terms of health. The importance of regular HIV testing can be supported with new insights concerning the individual and collective health benefits of early HIV treatment.

Specific attention and information are needed for the groups who are at higher risk of contracting HIV and STDs, including MSM with casual sex partners and MSM who engage in unprotected sex, even though they have not been tested for HIV (or at least not recently). More than half of all MSM were unfamiliar with PEP. Awareness regarding this treatment should be raised amongst the groups who are at greater risk. Some MSM from these groups might also benefit from the future possibility of providing HIV medication for preventive purposes, a concept known as PrEP.

Nearly all of the MSM in this study reported (also) using risk-reduction strategies other than condom usage. However, they do not always apply these correctly or in the right context. Examples include incomplete communication and implicit assumptions concerning the HIV status of casual partners and the failure to make or abide by negotiated safety agreements with their steady partners. Good information on the proper application and effectiveness of risk-reduction strategies should be current and available, and it should correspond as closely as possible to the considerations that MSM actually make in practise, regardless of whether they are HIV-negative or HIV-positive, or whether they are aware that they have HIV. Such information should also address the potential influence of sex partners (and their wishes) and the surroundings in which sex takes place, in addition to providing ways in which MSM can discuss such matters with each other.

Gay and bisexual men are sexually active in a wide variety of ways; they regularly engage in sex through the internet and under the influence of alcohol or drugs. This sexual lifestyle is associated with certain risks, including experiences of sexual violence and loss of control in sexual contacts, as well as variations in the extent to which MSM can protect themselves and others. These risks require attention in the provision of care relating to STDs, HIV and sexual violence, free of moral judgements concerning such lifestyles. Such judgements stand in the way of objective information and advice, with the consequence that 'the message' is unlikely to be received. This applies to all information facilities targeted towards this group of sexually active men. At the individual and collective level, additional openness and mutual communication about HIV should be stimulated, also with the

objective of counteracting the stigma against HIV. Suggestions might include a campaign and support for initiatives arising from within the target group.

Diversity and sexual health amongst trans people

The current study has yielded a variety of insights concerning gender identity, desire for transition, sexual orientation and sexual health amongst trans people. Combined with the results of previous qualitative research (Doorduin & Van Berlo, 2012), this knowledge could be used in informational and support materials for the target group, as well as for the general population and for professionals.

Gender identities, desire for transition and sexual orientation amongst trans people are characterised by a high degree of diversity and variation. Such insights could be helpful to young trans people in the search for their own identities (Doorduin & Van Lee, 2013). Professionals who work with trans people or who provide information about trans people should also have sufficient knowledge about the variety of trans feelings and identities. Such information could also be used in the development of instructional and informational materials (e.g. in education), as well as to support and train care providers working with or for trans people.

Gender-variant people do not express their gender identities as much as they would like. One possible reason that gender-variant people might have difficulty expressing their gender identities is that gender identities other than 'male' or 'female' are less accepted amongst the general population (Kuyper, 2012). Additional visibility and recognition of the existence of these identities could increase their acceptance, thus increasing the freedom available to gender-variant people with regard to the way in which they can express their gender identities. Suggestions could include the explicit mention of this group in information materials aimed at the broader public, as well as encouraging the popular media to present this group in a positive light.

Trans people often have sexual problems, and only a minority are satisfied with their sex lives. The sexual problems of trans people are associated with dissatisfaction with their bodies. Sex-reassignment treatment can have a positive influence in this regard (Cohen-Kettenis & Goozen, 1997; Smith et al., 2005). Most trans people who have undergone surgery have a more positive sense of sexual well-being, while those with an unfulfilled desire for transition are less satisfied. The consequences of such treatment for sexual well-being and functioning could play a role in decision-making concerning sex-reassignment treatment. Support services offered for those making such decisions should therefore also take sexuality into account.

Sex-reassignment treatment does not resolve all sexual problems and some arise only after treatment (Doorduin & Van Berlo, 2012). Moreover, not all trans people with sexual problems have a desire for transition. It is therefore desirable for all trans people to receive appropriate professional help for their sexual problems. Some evidence suggests that the current array of services offered is insufficient and that it is difficult for trans people to determine which therapists have the appropriate expertise. It is therefore important to address any deficiencies in expertise, for example by offering training to interested care providers. It might be necessary to develop treatment methods for trans people with sexual problems. Finally, an overview of specialised care providers could make the array of such assistance more accessible to trans people, as well as to parties providing referrals.

In addition to the need for individual help, trans people with sexual problems or negative sexual well-being need opportunities for exchanging ideas about sexuality with other trans people. They could offer first-hand information, as well as providing support and identification. Such exchanges can take place informally amongst friends or on the internet, as well as in self-help groups or professional therapy groups. Exchanging information and experiences concerning sexuality within informal settings might not be accessible or secure enough for everyone. Attention for sexuality within self-help groups and professional therapy groups is therefore also important. Finally, trans people currently lack informational materials on sexual health and sexual functioning. Such materials should be appropriate for all trans people, regardless of the desire for or phase of transition.

Integrated approach and expertise
The various problems relating to sexual health that can arise for LGBT people call for an integrated approach, with differentiated attention for gay men, lesbian women, bisexual men and women and trans people. Efforts to improve sexual health should not be aimed purely at the group as a whole, but also at the specific problems of the various subgroups.

Integrated policy in the area of sexual diversity and gender diversity is needed within all sectors of government policy, and not only in the field of health policy. This is because such policies are partly a matter of equal opportunities and social acceptance, in addition to the potential impact of rejection and exclusion on a wide range of health problems. Information on sexual and gender diversity at young ages (e.g. as part of sex and relationship education in schools) could contribute to both self-acceptance and social acceptance, thus preventing some of the problems.

Professionals in the regular health care and prevention sectors should be well prepared and equipped with regard to the diversity in the sexual (and psychosocial) health of LGBT people, with the goal of recognising the problems in a timely manner and coordinating assistance, services and prevention programmes to the specific needs, living environments and situations of LGBT people. To this end, professionals must be provided with the knowledge, skills and materials needed to realise this level of coordination, in both their training and practise.

9.5 Limitations of this study and research agenda

This study is subject to several limitations, which make it impossible to answer all the questions surrounding the sexual health of LGBT people. In this section, we summarise the limitations of the current study and formulate recommendations for further research.

Descriptive
The current study offers an extensive, descriptive overview of the sexual health of LGBT people. Although factors associated with sexual health have been examined, the cross-sectional design of the study makes it difficult to provide any satisfying explanations for differences in sexual health. Cross-sectional studies do not provide insight into the direction of particular associations. For example, although we know that poorer psychological health is associated with experiences of sexual victimisation, we do not know whether it is a risk factor, a consequence or both. We also know that HIV-positive men tend to have relatively active sexual lifestyles, but we do not know whether this lifestyle changes after a diagnosis of HIV. Such questions call for a study with a longitudinal design. To date, no such studies have focused on sexual health within the broad LGBT target group.

First in a series
The current study is the first to investigate sexual health in the broadest sense amongst lesbian women, gay men, bisexual men and women, and trans people. That means there is little comparative material. This is the case for comparisons with previous studies conducted in the Netherlands, as well as for international comparisons. International research on the sexual health of LGBT people has also tended to focus primarily on the prevention of STDs and HIV. In order to be able to identify trends in the future, it is essential to continue to monitor the sexual health of LGBT people, including the risk of contracting STDs and HIV amongst MSM. The current study can be regarded as a baseline. With this study, the monitoring of the sexual health of LGBT people in the Netherlands has been integrated into the general *Sexual Health in the Netherlands* monitor that Rutgers has been conducting for years. In its revised lifestyle monitor, Rutgers will continue its periodic study of sexual health in the Netherlands. It is important that sufficient attention continues to be paid to LGBT people in this monitor, possibly through supplemental recruitment. Moreover, questions regarding sexual orientation and several items on sexual health have recently been incorporated into the national health monitor of Statistics Netherlands (CBS). In the future, such information could provide insight into the relations between sexual orientation and other aspects of lifestyle and health (e.g. alcohol and drug use, psychological health). In addition, it would be advisable to seek coordination with sexual health monitors in other European countries. Similar population studies have been started in England, France and other countries. If LGBT people are sufficiently represented in these

studies and if comparable research measurements are used, this could facilitate international comparisons in the future.

Representativeness

Within the boundaries of this research, the recruitment of LGB people through a panel was the best option for creating a group of LGB people to provide an indication of the population of LGB people in the Netherlands. One disadvantage of this method of recruitment, however, is that certain groups tend to be underrepresented in a panel. This is particularly true for LGB people with a non-Western minority background. In order to make any statements concerning the role of ethnicity in the sexual health of LGB people, it will be important to identify portals and channels through which recruitment efforts can also reach LGB people with a non-Western background. Another option would be to conduct a separate study amongst this group, using appropriate methods for recruitment and research. Because the sample of trans people was recruited largely through trans-specific channels, it is not representative. Gathering a sample of trans people that could be considered representative is a huge challenge. One possibility would be to include questions on birth-assigned sex and current gender identity in large-scale population studies. This might make it possible to form a panel of randomly recruited trans people.

Restricted space in a questionnaire

If it takes too much time to complete a questionnaire, the concentration of the participant is likely to decrease. That is why we were forced to make choices regarding the concepts that could be included in our questionnaire, and certain topics have therefore received less attention than we would have liked. In addition, this study is based on survey research. This form is suitable for gaining insight in the prevalence figures and to establish the presence of particular at-risk groups or risk factors. Insight into the 'why', into the processes that people go through when making choices and into the context of these processes are more difficult to address with a questionnaire. For these types of questions, other methods would be more appropriate. In addition, the results of this study raise questions relating to a number of themes. The sections below describe several of these themes, which should receive further attention in future research.

Categorisation of sexual orientation and gender identity

In the current study, we have categorised lesbian women, gay men and bisexual men and women according to sexual attraction. This factor is associated with the way in which people identify themselves, as well as with experiences of romantic feelings, relationships and sex with men and women. However, sexual attraction does not correspond to these aspects of sexual orientation completely. For example, some of the women who are also attracted to women refer to themselves as straight. A high degree of diversity exists within the group of trans people as well. Although many gender-variant people have no desire for transition, some do. It would therefore be advisable for future studies to explore whether other categorisations might do more justice to the perceptions of the target group. For example, this could be done by creating categories according to multiple dimensions of sexual orientation simultaneously, or by combining gender identity and the desire for transition.

The role of sex-reassignment treatment

In this study, the experience of having undergone surgery was not associated with having sexual problems. This could be because the current study involved only a small group of participants who had undergone surgery and/or a complete sex-reassignment treatment. Based on this research, therefore, it is not possible to say how often sex-reassignment treatment in the Netherlands leads to negative or positive outcomes with regard to sexual problems and well-being. Qualitative studies have shown that complications can occur in surgeries that can have a negative effect on sexual well-being (Doorduin & Van Berlo, 2012), but it is not known exactly how often this occurs. Neither do we have sufficient knowledge of how to treat or prevent any sexual issues that might emerge following sex-reassignment treatment. It would be advisable to investigate this type of questions in future clinical research.

Measuring sexual problems in a population study
It is difficult to measure sexual problems using an online questionnaire, as clinical anamnesis is required to establish sexual dysfunctions. That is why we have not referred to sexual dysfunctions in this study. Studying sexual problems and remaining as close to the DSM-5 criteria as possible in doing so is also a complicated matter. The DSM-5 was published recently, and some criteria have been revised with respect to the previous edition. Existing questionnaires are usually long and less suitable for population studies. Moreover, such questionnaires are designed primarily to measure sexual problems in heterosexual contacts. For this reason, we have developed new questions for measuring sexual problems in this study. This makes it more difficult to compare the results with those of previous national and international studies, and it complicates the process of interpreting the results that were found: do LGBT people have a relatively high or relatively low number of sexual problems? It would therefore be advisable for future studies to contribute to the development of standard measurements. The questions developed for this study could provide a foundation for this.

Risk-reduction strategies
The results indicate that many MSM adopt risk-reduction strategies in order to reduce the likelihood of transmitting HIV. We still know very little about the effectiveness of these strategies. We also do not know the situations in which MSM choose to use these strategies. Further research is thus needed with regard to the effectiveness and associated conditions of the various strategies that MSM (both HIV-positive and HIV-negative) adopt in practise in order to prevent the transmission of HIV. It will be important to investigate the considerations that MSM make when deciding not to use condoms, taking into consideration characteristics of the partner and the context in which risk-reduction strategies (whether valid or invalid) are applied. Qualitative research methods would be appropriate for investigating this type of question.

PrEP
PrEP is still relatively new, and little is therefore known about the possibilities for its application. Despite the potential that PrEP offers for HIV prevention, the medication that is needed has yet to be registered for such an application in the Netherlands. We still know too little about the effectiveness of PrEP to introduce it in the Netherlands. In the current study, only a few questions about PrEP were included, but the results indicate that about half of the MSM consider it desirable to offer HIV medication preventively. Further research is advisable with regard to possibilities for the application of PrEP and the groups of MSM who would be eligible for such application.

Context of sexual victimisation
The current study confirms results from previous research that indicate that sexual victimisation is more common for LGBT people than it is for the Dutch population as a whole (Rutgers WPF, 2013). We still know very little about the factors underlying this high prevalence. Parallel to the current study, Rutgers conducted qualitative research on the context of experience of sexual victimisation amongst trans people. The results of this research are expected to be published in 2016 (Cense, De Haas & Doorduin, under review). Supplemental to these results, it would be advisable to study the context of experience of sexual victimisation amongst gay and bisexual men, as well as amongst bisexual women.

Need for information and care
Lesbian women, gay men, bisexual men and women, and trans people have specific problems in the area of sexual health. The results of this study, however, do not provide enough insight into the needs that LGBT people have for information and care. It could also be that these needs are much more differentiated than we think. For example, the group of bisexual men and women is characterised by considerable variation in the extent to which individuals feel attracted to members of their own sex. It could be that the needs of bisexual women who are attracted primarily to men are different from those of bisexual women who are attracted primarily to women. Additional insight into the needs of specific target groups is necessary in order to coordinate information and care for these groups.

Collaboration

This book constitutes the first report of the results of this study. It is intended as a broad presentation of the research material. It offers a good starting point for the relevant target groups, professionals in the field and policymakers, which can help them to start taking steps to improve or maintain the sexual health of LGBT people. The dataset also offers many opportunities for further analysis. For examples, as indicated in the concept lists, we also included questions concerning the desire to have children amongst LGBT people, about the risk of STDs and HIV amongst trans people and women, about sexual milestones and about the context of condom usage in the most recent sexual encounter. In addition, many cross-associations remain to be examined. We will obviously be working on these areas in the time to come, but we would like to do so in collaboration with relevant parties. In this way, the wealth of experiences that the participants have shared with us could be used to the greatest advantage.

10 References

American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders (Fifth ed.).* Arlington, VA: American Psychiatric Publishing.

Bakker, F., Graaf, H. de, Haas, S. de, Kedde, H., Kruijer, H., & Wijsen, C. (2009). *Seksuele gezondheid in Nederland 2009.* Utrecht: Rutgers Nisso Groep.

Bakker, F., & Vanwesenbeeck, I. (2006). *Seksuele gezondheid in Nederland 2006.* Delft: Eburon.

Balán, I.C., Carballo-Diéguez, A., Dolezal, C., Marone, R., Pando, M.A., Barreda, V., & Avila, M.M. (2013). High prevalence of substance use among men who have sex with men in Buenos Aires, Argentina: Implications for HIV risk behavior. *AIDS and Behavior, 17*, 1296–1304.

Bancroft, J., Carnes, L., Janssen, E., Goodrich, D., & Scott Long, J. (2005). Erectile and ejaculatory problems in gay and heterosexual men. *Archives of Sexual Behavior, 3,* 285–297.

Bancroft, J., Janssen, E., Strong, D., & Vukadinovic, Z. (2003). The relation between mood and sexuality in gay men. *Archives of Sexual Behavior, 32,* 231-242.

Berlo, W. van, & Höing, M. (2006). *Seksuele victimisatie*. In F. Bakker en I. Vanwesenbeeck (Eds.) *Seksuele gezondheid in Nederland 2006* (pp 139-155). Delft: Eburon.

Berlo, W. van, & Mooren, T. (2009). *Seksueel geweld: gevolgen en behandeling*. In L. Gijs, W. Gianotten, I. Vanwesenbeeck en P. Weijenborg (eds.) Seksuologie, pp 419-434. Houten: Bohn Stafleu Van Loghum.

Bezemer, D., Wolf, F. de, Boerlijst, M.C., Sighem, A. van, Hollingsworth, T.D., & Fraser, C. (2010). 27 years of the HIV epidemic amongst men having sex with men in the Netherlands: An in depth mathematical model –based analysis. *Epidemics, 2,* 66–79.

Bil, J., Davidovich, U., Veldt, W. van der, & Stolte, I. (2013). Low intention to use Pre-Exposure Prophylaxis (PrEP) to prevent HIV-infection among men having sex with men (MSM) in the Netherlands. Gepresenteerd op XVI National Congress of the Spanish Interdisciplinary AIDS Society (SEISIDA) and the XI International AIDS Impact Conference; Barcelona. September 29 – October 2, 2013.

Bockting, W., Benner, A., & Coleman, E. (2009). Gay and bisexual identity development among female-to-male transsexuals in North America: Emergence of a transgender sexuality. *Archives of Sexual Behavior, 38*, 688-701.

Boeke, A.J.P., & Heijnen, A.M. (2013). Pre-expositieprofylaxe van hiv-infectie? Nee, tenzij. *Nederlands Tijdschrift voor Geneeskunde, 157*, A6359.

Boom, W. van den, Stolte, I.G., Sandfort, T., & Davidovich, U. (2012).Serosorting and sexual risk behaviour according to different casual partnership types among MSM: the study of one-night stands and sex buddies. *AIDS Care, 24*, 167–173.

Boom, W. van den, Stolte, I.G., Witlox, R., Sandfort, T., Prins, M., & Davidovich, U. (2013). Undetectable viral load and the decision to engage in unprotected anal intercourse among HIV-positive MSM. *AIDS and Behavior, 17*, 1236–1242.

Braun, V., Schmidt, J., Gavey, N., & Fenaughty, J. (2009). Sexual coercion among gay and bisexual men in Aotearoa/New Zealand. *Journal of Homosexuality, 56,* 336-360.

Cense, M., Haas, S. de & Doorduin, T. (in review). Sexual victimization of trans people in the Netherlands: prevalence, risk factors, impact and support. International *Journal of Transgenderism*.

Chang, S.C.H., Klein, C., & Gorzalka, B.B. (2013). Perceived prevalence and definitions of sexual dysfunction as predictors of sexual function and satisfaction. *Journal of Sex Research, 50,* 502–512.

Christopher, F.S., & Pflieger, J.C. (2007). Sexual Aggression: The Dark Side of Sexuality in Relationships. *Annual Review of Sex Research, 18*, 115-142.

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

Cohen-Kettenis, P.T. & Van Goozen, S.H.M. (1997). Sex reassignment of adolescent transsexuals: a follow-up study. *Journal of the American academy of child and adolescent psychiatry, 36* (2), 263-271.

Coleman, E., Bockting, W., & Gooren, L. (1993). Homosexual and bisexual identity in sex-reassigned female-to-male transsexuals. *Archives of Sexual Behavior, 22*, 37-50.

Corona, G., Jannini, E.A., & Maggi, M. (2006). Inventories for male and female sexual dysfunctions. *International Journal of Impotence Research, 18,* 236–250.

Courtenay-Quirk, C., Wolitski, R.J., Parsons, J.T., & Gomez, C.A. (2006). Is HIV/AIDS stigma dividing the gay community? Perceptions of HIV positive men who have sex with men. *AIDS Education and Prevention, 18,* 56–67.

Cove, J., & Boyle, M. (2002). Gay men's self-defined sexual problems, perceived causes and factors in remission. *Sexual and Relationship Therapy, 17,* 137-147.

Cramer, R.J., McNiel, D.E., Holley, S.R., Shumway, M., & Boccellari, A. (2012). Mental health in violent

crimes: Does sexual orientation matter? *Law and Human Behavior, 36,* 87-95.

Crepaz, N., Marks, G., Liau, A. Mullins, M.M., Aupont, L.W., Marshall, K.J.,& Wolitski, R.J. (2009). Prevalence of unprotected anal intercourse among HIV-diagnosed MSM in the United States: a meta-analysis. *AIDS, 23,* 1617–1629.

Crone, E. (2008). *Het puberende brein. Over de ontwikkeling van de hersenen in de unieke periode van de adolescentie.* Amsterdam: Bert Bakker.

Cuypere, G. de, T'Sjoen, G., Beerten, R., Selvaggi, G., De Sutter, P., Hoebeke, P., Monstrey, S., Vansteenwegen, A., & Rubens, R. (2005). Sexual and physical health after sex reassignment surgery. Archives of Sexual Behavior, 34, 679-690.

Das, M., Chu, P.L., Santos, G.M., Scheer, S., Vittinghoff, E., McFarland, W., & Colfax, G.N. (2010). Decreases in community viral load are accompanied by reductions in new HIV infections in San Francisco. *PLoS ONE, 5*. doi:10.1371/journal.pone.0011068

Davidovich, U., Wit, J.B. de, & Stroebe, W. (2000). Assessing sexual risk behaviour of young gay men in primary relationships: the incorporation of negotiated safety and negotiated safety compliance. *AIDS, 14,* 701-706.

Deblonde, J., Koker, P. de, Hamers, F.F., Fontaine, J., Luchters, S., & Temmerman, M. (2010). Barriers to HIV testing in Europe: a systematic review. *European Journal of Public Health, 20*, 422–432.

Diamond, L. (2008). *Sexual fluidity: Understanding women's love and desire*. Harvard: Harvard University Press.

Donker, G., Dorsman, S., Spreeuwenberg, P., Broek, I. van den, & Bergen, J. van. (2013). Twenty-two years of HIV-related consultations in Dutch general practice: a dynamic cohort study. *BMJ Open, 3,* e001834.

Doorduin, T., & Van Berlo, W. (2012). *Een dubbel gevoel: Een pilotonderzoek naar seksualiteitsbeleving en informatiebehoefte over seksualiteit van transgenders.* Utrecht: Rutgers WPF.

Doorduin, T., & Van Lee, L. (2013). *Gaat het ook over mij?: De behoeften van LHBT-jongeren aan informatie en hulpverlening rondom seksuele gezondheid*. Utrecht: Rutgers WPF.

Dunn, K.M., Croft, P.R., & Hackett, G.I. (2000). Satisfaction in the sex life of a general population sample. *Journal of Sex & Marital Therapy, 26,* 141–151.

Empelen, P. van, Berkel, M. van, Roos, E., & Zuilhof, W. (2011). *Schorer Monitor 2011.* Amsterdam: Schorer.

European Union Agency for Fundamental Rights (2014). *Violence against women: an EU-wide survey. Main results.* Luxembourg: Publication Office of the European Union.

Everitt, B.S., Landau, S., Leese, M., & Stahl, D. (2011). *Cluster analysis, 5th edition*. Chichester, UK: John Wiley & Sons Ltd.

Flores, S.A., Mansergh, G., Marks, G., Guzman, R., & Colfax, G. (2009). Gay identity-related factors and sexual risk among men who have sex with men in San Francisco. *AIDS Education and Prevention, 21,* 91–103.

Flowers, P., Knussen, C., Li, J., & McDaid, L. (2013). Has testing been normalized? An analysis of changes in barriers to HIV testing among men who have sex with men between 2000 and 2010 in Scotland, UK. *HIV Medicine, 14,* 92-98.

Friedman, M.S., Marshall, M.P., Guadamuz, T.E., Wei, C., Wong, C.F., Saewyc, E.M., & Stall, R. (2011). A meta-analysis of disparities in childhood sexual abuse, parental physical abuse and peer victimization among sexual minority and sexual nonminority individuals. *American Journal of Public Health, 101,* 1481-1494.

Friedman, M.S., Silvestre, A.J., Gold, M.A., Markovic, N., Savin-Williams, R.C., Huggins, J., & Sell, R.L. (2004). Adolescents define sexual orientation and suggest ways to measure it. *Journal of Adolescence, 27*, 303-317.

Fugl-Meyer, K.S., & Fugl-Meyer, A.R. (2002). Sexual disabilities are not singularities. *International Journal of Impotence Research, 14,* 487–493.

Goenee, M.S., Kedde, H., & Picavet, Ch. (2012). Condoomgebruik en testgedrag in Nederland. *Tijdschrift voor Seksuologie, 36*, 109-120.

Gold, S.D., Dickstein, B.D., Marx, B.P., & Lexington, J.M. (2009). Psychological outcomes among lesbian sexual assault survivors: An Examination of the roles in internalized homophobia and experiential avoidance. *Psychology of Women Quarterly, 33*, 54-66.

Gold, S.D., Marx, B.P., & Lexington, J.M. (2007). Gay male sexual assault survivors: The relations among internalized homophobia, experiential avoidance, and psychological symptom severity. *Behaviour research and therapy, 45,* 549-562.

Golub, S.A., Starks, T.J., Payton, G., & Parsons, J.T. (2012). The critical role of intimacy in sexual risk behaviors of gay and bisexual men. *AIDS Behavoir, 16,* 626-632.

Graaf, H. de (2012). Seksueel gedrag en seksuele beleving in Nederland. *Tijdschrift voor Seksuologie, 36*, 87–97.

Graaf, H. de, Meijer, S., Poelman, J., & Vanwesenbeeck, I. (2005). *Seks onder je 25e: Seksuele gezondheid van jongeren in Nederland anno 2005.* Delft: Eburon.

Graaf, H. de, Sandfort, T., & Dörfler, T. (2011). Ervaringen met homonegativiteit van mannen die seks hebben met mannen: Verbanden met riskant

seksueel gedrag. *Tijdschrift voor Seksuologie, 35,* 195–203.

Grov, C., Golub, S.A., Parsons, J.T., Brennan, M., & Karpiak, S.E. (2010). Loneliness and HIV-related stigma explain depression among older HIV-positive adults. *AIDS Care, 22,* 630-639.

Guaraldi, G., Luzi, K., Murr, R., Granata, A., De Paola, M., Orlando G., …Martinez, E. (2007). Sexual dysfunction in HIV-infected men: role of antiretroviral therapy, hypogonadism and lipodystrophy. *Antiviral Therapy, 12*, 1059-1065.

Haas, S., de, Berlo, W., van, Bakker, F., & Vanwesenbeeck, I. (2012). Prevalence and characteristics of sexual violence in the Netherlands, the risk of revictimization and pregnancy: Results from a national population survey. *Violence and Victims, 27,* 592-608.

Haas, S., de (2012). Seksueel grensoverschrijdend gedrag onder jongeren en volwassenen in Nederland. *Tijdschrift voor Seksuologie, 36,* 136-145.

Hamby, S.L., & Koss, M.P. (2003). Shades of gray: A qualitative study of terms used in the measurement of sexual victimization. *Psychology of Women Quarterly, 27,* 243-255.

Harreveld, C. (2009). *Ongewenste seks tijdens het uitgaan: wanneer 'ja' tot spijt leidt en 'nee' niet wordt gerespecteerd.* Utrecht: Universiteit Utrecht.

Hart, G.J., & Elford, J. (2010). Sexual risk behaviour of men who have sex with men: Emerging patterns and new challenges. *Current Opinion of Infectious Diseases, 23,* 39-44.

Hatzenbuehler, M.L., O'Cleirigh, C., Mayer, K.H., Mimiaga, M.J., & Safren, S.A. (2011). Prospective associations HIV-related stigma, transmission risk behaviors, and adverse mental health outcomes in men who have sex with men. *Annals of Behavioral Medicine, 42*, 227-234.

Heiligenberg, M., Wermeling, P.R., Rooijen, M.S. van, Urbanus, A.T., Speksnijder, A.G.C.L., Heijman, T., …Loef, M.F. van der. (2012). Recreational drug use during sex and sexually transmitted infections among clients of a city sexually transmitted infections clinic in Amsterdam, the Netherlands. *Sexually Transmitted Diseases, 39*, 518–527.

Hines, D.A. (2007). Predictors of sexual coercion against women and men: A multilevel, multinational study among university students. *Archives of sexual behavior, 36*, 403-422.

Kedde, H. (2012). Seksuele disfuncties in Nederland: prevalentie en samenhangende factoren. *Tijdschrift voor Seksuologie, 36*, 98-108.

Kelly, B.C., Bimbi, D.S., Izienicki, H., & Parsons, J.T. (2009). Stress and coping among HIV-positive bare-backers. *AIDS and Behavior, 13,* 792–797.

Kerkhof, M.P.N. van (1999). Homo's op eigen benen. *SOA-Bulletin, 20*, 20- 22.

Kesteren, N.M.C. van, Hospers, H.J., Empelen, P. van, Breukelen, G. van, & Kok, G. (2007). Sexual decision-making in HIV-positive men who have sex with men: how moral concerns and sexual motives guide intended condom use with steady and sexual partners. *Archives of Sexual Behavior, 36,* 437–449.

Kesteren, N.M.C. van, Hospers, H.J., & Kok, G. (2007). Sexual risk behavior among HIV-positive men who have sex with men: a literature review. *Patient Education and Counseling, 65,* 5–20.

Kesteren, N.M.C. van, Hospers, H.J., Kok, G., & Empelen, P. van. (2005). Sexuality and sexual risk behavior in HIV-positive men who have sex with men. *Qualitative Health Research, 15,* 145–168.

Keuzenkamp, S., Kooiman, N., & Van Lisdonk, J. (2012). *Niet te ver uit de kast: Ervaringen van homo- en biseksuelen in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.

Keuzenkamp, S. (2012). *Worden wie je bent: Het leven van transgenders in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.

Klein, C., & Gorzalka, B.B. (2009). Sexual functioning in transsexuals following hormone therapy and genital surgery: A review. *Journal of Sexual Medicine, 6*, 2922-2939.

Kooiman, N., & Keuzenkamp, S. (2012). *Alle homo's in een hokje. Zoektocht naar de beste categorisering van seksuele voorkeur*. Den Haag: Sociaal en Cultureel Planbureau.

Krahé, B., & Berger, A. (2013). Men and women as perpetrators and victims of sexual aggression in heterosexual and same-sex encounters: A study of first-year college students in Germany. *Aggressive Behavior, 39*, 391-404.

Krahé, B., Scheinberger-Olwig, R., & Schütze, S. (2001). Risk factors of sexual aggression and victimization among heterosexual men. *Journal of Applied Social Psychology, 31*, 1385-1408.

Krahé, B., Tomaszewska, P. Kuyper, L., & Vanwesenbeeck, I. (2014). Sexual aggression as a threat to young people's sexual well-being in Europe: A review of the evidence from 27 EU countries. Manuscript submitted for publication.

Kuyper, L. (2012). Transgenders in Nederland: Prevalentie en attitudes. *Tijdschrift voor seksuologie, 36*, 129-135.

Kuyper, L., & Vanwesenbeeck, I. (2011). Examining sexual health differences between lesbian, gay, bisexual, and heterosexual adults: the role of sociodemographics, sexual behaviour characteristics, and minority stress. *Journal of sex research 48* , 263-274.

Lange, J.M.A. (2011). "Test and treat": Is it enough? *Clinical Infectious Diseases, 52*, 801-802.

Lankveld, J. van, Kuile, M. ter, & Leusink, P. (2010). *Seksuele disfuncties. Diagnostiek en behandeling.* Houten: Bohn Stafleu van Loghum.

Lawrence, A.A. (2003). Factors associated with satisfaction or regret following male-to-female sex reassignment surgery. *Archives of Sexual Behavior, 32*, 299-315.

Lewis, R.W., Fugl-Meyer, K.S., Corona, G., Hayes, R.D., Laumann, E.O., Moreira, E.D., …Segraves, T. (2010). Definitions/Epidemiology/Risk Factors for Sexual Dysfunction. *Journal of Sexual medicine, 7,* 1598–1607.

Lisdonk, J. van, & Bergen, D. van (2010). Homojongeren en hun seksuele voorkeur: Invulling en uiting. In S. Keuzenkamp (Ed.) *Steeds gewoner, nooit gewoon: Acceptatie van homoseksualiteit in Nederland*. Den Haag: Sociaal en Cultureel Planbureau.

Livingston, J.A., Testa, M., & VanZile-Tamsen, C. (2007). The reciprocal relationship between sexual victimization and sexual assertiveness. *Violence Against Women, 13*, 298-313.

Lloyd, S., & Operario, D. (2012). HIV risk among men who have sex with men who have experienced childhood sexual abuse: systematic review and meta-analysis. *AIDS Education and Prevention, 24*, 228–241.

McCarty-Caplan, D., Jantz, I., & Swartz, J. (2013). MSM and Drug Use: A Latent Class Analysis of Drug Use and Related Sexual Risk Behaviors. *AIDS and Behavior.* doi:10.1007/s10461-013-0622x

Meyer, I.H. (1995). Minority stress and mental health in gay men. *Journal of Health and Social behavior, 36,* 38–56.

Meyer, I.H. (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. Psychological Bulletin, 129, 674-697.

Montaner, J.S., Lima, V.D., Barrios, R., Yip, B., Wood, E., Kerr, T., …Kendall, P. (2010). Association of highly active antiretroviral therapy coverage, population viral load, and yearly new HIV-diagnoses in British Columbia, Canada: A population-based study. *Lancet, 376,* 532–539.

Moreno-Pérez, O., Escoín, C., Serna-Candel, C., Picó, A., Alfayate, R., Merino, E., Portilla, J. (2010). Risk factors for sexual and erectile dysfunction in HIV-infected men: The role of protease inhibitors. *AIDS, 24*, 255-264.

Motmans, J., T'Sjoen, G., & Meier, P. (2011). *De levenskwaliteit van transgender personen in Vlaanderen*. Antwerpen/Hasselt: Steunpunt Gelijke Kansenbeleid.

Mudanyali, O., Dimitrov, S., Sikora, U., Padmanabhan, S., Navruz, I., & Ozcan, A. (2012). Integrated rapid-diagnostic-test reader platform on a cellphone. *Lab on a Chip, 12*, 2678-2686.

Newcomb, M.E., & Mustanski, B. (2009). Moderators of the relationship between internalized homophobia and risky sexual behavior in men who have sex with men: A meta-analysis. *Archives of Sexual Behavior, 40,* 189–199.

Ostrow, D.G., Plankey, M.W., Cox, C., Li, X., Shoptaw, S., Jacobson, L.P., & Stall, R.C. (2009). Specific sex drug Combinations contribute to the majority of recent HIV seroconversions among MSM in the MACS. *Journal of Acquired Immune Deficiency Syndromes, 51,* 349–355.

Pars, L., & Bergen, J. van. (2013). *Soa-testen, zelf doen of laten (doen)?* Amsterdam: Soa Aids Nederland.

Parsons, J.T., Schrimshaw, E.W., Wolitski, R.J., Halkitis, P.N., Purcell, D.W., Hoff, C.C., & Gómez, C.A. (2005). Sexual harm reduction practices of HIV-seropositive gay and bisexual men: serosorting, strategic positioning, and withdrawal before ejaculation. *AIDS, 19* (suppl 1), S13–S25.

Plankey, M.W., Ostrow, D.G., Stall, R., Cox, C., Li, X., Peck, J.A., & Jacobson, L.P. (2007). The relationship between methamphetamine and popper use and risk of HIV seroconversion in the multicenter AIDS cohort study. *Journal of Acquired Immune Deficiency Syndromes, 45*, 85–92.

Platteau, T., & Lankveld, J. van. (2005). Seksuele disfuncties bij homoseksuele mannen met hiv: Een literatuurreview. *Tijdschrift voor Seksuologie, 29,* 205–214.

Preston, D.B., D'Augelli, A.R., Kassab, C.D., Cain, R.E., Schulze, F.W., & Starks, M.T. (2004). The influence of stigma on the sexual risk behavior of rural men who have sex with men. *AIDS Education and Prevention, 16,* 291-303.

Pulerwitz, J., Michaelis, A., Weiss, E., Brown, L., & Mahendra, V. (2010). Reducing HIV-related stigma: Lessons learned from horizons research and programs. *Public Health Reports, 125,* 272–281.

Quirk, F.H. Heiman, J.R., Rosen, R.C., Laan, E., Smith, M.D., & Boolell, M. (2002). Development of a sexual function questionnaire for clinical trials of female sexual dysfunction. *Journal of Women's Health & Gender-Based Medicine, 11,* 277-289.

Radcliffe, J., Doty, N., Hawkins, L.A., Gaskins, C.S., Beidas, R., & Rudy, B.J. (2010). Stigma and sexual health risk in HIV-positive African America young men who have sex with men. *AIDS Patient Care STDS, 24,* 493–499.

Rao, D., Feldman, B.J., Fredericksen, R.J., Crane, P.K., Simoni, J.M., Kitahata, M.M., & Crane, H.M. (2012). A structural equation model of HIV-related stigma, depressive symptoms, and medication adherence. *AIDS and Behavior, 16*, 711-716.

Ratti, R., Bakeman, R., & Peterson, J.L. (2000). Correlations of high-risk sexual behavior among Canadian men of South Asian and European origin who have sex with men. *AIDS Care, 12,* 193–202.

Rehman, J., Lazer, S., Benet, A.E., Schaefer, L.C., & Melman, A. (1999). The reported sex and surgery satisfactions of 28 postoperative male-to-female

transsexual patients. *Archives of Sexual Behavior, 28*, 71-89.

Rietmeijer, C.A., Lloyd, L.V., & McLean, C. (2007). Discussing HIV serostatus with prospective sex partners: A potential HIV prevention strategy among high risk men who have sex with men. *Sexually Transmitted Diseases, 34,* 215–219.

Rijckevorsel, G. van, Whelan, J., Kretzschmar, M., Siedenburg, E., Sonder, G., Geskus, R., Coutinho, R., & Hoek, A. van den. (2013). Targeted vaccination programme successful in reducing acute hepatitis B in men having sex with men in Amsterdam, the Netherlands. *Journal of Hepatology, 59*, 1177-1183.

Roen, K. (2002). "Either/or" and "both/neither": Discursive tensions in transgender politics. *Signs, 27*, 501-522.

Rosen, R., Brown, C. Heiman, J., Leiblum, S., Meston, C., Shabsigh, R., Ferguson, D., D'Agostino, R. (2000) The female sexual function index (FSFI): A multidimensional self-report instrument for the assessment of female sexual function. *Journal of Sex & Marital Therapy, 26,* 191–208.

Rosen, R.C., Catania, J.A., Ehrhardt, A.A., Burnett, A.L., Lue, T.F., McKenna, K., Stoff, D.M. (2006). The Bolger conference on PDE-5 inhibition and HIV risk: Implications for health policy and prevention. *The Journal of Sexual Medicine, 3,* 960–975.

Rosen, R.C., Riley, A., Wagner, G., Osterloh, I.H., Kirkpatrick, J., & Mishra, A. (1997). The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. Urology, 49, 822-830.

Ross, M.W., Berg, R.C., Schmidt, A.J., Hospers, H.J., Breveglieri, M., Furegato, M., & Weatherburn, P. (2013). Internalised homonegativity predicts HIV-associated risk behavior in European men who have sex with men in a 38-country cross-sectional study: some public health implications of homophobia. *BMJ Open, 3*. doi: 10.1136/bmjopen-2012-001928.

Rothman, E.F., Exner, D., & Baughman, A.L. (2013). The prevalence of sexual assault against people who identify as gay lesbian or bisexual in the United States: A systematic review. *Trauma, Violence and Abuse, 12,* 55-66.

Rutgers WPF (2013). *Wat maakt het verschil? Diversiteit in de seksuele gezondheid van LHBT's.* Een verkenning. Utrecht: Rutgers WPF.

Sadeghi-Nejad, H., Wasserman, M., Weidner, W., Richardson, D., & Goldmeier, D. (2010). Sexually Transmitted Diseases and Sexual Function. *Journal of Sexual Medicine, 7,* 389–413.

Saewyc, E., Bauer, G.R., Skay, C.S., Bearinger, L.H., Resnick, M.D., Reis, E., & Murphy, A. (2004). Measuring sexual orientation in adolescent health surveys: Evaluation of eight school-based surveys. *Journal of Adolescent Health, 35*, 345.e1-345.e15.

Sandfort, T.G.M., Graaf, R. de, Bijl, R.V., & Schnabel, P. (2001). Same-sex sexual behavior and psychiatric disorders: Findings from the Netherlands mental health survey and incidence study (NEMESIS). *Archives of General Psychiatry, 58,* 85-91.

Savin-Williams, R.C. (2001). A critique of research on sexual-minority youths. *Journal of Adolescence, 24*, 5-13.

Savin-Williams, R.C. (2006). Who's gay? Does it matter? *Association for Psychological Science, 15*, 40-44.

Savin-Williams, R.C., Joyner, K., & Rieger, G. (2012). Prevalence and stability of self-reported sexual orientation identity during young adulthood. *Archives of Sexual Behavior, 41*, 103–110.

Sayles, J.N., Wong, M.D., Kinsler, J.J., Martins, D., & Cunningham, W.E. (2009). The association of stigma with self-reported access to medical care and antiretroviral therapy adherence in persons living with HIV/AIDS. *Journal of General Internal Medicine, 24,* 1101–1108.

Schadé, A., Boenink, A.D., & Danner, S.A. (red.) (2010). *Handboek hiv en psychische klachten.* Utrecht: De Tijdstroom.

Sell, R.L. (1997). Defining and measuring sexual orientation: A review. *Archives of Sex Behavior, 26*, 643-658.

Sell, R.L. (2007). Defining and measuring sexual orientation for research. In L.H. Meyer & M.E. Northridge (Eds.) *The health of sexual minorities: Public health perspectives on lesbian, gay, bisexual and transgender populations.* New York, NY: Springer.

Sell, R.L., & Becker, J.B. (2001). Sexual orientation data collection and progress toward Healthy People 2010. *American Journal of Public Health, 91*, 876-882.

Sighem, A. van, Gras, L., Kesselring, A., Smit, C., Engelhard, E., Stolte, I., & Reiss, P. (2013). *Monitoring of Human Immunodeficiency Virus (HIV) Infection in the Netherlands.* Amsterdam: Stichting HIV Monitoring.

Smit, P.J. (2010). Seks, spanning en sensatie. Gevonden op 17 maart 2014, van http://www.hivnet.org/index.php?option=com_content&view=article&id=9094&Itemid=372.

Smit, P.J., Brady, M., Carter, M., Fernandes, R., Lamore, L., Meulbroek, M., Ohayon, M., Platteau, T., …Thompson, M. (2012). HIV-related stigma within communities of gay men: A literature review. *AIDS Care, 24*, 405–412.

Smith, Y.L.S., Goozen, S.H.M., Kuiper, A.J., & Cohen-Kettenis, P.T. (2005a). Transsexual subtypes: Clinical and theoretical significance. *Psychiatry Research, 137*, 151-160.

Smith, Y.L., Van Goozen, S.H.M., Kuiper, A. & Cohen-Kettenis, P. (2005b). Sex reassignment: outcomes

and predictors of treatment for adolescent and adult transsexuals. *Psychological Medicine, 35* (1), 89-99.

Soa Aids Nederland (2013a). Nederlands Advies condoomgebruik aan vaste partners met ongelijke hiv-status. Verkregen op 3 maart 2014, van http://www.soaaids.nl/nl/node/1791.

Soa Aids Nederland (2013b). *Onder controle: Strategie voor de aanpak van soa's en hiv onder MSM in Nederland 2013-2018.* Amsterdam: Soa Aids Nederland.

Soa Aids Nederland (2013c). Testlab van Man tot Man uitgebreid naar Noord Nederland. Verkregen op 18 maart 2014, van http://www.soaaids.nl/nl/testlab-van-man-tot-man-uitgebreid-naar-noord-nederland.

Soetens, L.C., Koedijk, F.H.D, Broek, I.V.F. van den, Vriend, H.J., Coul, E.L.M., Aar, F. van., …Benthem, B.H.B. (2013). *Sexually Transmitted Infections, including HIV, in the Netherlands in 2012*. Bilthoven: Centre for Infectious Disease Control - National Institute for Public Health and the Environment (RIVM).

Stall, R., & Griensven, F. van (2005). New directions in research regarding prevention for positive individuals: questions raised by the seropositive urban Men's intervention trail. *AIDS, 19*(suppl 1), S123 – S127.

Stall, R., Mills, T.C., Williamson, J., Hart, T., Greenwood, G., Paul, J., …Catania, J.A. (2003). Association of co-occurring psychosocial health problems and increased vulnerability to HIV/AIDS among urban men who have sex with men. *American Journal of Public Health, 93*, 939–942.

Stotzer, R.L. (2009). Violence against transgender people: A review of United States data. *Aggression and Violent Behavior, 14,* 170-179.

Stutterheim, S.E., Bos, A.E.R., & Schaalma, H.P. (2008). *HIV-related stigma in the Netherlands.* Enschede: Aids fonds.

Stryker, S. (2008). *Transgender history*. Berkeley: Seal Press.

Sudarshi, D., Pao, D., Murphy, G., Parry, J., Dean, G., & Fisher, M. (2008). Missed opportunities for diagnosing primary HIV infection. *Sexually Transmitted Infections, 84,* 14–16.

Sullivan, A.K., Curtis, H., Sabin, C.A., & Johnson, M.A. (2005). Newly diagnosed HIV infections: review in UK and Ireland. *British Medical Journal, 330,* 1301–1302.

Testa, R.J., Sciacca, L.M., Wang, F., Hendricks, M.L., Goldblum, P., Bradford, J., & Bongar, B. (2012). Effects of violence on transgender people. *Professional Psychology: research and Practice, 43*, 452-459.

The EMIS Network (2013). *EMIS 2010: The European Men-Who-Have-Sex-With-Men Internet Survey. Findings from 38 countries.* Stockholm: European Centre for Disease Prevention and Control.

Thompson, E.M., & Morgan, E.M. (2008). "Mostly straight" young women: Variations in sexual behavior and identity development. *Developmental Psychology, 44*, 15-21.

Tsui, H.Y., Lau, J.T.F., Feng, T., Hong, F., Cai, Y., Zhou, H., & Liu, X. (2014). Sexual dysfunction and unprotected anal intercourse among men who have sex with men in two chinese cities. *Journal of Sex & Marital Therapy, 40*, 139–148.

Vanden Berghe, W.J.M.E. (2013). *An analysis of health outcomes among sexual minorities with a focus on the HIV/aids epidemic among men who have men in Belgium* (Proefschrift). Maastricht: Datawyse / Universitaire Pers Maastricht.

Vanwesenbeeck, I. (2008). Sexual violence and the MDGs. *International Journal of Sexual Health, 20,* 25-49.

Ven, P. van de, Kippax, S., Crawford, J., Rawstorne, P., Prestage, G., Grulich, A., & Murphy, D. (2002). In a minority of gay men, sexual risk practice indicates strategic positioning for perceived risk reduction rather than unbridled sex. *AIDS Care, 14,* 471-480.

Vennix, P. (1997). *Travestie in Nederland en Vlaanderen*. Delft: Eburon.

Vennix, P. (2010). *Transgenders en werk: Een onderzoek naar de arbeidssituatie van transgenders in Nederland en Vlaanderen*. Utrecht: Rutgers Nisso Groep.

Vrangalova, Z., & Savin-Williams, R.C. (2012). Mostly heterosexual and mostly gay/lesbian: Evidence for new sexual orientation identities. *Archives of Sexual Behavior, 41*, 85-101.

Vroege, J.A. (2003). *De vragenlijst voor het signaleren van seksuele disfuncties (VSD): bruikbaarheid in de klinische praktijk.* Delft: Eburon.

Wang, S., Tasoglu, S., Chen, P.Z., Chen, M., Akbas, R., Wach, S., …Demirci, U. (2014). Micro-a-fluidics ELISA for rapid CD4 cell count at the point-of-care. *Scientific Reports, 4*, 3796.

Weyers, S., Elaut, E., Sutter, P. de, Gerris, J., T'Sjoen, G., Heylens, G., Cuypere, G. de, & Verstraelen, H. (2009). Long-term assessment of the physical, mental, and sexual health among transsexual women. *Journal of Sexual Medicine, 6*, 752-760.

Wierckx, K., Elaut, E., Hoorde, B. van, Heylens, G., Cuypere, G. de, Monstrey, S., Weyers, S., Hoebeke, P., & T'sjoen, G. (2013). Sexual Desire in Trans Persons: Associations with Sex Reassignment Treatment. *Journal of Sexual Medicine, 11*, 107-18.

Wierckx, K., Caenegem, E. van, Elaut, E., Dedecker, D., Peer, F. van de, Toye, K., Weyers, S., Hoebeke, P., Monstrey, S., Cuypere, G. de, & T'Sjoen, G. (2011). Quality of life and sexual health after sex reassignment surgery in transsexual men. *Journal of Sexual Medicine, 8,* 3379–3388.

Wit, J.B.F. de, & Adam, P.C.G. (2007). *Sexual risk-taking in gay men. A focus on non-intentional processes.* Utrecht: Utrecht University & Institute for Prevention and Social Research.

World Health Organisation (2010). Developing sexual health programmes. A framework for action. Genève: WHO.

Zablotska, I.B., Imrie, J., Prestage, G.P., Crawford, J., Rawstorne, P., Grunlich, A., Kippax, S. (2009). Gay men's current practice of HIV seroconcordant unprotected anal intercourse: serosorting or seroguessing? *AIDS Care, 21,* 501–510.

Appendix 1 Concepts in the LGB questionnaire

Demographic variables
- Age
- Level of education
- Participation in society (e.g. studying, in paid employment, retired, unemployed)
- Ethnicity
- Religion
- Urban/rural residential status
- Marital/relationship status
- Current relationship: gender of partner, length of relationship, satisfaction, confidence in relationship

Gender identity and sexual orientation
- Birth-assigned sex
- Gender identity
- Sexual attraction
- Identification (lesbian, gay, bisexual, straight, other)

Sexual development
- Sex with a partner: lifetime experience, gender of partners, age at first same-sex sexual experience, age at first opposite-sex sexual experience;
- Relationship formation: lifetime experience, gender of partners, age at first same-sex relationship, age at first opposite-sex relationship;
- Age at first feelings of same-sex attraction
- Age at first same-sex romantic feelings
- Age at current identification
- Coming out: age at which they first told anyone (not parents); age at which they first told parents

Sexual behaviour
- Frequency of masturbation in the past six months
- Use of pornography in the past six months
- Sex with a partner in the past six months
  - Sex with steady /casual partners
  - Number of partners
  - Frequency of sex
  - Gender of partner(s)
  - Sex techniques with a partner (for anal and oral sex, both receptive and insertive)
- Reasons for and feelings about not having sex with a partner in the past six months
- Casual partners in the past six months
  - Number and gender of partners
  - Meeting places and frequency of visiting these locations
  - Number of casual partners with whom respondent has had sex more than once
  - Paying or being paid for sex

Sexual well-being
- Positive feelings about sex
- Feelings of guilt
- Sexual satisfaction

Children and desire to have children
- Children (number and age)
- Sharing care with other parent(s) and satisfaction with arrangements
- Current desire to have children
- Attempts to fulfil desire to have children

STDs, HIV and testing behaviour

- Testing for HIV: ever tested, how long since last test, how often in the past 12 months, location of last test, results of last HIV test
- Testing for STDs other than HIV: ever tested, how long since last test, how often in the past 12 months, location of last test
- If tested positive for STDs: how long since last test, which STDs other than HIV in the past 12 months
- Notifying partner of being positive for STDs and HIV
- Barriers to testing, for HIV and STDs separately
- For MSM: Intention to be tested for STDs every six months in the future
- For HIV-negative MSM : Intention to be tested for HIV every six months in the future; location where respondent would like to be tested in the future
- For MSM: Attitude and social norms concerning testing every six months
- For MSM: HBV testing and vaccination; if not vaccinated, awareness of HBV vaccination
- For MSM: Knowledge of and experience with PrEP
- For HIV-negative MSM: awareness of primary infections as possible cause of flu-like symptoms
- For HIV-negative MSM: awareness of PrEP; attitude towards PrEP usage; consideration of PrEP usage.
- For HIV-positive MSM: time between last HIV-negative test and positive HIV test; being monitored by HIV centre; time between confirmation and treatment of HIV; evaluation of treatment by HIV centre; use of HIV inhibitors (HAART) and therapy compliance; HCV test and results; HIV-related stigma

Condom usage (MSM)

- Condom usage for anal sex in the past six months (broken down into m/f steady partners & m/f casual partners)
- For men who have sex with women: condom usage for vaginal sex in the past six months (broken down into steady/casual partners)
- Respondents with steady partner: HIV testing behaviour of partner + HIV status of partner
- For respondents with steady partner and casual partners: steady partner aware of casual partners and/or MSM partners; agreements with steady partner; abiding by agreements made
- Sex under the influence of drugs and/or alcohol in the past six months
- If respondent does not use condoms consistently for anal sex with men: perception of risks for STDs and HIV; use of risk-reduction strategies (broken down into steady/casual partner(s) & HIV status)
- Most recent sexual contact
  - Partner characteristics (man/woman, steady/casual, how often with this partner, one or more people at the same time)
  - Types of sex with this partner
  - Condom usage for most recent anal sex (either insertive or receptive) and/or vaginal sex
  - Semen in mouth (self or partner)
  - Under the influence of alcohol and/or drugs
  - Estimated risk for STDs and HIV
  - Communication of HIV status
  - Undetectable viral load as motive for not using condom
- Attitude towards condom usage
- Responsibility with regard to spreading STDs and HIV

Condom usage (women who have sex with men)

- Condom usage for sexual intercourse in the past six months (broken down into steady/casual partners)
- Condom usage for anal sex in the past six months (broken down into steady/casual partners)
- For women with a steady partner who have sex with casual male partner(s): steady partner aware of these partners; agreements with steady partner; abiding by agreements
- Most recent sexual contact:
  - Partner characteristics (man/woman, steady/casual, how often with this partner, one or more people at the same time)

- Types of sex with this partner
- Condom usage for most recent anal sex and/or vaginal sex
- Under the influence of alcohol and/or drugs
- Estimated risk for STDs and HIV
- Respondents with female partner: risk-reduction strategies

Sexual victimisation

- Lifetime experience of sexual harassment (sexually offensive remarks, undesired sexual touching and undesired kissing)
- Lifetime experience of sexual victimisation and if so, most recent incident (various types of sex and various types of coercion)
- For respondents who have experience of sexual victimisation:
  - Age of victim (first and most recent incident)
  - Characteristics of perpetrators (sex, number, relationship to victim, age of perpetrator at first and most recent incident)
  - Perceived role of sexual orientation
  - Perpetrator's awareness (or assumed awareness) of victim's sexual orientation
  - Did or did not press charges
  - Use of alcohol and drugs (by perpetrator and victim)
  - Did or did not seek help in last 12 months
  - Satisfaction with care provision

Sexual problems

- Hypoactive sexual desire
- Women: subjective sexual arousal problems
- Erection problems (m) or lubrication problems (f)
- Premature orgasm
- Orgasm problems
- Dyspareunia
- Women: vaginismus
- Hyperactive sexual desire

Factors possibly associated with sexual health

- Self-esteem
- Sexual sensation seeking
- Use of alcohol and drugs during sex
- Openness, internal and external homo-negativity
- Gender nonconformity: during childhood and current
- Traumatic experiences and abuse during childhood
- Psychological health
- Health

Appendix 2 Concepts in the Transgender questionnaire

Demographic variables
- Age
- Level of education
- Participation in society
- Ethnicity
- Religion
- Urban/rural residential status
- Marital/relationship status

Gender identity, transition and feelings of gender dysphoria
- Birth-assigned sex
- Gender identity: Categorical and along two 10-point scales
- Identification with various labels for trans status or history
- Degree of body dissatisfaction
- Expression of gender identity: subjective extent of expression, by context
- Age at first part-time/full-time gender expression
- Phase in transition
- Registration with gender team, age
- Hormone treatment (and desire for hormone treatment)
- Operations (and desire for operations)

Sexual orientation
- Sexual attraction
- Identification as lesbian, gay, bisexual, straight, other

Partner and children
- Respondents with partner: partner's birth-assigned sex, partner's gender identity, length of relationship, relationship satisfaction, partner's awareness of respondent's gender identity, perceived acceptance by partner
- Respondents with no partner: feelings about not having a partner
- Children (or care for children), had children before or after transition, desire to have children

Relational and sexual development
- Lifetime experience of relationships and age at first relationship
- Lifetime experience of sex with a partner, gender of partners, age at first sexual experience
- Age at first feelings of sexual attraction to men/women

Sexual behaviour
- Sex with a partner in the past six months
  - Sex with steady /casual partners
  - Number of partners
  - Number of casual partners with whom respondent has had sex more than once
  - Frequency of sex
  - Gender of partner(s) (m/f/other)
  - Sex techniques with a partner (for anal and oral sex, both receptive and insertive)
  - Paying or being paid for sex
- Frequency of masturbation in the past six months
- Last time having sex:
  - With steady or casual partner
  - Gender of partner (m/f/other)
  - Types of sex with last partner

Sexual well-being
- Positive feelings about sex
- Sexual satisfaction
- Feelings of guilt
- Feelings about not having sex with a partner

Sexual problems
- Sexual aversion
- Hypoactive sexual desire
- Subjective sexual arousal problems
- Erectile or lubrication problems
- Premature orgasm
- Orgasm problems
- Dyspareunia and vaginismus
- Hyperactive sexual desire

STDs, HIV and testing behaviour
- Testing for HIV: ever tested, how long since last test, how often in the past 12 months, location of last test, results
- Testing for STDs other than HIV: ever tested, how long since last test, how often in the past 12 months, location of last test
- STDs other than HIV: most recent test, which in last 12 months
- Barriers to testing, for HIV and STDs separately
- Notifying partner of being positive for STDs and HIV in the past year

Condom usage
- Condom usage for vaginal and anal sex in the past six months (by steady/casual partners)
- Sex under the influence of drugs and/or alcohol in the past six months
- Assessed risk of HIV in the past six months
- Most recent sexual contact:
  - Partner characteristics (man/woman, steady/casual, how often with this partner, one or more people at the same time)
  - Types of sex with this partner
  - Condom usage for most recent anal sex and/or vaginal sex
  - Under the influence of alcohol and/or drugs
  - Estimated risk for STDs and HIV

Sexual victimisation
- Lifetime experience of sexual harassment (offensive sexual remarks, unwanted sexual touching and unwanted kissing)
- Lifetime experience of sexual victimisation, most recent incident (various types of sex and various types of coercion)
- For respondents with experience of sexual victimisation
  - Age of victim (first and most recent incident)
  - Characteristics of perpetrators (sex, number, relationship to victim, age of perpetrator at first and most recent incident)
  - Perpetrator's awareness (or assumed awareness) of victim's trans status or history
  - Did or did not press charges
  - Use of alcohol and drugs (by perpetrator and victim)
  - Use and evaluation of assistance services

Factors associated with sexual health
- Traumatic experiences
- Psychological health
- Health
- Self-esteem
- Use of alcohol and drugs during sex

- Childhood gender non-conformity
- Minority stress
  - Whether other people address you as male of female
  - Internalised trans-negativity
  - Openness about trans status or history
  - Perceived attitude of general population with regard to trans people
  - Negative experiences due to trans status or history

Appendix 3 Operationalisation of factors associated with sexual health

Concept	items	(Example) question	Categories	alpha
Sexual orientation	1	Do you feel sexually attracted to men, to women or to men and women?	1=only men, 5=only women, 6=neither men nor women, 7=I don't know yet	n/a
Age	1	How old are you?	Open question	n/a
Level of education	1	What is currently your highest level of education completed?	1=primary school, 7=university doctorate/Master's degree or a Master's degree from a university of applied science	n/a
Participation in society	1	Which of the following categories best describes you?	1=in school (primary or secondary), 2= studying (higher education) 3=paid employment, ≥ 20 hours/week, 4=paid employment, < 20 hours/week, 5=home-maker, 6=retired, 7=unemployed, 8=disabled, 9=receiving social welfare benefits, 10=other	n/a
Religion	2	a) Do you belong to a faith community, religion or ideological group? b) How important is your faith to you?	a) 1=yes, 2=no; b) 1=very important, 4=not important	n/a
Steady partner	1	Do you currently have a steady partner?	1=yes, 2=no	n/a
Health	1	How is your health in general?	1=poor, 5=very good	n/a
Psychological health	10	In the past four weeks, have you felt desperate or depressed?	1=all the time, 5=never	LGB people: .93 T: .93
Self-esteem	10	I have a positive opinion of myself	1=completely disagree, 5=completely agree	LGB people: .91 T people: 92
Frequency of sex	1	How often have you been having sex lately?	1=less than once a month, 7=several times a day	n/a
Sex under the influence of alcohol	1	In the past six months, how often have you had sex under the influence of alcohol?	1=never, 5=always, 6=I don't know what this is	n/a

Sex under the influence of drugs	12	In the past six months, how often have you had sex under the influence of XTC?	1=never, 5=always, 6=I don't know what this is	LGB people: .68 T people: .75
Experience of sexual abuse	1	Experience of sexual victimisation before the age of 16 (see Chapter 8)	1=yes, 2=no	n/a
Negative homosexual or trans experiences	6	In the past year, how often have you been bullied because you are attracted to men?	1=never, 5=very often	GB men: .89 LB women: .87 T people: .98
Openness about sexual orientation or trans identity	6	I am proud that I am attracted to women	1=completely disagree, 5=completely agree	GB men: .87 LB women: .81 T people: .89
Internalised homophobia (only MSM)	2	If I could choose, I would prefer to be straight	1=completely disagree, 5=completely agree	.67
Sexual sensation seeking (only LGB people)	6	I like new, exciting sexual experiences	1=completely disagree, 5=completely agree	.75
Positive feelings about sex	6	I really enjoy having sex	1=completely disagree, 5=completely agree	LGB: .80
Body satisfaction (only trans people)	12	My body reflects my identity	1=completely agree, 5=completely disagree	.92
Unfulfilled need for transition (only trans people)	2	Unfulfilled desire to use hormones or have operations (see Chapter 2)	1=yes, 2=no, 3=I don't know	n/a
Treatment (only trans people)	2	Hormone use and surgeries performed (see Chapter 2)	1=no treatment, 2=hormones, 3=surgery	n/a
Positive attitude towards condom usage (only MSM)	4	I am tired of always using condoms for anal sex	1=completely agree, 5=completely disagree	.86
First sexual experience < 14 years	1	How old were you when you had sex for the first time?	Open question	n/a
Number of partners in the past six months	1	In all, how many different people have you had sex with in the past six months?	Open question	n/a
Positive social norm concerning testing (only MSM)	2	Within my circle of friends, it is perfectly normal to be tested regularly for HIV and/or other STDs	1=completely disagree, 5=completely agree	.82
Positive attitude towards testing (only MSM)	4	By having yourself tested regularly for HIV and/or other STDs, you can protect your sex partner (or partners)	1=completely disagree, 5=completely agree	.83
Gender non-conformity during childhood	3	As a child, I behaved in a girl-like manner (for males)	1=not at all, 5=very strongly	GB men: .89, LB women: .88, MtF trans people: .71, FtM trans people: .77

Appendix 4 Participants in the sounding-board group

Janhuib Blans	Independent consultant
Pieter Brokx	Hiv Vereniging Nederland (HVN, Dutch HIV Association)
Stephan Cremer	GGD Amsterdam (Public Health Services of Amsterdam)
Silke David	RIVM/CIb (National Institute for Public Health and the Environment/ Centre for Infectious Disease Control)
Koen van Dijk	COC Nederland (COC Netherlands)
Ron de Graaf	Trimbos
Marjan Groefsema	Pharos
Erwin Heyl	Landelijk Netwerk Biseksualiteit (Dutch Bisexuality Network)
Simon Huges	Patiëntenorganisatie Transvisie (Patient Organisation Transvisie)
Saskia Keuzenkamp	MOVISIE
Lisette Kuyper	SCP (Netherlands Institute for Social Research)
Joz Motmans	University of Antwerp
Eline Op de Coul	RIVM/CIb (National Institute for Public Health and the Environment/ Centre for Infectious Disease Control)
Frederique Retsema	Transgendervereniging Nederland (Netherlands Transgender Association)
Sophie Schers	Transgender Network Netherlands
Judith Schuyf	MOVISIE
Ard van Sighem	Stichting HIV Monitoring (SHM, the Dutch HIV monitoring foundation)
Thomas Steensma	Genderteam VUmc (Knowledge and Care Centre for genderdysphoria)
Rudolf Steinberger	Psychologist/sexologist, independent
Ineke Stolte	GGD Amsterdam (Amsterdam Public Health Services)
Paula Vennix	Independent consultant
Koenraad Vermey	Soa Aids Nederland (STI AIDS Netherlands)
Thomas Wormgoor	Transvisie Zorg
Paul Zantkuijl	Soa Aids Nederland (STI AIDS Netherlands)
Wim Zuilhof	Soa Aids Nederland (STI AIDS Netherlands)