



## Pain characteristics, sexual script flexibility, and penetration control cognitions in those experiencing anodyspareunia

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reporting that they experienced 'moderate' (4%) or 'severe' (2%) levels of pain (Vansintejan et al., 2013). Little information exists as to the specific location of anodyspareunia, but a small number of participants in one study reported experiencing pain at the anal opening, in the rectum, and in the abdominal/pelvic area, or they were unsure of where the pain was located (Herbenick et al., 2015). Unfortunately, there has been limited examination of pain characteristics such as duration, location, and interference even though this type of information has proven critical in the field of vulvovaginal dyspareunia in terms of defining subtypes, such as provoked vestibulodynia (PVD), the most common form of idiopathic chronic vulvar pain (vulvodynia; Meana et al., 1997).

Anodyspareunia has also been shown to be associated

## **Research goals**

In the current investigation, we aimed to further our understanding of anodyspareunia characteristics (e.g. onset, duration, location) – information that is crucial in the diagnosis, assessment, and treatment of chronic pain conditions (Dworkin et al., 2005). We also investigated psychological and cognitive factors of those with anodyspareunia, with an emphasis on control cognitions and sexual exibility, and their roles on pain and sexual outcomes. Our research questions were:

What are the pain characteristics (i.e. intensity, unpleasantness, onset, frequency, duration, location, and interference) of anodyspareunia, and how is the pain described?

Are greater negative control cognitions associated with higher pain intensity and increased sexual distress? Does sexual exibility moderate the relationship between control cognitions and pain intensity and sexual distress?

## **Methods**

To examine the two research questions (pain characteristics and control cognitions), a cross-sectional online study on anodyspareunia was conducted. We had the opportunity to increase the sample size for the control cognition analyses by including data from an archival study examining sexual exibility in a diverse sample; recruitment methods and measures were similar – but not identical – to the anodyspareunia study. For this reason, we have separated the information regarding the procedures, participants, measures, data considerations, and results into those pertaining to Study One (pain characteristics) and Study Two (control cognitions).

### ***Study one: procedures***

Study One was approved by the Queen's University General Research Ethics Board (GREB; #6017112). Recruitment materials included advertisements posted on social media (e.g. Facebook, Reddit, Twitter), university Pride groups, and relevant electronic mailing lists. The advertisements directed participants to a link containing the Letter of Information, and participants provided their informed consent prior to accessing the online survey (Qualtrics Survey Software, Qualtrics, Provo, UT). Participants who declined to provide their consent were re-directed out of the survey. The measures discussed in the present paper represent a subset of measures administered in a larger study of anodyspareunia, which took approximately 30 minutes to complete. The present sample was collected in 2018 and no bot verification was performed. This was an online convenience sample collected from the community who report anal pain during receptive penetration and inclusion was not based on clinical diagnosis. After survey completion, participants were given the opportunity to enter a draw to win one of four gift cards valued at

## *Study one: measures*

### *Sociodemographics*

Participants responded to sociodemographic questions related to age, gender, sexual orientation, relationship status, birthplace, ethnicity, education, and income.

### *Age of first receptive anal penetration*

Participants were asked, 'At what age did you first have receptive anal penetration (e.g. your partner penetrating your anus)?'. Participants were provided with an open text box to write the age of first receptive anal penetration.

### *Anal sex frequency*

Participants responded to the question, 'How often have you had anal sex in the past 30 days?'. Response options included 'have not done in the past 30 days', 'once', 'two or three times', 'four to five times', and 'six or more times'.

### *Sex role*

Participants responded to the question, 'What sex role do you identify with?'. Response options included 'top (I penetrate my partner)', 'bottom (my partner penetrates me)', 'versatile/switch (sometimes my partner penetrates me, sometimes I penetrate my partner)', and 'don't know'.

### *Anodyspareunia onset*

Participants who indicated that they experience anodyspareunia were asked, 'How did it start?'.  
Response options included 'with first experience', 'for no apparent reason', '6V11(94 2V49V6V6)( 86 V-6(14)6V



Sexual distress was assessed by participant responses to the question 'How distressed do you feel about this sexual problem?' Although the different samples for Study Two (participants from the anodyspareunia study and participants from the sexual exibility study) were asked the same question, the number

## Results

### *Study one: participant demographics*

Participant demographic information is provided in Table 1.

Table 1. Participant sociodemographics.

	Total <i>N</i> = 96
<b>Age (<i>M</i> (<i>SD</i>))</b>	28.2 (9.0)
<b>Gender (<i>n</i> (%))</b>	

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*Study one: what are the*

## *Study*

*Study two: does exibility moderate the relationship between*

score (or worsening in distress). Sexual excitability significantly predicted sexual distress,  $b = -0.05$ ,  $t(119) = -2.49$ ,  $p = .014$ . For every unit increase in sexual excitability, there was a .05 decrease in sexual distress. Control cognitions and sexual excitability did not interact to predict sexual distress,  $b = -0.004$ ,  $t(119) = -0.78$ ,  $p = .438$ .

## Discussion

The current investigation comprised two separate research aims: 1) to understand anodyspareunia characteristics and 2) to investigate psychological and cognitive factors in those with anodyspareunia, with an emphasis on control cognitions and sexual excitability, and their roles in pain and sexual outcomes. Examination of the first research question assessing the characteristics of anodyspareunia found that individuals who experience anodyspareunia typically experience pain during their first anal penetrative experience and continue to report pain about half (44%) the time. Participants, on average, indicated low pain intensity ( $M = 2.4$ ) and unpleasantness ( $M = 2.8$ ) scores, and the majority reported



## *Anodyspareunia and sexual exibility*

or sexual distress, greater sexual exibility was significantly associated with less sexual distress, but not pain. It has been shown that patients who indicate using a more limited variety of coping strategies in response to pain problems experience worse psychological well-being (Blalock et al., 1993). Haythornthwaite et al. (1998) operationalised the number of pain coping strategies utilised by an individual as how exible they are with coping with chronic pain. Greater frequency of diverse coping strategies predicted greater perceived control over pain; however, similar to the present study, exibility was not associated with the intensity of pain (Haythornthwaite et al., 1998). We hypothesised that those with anodyspareunia would benefit from using a larger variety of coping strategies, or in other words, being more exible in their sexual interactions. Because participants in this study, on average, reported low pain intensity, greater exibility in their sexual interactions may not have been necessary, resulting in no relationship between exibility and pain. However, individuals who are more exible when presented with alternative ways to cope during stressful situations tend to perceive the circumstance as more controllable and less distressing



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