Female dyspareunia

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Female dyspareunia

- Terms and definitions
- Prevalence
- Etiology
- Evaluation and differential diagnosis
- Therapy
- Research
Terms and definitions

- Dyspareunia
- Vaginismus
- Vulvodynia
Dyspareunia - Definitions

- Painful sexual intercourse.
- **Nonorganic (psychogenic) dyspareunia**: dyspareunia (or pain during sexual intercourse) occurs in both women and men. It can often be attributed to local pathology and should then properly be categorized under the pathological condition. This category is to be used only if there is no primary nonorganic sexual dysfunction (e.g. vaginismus or vaginal dryness). Excludes: dyspareunia (organic) (ICD-10¹).
- Genital pain experienced just before, during or after sexual intercourse (ACOG²).
- Recurrent genital pain occurring during, before, or after sexual intercourse in either the male or the female (MeSH³).
- Recurrent or persistent genital pain associated with sexual intercourse in either a male or a female. The disturbance causes marked distress or interpersonal difficulty. The disturbance is not caused exclusively by vaginismus or lack of lubrication, is not better accounted for by another Axis I disorder (except another Sexual Dysfunction) and is not due exclusively to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (DSM-IV-TR⁴).
- Persistent or recurrent pain with attempted or complete vaginal entry and/or penile vaginal intercourse (Basson et al, 2004⁵).

Vaginismus - Definitions

- Nonorganic (psychogenic) vaginismus: spasm of the pelvic floor muscles that surround the vagina, causing occlusion of the vaginal opening. Penile entry is either impossible or painful. Excludes: vaginismus (organic) (ICD-10¹).
- Recurrent or persistent involuntary spasm of the outer muscles of the vagina, occurring during vaginal penetration (MeSH²).
- Recurrent or persistent involuntary spasm of the musculature of the outer third of the vagina that interferes with intercourse. The disturbance causes marked distress or interpersonal difficulty. The disturbance is not better accounted for by another Axis I disorder and is not due exclusively to the direct physiological effects of a general medical condition (DSM–IV-TR³).
- The persistent or recurrent difficulties of the woman to allow vaginal entry of a penis, a finger, and/or any object, despite the woman's expressed wish to do so. There is often (phobic) avoidance and anticipation/fear/experience of pain, along with variable involuntary pelvic muscle contraction. Structural or other physical abnormalities must be ruled out/addressed (Basson et al, 2004⁴).

Vulvodynia - Definitions

- Chronic vulvar discomfort.
- Vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable, neurologic disorder. Classification is based further on whether the pain is generalized or localized and whether it is provoked, unprovoked, or both (International Society for the Study of Vulvovaginal Disease\(^1\)).
- Pain located in the vulvar area of at least 3-6 months' without a definable cause (Bachmann et al, 2006\(^2\)).
- Vulvar discomfort, most often described as burning pain, occurring in the absence of relevant visible findings or a specific, clinically identifiable, neurologic disorder (ACOG\(^3\)).

Common sexual problems in women and men in the UK


<table>
<thead>
<tr>
<th>Problem</th>
<th>Current (%)</th>
<th>Lifetime (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Women (N=979; Age 18-75 years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never or rarely climax</td>
<td>27</td>
<td></td>
</tr>
<tr>
<td>Pain during intercourse</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>Vaginal dryness</td>
<td>28</td>
<td>49</td>
</tr>
<tr>
<td>Problems with arousal</td>
<td>17</td>
<td></td>
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<tr>
<td>Sex never or rarely pleasant</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Any of these</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Any lifetime problem</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td><strong>Men (N=789)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficulty getting erection</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Difficulty maintaining erection</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Either or both of these</td>
<td>26</td>
<td>39</td>
</tr>
<tr>
<td>Premature ejaculation</td>
<td>14</td>
<td>31</td>
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<tr>
<td>Sex never or rarely pleasant</td>
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<td></td>
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<tr>
<td>Any of these</td>
<td>34</td>
<td></td>
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<tr>
<td>Any lifetime problem</td>
<td>54</td>
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<table>
<thead>
<tr>
<th>Question</th>
<th>Percent</th>
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<tbody>
<tr>
<td><strong>Women (N=1749; Age 18-59 years)</strong></td>
<td></td>
</tr>
<tr>
<td>Lack interest in sex</td>
<td>32</td>
</tr>
<tr>
<td>Unable to achieve orgasm</td>
<td>26</td>
</tr>
<tr>
<td>Experience pain during sex</td>
<td>16</td>
</tr>
<tr>
<td>Sex not pleasurable</td>
<td>23</td>
</tr>
<tr>
<td>Anxious about performance</td>
<td>12</td>
</tr>
<tr>
<td>Trouble lubricating</td>
<td>21</td>
</tr>
<tr>
<td><strong>Men (N=1410)</strong></td>
<td></td>
</tr>
<tr>
<td>Lack interest in sex</td>
<td>15</td>
</tr>
<tr>
<td>Unable to achieve orgasm</td>
<td>8</td>
</tr>
<tr>
<td>Climax too early</td>
<td>31</td>
</tr>
<tr>
<td>Sex not pleasurable</td>
<td>8</td>
</tr>
<tr>
<td>Anxious about performance</td>
<td>18</td>
</tr>
<tr>
<td>Trouble achieving or maintaining erection</td>
<td>10</td>
</tr>
</tbody>
</table>
OBJECTIVE: To identify the prevalence and correlates of three types of pelvic pain (dysmenorrhoea, dyspareunia, and other chronic pelvic pain [CPP]) in a nationally representative sample of Australian women.

DESIGN AND SETTING: The CPP survey was part of a broader national study of health and relationships. Computer-assisted telephone interviews were administered to a random sample of 8656 Australian households; 4366 women aged between 16 and 64 years were interviewed in 2004 and 2005. Eighteen of the more than 200 potential survey questions related to pelvic pain.

MAIN OUTCOME MEASURES: Self-reports of dysmenorrhoea, dyspareunia, and any other CPP not associated with sexual intercourse or menstruation.

RESULTS: Data on 1983 women aged 16-49 years who were still menstruating and sexually active were analysed. Prevalences were 71.7% for dysmenorrhoea, 14.1% for dyspareunia and 21.5% for other CPP; 23.3% of women reported no pelvic pain of any kind. Severe pain was reported by 15.0% (95% CI, 13.0%-17.1%) of women with dysmenorrhoea, 7.8% (95% CI, 5.0%-11.9%) of women with dyspareunia and 20.0% (95% CI, 16.1%-24.6%) of women with other CPP. Just over a third (34.2%) of women who reported any pain had sought advice from a health professional. Women reporting CPP were also likely to report other health conditions, most notably depression and anxiety. There were clear associations between CPP and sexual difficulties, pregnancy and pregnancy outcomes.

CONCLUSIONS: Rates of pelvic pain in Australian women are high. General practitioners need to be ready to discuss these issues with patients, particularly in relation to underlying anxiety and depression.

BACKGROUND: Health care planning for chronic pelvic pain (CPP), an important cause of morbidity amongst women is hampered due to lack of clear collated summaries of its basic epidemiological data. We systematically reviewed worldwide literature on the prevalence of different types of CPP to assess the geographical distribution of data, and to explore sources of variation in its estimates.

METHODS: We identified data available from Medline (1966 to 2004), Embase (1980 to 2004), PsycINFO (1887 to 2003), LILACS (1982 to 2004), Science Citation index, CINAHL (January 1980 to 2004) and hand searching of reference lists. Two reviewers extracted data independently, using a piloted form, on participants' characteristics, study quality and rates of CPP. We considered a study to be of high quality (valid) if had at least three of the following features: prospective design, validated measurement tool, adequate sampling method, sample size estimation and response rate >80%. We performed both univariate and multivariate meta-regression analysis to explore heterogeneity of results across studies.

RESULTS: There were 178 studies (459975 participants) in 148 articles. Of these, 106 studies were (124259 participants) on dysmenorrhoea, 54 (35973 participants) on dyspareunia and 18 (301756 participants) on noncyclical pain. There were only 19/95 (20%) less developed and 1/45 (2.2%) least developed countries with relevant data in contrast to 22/43 (51.2%) developed countries. Meta-regression analysis showed that rates of pain varied according to study quality features. There were 40 (22.5%) high quality studies with representative samples. Amongst them, the rate of dysmenorrhoea was 16.8 to 81%, that of dyspareunia was 8 to 21.8%, and that for noncyclical pain was 2.1 to 24%.

CONCLUSION: There were few valid population based estimates of disease burden due to CPP from less developed countries. The variation in rates of CPP worldwide was due to variable study quality. Where valid data were available, a high disease burden of all types of pelvic pain was found.

AIMS: The principle aim of this study was to investigate the prevalence and incidence of prolonged (≥ 6 months) and severe dyspareunia in a non-patient population of women.

METHODS: A total of 3,017 women aged 20-60 participating in a screening program for cervical cancer answered a questionnaire about possible painful coitus.

RESULTS: The prevalence was 9.3% for the whole group and 13% for women aged 20-29 and 6.5% for the women aged 50-60, with a risk ratio of 2.0 (95% CI 1.4-2.8) for the youngest age group compared with the oldest. Of the women who had ever had prolonged and severe dyspareunia 28% had consulted a physician for their symptoms; 20% recovered after treatment, while 31% recovered spontaneously.
Dyspareunia - Etiology

• **Superficial/entry dyspareunia**: pain at the introitus during intercourse.

• **Deep dyspareunia**: deep pain associated with intercourse.
Etiology
Superficial dyspareunia
Chronic vulvar discomfort

• Vulvodynia
  – Generalized vulvodynia
  – Vestibulodynia
• Cyclic vulvovaginitis (candidiasis)
• Vulvar dermatoses
• Neoplastic vulvar lesions
Cotton swab testing

The cotton swab is used to test for pain locations on the vulva. Testing starts at the thighs and moves medially to the vestibule. The vestibule is tested at the 2:00, 4:00, 6:00, 8:00, and 10:00 positions. Each time the vestibule is touched if pain is present, the patient is asked to quantify the pain as mild, moderate, or severe.

Cyclic vulvovaginitis

- Pain is worse just before or during menses
- Caused by a hypersensitivity reaction to Candida
Vulvar dermatoses

- Psoriasis
- Lichen planus
- Lichen sclerosus et atrophicus
Vulvar dermatoses

- Seborrheic dermatitis
- Allergic dermatitis
- Pemphigus vulgaris
Etiology
Superficial and vaginal dyspareunia

- Causes of vulvodynia/chronic vulvar pain, vulvovaginal infections
- Psychogenic causes (nonorganic or psychogenic dyspareunia)
- Inadequate lubrication
- Vulvovaginal congenital anomalies
- Female genital mutilation
- Obstetric causes (episiotomy scars, vulvar varicosities)
- Vulvovaginal atrophy
- Urologic disorders (interstitial cystitis, urethritis)
- Bowel disorders (constipation, proctitis)
- Neurologic disorders (pudendal nerve lesions)
- Muscular disorders (pelvic floor hypertonus, fibromyalgia)
- Sjögren syndrome
- Iatrogenic and traumatic causes
Vulvovaginal infections

Candida albicans

Herpes genitalis
Congenital anomalies of the hymen

Hymen en carène scléreux résistant au coit

Hymen imperforé

<table>
<thead>
<tr>
<th></th>
<th>Group A episiotomy (n=254)</th>
<th>Group B no episiotomy (n=265)</th>
<th>Odds ratio (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress urinary incontinence (%)</td>
<td>12.9</td>
<td>12.1</td>
<td>1.01 (0.61, 1.69)</td>
</tr>
<tr>
<td>Anal incontinence (%)</td>
<td>2.8</td>
<td>1.9</td>
<td>1.47 (0.46, 4.7)</td>
</tr>
<tr>
<td>Dyspareunia (%)</td>
<td>7.9</td>
<td>3.4</td>
<td>2.43 (1.08, 5.45)</td>
</tr>
<tr>
<td>Perineal pain (%)</td>
<td>6.7</td>
<td>2.3</td>
<td>3.09 (1.2, 7.99)</td>
</tr>
</tbody>
</table>
Atrophic vaginitis

<table>
<thead>
<tr>
<th>Age, years (n=355)</th>
<th>Pain during intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>46-50 (n=115)</td>
<td>26 (22.6%)</td>
</tr>
<tr>
<td>51-55 (n=188)</td>
<td>57 (30.3%)</td>
</tr>
<tr>
<td>56-60 (n=52)</td>
<td>23 (44.2%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time since menopause, years (n=295)</th>
<th>Pain during intercourse</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1.1 (n=72)</td>
<td>18 (25.0%)</td>
</tr>
<tr>
<td>1.1-2.1 (n=72)</td>
<td>15 (20.8%)</td>
</tr>
<tr>
<td>2.2-5.2 (n=78)</td>
<td>22 (28.2%)</td>
</tr>
<tr>
<td>&gt;5.2 (n=73)</td>
<td>38 (52.1%)</td>
</tr>
</tbody>
</table>
Etiology
Deep dyspareunia

- Genital infections: cervicitis, pelvic inflammatory disease
- Pelvic adhesions
- Endometriosis, adenomyosis
- Retroverted uterus, uterine fibroids
- Postpartum: Allen-Masters syndrome (broad ligament laceration)
- Pelvic congestion
- Genital prolapse
- Inflammatory bowel disease
Deep dyspareunia - Etiology

Pelvic inflammatory disease

Endometriosis

Adenomyosis
History

- Age, general history, gynecologic and obstetric history, psychologic factors, sexual history

- Dyspareunia
  - Superficial, vaginal, deep
  - Primary or secondary
  - Permanent or intermittent
  - Situational or generalized (occurs only with certain partners/situations or with all encounters)
  - With or without vulvodynia
Gynecological exam
Perineum, vulva, vagina

• Vaginal stenosis, atrophy, episiotomy scars, signs of vulvovaginitis or other vulvovaginal lesions
• Pain location, swab test
• Vaginal swab
• If indicated: culture, colposcopy, biopsy
# Vulvovaginitis

<table>
<thead>
<tr>
<th></th>
<th>Trichomonas</th>
<th>Candida</th>
<th>Bacterial vaginosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulvar pain</td>
<td>Present</td>
<td>Important</td>
<td>Absent</td>
</tr>
<tr>
<td>Discharge</td>
<td>Copious, malodorous, yellow-green (or discolored), pH ≥ 4.5</td>
<td>Thick, white (&quot;cottage cheese&quot;), normal pH</td>
<td>Gray or yellow, positive whiff test, pH ≥ 4.5</td>
</tr>
<tr>
<td>Vaginal swab</td>
<td><img src="image1.jpg" alt="Image" /></td>
<td><img src="image2.jpg" alt="Image" /></td>
<td><img src="image3.jpg" alt="Image" /></td>
</tr>
</tbody>
</table>
Gynecological exam
Cervix, uterus, adnexa

• Cervix
  – Signs of cervicitis, hypertrophy, obstetric scars
  – Cervix tender to palpation
  – If indicated: cervical swab, culture

• Uterus
  – Position, size, consistency, tenderness
  – If indicated: vaginal ultrasound

• Adnexa
  – Size, tenderness
  – If indicated: vaginal ultrasound, laparoscopy
## Therapy

<table>
<thead>
<tr>
<th>Etiology</th>
<th>Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclic vulvovaginitis</td>
<td>Antifungal treatment</td>
</tr>
<tr>
<td>Papulosquamous vulvar dermatoses</td>
<td>Topical corticosteroids or testosterone (lichen sclerosus)</td>
</tr>
<tr>
<td>Vulvovaginal atrophy</td>
<td>Estrogen therapy</td>
</tr>
<tr>
<td>Contact vulvitis</td>
<td>Removal of the causative agent</td>
</tr>
<tr>
<td>Infections</td>
<td>Specific antimicrobial treatment</td>
</tr>
<tr>
<td>Endometriosis</td>
<td>Pharmacological or surgical treatment</td>
</tr>
<tr>
<td>Retroverted uterus, fibroids, adhesions</td>
<td>Surgery</td>
</tr>
</tbody>
</table>
ACOG and ASCCP issue joint opinion on vulvodynia

There are very few randomized trials of vulvodynia treatments and most treatment information is based on clinical experience, descriptive studies, or reports of expert committees. Some treatments that have been used include medication, biofeedback training, physical therapy, dietary modifications, cognitive behavioral therapy, sex counseling, and surgery. Newer treatments include acupuncture, hypnotherapy, nitroglycerin, and botulinum toxin.

Women with vulvodynia are advised to minimize vulvar irritation by wearing 100% cotton underwear; using mild soaps while bathing with no soap applied directly to the vulva; avoiding perfumes, dyes, shampoos, and detergents around the vulva; avoiding douching; refraining from using hair dryers on the vulvar area; using adequate lubrication during intercourse; and patting the vulva area dry after bathing and then applying a topical emollient without preservatives (such as vegetable oil or plain petroleum jelly) to the vulva to hold moisture in the skin.

No single treatment is successful in all women, according to the joint opinion. Expectations for improvement need to be realistically addressed with each patient. Rapid resolution of pain is unusual. Pain reduction may take weeks to months and may not resolve completely. Emotional and psychological support are important for many patients, and sex therapy and counseling may be beneficial.

Main subject of the study | N. of papers
--- | ---
Endometriosis | 38
Menopause | 21
Labor complications | 17
Urinary or fecal incontinence/genital prolapse | 10
**Vulvar vestibulitis (vestibulodynia)** | 8
Chronic pelvic pain/dysmenorrhea | 4
Genital infections | 4
Hysterectomy | 4
**Vulvodynia** | 4
Breast cancer | 3
IUD | 2
Uterine fibroids | 2
Diabetes | 1
Interstitial cystitis | 1
Lichen sclerosus | 1
Male circumcision | 1
Radiotherapy | 1
Retroverted uterus | 1
**Sexual inadequacy** | 1