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Sexual dysfunctions in non-heterosexual men – literature review

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Summary

The paper aims to present results and discuss methodology of research conducted so far on sexual dysfunction in non-heterosexual men, as well as to form suggestions for future research and clinical practice. The present paper is a continuation of our earlier paper, which discussed the specific context of the issue connected with the characteristics of gay sexual orientation and the social situation those men face. There is little research on dysfunctions and sexual problems in non-heterosexual men, and none has been conducted in Poland. The research that has been done is characterized by inconsistent methodology that is far from perfect, and varied results which cannot be compared. There are still many unanswered questions in the field. The issues connected with research that require attention include the choice of samples and their representativeness, and the accuracy of the methods used for identifying sexual dysfunctions. It is also still not clear whether sexual problems occur more often in non-heterosexual than heterosexual men, how non-heterosexual men deal with those problems, and how the problems influence their functioning. Another issue that requires a deeper understanding is the connections between sexual dysfunctions in this group and various aspects of the so-called minority stress, such as internalized homophobia and experiencing discrimination, psychoactive substance abuse, HIV infection, and the sexual and partnership lifestyle.

Key words: sexual dysfunctions, homosexuality, homosexual men

Introduction

The issue of sexual dysfunction in heterosexual men, as the most prevalent problem in sexology, is relatively often discussed in specialized literature. The situation is very different when it comes to the clinical problems in the population of non-heterosexual

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men, where specialized literature is scarce. Those issues are not routinely discussed in textbooks on psychiatry, sexology and sexual therapy. The only exception here are highly specialized monographs on LGBT psychology or affirmative psychotherapy for non-heterosexual clients [1, 2]. The analysis on Polish literature on psychiatry and sexology, based on the issues of "Psychiatria Polska" and "Seksuologia Polska" from the last ten years did not yield even one article dedicated expressly to the issue of sexual dysfunction in non-heterosexual men. The situation in international literature is somewhat better, and the present review presents it.

Aim

The article aims to present the most important conclusions from studies on sexual dysfunction in non-heterosexual men and to discuss the applied methodologies, as well as to point to the main challenges faced by future research. The characteristics of gay sexuality and the specific psychosocial context in which it is realized are discussed in another work of ours [3].

Material and methods

The selection of literature

The selection of literature on the sexual health of non-heterosexual men was done by searching the internet databases PubMed and EBSCO. The search included the years from 2005 to 2015, and the key words used were: sexual dysfunctions, gay men, sexual dysfunction, and homosexuality. Based on these criteria, the publications were selected for both quantitative and qualitative analysis of occurrence of sexual dysfunctions or related problems in non-heterosexual men. In this process, eight original research papers were selected (Table 1), which were then analyzed in terms of methodology and the results. Based on the analyses, conclusions were formed, summing up the present state of knowledge and implications for further research and clinical practice.

Table 1. **Review of original research papers on sexual dysfunction in non-heterosexual men**

Authors	Subjects	Definition of sexual orientation	Sexual dysfunctions	Diagnosis method
Bancroft et al., 2005 [4]	HOM, HET	declaration of identity	ED, PE	original
Lau, Kim and Tsui, 2006[1] [5]	MSM, HET	declaration of behavior	ED, PE, LSD, OD, PA, Psex, Usex	NHSLS mod

table continued on the next page

[1] Women also took part in the presented study. The table represents only the data concerning men.

Lau, Kim and Tsui, 2008 [6]	HOM, BI/HET	declaration of behavior	ED, PE, LSD, OD, PA, Psex, Usex,	NHSLS mod
Hirshfield et al., 2010 [7]	HOM, BI, HET	declaration of behavior, Kinsey's scale	ED, PE, LSD, OD, PA, Psex, Usex,	NHSLS
Jern et al., 2010 [8]	MSM, HET	declaration of behavior	PE, DE	original
Kuyper and Vanwesenbeec, 2011 [9]	HOM Bi, HET	declaration of preference	ED, PE, LSD, OD, PA, Psex, Usex,	QSSD
Vansintejan et al., 2013 [10]	MSM	Kinsey's scale	ED, PE, LSD, SA	EQS, IPE, FSFI, BSFI, G-SAST, IIEF-5
Shindel et al., 2012 [11]	MSM	not stated	ED, PE	IIEF-MSM, PEDT

Original – questions created by the authors of the study; BI – bisexual men; BSFI – Brief (Male) Sexual Function Inventory; DE – delayed ejaculation; declaration of identity – men declared their identity/sexual orientation; declaration of preference – men declared the direction of their sexual attraction; declaration of behavior – men declared whether they have engaged in sexual activity with men in the past year; ED – erectile dysfunction; EQS – Erection Quality Scale; FSFI – Female Sexual Function Index; G-SAST – Gay Men Sexual Addiction Screening Test; HET– heterosexual men; HOM – homosexual men; IIEF-MSM – International Index of Erectile Function modified for research on MSM; IPE – Index of Premature Ejaculation; LSD – lowered sexual drive; MSM– men who have sex with men; NHSLS mod – modified version of NHSLS questions; NHSLS – battery of questions used in National Health and Social Life Survey; OD – difficulties with achieving orgasm; PA – fear of low assessment of sexual ability (so-called performance anxiety); PE – premature ejaculation; PEDT– Premature Ejaculation Diagnostic Tool; Psex – experiencing pain during sexual intercourse; QSSD – Questionnaire for Screening Sexual Dysfunctions; Usex – not experiencing pleasure during sex

Subjects

In six out of eight analyzed studies, authors studied both heterosexual and non-heterosexual men [4–9]. The size of the samples varied from several dozen to almost 7,000 subjects, and the studied men were between 18 and 70 years of age. They were assigned to the group of non-heterosexual men based on their declaration of the preferred gender of their partners (sexual attraction) [9], of engaging in sexual activity with men in the last 12 months or in their lifetime (declaration of behavior [5–8], or a declaration of their identity (self-identification) [4]. Apart from the above-mentioned declarations, researchers used the 7-point Kinsey's scale to establish sexual orientation [7, 10]. In four of the works, authors described the non-heterosexual men simply as Men having Sex with Men (MSM) [5, 8, 10, 11]. The category of homosexual men was distinguished in four studies [4, 6, 7, 9], and two distinguished the category of bisexual men [7, 9]. Another strategy here was used by Lau, Kim and Tsui [6], who treated the group of bisexual and heterosexual men as one reference group for the group of homosexual men.

Sample selection and methodologies

The most common sample selection method was the so-called purposive sampling, aimed at recruiting the biggest number of respondents within the researchers' spectrum of interests [4, 6, 7, 10, 11]. Apart from purposive sampling, fully randomized sampling – random sample from a population of citizens [5], pseudo-random sampling – sampling from a population of people registered in an internet study panel, and population study based on twin births in Finland [8].

The most popular study method was an internet-based questionnaire the respondents filled in on their own [4, 6, 7, 9–11]. The methods also included questionnaires distributed by post [8] and telephone interviews [5].

The studied sexual dysfunctions and methods of their identification

The dysfunctions that were studied most often were erectile dysfunction [4–7, 9–11] and premature ejaculation [4–11]. Some researchers also endeavored to identify lowered sexual drive [5–7, 9, 10], difficulties in achieving orgasm [5–7, 9], delayed ejaculation [8], performance anxiety [5–7, 9], experiencing pain during sexual intercourse [5–7, 9], lack of pleasure [5–7, 9], and addiction to sex [10].

The methods for identifying sexual dysfunctions in the analyzed studies included the solutions adopted by the American study National Health and Social Life Survey (NHSLS) [5–7], that is questions based on the Masters and Johnson's four-stage sexual response model as modified by Kaplan, standardized self-assessment questionnaires [9–11] and non-standardized original methods developed by the authors [4, 8].

The used questionnaires included ones designed to assess many different sexual dysfunctions, such as the Questionnaire for Screening Sexual Dysfunctions (QSSD) [9] and International Index of Erectile Function (IIEF) [11], as well as questionnaires designed to assess specific dysfunctions, such as the Index of Premature Ejaculation (IPE) [10] and Premature Ejaculation Diagnostic Tool (PEDT) [11]. Some researchers used questionnaires in versions modified for non-heterosexual men [10, 11], or the adapted module of the Female Sexual Functioning Index (FSFI) questionnaire focusing on pain, in order to identify anodyspareunia [10].

The original method used by Bancroft's team [4] was based on two questions on the occurrence of problems with achieving/sustaining erection (during lifetime, and in the last three months) and one question on premature ejaculation. The original method used by Jern's team [8] was a 10-question questionnaire, where the questions dealt exclusively with issues associated with ejaculation.

Results of the studies

In the study of Bancroft et al. [4], difficulties associated with erection were reported more often by homosexual men, as compared to heterosexual men, both for the last three months and the entire life. The main difference between those two groups, however, was where the respondents described the difficulties as occurring "occasionally" (33% vs. 23%)

and "less than half the time" (6.5% vs. 4%), with no notable differences where problems occurred "most of the time". Another model of responses emerged from the assessment of premature ejaculation, where heterosexual men reported it as occurring "most of the time" notably more often than homosexual men (7% vs. 4.5%). The status of the relationship did not influence the probability of reporting problems with erection of premature ejaculation by homosexual men, but heterosexual men not in a relationship at the time of the study reported problems both with erection and premature ejaculation less often than those in relationships. Among the psychological variables, the strongest predictor for erectile dysfunction in both groups turned out to be performance anxiety, which was higher in the homosexual sample than in the heterosexual sample.

Research conducted by Lau, Kim and Tsui [5] on a random sample of citizens of Hong Kong showed that almost half of the studied Men having Sex with Men (MSM) reported at least one of the studied sexual dysfunctions. A third of respondents who reported such problems described them as making everyday life much more difficult. The most common complaints were premature ejaculation (22%), lack of pleasure during sex (20%) and loss of interest in sex (20%). Problems with achieving/sustaining erection, inability to experience orgasm or performance anxiety were reported by a tenth of the respondents. The least reported dysfunction was pain experienced during sexual intercourse (4%). A comparison of the prevalence of each dysfunction in the population of heterosexual men and MSM showed a lower probability of premature ejaculation in the latter group. The latter group was at the same time characterized by a higher probability of a loss of interest in sex than the heterosexual group.

The same researchers, in an article published two years later [6], demonstrated a connection between the occurrence of sexual dysfunction in MSM and lack of permanent employment and identifying as bisexual or heterosexual. A higher percentage of sexual dysfunctions was also reported by non-heterosexual men who used psychoactive substances recreationally and often engaged in risky sexual behaviors. The analysis for correlations of specific dysfunctions showed a clear connection between experiencing pain during anal intercourse and engaging in anal sex without protection, as well as between lack of pleasure during sex and overusing alcohol before engaging in sexual activity. The issue that is especially important in research on the sexuality of the population of non-heterosexual men is discrimination because of sexual orientation. In the discussed study [6], MSM who experienced discrimination because of their sexual orientation were more prone to erectile dysfunction and premature ejaculation. Those MSM who experienced anxiety because of their orientation were more likely to experience anxiety about engaging in sexual activity and sexual dysfunctions, and those who were ashamed of their orientation were more likely not to experience pleasure during sex and prone to lack of sexual satisfaction.

In the study conducted by Hirshfield et al. [7], the sexual problems most often reported by non-heterosexual men were lower sexual drive (57%), problems with erection (45%), performance anxiety (44%), lack of pleasure during sex (37%), inability to achieve orgasm (36%), premature ejaculation (34%), and pain during sex (14%). Sexual problems were reported more frequently by men who were young, not in a relationship, and HIV-positive.

In the Finnish study conducted by Jern et al. [8] on disorders of ejaculation, no direct connection was found between those problems and sexual orientation, but only after the mediating role of the frequency of sexual activity and the differences between the studied groups of men in terms of preferred ways of achieving ejaculation was taken into account. Generally, in the non-heterosexual group, the problem of delayed ejaculation occurred more frequently than in the heterosexual group.

An interesting study on sexual health was published by a team of Dutch researchers, Kuyper and Vanwesenbeeck [9]. The authors set out to analyze the differences associated with sexual health between homosexual, bisexual and heterosexual persons. The studied variables shaping the occurrence of sexual dysfunctions, apart from demographic factors and factors associated with sexual activity, included also the influence of minority stress. To this end, apart from the intergroup analyses (homosexual and bisexual subjects compared to heterosexual subjects), intragroup analyses were conducted (only on homosexual and bisexual subjects). While the study did not show differences in the levels of sexual satisfaction and the frequency of sexual dysfunction between men of different sexual orientations, homosexual and bisexual men reported the need for sexual health care decidedly more often than heterosexual men. What is more, a negative correlation was observed between internalized homophobia and the level of sexual satisfaction. The intensity of internalized homophobia also showed a positive correlation with the frequency of sexual dysfunction in the group of non-heterosexual men.

Another study where risk factors for the occurrence of sexual dysfunctions in non-heterosexual men was evaluated, was the study conducted by Shindel et al. [11]. The occurrence of erectile dysfunction was associated with age, experiencing pain during urination, being HIV-positive, former treatments to improve erection, not engaging in insertive anal sex, and lack of satisfaction from sexual life. Being in a stable relationship lowered the probability of the problem occurring. A somewhat different pattern emerged in the case of premature ejaculation risk. With age and the growing number of sexual partners, the risk of premature ejaculation fell. Pain during urination, being HIV-positive and a general lack of satisfaction from sexual life contributed to premature ejaculation in the studied MSM.

In a study conducted on a sample of Belgian MSM [10], the occurrence of problems with erection was reported by 45% of respondents. The most important predictors increasing the risk of those problems were age (the risk increased with the respondent's age), lack of stable relationship, taking a passive role and changing roles during intercourse, and the occurrence of generalized problems with libido and ejaculation. The most popular way of dealing with erectile dysfunction was medication, including over the counter medicines. Most of the MSM using such medication (83%) were happy with their results.

A summary of the most important results of the discussed studies is presented in Table 2.

Table 2. **Research on sexual dysfunction in non-heterosexual men – main findings**

Authors	Time of the occurrence of the dysfunction	The occurrence of sexual dysfunction in non-heterosexual men, results from heterosexual men are in brackets
Bancroft et al., 2005 [4]	3 months before the study	ED = 47% (21%);
	lifetime	ED = 58% (46%), PE = 43% (56%)
Lau, Kim and Tsui, 2006 [5]	12 months before the study	ED = 9% (10%), PE = 22% (37%), LSD = 20% (11%), OD = 9% (9%), PA = 11% (20%), Psex = 3.6% (4.2%), Usex = 20%(15%)
Lau, Kim and Tsui, 2008 [6]	12 months before the study	ED = 6.3%, PE = 10.4%, LSD = 8.3%, OD = 5.6%; PA = 18.7%, Psex = 13.8%; Usex = 13.8%
Hirshfield et al., 2010 [7]	12 months before the study	ED = 45%, PE = 34%, LSD = 57%, OD = 36%, PA = 44%; Usex = 37%; Psex = 14%
Jern et al., 2010 [8]	–	not stated
Kuyper and Vanwesenbeec, 2011 [9]	12 months before the study	14–15% (16%) reported at least one sexual dysfunction (LSD, ED, PA, Usex, OD, PE or Psex)
Vansintejan et al., 2013 [10]	6 months before the study	ED = 45%
Shindel et al., 2012 [11]	6 months before the study	ED: 25% admitted to having taken medication to improve erection, 19.3% have asked a doctor for advice about problems with erection.
	lifetime:	around 17%

DE – delayed ejaculation; ED – erection difficulties; LSD – lower sexual drive; PE – premature ejaculation; PA – fear of low assessment of sexual ability (so-called performance anxiety); OD – orgasm difficulties; Psex – experiencing pain during sex; Usex – not experiencing pleasure during sex

Source: own research

Suggestions for further research

A critical analysis of the presented literature should start with a discussion of the limitations which stem from the fact that purposive sampling was used in most studies. Data obtained from such samples cannot be treated as representative for the entire population. Thus, the assessment of the prevalence of sexual dysfunctions among non-heterosexual men should be based primarily on the data obtained in studies with random samples [5] or population studies [8]. The same applies to comparing the results obtained for the heterosexual and non-heterosexual population. The results of the discussed studies which were conducted on non-probability samples do reflect the tendencies in the entire population, but the usefulness of raw numbers obtained

in such studies must not be overestimated. Comparing the results from the groups of heterosexual and non-heterosexual men in this case is associated with an additional problem of the markedly different characteristics of the analyzed groups. Some authors of studies on non-probability samples have tried to remedy this by choosing respondents in a way that would ensure the groups are similar in terms of average age and other demographic variables [4, 5]. This solution, like the logistic regression model used by some researchers, does not solve many problems which stem from the diversity of the studied groups and is not helpful in searching for causal relationships [12]. Good practices that make it possible to avoid the described difficulties include matching techniques, which make it possible to select for samples so-called statistical twins [12]. The authors believe that using this kind of analytical methods is a desirable direction in further studies on sexual dysfunctions in non-heterosexual men.

The analyzed studies also differ in the ways they identify sexual dysfunction. The differences in, among others, the definitions, questions and diagnostic tools used by the researchers make it difficult to compare the results of different studies and, even more so, to accurately estimate the prevalence of the studied problems. Another issue is the fact that the diagnostic criteria for some dysfunctions were developed with only heterosexual men in mind, which is the case, for example, with premature ejaculation [13]. Here, a good practice could be using standardized self-assessment questionnaires [9–11] or standardized diagnostic questions [13].

An important direction for further studies is taking into account factors specific for the population of non-heterosexual men and their potential connection to sexual dysfunctions. In the analyzed studies, the issues of internalized homophobia and the fact of experiencing discrimination were addressed [6, 9], as well as the occurrence of anodyspareunia and the roles taken during sexual activity [10]. In the light of the presented data, the challenge that future research is facing is the verification of the correlations between factors specific to the population of non-heterosexual men and individual sexual dysfunctions.

One of the important topics which were virtually left untouched by the analyzed studies is the issue of dealing with sexual dysfunctions by non-heterosexual men, as was done by the authors of one of the studies on the population of men suffering from premature ejaculation [14]. Another important topic which needs to be addressed is the question of how non-heterosexual men react to the dysfunctions they experience and whether or not the dysfunctions cause changes in their sexual lives or influence their relationships.

Suggestions for clinical practice

The most important suggestion for clinical practice from research conducted so far may be obvious, but it is also extremely important: non-heterosexual men also suffer from sexual dysfunctions. Other issues that need to be considered are living in secret, including hiding information about one's sexual orientation from doctors, and the difficulties with discussing sexual problems.

The process of diagnosing sexual dysfunctions in non-heterosexual men needs to be extended to problems which are specific to this group, such as the pain experienced

by the receptive partner during anal sex [10]. It must also be noted that some diagnostic criteria were developed without considering non-heterosexual men. For example, the criterion of intravaginal ejaculation latency time under one minute as one of the factors in diagnosing premature ejaculation cannot be applied to anal sex or any other sexual practices [13]. In such cases, the clinician should focus on other characteristics of the problem (lack of control, suffering, influence on the relationship). The questions advised by the International Society for Sexual Medicine may be helpful [13].

The specific stressors described in the minority stress model which affect non-heterosexual men [15] should also be noted. They include lack of acceptance and negative judgement from one's immediate environment and oneself (internalized homophobia), and experiencing discrimination and hostility because of one's sexual orientation. A recommended good practice in clinical work with non-heterosexual men could be widening the scope of the assessment of sexual dysfunctions to the context of experienced minority stress, and taking it into consideration in further therapeutic work.

Other issues which should be considered with regards to this group of patients are HIV infection and its influence of sexual functioning, and the possible connection between sexual dysfunction and risky sexual behaviors and psychoactive substance use.

A conscious clinician should also familiarize themselves with a wider psychosocial and cultural context non-heterosexual men live in and the influence it has on the specificity of gay sexuality. We discuss those issues in more detail in another work of ours [3].

Recapitulation

While the problem of sexual dysfunction in men has an important place in academic literature on sexology, the knowledge of those problems in the population on non-heterosexual men is insufficient. There are many questions without satisfactory answers: 1) How do non-heterosexual men deal with sexual problems?; 2) How do those problems influence their life and functioning?; 3) Are there sexual problems specific to this group?; 4) How should they be diagnosed and studied?; 5) How does the specific psychosocial context influence the realization and sexual functioning of non-heterosexual men?

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