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Anal dyspareunia – biological and psychosocial correlates of painful anal intercourses in population

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Summary

Anodyspareunia (anal dyspareunia) is a phenomenon related to the passive side's feeling of pain or discomfort in anal sex when attempting or completely penetrating the anus. This dysfunction was first described in 1998 by Rosser's team investigating its biopsychosocial correlates in a sample of men who had sex with men. The work is theoretical in nature and is an attempt to integrate the current knowledge on the phenomenon of anodyspareunia. It presents attempts to define the phenomenon and data on its prevalence, possible reasons for its occurrence and further research directions. The analyzed studies show that although the occurrence of anodyspareunia is influenced by both physiological factors (e.g., lack of lubrication, oral or manual stimulation of the anus prior to penetration) and psychological factors, the latter seem to play a decisive role in the experience of pain. Not all people who practice anal sex report pain associated with it, which may lead to the perception of anal dyspareunia as a sexual dysfunction similar in treatment to vaginismus and vaginal dyspareunia.

Key words: anodyspareunia, anal dyspareunia, sexual dysfunction, anal sex, pain

Pain during sexual intercourse

Sexual intercourse plays an important role in romantic relationships and has implications for mental and physical health. People who engage in sexual intercourse more often are happier and more satisfied with their lives [1, 2]. The appearance of sexual dysfunction is associated with lower quality and lower frequency of sexual intercourse, which may lead to reduced physical pleasure during intercourse and increased negative mood [3, 4].

One of the components of sexual dysfunction is pain. A definition of this phenomenon was proposed in 1996 by the International Association for the Study of Pain

(IASP) as an unpleasant sensory and emotional experience related to actual or potential tissue damage or resembling what is associated with actual or potential tissue damage. At the same time, the association proposed additional comments that should be considered together with the definition. The primary one is that pain is always a personal experience, influenced to varying degrees by biological, psychological and social factors, and people learn about it throughout their lives. In addition, although pain is evolutionarily adaptive, frequent experience of pain can lead to impaired functioning of the individual [5].

This is confirmed by the latest study of the British female population, which shows that of the 8,869 surveyed women, 7.5% experienced severe pain, practically at every intercourse, for a period exceeding 6 months. Reporting painful intercourse was associated in this percentage with fear of intercourse, decline in interest in dyadic sexual activity and an increase in the frequency of forced sexual activity [6].

Dyspareunia (pain during intercourse) is a problem widespread in the world population at the level of 3 to 18%, and it is mainly noticed in the context of vaginal contacts in the female population. This article focuses primarily on pain during anal contacts, both in the female and male population. Recent studies show that due to the stigmatization of this form of contact (e.g., as dirty or sodomic), participants less often reach for medical and psychological help, remaining exposed to the feeling of discomfort, shame and chronic pain experience also when anal contacts are the only preferred form of their sexual activity [7].

Diagnostic criteria for pain syndromes in ICD-10 and DSM 5

In the sexological nomenclature, pain syndromes function to a large extent in relation to the female group. The DSM 5 distinguishes between genito-pelvic pain/penetration disorder (302.76), the main criterion of which is the presence of at least one problem during penetration or intercourse attempts: significant vulvovaginal or pelvic soreness, visible fear or fear of pain in the vulva and the vagina or pelvis, also as a result of vaginal penetration and a marked increase in the tension of the pelvic floor muscles during vaginal penetration attempts. The symptoms mentioned above must last for at least 6 months and cause significant clinical suffering. Moreover, this dysfunction cannot be explained by a mental disorder, the presence of serious relationship problems, or the presence of another stress factor. The DSM 5 also distinguishes dysfunctions in terms of severity, degree of specificity and duration.

The ICD-10 distinguishes between non-organic vaginismus (F52.5) and non-organic dyspareunia (F52.6), including psychogenic vaginismus and psychogenic dyspareunia. In the case of dyspareunia, the classification indicates that painful intercourse can affect both women and men and emphasizes the importance of emotional factors in making the diagnosis. In the case of women, pain is felt at the entrance to the vagina, either throughout the duration of intercourse, or with deep penetration of the vagina by the penis, in men the only criterion is pain or discomfort experienced

during the sexual reaction. In women, vaginismus, on the other hand, is associated with a violent contraction of the muscles, both when attempting to penetrate, and with any sexual activity related to the party trying to avoid introducing the penis into the vagina (e.g. by tightening the muscles of the thighs). In the case of men, apart from the above-mentioned, literature mainly includes examples of penile pain syndromes – related to anatomical defects (e.g., phimosis, short penile frenulum) or inflammation [8].

The latest ICD-11 classification distinguishes HA20 Sexual pain-penetration disorder, which is characterized by at least one of the following: (1) pronounced and persistent or recurrent penetration difficulties, including involuntary tension in the pelvic floor muscles during a penetration test; (2) pronounced and persistent or recurrent pain in the vulva and vagina or pelvis during penetration; (3) clear and persistent or recurrent fear of vulvovaginal or pelvic pain in anticipation, during or as a result of penetration. Symptoms recur with sexual interactions involving or potentially related to penetration, despite adequate sexual desire and stimulation, and cannot be entirely attributed to somatic conditions causing genital and pelvic pain and insufficient vaginal lubrication, including postmenopausal lesions. In addition, ICD-11 allows to specify the reason for the above-mentioned difficulties, including: related to the lack of knowledge and experience, difficulties in relationships, or cultural conditions.

Dyspareunia functions in ICD-11 under the code GA12 and is described as a difficulty affecting the female group caused by physical conditions. It is characterized by recurrent genital pain or discomfort that occurs before, during or after intercourse, or by superficial/deep vaginal penetration, and is associated with an identifiable physical cause, not including lack of lubrication. Confirmation of the above-mentioned diagnosis is based on a medical evaluation of the physical causes. The ICD-11 also includes the HA2Y unit, Other specified sexual pain disorders, which can potentially be used to classify people experiencing anal dyspareunia.

An attempt to describe the phenomenon of anodyspareunia in research – towards inclusiveness

The first attempt to describe the phenomenon of anal dyspareunia was made in 1998. During this time, Rosser's team surveyed 277 men who had ever engaged in anal intercourse as a passive party [9]. The study had its obvious limitations, it focused only on pain, not the possible itching or burning sensations associated with it, and only included the MSM (men having sex with men) group. In the conclusions of their study, the authors emphasized the validity of conducting additional research and recognizing anodyspareunia as a sexual dysfunction with diagnostic criteria equal to vaginismus and dyspareunia.

In a study by Damon and Rosser from 2005 [10] among 404 men, it was the psychological factors that were given by the respondents as determining not only the occurrence of pain but also its persistence in the perception of sexual contacts and its negative impact on the frequency of contacts. The authors in the discussion showed

that only 14% of the respondents reported a strong severity of pain during intercourse – anal intercourse, contrary to popular opinion, therefore ceased to be synonymous with the occurrence of pain. They then presented the three main situational factors associated with the experience of pain: active person's penis size, no foreplay (finger relaxation) and no excitement. The lack of psychological preparation for intercourse also turned out to be significant, which undermined the hypothesis that the pain factors were exclusive in the occurrence of anodyspareunia. Interesting conclusions from the study [10] were the fact that the occurrence of anal dyspareunia was not related to the experience of internalized homophobia, as in other studies, while as many as 49% of respondents coped with pain by changing their role from passive to active. Thus, pain was so important for almost half of people that it led to permanent changes in sexual activity.

In a Polish study conducted by Grabski and Kasparek in 2020 [11], 1,443 men of various orientations (bisexual, heterosexual and homosexual) who declared having anal sex in the last 12 months were examined. The conclusions also showed that soreness during anal sex is related not only to anatomical factors – but also to psychosocial factors. The study took into account factors such as minority stress – and its component, i.e., internalized homophobia. Internalized homophobia, in addition to age and fear of sexual inefficiency, turned out to be a significant factor predisposing to the occurrence of anodyspareunia, which is contrary to the results of studies by Damon and Rosser from 2005 [10].

However, the prevalence of anal sex itself as a sexual activity among people of different gender and sexual identity prompts the expansion of the research group. Polish data on anal sex come from the report of Professor Izdebski from 2017 [12] and show a clear increase in the number of people engaging in this form of sexual contact. In 2005, there were 16% of men having such experiences and 12% of women, in 2012, 4% of men had anal sex (although as much as 9% liked it), only 2% of women liked it and had it, while in 2017 these numbers were 22% for men and 20% for women [12].

Studies conducted by Štulhofer and Ajduković [13, 14] were devoted exclusively to the female group. The one from 2011 [13] covered over 2,000 women in the 18–30 age group. An important finding in this study was that of the 63.2% passive subjects, only 48.8% discontinued intercourse when the pain was unbearable, while more than half of the women continued intercourse despite considerable discomfort. For more than two-thirds of the respondents experiencing severe pain, it remained unchanged in perception from its first occurrence and in subsequent anal contacts. For most women, pain was a source of decreased sexual satisfaction and sexual assertiveness. Despite the pain, however, they decided to continue sexual activity against themselves, which emphasizes the value of psychoeducation not only regarding intravaginal but also anal contacts and creates a gap in research on female experiences in anal dyspareunia.

An interesting qualitative study in 2014 was carried out on a narrow group of 20 American women using the interview method [15]. The aim was to investigate the experience of female anal sex ingestion by categorization. The authors distinguished

the following categories in the narratives of the respondents: (1) initial resistance followed by surrender; (2) initial interest followed by withdrawal from subsequent anal sex experiences; (3) violence and coercion around anal sex; (4) social normalization (e.g., male friends normalizing heterosexual anal sex; perceiving anal sex as normal after viewing pornography); and (5) enjoyable experiences with anal eroticism. The results suggest that the women in this study linked anal sex to a desire to please male partners rather than a behavior that is pleasurable or encourages further exploration. This is not to say that anal sex was inherently unpleasant for these women, but rather that the way they experienced it emphasized the penetrating experience of the men they had anal sex with rather than themselves. Thus, giving up anal sex (considering it aversive, giving up talking about the quality of anal intercourse, perceiving anal sex as a symbol of male pressure or strength, etc.) for many women was an element taking away pleasure not only from them but also from their partner and introduced this sexual activity as an element of a psychological game in dyad.

Research on pain and sexuality was conducted mainly in the population of heterosexual women, but the conclusions of the study on 839 women (homosexual, bisexual and heterosexual) in whom the presence of vaginal pain and its determinants were examined, are known [16]. The study showed similar characteristics of genital pain, but differences in perceptions of how this pain affected relationships in couples. In female-female couples, good communication eliminated the impact of painful relationships on the functioning of the couple, in opposite-sex relationships, love was more important to women than feeling pain during sex. Research on pain in general – depending on gender identity and sexual orientation [17] – shows that femininity (as a trait in both men and women) is associated with greater pain in the clinical sense, while masculinity (as a trait) implies a higher pain threshold. While differences in pain sensitivity between men and women are in part related to social and psychosocial factors, many human laboratory studies describe gender differences in sensitivity to noxious stimuli, suggesting that biological mechanisms underlie these differences. Moreover, sex hormones influence pain sensitivity; Pain threshold and pain tolerance in women vary depending on the stage of the menstrual cycle. Brain imaging studies showed differences between men and women in the spatial pattern and intensity of acute pain response. Among rodents, females are more sensitive than males to noxious stimuli and have lower levels of stress-induced analgesia. Male rodents generally exhibit a greater analgesic response to μ-opioid agonists than female rodents. Studies on transgenic mice suggest that males have a higher level of activity in the endogenous analgesic system compared to females, and a human study has shown that μ-opioid receptors in a healthy female brain are activated differently than in a healthy male brain [18].

Limitations to current research on pain related to anal sex

As discussed in the previous chapters, the diagnostic criteria do not focus on pain during anal intercourse. This situation was pointed out by Karl Hollows in 2007 [19].

He emphasized that the variety of forms of anal contact makes it difficult to classify the painful ones – these contacts may occur regardless of the participants' sexual and gender identity. In addition, various objects or body parts can be used for anal stimulation and/or penetration, including the tongue (rimming), fingers, hand, and forearm (fisting and handballing) as well as a wide range of sex toys (vibrators, butt plugs, etc.). From a clinical perspective, the DSM 5 effectively classifies all forms of sexual pain with psychological roots under the same general concept, but this is not helpful in individual clinical practice due to the multiplicity of patients' pain experiences related to their genitals and sexual activities.

The very idea of distinguishing such an individual unit as anal dyspareunia is criticized in medical classification by sexual health specialists – there are voices that pain is only a symptom, not a separate dysfunction [13]. Specialists emphasize that pain difficulties during the experience of anal penetration may only be related to the anatomical structure itself, the lack of lubrication or stimulation of the anus before placing the penis in it, not allowing the influence of psychological and even social factors. Moreover, as it was presented earlier, the limitations are also related to the study group. Since the first publications, same-sex groups (e.g., MSM) or groups with specific characteristics (e.g., people at risk of homelessness, often changing sexual partners) have been studied. A strong trend is also to conduct research primarily in terms of public health – the risk of STI infection and psychoactive substance use in this type of contact. Research on an American sample of women using drugs has shown that women engaged in anal contacts under the influence of psychoactive substances, also to overcome inhibitions and pain sensations [20]. Studies on the MSM group also indicate that drug use was associated not only with the prolongation of intercourse or intensification of sensations but also with the willingness to cope with the possibility of anal pain [21, 22]. In special groups it is difficult to distinguish between pain as a purely biological symptom (e.g., long sexual marathons lead to damage to the mucous membranes, which may be manifested by pain) and its psychological representations (e.g., lack of trust in sexual partners when changing them frequently).

The difficulty, apart from selecting a sufficiently representative study group, is also the operationalization of the experience of anal pain for the purposes of the methodology. Usually, 5-point Likert scales are used to determine the severity of pain [2], 7-point scales [23] or several factors, such as the duration of pain, its severity and the subjective feeling of pain annoyance for the patient, are integrated [13]. However, it should be considered that the discomfort during anal intercourse may include not only pain symptoms but also other proctological symptoms that seem important from the perspective of including them in potential diagnostic criteria. Thus, in research on the phenomenon of anodyspareunia, the question not only about the severity of pain becomes justified but also about the possible occurrence of itching, burning or bleeding around the anus.

Based on the above-mentioned studies, it can be observed that anal dyspareunia goes beyond the mere symptom of pain during insertion of a penis into the anus,

which is declared by passive parties in anal sex. Scientific reports show that this soreness results not only from the biological conditions of the anus (although it is reasonable to exclude biological abnormalities such as injuries, hemorrhoids, etc. in the first place) but also from psychological factors, such as the difficulty of relaxing passive people in anal sex, own insecurity in the role of a partner, lack of reliable education and perception of anal intercourse as a compulsion. Therefore, it seems reasonable to pay attention to painful anal intercourse in the context of therapeutic work (psychological and sexological), while there is still insufficient evidence to consider the justification for distinguishing anal dyspareunia as a separate category in diagnostic classifications.

Conclusions

1. Anal dyspareunia is currently only a theoretical construct, without including this phenomenon in the classification of diseases. The decision to distinguish it in subsequent editions of the ICD and DSM should be preceded by comparative studies on larger groups, without excluding the respondents due to their gender or sexual identity.
2. One of the methods of preventing the occurrence of anal pain should be sexual education on the principles of safe and hygienic anal sex. Such actions should target everyone and not just the MSM population (men who have sex with men). Research has shown that also people who identify as women may choose to engage in forced anal contact and have difficulty being sexually assertive.
3. In the above-mentioned studies, most of the respondents (regardless of gender) reported that pain during anal penetration was associated with psychological factors, therefore it prompts us to believe that pain during anal sex is not an integral part of it and may be considered dysfunctional and thus be subject to therapeutic (psychological and sexological) interventions.
4. Based on the results of research from 2005 [10], one of the methods of working with anal dyspareunia may be training anal sphincter relaxation (alone – during masturbation or with a partner during foreplay), which is an analogous practice to training with dilators in the case of pain syndromes in women.

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