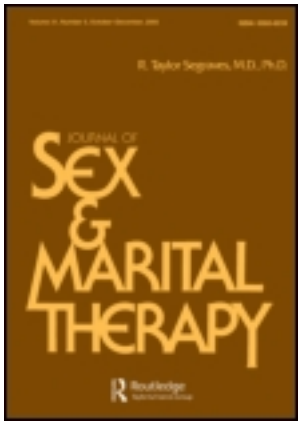

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Should We Take Anodyspareunia Seriously? A Descriptive Analysis of Pain During Receptive Anal Intercourse in Young Heterosexual Women

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Should We Take Anodyspareunia Seriously? A Descriptive Analysis of Pain During Receptive Anal Intercourse in Young Heterosexual Women

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*Anal sex is becoming increasingly prevalent among heterosexual women and men. Although pain related to receptive anal intercourse is not uncommon, little is known about its phenomenology. This article aims to assess the prevalence and correlates of pain during anoreceptive intercourse, including anodyspareunia, its most severe form, among young women. An online survey focusing on anal eroticism was carried out in March and April 2010 on a convenience sample of 2,002 women 18–30 years of age. Participants who reported 2 or more episodes of anal intercourse in the past year were asked about the level and frequency of pain at anoreceptive penetration; those who reported unbearable (too painful to continue) or strong pain at every such occasion were classified as anodyspareunic. The experience of receptive anal intercourse was reported by 63.2% (*n *= 1,265) of participants. Although almost half (48.8%) had to discontinue their first anoreceptive intercourse because of pain or discomfort, a majority of women (62.3%;* n *= 788) continued anal sex. Of the 505 participants who reported 2 or more episodes of anal intercourse in the past year, the women (8.7%;* n *= 44) who reported severe pain during every anoreceptive penetration were classified as anodyspareunic; all others were classified as non-anodyspareunic. For more than two thirds of women*

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with anodyspareunia, the current pain level remained unchanged from their first experience with anal sex. Inability to relax was the most frequent self-hypothesized cause of pain among the anodyspareunic and nonanodyspareunic groups. Compared with other women, those with anodyspareunia reported substantially lower levels of sexual satisfaction (odds ratio = .95; $p < .001$*) and were less sexually assertive (odds ratio = .80;* $p < .01$*). The findings that a substantial proportion of women reported pain at first and subsequent anoreceptive intercourse highlight a need for more information and education about anal eroticism.*

INTRODUCTION

The popularity of anal eroticism seems to be rising among heterosexual men and women (Baldwin & Baldwin, 2000; Mosher, Chandra, & Jones, 2005; Satterwhite et al., 2007). Evidence from national probability studies points to an increasing prevalence of anal sex in this population. According to the findings of a large-scale national study carried out in the United States in 2002–2003, 40% of men and 35% of women 25–44 years of age had lifetime experience of anal sex (Mosher, Chandra, & Jones, 2005; Leichliter, Chandra, Liddon, Fenton, & Aral, 2007). The prevalence rates for the same-age cohort reported a decade earlier in the National Health and Sexual Lifestyle Survey were 31% and 23%, respectively (Laumann, Gagnon, Michael, & Michaels, 1994). In the most recent nationally representative study, 40% of women 20–24 years of age had experienced receptive anal intercourse (Herbenick et al., 2010).

Comparable increase in proportions of heterosexual men and women with lifetime experience of anal sex was observed in the United Kingdom and Swedish national studies (Johnston et al., 2001; Lewin, 2000). Recently, similar dynamics were observed in the national probability study carried out on young Croatian adults 18–24 years of age (Štulhofer & Baćak, 2010; Štulhofer, Graham, Božičević, Kufrin, & Ajduković, 2009). In the first study wave in 2005, 23% of participants reported lifetime experience of anal intercourse. Five years later, the proportion increased to 31.5%.

Although the reasons for increased prevalence of anal sex remain unclear, it seems plausible that widely available (online) pornography—which often portrays anal intercourse as a part of the standard sexual repertoire—played an important role in the normalization of anal eroticism among heterosexual women and men. As the reported association between pornography use and the experience of anal intercourse strongly suggests (cf. Braun-Courville & Rojas, 2009; Rogala & Tydén, 2003; Häggström-Nordin, Hanson, & Tydén, 2005), the portrayal of anal sex in mainstream pornography encourages experimentation with anal eroticism.

There is anecdotal evidence—reflected, already in the 1970s, in movies such as B. Bertolucci's *Last Tango in Paris* (1972) or J. Gainsbourg's *Je*

T'Aime . . . Moi Non Plus (1976)—that anoreceptive intercourse is painful for some women. The fact that the Internet and bookstores abound with popular readings on pain-free anal pleasuring seems to confirm the interest for and demanding choreography of anal sex. However, empirical studies of pain related to receptive anal intercourse have been surprisingly few and have focused exclusively on men who have sex with men (Damon & Rosser, 2005; Rosser, Metz, Bockting, & Buroker, 1997; Rosser, Short, Thurmes, & Coleman, 1998; see also Hollows, 2007). This is unfortunate not only in the context of sexual health, but also in epidemiological terms—primarily in regard to HIV risks (Halperin, 1999; Karim & Ramjee, 1998; Varghese, Maher, Peterman, Branson, & Steketee, 2002; Voeller, 1991).

Anodyspareunia: A New Sexual Problem?

Because of anal anatomy, pain-free anal intercourse requires relaxation (combined with sexual arousal and proper stimulation), lubrication, and slow—often gradual (start-and-stop)—penetration (cf. Hollows, 2007). The anecdotal evidence about discomfort and pain at receptive anal intercourse is, thus, hardly surprising. In a series of articles, Rosser and colleagues (Damon & Rosser, 2005; Rosser et al., 1997; Rosser et al., 1998) suggested that for some gay men severe and frequent pain during anoreceptive intercourse may amount to a sexual pain disorder. Mirroring the concept of dyspareunia, the authors coined a new term, anodyspareunia, to represent this new dysfunction (Rosser et al., 1998). Using convenience samples of gay man, Rosser and colleagues estimated the prevalence of anodyspareunia to be in the 10–14% range, depending on diagnostic criteria (Damon & Rosser, 2005; Rosser et al., 1998). Most of the men classified as having anodyspareunia (60%) described the pain as lifelong. In their most recent article, Damon and Rosser (2005) distinguished between the behavioral and clinical criteria for assessing the prevalence of anodyspareunia to strengthen their case for including the (alleged) problem in a future revision of the *Diagnostic and Statistical Manual of Mental Disorders*. According to these criteria, 10% of participants in their convenience-type online sample of men who have sex with men were classified as *anodyspareunic* (Damon & Rosser, 2005).

Hollows (2007) recently criticized the idea of a new sexual dysfunction; he suggested that it is "a symptom rather than a diagnosis" (p. 439). Hollows (2007) opposed the Rosser and associates' (Rosser et al., 1997, 1998) reasoning by pointing to a number of problematic issues (e.g., making analogies between heterosexual vaginal intercourse and homosexual anal intercourse) that call into question some of the diagnostic criteria for anodyspareunia. He suggested that persistent or recurrent pain during receptive anal intercourse may not be a specific pathology in most cases, but rather a consequence of a lack of information, inadequate anoreceptive preparation, or a preexisting medical condition (e.g., hemorrhoids). Hollows (2007) also challenged the

personal distress component suggesting that it may reflect relational aspects rather than the experience of pain. (In the heterosexual context, one might speculate about the distress being caused by a young woman's inability to please her partner.)

Motivated by an absence of data on painful receptive anal sex in women, but also by the controversy regarding anodyspareunia, in this primarily descriptive article, we aim to (a) analyze the prevalence of pain and discomfort related to receptive anal intercourse among heterosexual women; and (b) assess the prevalence and correlates of *anodyspareunia*, defined as persistent debilitating pain during anoreceptive intercourse, to assist the discussion of its clinical relevance. To the best of our knowledge, this is the first study on the phenomenology of pain related to anal intercourse among women and the first that takes into account a behavioral sequence from the first to most recent experiences of receptive anal intercourse (cf. McBride & Fortenberry, 2010).

METHOD

In early March 2010, a generic e-mail message was sent to college students via the mailing lists of several Croatian universities, a number of online forums, and the mailing list of the Croatian edition of *Cosmopolitan*. The message contained a brief explanation of the research study (stating that it focuses on "predominantly heterosexual young women's positive and negative experiences with anal sex") and the link to an online questionnaire. It also requested that the recipient forward the message to one's female friends and acquaintances who are 18–30 years of age. In a period of 44 days, 2,652 individuals accessed and 2,506 completed the questionnaire (95.5% completion rate). After excluding 504 participants who identified as men ($n = 119$), were older than 30 years of age ($n = 187$), or failed to provide answers to 10% or more of the survey questions ($n = 198$), the sample was reduced to 2,002 participants.

The questionnaire application, which consisted of 151 items (including a number of filters) and required about 30–35 min to complete, was hosted on a commercial site dedicated to online surveying tools. To ensure anonymity, IP addresses were not permanently recorded. On the first screen, a prospective participant was asked to confirm her consent (and being of legal age) to participate in the study. The questionnaire asked about sociodemographic characteristics, sexual behaviors and sexual satisfaction, pornography use, body image, attitudes toward anal sex, and experiences with anal intercourse (defined as "anal sex or penis in anus"). Although the phrases *anal sex* and *anal intercourse* were used interchangeably, anal intercourse was used as the expression when the authors felt the need to emphasize the assumption of penile penetration of anus. A detailed account on personal

experiences with anal sex spanned from the first attempt at anal intercourse (if applicable) to present experiences.

All study procedures were approved by the Ethical Review Board of the Department of Sociology, Faculty of Humanities and Social Sciences, at the University of Zagreb.

Measures

Lifetime experience of anal intercourse was assessed with the following question: "Have you ever tried anal intercourse (i.e., anal sex or penis in anus)?" Participants were also asked whether they continued with this sexual practice ("After this first experience, have you tried anal sex again?"). The answers were "no," "one more time only," and "yes." Frequency of anal intercourse in the past year was measured with the following item: "During the last 12 months, how often, on average, did you have anal intercourse?" reported on a 7-point Likert-type scale ranging from 1 (*never*) to 7 (*several times a week*).

Pain during sexual intercourse was assessed by two items adapted from Rosser et al. (1997): "How often do you feel pain during anal intercourse (being penetrated anally)?" reported on a 6-point scale ranging from 1a (*do not practice anal sex anymore*) to 6a (*never*); and "How would you describe the level of pain you experience during anal intercourse?" reported on an 8-point scale ranging from 1b (*do not practice anal sex anymore*) to 8b (*there is no pain*). Women were classified as having anodyspareunia if they experienced either unbearable (2b) or strong pain (3b) during every anoreceptive intercourse (2a).

We also asked participants to identify the causes of pain they experience during anal intercourse. After asking the filter question ("Do you feel any pain or discomfort during anal sex?"), the following causes were offered: (a) insufficient sexual arousal, (b) penetration is too abrupt or rough, (c) lack of lubrication, (d) penis size, (e) depth of penetration, (f) inability to relax, and (g) inadequate anal foreplay (e.g., digital stimulation). Multiple answers were possible. Last, to assess lifelong experience of painful receptive anal intercourse, the following question was asked: "From your first experience with anal sex, has anything changed in regard to pain or discomfort that anal penetration may cause?" Five response options were offered: (a) I have never felt any pain or discomfort, (b) pain or discomfort remained unchanged, (c) pain or discomfort diminished due to my partner, (d) pain or discomfort diminished unrelated to partner, (e) pain or discomfort increased over time.

We measured sexual satisfaction with the recently developed and extensively validated New Sexual Satisfaction Scale (Štulhofer, Buško, & Brouillard, 2010). The measure has two subscales: the ego-centered domain (10 items) and the partner and sexual activity–centered domain (10 items). The additive scale assesses satisfaction with one's sexual life in the past year, with higher

composite scores indicating higher sexual satisfaction. In this sample, the New Sexual Satisfaction Scale had excellent reliability (Cronbach's $\alpha = .93$).

We assessed relationship intimacy by linear combination of six items on the Miller Social Intimacy Scale (Miller & Lefcourt, 1982). The items measured, for example, the degree to which one feels close to a partner, readiness to help one's partner when he has problems or feels low, and the need to open up emotionally to a partner. Responses were reported on a 5-point Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*). The scale had acceptable reliability (Cronbach's $\alpha = .79$). Higher composite scores denote higher level of intimacy.

We used three items with the average intercorrelation of .52 to measure sexual assertiveness: "If I am not interested in having sex, I will make it clear to my partner"; "In sex, I never do things I don't like"; and "It is me who decides when to start having sex with a new partner." Linear combination of the three items had satisfactory reliability (Cronbach's $\alpha = .77$). Because responses were given using a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), higher scores indicate higher sexual assertiveness.

RESULTS

The mean age in the sample was 23.5 years ($SD = 3.26$ years; median = 23 years). A majority of participants were college students ($M = 15.5$ years of formal schooling; $SD = 1.87$ years of formal schooling). The sample was secular, given that only 13.3% of women reported frequent church attendance (once a week or more often). Most others (78.7%) were either infrequent churchgoers (up to a couple of times per year) or nonreligious individuals. A majority of participants were in a steady relationship at the time of the survey (72.2%). More than half (53.5%) reported being in the relationship for more than 1 year. Less than 5% of participants (4.1%) described their current relationship as open or sexually nonexclusive. Only 7.4% of women were not sexually active in the past year.

The experience of sexual intercourse was reported by 93.7% of participants. The mean age at sexual debut was 17.72 years ($SD = 2.10$ years; median = 17 years). Median number of lifetime sexual partners in the sample was 3 ($M = 4.53$, $SD = 4.01$). One fifth of the surveyed women stated that they never reach orgasm during sexual intercourse if there is no additional (e.g., manual) stimulation (19.8%), whereas one fourth reported reaching orgasms always or nearly always (25.7%). When asked about masturbatory frequency, less than 10% of women (9.4%) stated that they never masturbate. Almost one fourth of participants (23.9%) masturbated several times a week or more often.

Small but statistically significant differences in age, $t(2000) = 2.02$, $p < .05$; education, $t(706) = 8.98$, $p < .001$); and religiosity, $t(1999) = -5.86$, $p < .001$, were found between the college students and *Cosmopolitan* mailing list subsamples. Readers of the Croatian edition of *Cosmopolitan* were about half a year younger, somewhat less educated, and more religious. However, because there were no significant differences in the average age at first sexual intercourse, lifetime number of sexual partners, age at first anal intercourse, lifetime number of anal sex partners, and the frequency of anal sex in the past year, we carried out subsequent analyses on the combined sample.

Experience Of and Pain During Anoreceptive Intercourse

The experience of anal intercourse was reported by almost two thirds of the surveyed women (63.2%). The mean age at first (attempted or completed) anal intercourse was 20.41 years ($SD = 2.52$ years, median = 20 years) or about 3 years after the first vaginal intercourse. For most women (84%), the first anal sex was experienced with a steady partner. No lubricant was used during this first anal penetration in 52% of these cases. Almost one half of participants (49%) reported that their first anal intercourse was too painful to continue. Although they also felt pain or discomfort, an additional 17.3% of women did not stop their partner. However, a substantial minority of participants (28.4%) described their first anal sex experience as pleasant. It is interesting that compared with women who have not planned it (50.4%), women who had planned their first anal intercourse were more likely to discontinue because of pain, $\chi^2 = 10.24$, $p < .05$.

Less than two thirds of participants (62.3%) continued to practice anal intercourse. As expected, there was a significant association between the first anal intercourse being a positive, seemingly pain-free, experience and the continuation of this sexual practice, $\chi^2 = 123.56$, $p < .001$.

Anodyspareunia, Sexual Satisfaction, and Intimacy

Of the 788 women who stated that they have continued to practice anal sex, only 61 (7.7%) reported that they never felt any pain or discomfort during receptive anal intercourse. Among women with two or more episodes of anoreceptive intercourse in the past year ($n = 505$), only 18 (3.6%) were free of any pain or discomfort.

To minimize memory bias, the prevalence of anodyspareunia—the most severe and persistent form of pain related to anal penetration—was explored in participants who reported at least two episodes of anal sex in the past year. (Of the 788 women practicing anal sex, 241 reported either no or only one episode of anal sex in the past year, which—including 42 missing cases—reduced the number of eligible participants to 505.) Forty-four women (8.7%) who reported severe or strong pain during every anoreceptive intercourse were classified as having anodyspareunia. It was expected

that when only participants who regularly engaged in anal intercourse (at least once a month in the past year) were taken into account, the proportion of anodyspareunic women was reduced to 3.7% (9/244).

For a majority of women with anodyspareunia ($n = 31$; 70.5%), the current level of pain remained unchanged from their first experience. Ten women (22.7%) reported that the pain used to be stronger, whereas 3 stated that it had increased over time. In contrast, most of nonanodyspareunic women (70.9%) reported that the level of pain related to anoreceptive intercourse has decreased with time and experience.

When asked about probable causes of the pain, a statistically significant difference between women with and without dyspareunia was found in only one of the seven reasons listed in the questionnaire—inability to relax, $\chi^2 = 11.11$, $p < .001$. Compared with 57.3% of nonanodyspareunic participants, 84.1% of women classified as anodyspareunic reported inability to relax as one of the causes for pain related to anoreceptive intercourse. Inability to relax was the most frequently self-hypothesized cause of pain among anodyspareunic women, followed by inadequate anal foreplay and lack of lubrication (63.6% and 59.1%, respectively). Among nonanodyspareunic women, insufficient lubrication (59.2%) and inability to relax were mentioned most often.

In the final step, we carried out a multivariate logistic regression to assess psychosexual and relationship-related correlates of anodyspareunia. After controlling for sociodemographic indicators (age, education, and religiosity), we tested associations between three independent variables and anodyspareunia. We hypothesized anodyspareunia to be a sexual problem—not only the label for a specific symptom—if it is significantly related to lower sexual satisfaction and relationship intimacy. As the findings in Table 1 show, women with anodyspareunia reported significantly lower levels of sexual satisfaction (odds ratio = .95; $p < .001$; Cohen's $d = 4.06$), but not of relationship intimacy, than did women without anodyspareunia. The difference in the average scores on the New Sexual Satisfaction Scale was substantial (Cohen's $d = 4.06$). It is interesting that women in the nonanodyspareunic

TABLE 1. Sociodemographic and Psychosexual Correlates of Anodyspareunia Among Croatian Women 18–30 Years Old ($N = 460$)

Variable	Odds ratio	95% Confidence interval
Age	1.01	[0.90, 1.13]
Years of formal schooling	1.02	[0.83, 1.25]
Frequency of church attendance	1.07	[0.82, 1.39]
Sexual assertiveness	0.80*	[0.68, 0.93]
Sexual satisfaction	0.95**	[0.92, 0.98]
Relationship intimacy	1.03	[0.92, 1.16]

*$p < .01$. **$p < .001$.

group were sexually more assertive than were women in the anodyspareunic group (odds ratio = .80; $p < .01$).

DISCUSSION

In this study, we aimed to assess the prevalence, development, and severity of pain during heterosexual anoreceptive intercourse. A majority of young women in our sample reported pain at first anoreceptive intercourse. This negative experience seemed to have discouraged over one third of the participants from incorporating anal sex into their sexual repertoire. Even among the women who continued with the practice, a majority continued to experience some pain or discomfort. In most cases, however, the pain/discomfort was present only at the beginning of anal intercourse, suggesting that initial discomfort may be a usual companion of anal sex, even among relatively experienced women. It is important to note that about two thirds of women who reported at least two occasions of anoreceptive intercourse in the past year stated that the intensity of (initial?) pain or discomfort diminished over time, as they and their partner(s) were becoming more experienced. (Roughly the same percentage of women reported that they enjoy anal sex.)

Most participants tried to explain the pain or discomfort they experience during anal sex by referring to their inability to relax, lack of lubrication, or inadequate anal preparation (anal foreplay). This and the finding that more than half of participants did not use any lubricant at first anal intercourse clearly points to a lack of relevant information about the specifics of anal sex on the part of surveyed women and their partners. Keeping in mind the rising popularity of anal sex among young heterosexual adults (Baldwin & Baldwin, 2000; McBride & Fortenberry, 2010; Mosher et al., 2005; Satterwhite et al., 2007), this is an important educational message. Exactly how much pain or discomfort caused by anal sex may be preventable through better sex education remains an open question at this moment.

About 9% of women who reported to have continued to practice (mostly infrequently) anal sex were classified as anodyspareunic, that is, experiencing chronic and severe pain during anoreceptive intercourse. Using comparable methodology, similar prevalence rates were found among gay men (10–14%; Damon & Rosser, 2005; Rosser et al., 1998). It should be noted that a similar prevalence range was observed in research on female dyspareunia (10–15%; see Meana & Binik, 1994). Not being able to relax enough was the self-hypothesized cause of pain in a majority of heterosexual Croatian women and American gay men classified as dyspareunic (Damon & Rosser, 2005, p. 136). Although we agree with Hollows (2007, p. 437) that heterosexual and homosexual anal sex cannot be equated, these findings suggest that the self-reported distribution and etiology of severe pain at receptive anal intercourse may not be gender specific.

Setting aside the ostensible similarity in the prevalence of anodyspareunia in homosexual men and women, the question remains whether the phenomenon should be considered comparable in these two populations. Anal sex may be a more integral part of homosexual than heterosexual behavioral repertoire. Perhaps, in contrast with heterosexual couples, many men who have sex with men do not see a reasonable alternative to anal sex—even if it entails pain. In that sense, the erotic and relational importance of anal intercourse is most likely different in heterosexual and male homosexual couples (Hollows, 2007). This yields the following question: "Why would about 1 in 11 women who practice anal sex continue with this activity despite regular and intense pain?" Although the present study did not focus on this issue, our data suggest that sexual assertiveness may be an important explanatory variable. (It should be reminded that sexual assertiveness was defined in this study as the participant's readiness to refuse to participate in any sexual activity if or when she does not like it.) It is plausible that sexually assertive women who experienced an unacceptable level of pain or discomfort during anal intercourse would be more likely to communicate to their partners that they are unwilling to repeat the experience.

Several study limitations need to be mentioned. Volunteer bias (cf. Wiederman, 1999) has inflated the percentage of participants who have tried anal sex. In a recent national probability sample of women 18–35 years of age, 25.3% of 18–30-year-old participants reported lifetime experience of anal intercourse (cf. Štulhofer, Kuljanić, & Štulhofer, 2010). The proportion is more than two times lower than the one reported in this study.

This limitation, however, is unlikely to have influenced the presented estimates of the prevalence, frequency and severity of pain related to anoreceptive intercourse. In this respect, our study lacks more detailed information about the (insertive) partner's skills and personal distress resulting from pain of discomfort during anal sex. In addition, no data was collected on the location and quality of pain or on possible anal health problems (e.g., hemorrhoids). Our proxies for distress and interpersonal difficulties were sexual satisfaction, which was recently found partially overlapping with sexual distress (Stephenson & Meston, 2010), and relationship intimacy. Among young women, changes in sexual satisfaction may be a better predictor of sexual well-being than sexual distress, as the latter may reflect relationship-related, more than personal concerns (see Hollows, 2007). This hypothesis, however, needs to be tested. Moreover, changes in the level of sexual satisfaction associated with the practice of anal sex could not be assessed in this cross-sectional study.

If it is assumed that younger women are less sexually experienced than are older women, our focus on younger age cohorts may have limited the findings presented in this study. A substantial increase, however, has been noted in the national prevalence of anal sex among young Croatian adults in the period 2005–2010. This increase suggests that age may not affect the

likelihood of engaging in anal eroticism as much as recent and ongoing changes in (hetero)sexual scripting of anal sex.

Last, the fact that we did not assess painful vaginal intercourse in this study may be an important clinical limitation. Considering that anal penetration in women may also cause genital (or, more general, pelvic floor) pain, it is possible that the pain experienced could have been misinterpreted as anodyspareunia. Although we believe that dyspareunia and anodyspareunia are distinct phenomena (the mechanism behind anoreceptive pain is likely identical for women and men), this assertion does not rule out the possibility that some women may feel pain at anoreceptive intercourse solely because they suffer from dyspareunia.

CONCLUSIONS

It has been argued recently that "virtually nothing is known about painful receptive anal sex in women" (Hollows, 2007, p. 441). This article provided first evidence on the prevalence, development, and level of pain during anoreceptive intercourse among young women, using a large-scale convenience sample. On the basis of our findings, anodyspareunia seems to be a relatively rare phenomenon that may substantially affect personal sexual well-being, but it may not necessarily create interpersonal difficulties. However, if anal intercourse becomes a part of the standard heterosexual repertoire, the question of the related pain or discomfort begs for the close attention of sexual health researchers and practitioners.

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