

Let's talk about sex: Does language constitute a barrier to women reporting and receiving treatment for dyspareunia in the Spanish speaking community?

By

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Abstract

Title: Let's talk about sex: Does language constitute a barrier to women reporting and receiving treatment for dyspareunia in the Spanish speaking community?

Purpose: To identify the prevalence of dyspareunia and sexual dysfunction within the population of English and Spanish speaking women visiting outpatient clinics and to compare the rates of patients discussing symptoms of painful sex with healthcare providers between language groups.

Design: Cross-sectional survey, descriptive study

Setting: The University of Kansas Obstetrics and Gynecology Clinic and affiliated Jay Doc Free Health Clinic

Patients: Convenience sample of English and Spanish speaking women, ages 18-45

Methods: Subjects completed anonymous surveys in either English or Spanish. The surveys were administered through REDCap and included the validated questionnaires for the Visual Analog Scales (VAS) for pain, Female Sexual Function Index (FSFI) and Patient Global Impression of Improvement (PGI-I). Data on demographics and discussion of pain with healthcare providers was also collected. The prevalence of sexual dysfunction and dyspareunia was calculated for each cohort and the rate of discussion of dyspareunia was identified for each language. Prevalence, FSFI domain scores and discussion rates were compared between groups using t-test and chi-square analysis.

Main Result: A total of 160 women were surveyed (107 English speaking and 53 Spanish speaking). The prevalence of dyspareunia was found to be 42.06% and 28.30% in the English and Spanish cohorts respectively ($p=0.087$) and the rates of discussion of dyspareunia was significantly higher in the English cohort compared to the Spanish (20.56% vs 5.66%),

p=0.011). The prevalence of sexual dysfunction, based on an FSFI score <26.55, was found to be 46.73% and 62.26% in English and Spanish cohorts respectively (p=0.048). When comparing the individual FSFI domains, scores for desires, arousal, lubrication, orgasm and pain were significantly higher in the English cohort (p<0.05).

Conclusion: Our main outcome measures show a significantly higher prevalence of dyspareunia and rate of discussion in the English cohort compared to the Spanish cohort. The FSFI score and 5 out of 6 of individual domain scores were significantly higher in the English cohort. A significantly larger portion of the Spanish speakers scored below 26.55, signifying sexual dysfunction. Our measurements for sexual dysfunction and dyspareunia prevalence are higher than estimates found in literature. We encourage continuing research to obtain a larger sample size for expanded analysis. The differences in Spanish speakers low FSFI scores compared to their lower prevalence of subjective dyspareunia requires more investigation. Future studies should investigate specific barriers in communication between Spanish speakers and clinicians when discussing sexual function and pain.

Disclosures: The authors have nothing to disclose

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Table of Contents

1	Literature Review.....	1
1.1	Significance of Dyspareunia	1
1.2	Evaluation of Pain and Sexual Function	4
1.3	Historical Studies of Race and Gynecologic Pain.....	6
1.4	Role of Language in Clinical Encounters	7
2	Introduction to Thesis	9
3	Methods.....	11
3.1	Study Approval	11
3.2	Patient Base	11
3.3	Survey Process	11
3.4	Outcome Measures and Statistical Analysis	12
4	Results.....	13
4.1	Cohort Characteristics	13
4.2	Dyspareunia and Sexual Dysfunction Measures	14
4.3	Clinical Discussion and Outcomes.....	17
4.4	Comparison of Main Outcomes Among Hispanic Subjects.....	18
4.5	Comparison of Sexual Activity Among All Subjects	18
4.6	Comparison of Pregnancy Among All Subjects	19
4.7	Comparison of Locations for Survey Administration	19
5	Discussion	21
5.1	Limitations	25
5.2	Considerations for Future Research	26

6	References	27
7	Appendix.....	29
7.1	FSFI Questionnaire	29
7.2	Survey (English version).....	33

List of Figures

Figure 1. Mean FSFI domain for all subjects	16
Figure 2. Mean FSFI domain scores for subjects where FSFI score is <26.55	17

List of Tables

Table 1. Subject characteristics.....	14
Table 2. Main outcome measures	15
Table 3. Main Outcomes for Hispanic Subjects	18
Table 4. Sexual activity comparisons	19
Table 5. Pregnancy comparisons	19
Table 6. Location comparisons	20

1 Literature Review

1.1 Significance of Dyspareunia

Sexual dysfunction is estimated to impact 43% of women in the US[1]. This is a greater percentage than men. Women experiencing sexual dysfunction can suffer a variety of complications with desire, arousal, achieving climax, anxiety about sexual performance, pain with sex or not finding sex pleasurable. These problems can greatly impact quality of life and may be linked to other comorbidities, such as anxiety and depression. Despite the significance of the condition, patients can frequently go undiagnosed and are left untreated.

Dyspareunia is a specific type of sexual dysfunction that refers to pain with vaginal penetration. It is estimated that 8-22% [2] of women will experience these symptoms at some point in their lives. There is concern that the true prevalence is higher than estimates found in literature [3]. This condition can impact women of all ages. Prior studies included women as young as 15 and as old as 74[3, 4]. In a US based study 21% of women aged 18-29 and 8% of women aged 50-59 experienced dyspareunia[1]. The incidence risk ratio is estimated to be 9.3 when comparing younger age women (20-29 years) to older (50-60 years)[5]. While the exact percentages differ between studies, there is a common theme of higher prevalence for women in their reproductive years[2, 5].

There are many etiologies for the source of pain [6]. In younger women we frequently suspect problems with endometriosis, fibroids or hormonal imbalance. There may also be issues of vulvodynia, chronic vaginitis, levator spasm or vaginismus. This pain can keep patients from engaging in penetrative intercourse all together. In women over the age of 49 the pain may be related to menopausal changes, such as reduced estrogen and vulvovaginal atrophy[2]. Menopausal women are more prone to organ prolapse as well, which can alter or obstruct the

vaginal canal to cause pain. Childbirth and vaginal trauma can cause physical damage that alters the anatomy as well. Additional sources of pain may be neuropathic. There are links between sexual dysfunction and psychological distress as well.

Pregnant women can experience fluctuations in their sexual functions throughout pregnancy. It is estimated that the initial weeks of the first trimester and subsequent third trimester are the most effected by dyspareunia. Frequently this pain can reside for a year post-partum or longer[7], but most women return to normal sexual activity within 6 months. While women can experience symptoms of dyspareunia during pregnancy, many studies will categorize this as a complication of pregnancy separate from a dyspareunia diagnosis [6].

Pelvic organs outside the reproductive system can also be sources of dyspareunia. Gastrointestinal illnesses such as inflammatory bowel diseases and irritable bowel syndrome are linked to dyspareunia[2, 8]. The bladder should also be considered as a source of pain. Conditions such as interstitial cystitis or a urethral diverticulum cause dyspareunia in some women[2].

The treatment for dyspareunia differ depending on the etiology of the pain. Initial accommodations may include the use of personal lubricant or modified sexual practice to improve comfort. For hormonal related causes the use of hormone replacement therapies or topical estrogen creams are the first line therapy. It should be noted that oral contraceptives can also produce adverse effects that are a source of vaginal dryness and pain with intercourse [2].Hormonal treatments are also applicable for women suffering from endometriosis or fibroids. Women experiencing pain from vaginismus or primary muscular disorders may benefit from pelvic floor physical therapy [2, 9]. Pelvic floor therapy can be augmented with Botox injections into the levator muscles or electrical stimulation therapy. A final approach to treatment would

include surgical procedures to improve anatomical variations, such as prolapse. Sometimes surgery can be a source of pain, such as irritation at the vaginal cuff following a hysterectomy or mesh placement[2].

Prior studies have demonstrated links between psychiatric conditions and increased risks for sexual dysfunction and dyspareunia. Anxiety and depression have been associated with dyspareunia[9]. Several studies cite that patients who experienced prior trauma or suffered from post-traumatic stress disorder are at a higher risk for sexual dysfunction and pain[10]. It should be noted that a review of 111 articles countered this, saying that the link between sexual abuse and pain is weak[11]. Additionally, patients who suffer from chronic pain at an increased risk for sexual dysfunction and dyspareunia[12].

There are also socioeconomic and cultural impacts that are linked to dyspareunia. Women from low income backgrounds have higher rates of dyspareunia[3, 8] or sexual dysfunction [13, 14]. In a comparison of women from different counties in Boston, those from the lower-socioeconomic neighborhoods reported more issues with sexual dysfunction; however, they were more likely to seek medical help for their condition[15]. When looking at reproductive aged women, there are increased levels of dyspareunia amongst women with lower levels of education [3, 16, 17]. Women suffering from chronic vulvar pain only seek medical attention 50% of the time[18] and women suffering from chronic dyspareunia seek care 28% - 40% of the time [5, 8]. Many of those who seek care will see 3 or more providers for care[14, 18], because they feel stigmatized for their condition or that they are making excuses to avoid intercourse. Issues like these are influencing factors that physicians should consider when evaluating patients for pain and sexual dysfunction. Racial differences among women with sexual dysfunction vary

significantly based on the study's patient population. This will be discussed further in section 1.3.

Finally, it should be noted that studies concerning sexual function are difficult to complete. Studies report limitations in recruitment and follow-up. Given the sensitive nature of the questions and exams associated with diagnosis, patients and clinicians can be hesitant to broach the topic of sexual function[19]. Frequently women choose to suffer in silence without seeking care. A study completed by Danielson[5] found that women were reluctant to discuss issues of prolonged and severe dyspareunia with their healthcare provider. Patients may not always feel comfortable broaching the topic, so it is important for health care providers to ask the appropriate questions about comfort during sex. For these reasons there is more research that needs to be done to fully understand the impact of sexual dysfunction among women.

1.2 Evaluation of Pain and Sexual Function

The core of addressing sexual dysfunction and dyspareunia in patients is through adequate history taking. It is important to understand the location of the pain to identify dyspareunia versus vulvodinia. Duration and timing of the pain can also help elucidate the source. Pain that is linked to menstrual cycles is more evident of a problem with endometriosis or fibrosis. Is crucial to ask about comfort and pain with sex, because otherwise these issues may not be revealed in a clinical encounter otherwise[8, 19]. As already noted, there is a tendency for patients to not discuss their concerns about dyspareunia with their provider.

A physical exam can enhance the diagnosis. There may be signs of prior trauma or physical changes to the anatomy that can indicate potential problems with pain with intercourse. On the exterior clinicians should note evidence of dermal changes, such as evidence of Lichen sclerosis or Lichen planus, as these conditions have been linked to dyspareunia[9]. Pelvic exam

may also show signs of vulvovaginal atrophy, obstetrical lacerations or prolapse. On palpation of the uterus and ovaries there may be a detection of masses or fibroids that could be contributing to pain as well. Physical exam combined with thorough history should provide evidence to diagnose dyspareunia in a patient.

There are additional tools available to aid in the diagnosis of sexual dysfunction. Surveys are popular tools to identify issues with sexual function[20]. Past studies have used questionnaires to provide anonymous and safe mediums for patients to report issues of sexual health and function. The Female Sexual Function Index is one such survey that has been validated for use in evaluating sexual dysfunction.

The questionnaire was created in 2000 by Rosen et al[16]. It was developed using a group of women diagnosed with sexual arousal disorder and matched group of controls. The survey includes nineteen questions that address sexual function domains of desire, arousal, lubrication, orgasm, satisfaction and pain. Each question includes a Likert-type scaled response to identify specific problems with sexual function. The highest score is 36 and patients scoring less than 26.55 is indicative sexual dysfunction. Once a patient has been identified with dysfunction, then a closer examination of the individual domain scores can reveal sources of the problem. Lower scores for questions 17-19 are indicative of pain with sex; however, a validated cutoff score have not been set for each domain.

Once a patient has established issues with pain, the Visual Analogue Scale (VAS) can be used to measure of the severity of the pain. This measurement instrument, while subjective, has been shown to be valid in an array of configurations (horizontal, vertical) and with ranges of edits to labels and orientation of the figures [21, 22]. This makes it an excellent tool in cross-cultural comparisons of pain. It has been previously tested in patients with endometriosis and

those who suffer from dyspareunia [23]. The scales frequently range from 0-10, making it easy to compare changes in pain levels over the course of treatment or subsequent clinical encounters.

A final instrument that can be utilized to assess changes in a condition is the Clinical or Patient Global Impression of Improvement (PGI-I)[24]. This validated tool has been shown to be a great estimate of improvement for patients following treatment of stress urinary incontinence and fibromyalgia in women [25, 26]. The scale asks patients to provide a rating of their condition on a scale from 1 (very much better) to 7 (very much worse), when comparing their condition to its original state after treatment. This type of scale is important in identifying improvement for subjective conditions like pain.

1.3 Historical Studies of Race and Gynecologic Pain

There is limited background on the Hispanic population and dyspareunia; however, other studies investigating race and other gynecologic pain disorders are available. One such study examined how urogenital aging impacted White, Black and Hispanic women aged 45-60[27]. In the study they found that women from all age groups experienced issues of dyspareunia. When comparing the frequency between English-speaking and Spanish-speaking Latina women, a higher frequency in the Spanish-speaking group (21% vs 45%) reported issues with sexual function. They held focus groups to identify issues related to urogenital aging and several women said that they were reluctant to discuss these issues with their provider. The authors emphasized the importance that healthcare providers inquire about sexual function and pain with all women in this category due to the high frequency.

Vulvodynia can be a factor in sexual dysfunction and dyspareunia. When comparing menopausal women suffering from vulvodynia, findings suggest that Hispanic women and women from lower socioeconomic levels are at an increased risk[13, 15]. Of the women who

identified problems with vulvodynia, 49.9% of the Hispanic responders qualified their pain type as dyspareunia, while 16.7% non-Hispanic responders qualified their pain as dyspareunia in a study by Ngyen et al[28]. Additional studies have reported an increased prevalence of vulvodynia within the Hispanic subjects of their study samples as well [28, 29], supporting evidence that race is a risk factor for vulvodynia.

Prior research on vulvodynia shows an increased prevalence of dyspareunia as a secondary outcome measure within Hispanic study populations [13, 14]. In young women there is an increased incidence of new onset vulvodynia within the Hispanic populations studied by Reed[30]. These historical studies on vulvodynia are important when considering sexual dysfunction and dyspareunia. Symptoms related to vulvodynia can cause pain with intercourse or limit patients from engaging in sexual activities altogether[31]. For these reasons it is important to evaluate vulvodynia findings when considering a study on sexual function.

1.4 Role of Language in Clinical Encounters

When considering how language directly impacts our ability to discuss pain management we can look at a study by Riffin et al on chronic muscular pain in the elderly[32]. They found that Hispanic patients whose primary language was Spanish were more secure in their pain management plan when their provider spoke Spanish with them. There was a barrier in the communication on the decision-making process and understating for patients whose provider was not competent in their language. The presence of an interpreter made them nervous or feel that they must speak quickly or not as often as they wanted. Frequently encounters utilize makeshift interpreters that can further complicate the discussion, leading to portions of the translation being omitted or patients censoring themselves for privacy[33].

Patients in the Riffin study also emphasized their appreciation for cultural competency with their physicians. They reported feeling a greater sense of empathy from their provider and forming a stronger patient-provider bond when they felt a cultural appreciation for their background. These findings are important because 1 in 5 Spanish speaking patients delay or avoid care because of language barriers with English speaking providers[34].

2 Introduction to Thesis

Dyspareunia is estimated to affect up to 22% of women of all ages whereas sexual dysfunction reaches up to 43% [1, 2]. These estimates may not capture the true prevalence of the condition because it frequently goes unreported by patients [35]. Problems with sexual function can have a great impact on a patient's quality of life and may be related to other comorbidities. By not providing a diagnosis, patients miss out on opportunities for treatment and improvement to their daily life. For these reasons it is important to develop a better estimate of the true prevalence of these conditions within our patient population.

In the future our patient demographics are changing and becoming more diverse. By the year 2060 it is estimated that 28.6% of the US population will be Hispanic [36]. There is a need to understand how language impacts the health care experience [34] as this demographic of healthcare grows. This is especially true given that there is evidence for potential differences in sexual dysfunction within the Hispanic community compared to the Caucasian population.

When women are interviewed by a healthcare provider they should have a thorough medical and social history taken to identify potential problems with pain or sex, but sensitive information may not always be revealed in these discussions. Prior studies have shown discomfort for both the clinician and patient during these discussions [8, 19]. Consequently, these problems continue to go undiagnosed and untreated. For patients who speak Spanish this interview is frequently mediated through an interpreter. The presence of the interpreter and/or the proficiency in interpreting can cause additional strains in the conversation that English proficient patients do not experience [33].

The first aim of this project is to identify the true prevalence of dyspareunia and sexual dysfunction among English and Spanish speaking women within our patient community. The

second aim of this project is to identify the rate of women from each group that discuss painful sex with a healthcare provider, regardless of a diagnosis for dysfunction or pain. We hypothesize that Spanish speaking women will have lower rates of discussion as compared to English speaking women.

The goal of this project is to identify if language is a potential barrier to women discussing sexual function and pain with their clinicians. If we can identify limitations in our healthcare delivery system, then we can improve our patient interview process, diagnose more cases of sexual dysfunction and provided better treatment. The goal is to improve women's health for all patients and ensure that we are providing equal access to care. Our healthcare services need to evolve as our patient population grows.

3 Methods

3.1 Study Approval

Our study was approved by the University of Kansas' Institutional Review Board: IRB Study00141504.

3.2 Patient Base

This study utilized a convenience sample, enrolling patients who presented to either the University of Kansas Obstetrics and Gynecology Outpatient Clinic or the JayDoc Free Health Clinic. All women who were between the ages of 18 and 45 were eligible to participate if they spoke either English or Spanish in the clinic. The age was set to focus on pre-menopausal women. Pregnant women were not excluded from this study, as they make up a large portion of the women seen by the JayDoc clinic. There are no perceived risks or harms by participating in the study, but it should be noted that this study does include vulnerable patient populations since we are enrolling minority patients and those attending a free health clinic.

3.3 Survey Process

After subjects were consented they were provided a tablet to answer survey questions through REDCap. Spanish speaking patients received a version that was translated by a certified interpreter. All surveys collected were anonymous to encourage honest and complete responses and subjects were offered a \$10 gift card to compensate them for participation.

The first portion of the survey collected demographic data about the patients age, race and language. Additional questions gathered information on their gravity and parity status, surgical history and presence of pain with intercourse with a corresponding VAS pain scale if they responded "yes" to pain.

The second portion of the survey included the entire FSFI questionnaire. This contained 19 multiple choice questions about sexual function pertaining to the past 4 weeks. For this section responses were optional due to the sensitive nature of the questions.

The final section of the survey addressed discussion of dyspareunia in clinic. The subject was asked if they discussed painful sex with their provider (regardless of their pain and function status). A follow-up question qualified who initiated the discussion. Additional questions regarding treatment and improvement on the PGI-I scale were prompted when the subjects respond “yes” to the discussion question.

3.4 Outcome Measures and Statistical Analysis

The REDCap data was analyzed using SAS software (version 9.4). The prevalence of dyspareunia was identified for each cohort. The FSFI score was also calculated and subjects scoring <26.55 were identified for sexual dysfunction. Additional calculations were made to identify the individual 6 domain scores for all subjects. Rates of discussion, discussion-initiation and treatment were calculated for each cohort. Clinician-initiated discussion was considered positive for responses selected for either “clinician” or “both (clinician and patient)”. Additional analysis identified the means for the VAS and PGI-I scores as well.

Each of the domains was analyzed between the language groups. Associations between language and outcomes were assessed using the chi-square analysis and prevalence comparisons were completed with t-test analysis. Additional comparisons of baseline demographics were also completed using the same statistical techniques. A p-value of less than 0.05 was considered statistically significant for all analysis.

4 Results

4.1 Cohort Characteristics

A total of 160 women were enrolled for the survey. Their demographics are reviewed in Table 1. Only 9 of the subjects did not complete the entire survey. Most of the surveys were taken at the University of Kansas Clinic compared to the JayDoc Free Health Clinic (99 vs 51). This trend was significant for both English and Spanish cohorts. The mean age of subjects was 30.57, with the English-speaking cohort significantly younger than the Spanish-speaking cohort. The women identified their race predominantly as either White, Black or Hispanic.

Of those surveyed, 106 subjects were pre-menopausal, 2 were menopausal and an additional 48 were unsure of their fertility status. The two cohorts had a similar count of menopausal participants; however, the Spanish cohort had fewer pre-menopausal participants than the English cohort. This could be accounted by the greater number of Spanish subjects answering with uncertainty about their fertility status. There was no significant difference in the frequency of subjects who were sexually active in the past four weeks between groups.

Pregnancy history was significantly different between the two cohorts. More Spanish subjects were pregnant. Of the 38 subjects who were pregnant, those who spoke Spanish were later in their gestation compared to the English-speakers. Spanish-speaking women had significantly more pregnancies and births when comparing gestational histories with English-speaking women. The Spanish cohort had more standard vaginal deliveries, but there was no significant difference between the number of Cesarean deliveries or history of other pelvic surgeries between groups.

Table 1. Subject characteristics

Demographics Of Patients Surveyed by Language Cohort						
		Overall n=160	English n=107	Spanish n=53		p-value
Age (mean ± SD)		30.57 (6.97)	29.27 (6.76)	33.17 (6.69)		0.0008
Race						<.0.0001
	White	63 (39.38)	62 (57.94)	1 (1.89)		
	Black	13 (8.13)	13 (12.15)	0 (0.00)		
	Hispanic	69 (43.13)	19 (17.76)	50 (94.34)		
	Asian	4 (2.50)	4(3.74)	0 (0.00)		
	Other	7 (4.38)	6(5.61)	1 (1.89)		
Fertility Status						0.03
	Pre-menopausal	106 (66.25)	74 (69.16)	32 (60.38)		
	Post-Menopausal	2 (1.25)	1 (0.93)	1 (1.89)		
	Didn't know	48 (30.00)	29(27.10)	19 (35.85)		
Sexually Active in Past 4 Weeks						0.24
	No	45 (28.13)	27(25.23)	18 (33.96)		
	Yes	109 (68.13)	76 (71.02)	33 (62.26)		
Currently Pregnant						<.0001
	No	116 (72.50)	95 (88.79)	21 (39.62)		
	Yes	38 (23.75)	8(7.48)	30 (56.60)		
Weeks gestation (mean ± SD)		23.58 (11.83)	11.13 (9.75)	26.90 (10.01)		0.0003
Total Pregnancies (mean ± SD)		1.95 (1.77)	1.40 (1.57)	3.04 (1.67)		<.0.0001
Total Births (mean ± SD)		1.39 (1.50)	0.94 (1.21)	2.29 (1.61)		<.0.0001
	Vaginal	1.59 (1.48)	1.29 (1.19)	1.95 (1.71)		0.03
	Cesarean	0.74 (1.17)	0.64 (1.07)	0.86 (1.28)		0.36
History of Pelvic Surgery*						0.20
	No	126 (78.75)	87(81.31)	39 (73.59)		
	Yes	30 (18.75)	17 (15.89)	13 (24.53)		
Survey Location						0.02
	KU OB/GYN Clinic	99 (61.88)	72 (67.29)	27(50.94)		
	JayDo Free Health Clinic	51 (31.88)	27 (25.23)	24 (45.28)		
Completed Survey						0.47
	No	9 (5.63)	7(6.54)	2 (3.77)		
	Yes	151 (94.38)	100(93.46)	51 (96.23)		

*excluding Cesarean sections

4.2 Dyspareunia and Sexual Dysfunction Measures

A total of 60 women responded that they had experienced pain with intercourse at some point in their lives. When comparing the cohorts in Table 2, significantly more English-speakers responded to having pain with sex. Of those women who experienced pain, the mean VAS score was 5.35 and there was no significant difference in VAS scores between cohorts.

Of the women who completed the survey, 102 English-speaking women and 50 Spanish-speaking women had complete FSFI questions for analysis. The average FSFI score was 21.51, with a significantly lower score in the Spanish cohort. Overall 51.88% of respondents had a

score below 26.55, which qualified as sexual dysfunction. This was significantly greater in the Spanish cohort as well.

Table 2. Main outcome measures

Outcome Measures							
		Overall n=160		English n=107		Spanish n=53	p-value
Subjective Dyspareunia							
	No	94 (58.75)		58 (54.21)		36 (67.92)	0.09
	Yes	60 (37.50)		45 (42.06)		15 (28.30)	
VAS Score (mean ± SD)							
		5.35 (2.24)		5.20 (2.22)		5.80 (2.31)	0.37
FSFI Score (mean ± SD)							
		21.51 (11.04)		22.91 (10.52)		18.66 (11.6)	0.03
	Desire Subscore	2.26 (1.55)		2.44 (1.50)		1.90 (1.61)	0.05
	Arousal Subscore	3.43 (2.07)		3.77 (2.00)		2.72 (2.06)	0.004
	Lubrication Subscore	3.79 (2.39)		4.15 (2.27)		3.06 (2.48)	0.008
	Orgasm Subscore	3.40 (2.33)		3.68 (2.24)		2.82 (2.43)	0.03
	Satisfaction Subscore	3.98 (1.88)		4.04 (1.91)		3.88 (1.82)	0.63
	Pain Subscore	3.77 (2.46)		4.06 (2.36)		3.18 (2.58)	0.04
Dysfunctional FSFI (score = <26.55)							
	No	69 (43.13)		52 (48.60)		17 (32.08)	
	Yes	83 (51.88)		50 (46.73)		33 (62.26)	
Discussion of Pain with Clinician							
	No	125 (78.13)		77 (71.96)		48 (90.57)	0.01
	Yes	25 (15.63)		22 (20.56)		3 (5.66)	
Discussion Intitiation							
	Patient	10 (6.25)		9 (8.41)		1 (1.89)	1.00
	Clinican	7 (4.38)		6 (5.61)		1 (1.89)	
	Both	8 (5.00)		7 (6.54)		1 (1.89)	
Interpreter Present for Disscussion							
	No	22 (13.75)		22 (20.56)		0 (0.00)	0.0004
	Yes	3 (1.88)		0 (0.00)		3 (5.66)	
Treatment for Dyspareunia							
	No	6 (3.75)		5 (4.67)		1 (1.89)	1.00
	Yes	13 (8.13)		12 (11.21)		1 (1.89)	
	Dyspareunia Not Present	6 (3.75)		5 (4.67)		1 (1.89)	
PGII Score (mean ± SD)							
		2.85 (1.07)		2.92 (1.08)		2(*)	0.43

*n=1

The FSFI score can be broken down into 6 domains. Table 2 shows that the domain scores were significantly lower for all categories in the Spanish cohort except for satisfaction. The mean domain score for both languages is shown in Figure 1. Figure 2 presents the same data, but only includes subjects with overall dysfunctional FSFI scores (n=83). When functional

subjects are excluded from the data-set then there is no significant difference in domain scores between the cohorts ($p > 0.05$ for all domains in Figure 2).

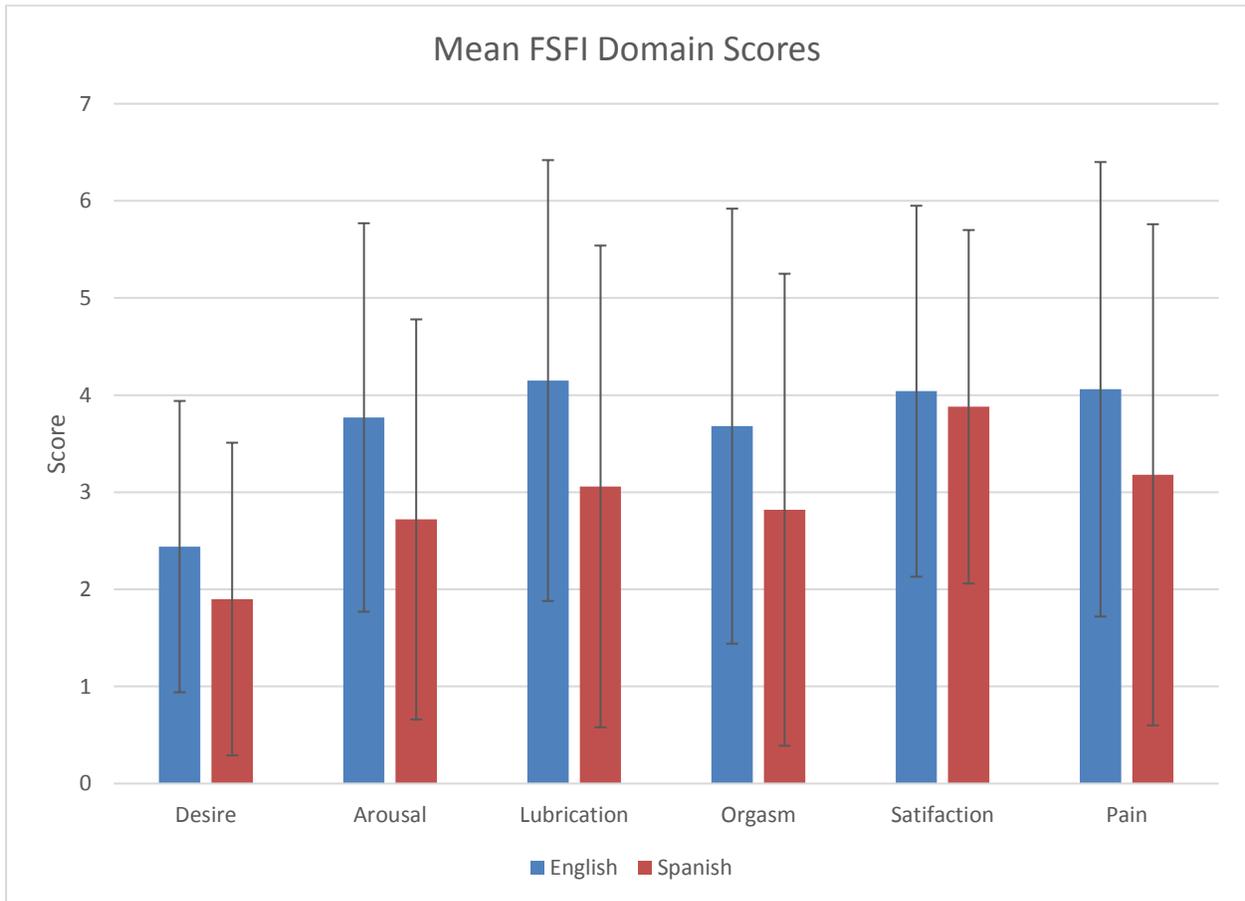


Figure 1. Mean FSFI domain for all subjects

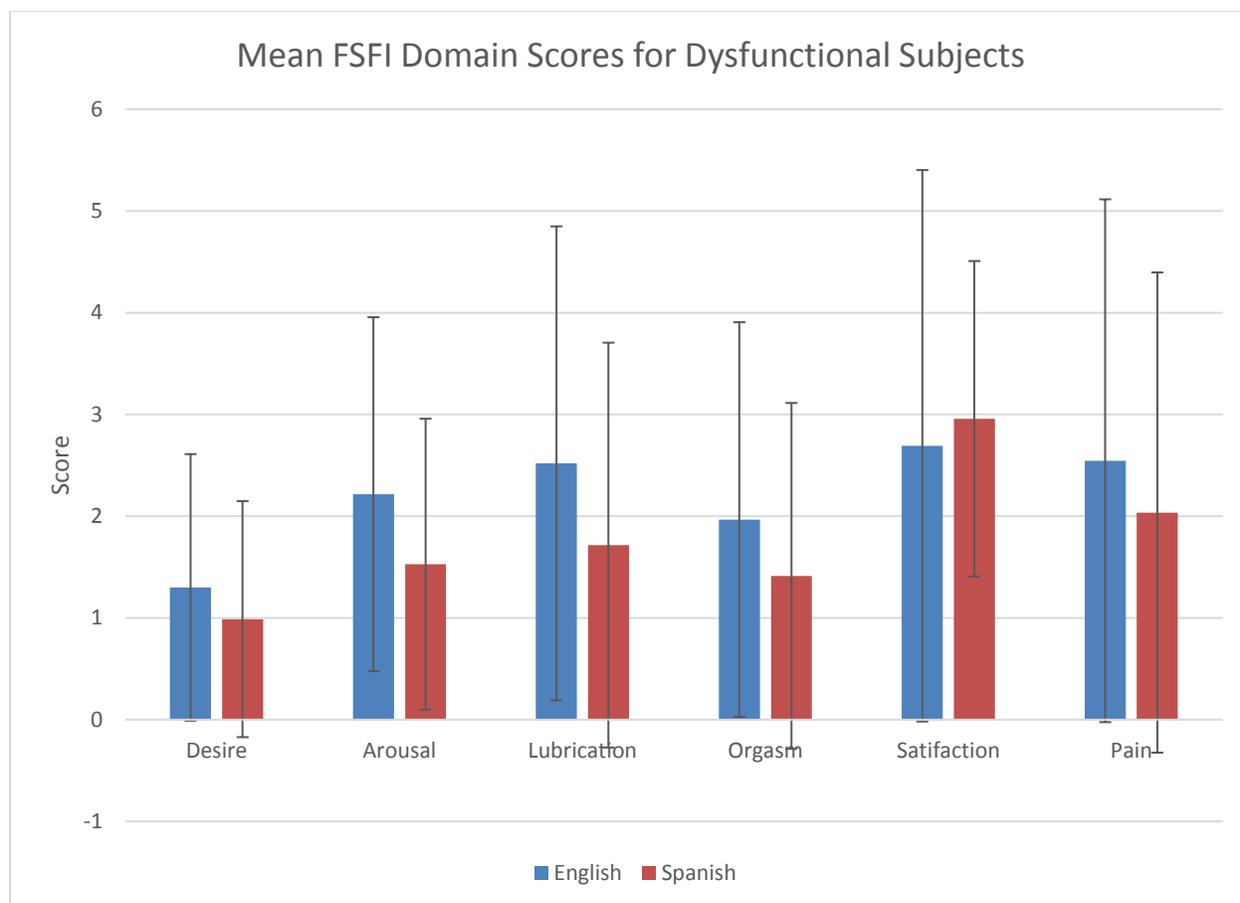


Figure 2. Mean FSFI domain scores for subjects where FSFI score is <26.55

4.3 Clinical Discussion and Outcomes

Only 25 subjects reported discussing painful sex with a healthcare provider, as shown in Table 2. This was significantly higher among English-speakers compared to Spanish-speakers. For English patients this discussion was initiated by a clinician 13 times and for Spanish patients this only occurred 2 times. For the 3 Spanish-speakers who reported discussing painful sex in clinic, 100% of those encounters utilized an interpreter.

Of the 25 survey participants who discussed painful sex with their healthcare practitioner, 13 reported that they received treatment. Of the remaining subjects, 6 reported they did not receive treatment and 6 reported they did not require treatment. There was no significant

difference in treatment rates between cohorts. The mean PGI-I score was 2.85, for those who did receive treatment, with no significant differences between groups.

4.4 Comparison of Main Outcomes Among Hispanic Subjects

Table 3 depicts the primary outcome measurements for all subjects who identified as Hispanic race. For this subgroup the trends for subjective dyspareunia and discussion matched with the entire cohort: a significantly higher amount of English speaking subjects identified pain with sex and discussed the pain with a clinician. There is a larger proportion of Spanish-speakers with a dysfunction FSFI score, but unlike the overall trend, this is not significant (0.08).

Table 3. Main Outcomes for Hispanic Subjects

Hispanic Subject Comparisons						
		English n=22		Spanish n=50		p-value
Subjective Dyspareunia						0.05
	No	10 (45.45)		35 (70.00)		
	Yes	12 (54.55)		15 (30.00)		
Dysfunctional FSFI (score = <26.55)						0.08
	No	12 (62.39)		16 (32.00)		
	Yes	10 (36.70)		33 (66.00)		
Discussion of Pain with Clinician						0.02
	No	15 (68.18)		47 (94.00)		
	Yes	6 (27.28)		3 (6.00)		

4.5 Comparison of Sexual Activity Among All Subjects

A total of 153 subjects completed the question on sexual activity in the past four weeks. Table 4 compares the prevalence of dyspareunia and sexual dysfunction among those who were sexually active and those who were not, independent of language. A larger percentage of the sexually active women reported having problems with painful intercourse. A significantly larger percentage of the sexually inactive women scored below 26.55 of the FSFI, resulting in a dysfunctional score.

Table 4. Sexual activity comparisons

Sexual Activity Comparisons						
		Active n=109		Not-Active n=45		p-value
Subjective Dyspareunia						0.10
	No	62 (56.88)		32 (71.11)		
	Yes	47 (43.12)		13 (28.89)		
Dysfunctional FSFI (score = <26.55)						<.0001
	No	68 (62.39)		1 (2.22)		
	Yes	40 (36.70)		40 (88.89)		

4.6 Comparison of Pregnancy Among All Subjects

Table 5 compares the sexual activity, prevalence of dyspareunia and sexual dysfunction among pregnant and non-pregnant subjects, independent of language. There was no significant difference in the frequency of sexual-activity among pregnant and non-pregnant women. More non-pregnant women reported problems with painful intercourse compared to the pregnant women. There was no difference in the percentage of non-pregnant and pregnant women scoring under 26.55 on the FSFI.

Table 5. Pregnancy comparisons

Pregnancy Comparisons						
		Not Pregnant n=115		Pregnant n=37		p-value
Sexually Active in Past 4 Weeks						0.59
	No	32 (27.83)		12 (32.43)		
	Yes	83 (72.17)		25 (67.57)		
Subjective Dyspareunia						0.01
	No	64 (55.65)		29 (78.37)		
	Yes	51 (44.35)		8 (21.62)		
Dysfunctional FSFI (score = <26.55)						0.61
	No	53 (46.09)		15 (40.54)		
	Yes	61 (53.04)		21 (56.76)		

4.7 Comparison of Locations for Survey Administration

Clinical outcomes of discussion and treatment were compared for both survey location sites in Table 6. There were no significant differences in discussion rates or discussion initiation

between the University of Kansas clinic (KU) and the JayDoc clinic. Interpreter use was not affected by location and neither was treatment.

Table 6. Location comparisons

Location Comparisons						
		KU n=99		JayDoc n=51		p-value
Discussion of Pain with Clinician						0.49
	No	81 (81.82)		44 (86.27)		
	Yes	18 (18.18)		7 (13.73)		
Discussion Intitiation						0.18
	Patient	8 (8.08)		2 (3.92)		
	Clinican	3 (3.03)		4 (7.84)		
	Both	7 (7.07)		1 (1.96)		
Interpreter Present for Discussion						1.00
	No	16 (16.16)		6 (11.76)		
	Yes	2 (2.02)		1 (1.96)		
Treatment for Dyspareunia						0.50
	No	5 (5.05)		1 (1.96)		
	Yes	10 (10.10)		3 (5.88)		
	Dyspareunia Not Present	3 (3.03)		3 (5.88)		

5 Discussion

We present a cross-sectional survey of 160 women presenting to the University of Kansas affiliated outpatient clinics. This descriptive study provided prevalence of dyspareunia and sexual dysfunction and rates of discussing pain with a clinician among English and Spanish-speaking women within our patient population. We hypothesized that Spanish-speaking women would have lower rates of discussing painful sex with healthcare practitioners as compared to English-speaking women. Overall, we found the prevalence of sexual dysfunction to be significantly greater in our Spanish cohort. The prevalence of both dyspareunia and the rate of discussion about dyspareunia were significantly higher in the English cohort compared to the Spanish. Our findings for sexual dysfunction within the English cohort are consistent with estimates in literature, but the other prevalence findings are elevated compared to prior estimates for the United States. The rates of discussion support our hypothesis and our results indicate a need for further research on healthcare communication about sexual function.

This is the first study to directly compare English and Spanish-speakers in the context of sexual function and dyspareunia or to assess discussion of sexual pain in clinic. We found that English-speakers have significantly higher rates of discussion about painful sex with their healthcare providers than Spanish-speakers. We believe this supports our idea that language provides a barrier to clinicians and patients discussing sensitive issues, such as sexual function, during encounters. When analyzing for discussion initiation we found no difference between cohorts.

Due to these results it is unclear if the language difference is more of a barrier to the patient or the clinician for discussing sexual function and pain. The significant presence of the interpreter in Spanish encounters shows that clinicians are utilizing tools to communicate more

efficiently. This could also hinder communication by impacting the privacy of sensitive topics and limiting discussion of sexual function [32, 33]. If the interpreters used are not proficiently trained it could also result in information omission during translation[33], creating missed opportunities for accurate diagnosis and treatment. Overall, this component of the data analysis is difficult to draw conclusions from due to the small number of positive survey responses provided, especially for the Spanish cohort. The comparison of treatment between groups is limited by the small sample size as well.

The prevalence of dyspareunia and sexual dysfunction is discordant for the Spanish cohort. They have a lower frequency of dyspareunia when asked subjectively about pain with sex; however, their mean FSFI scores are significantly lower in the category of pain and they had significantly greater percentage of dysfunctional scores overall. In prior validation studies of the FSFI, patients with diagnosed vaginismus who suffered from sexual pain had lower scores across all domains compared to controls, with their lowest score within the pain domain[20]. This scoring pattern was significant for pain-based sexual dysfunction. The pattern seen in our cohort suggests the Spanish subjects with a dysfunctional FSFI score and a low pain domain scores may have not answered the subjective dyspareunia score with a positive response. Women suffering from dyspareunia may continue to engage in sexual activity[37]. If this is true, this indicates a different perspective on sex and reporting symptoms within the Spanish speaking community.

Differing cultural perspectives on sex, rather than language, could impact the way they respond to the sex-based questionnaires. When we analyzed the data for the Hispanic subgroup the same trends held true. The only variation was that the significant difference in sexual dysfunction between languages was lost, but there was still a higher proportion of Spanish-speakers with dysfunction scores on the FSFI. This pattern indicates that the Hispanic subgroup

responded similarly to the overall cohorts. To understand the relationship between race, language and sexual health we need to complete more focused research. Since many clinicians utilize surveys to collect sexual health information in clinic[20] there is a need to further understand this dynamic, so we can tailor sexual health to each patient's cultural needs.

Overall the prevalence for both sexual dysfunction and dyspareunia exceeded the estimates found in literature. International research on dyspareunia has reported prevalence as high as 54.5% in the women aged 15-49[3]. Other studies have argued that the true prevalence is unknown[8]. There is the potential for the condition to go undiagnosed, with only 28% seeking medical condition for severe and persistent cases[5]. For our study, an increase in the prevalence could be due to the number of participants who were not sexually active for the past 4 weeks. The subjective questions asked patients if they "had ever had problems with pain during sex"; however, the FSFI qualifies all questions for the duration of the past 4 weeks. Including participants who are not sexually active can bias the results to have higher levels of dysfunction.

Historic analysis of FSFI scores that excluded all sexually inactive subjects showed a higher intercorrelation among the FSFI dimensions when a subject responds with 8 or more "0" s (0 is the response for no sexual activity)[38]. Due to these findings it was recommended using 8 "0" responses as a cutoff for inclusion in FSFI analysis. In a review of our responses we found a significant correlation between sexual activity and dysfunctional scores. More of the inactive responders received dysfunctional scores compared to the sexually active participants. There was no significant difference when comparing these groups on their subjective responses for dyspareunia. When we only look at the sexually active participants, our prevalence for dysfunction matches estimates from the literature. It is important to consider why the subjects refrained from sexual activity for the past 4 weeks, since pain can impact sexual activity.

We completed additional analysis to identify if pregnancy impacted our prevalence measures. Pregnant women were not excluded from this study because they are a large portion of the JayDoc patient base. Additionally, many pregnant women remain sexually active and pain can impact their quality of life like non-pregnant women. It is known that sexual function fluctuates throughout the pregnancy and post-partum period for most women[7]. It is estimated that 17-36% of women experience dyspareunia up to six months post-partum [39]. Our results showed that there was no significant difference in the sexual activity or FSFI scores between pregnant and non-pregnant subjects. There was a significantly higher amount of non-pregnant women who reported painful intercourse compared to the pregnant women. For those reasons we justify the inclusion of pregnant women in the overall cohort for the study.

A final comparison was made to evaluate the differences between our survey locations. The University of Kansas Clinic was staffed exclusively with healthcare providers specializing in women's health, whereas the JayDoc Free Health Clinic is staffed by physicians from a range of specialties and backgrounds. Additionally, many of the patients at JayDoc come for specialty nights that focus care for obstetrics, diabetes or dermatology. Due to these differences between clinics it was important to compare the clinical outcomes between the locations. Those analysis demonstrate no significant differences in care between the clinics. This supports the comparison of discussion rates and treatment for subjects from both locations.

Ultimately the findings from our study indicate that there is a higher prevalence of dyspareunia and sexual dysfunction among our entire patient population than expected. Regardless of the language all clinicians should be inquiring about their patients' sexual function and potential problems with painful sex. Of the 13 respondents who received treatment for dyspareunia, there was an improvement as shown by the mean PGI-I score of 2.85. This score

translates to a response between “much better” and “a little better”. If clinicians can adequately diagnose and treat dyspareunia, then there is an ability for the patient to improve sexual function and impact their quality of life. This type of care needs to be extended to all our patients, especially for non-English speaking patients, since the discussion rates were lower in our Spanish cohort. This study was unable to identify specific breakdowns in this communication and future research is needed to further understand this lapse in care.

5.1 Limitations

The greatest limitation of this study was the sample size. The goal of 200 participants has not yet been reached and several of the measured outcomes had less than 5 responses, making statistical comparisons difficult. Due to the sensitive nature of the questions in the FSFI we had to make that portion of the survey optional and we were not able to obtain complete responses from all subjects. Nearly one third of responders were not sexually active. This skewed the scores for the FSFI, which could not be accounted for in our approach to comparing groups. Standardization for survey administration should be implemented as well. Subjects completed the questionnaire before or after their clinical encounter depending on the timing of clinic flow. Patients completing the survey after speaking with their clinician may have a recall bias compared to subjects who finished the survey before their encounter. There may be an additional bias for subjects who did not meet with a gynecology specialist during their encounter. Finally, this study used a convenience sample approach and was limited to University of Kansas affiliated clinics. Therefore, it is a descriptive study and the results are not generalizable to the entire population. It should also be noted that this survey measured subjective responses that varied by language and are not direct, clinical measurements. This data should be treated as pilot data for future research and clinical considerations.

5.2 Considerations for Future Research

The goal of this study was to survey 100 women in each language group. This research is continuing with additional surveys in the Spanish community to reach the goal number of subjects. Additional surveys may be administered to obtain 200 completed surveys for optimized data analysis with fewer missing observations. If the finalized data analysis supports our interim results, showing a lower rate of discussion among Spanish speaking patients and their clinicians, then more research should be conducted to expand on these findings. More qualitative methods could be introduced to identify specific barriers in communication, such as focus groups with Spanish speaking women and clinicians or more surveys and interviews tailored to details of communication. The aim of this project was to identify barriers to care for women's health and this work will continue to evolve with our patient population and treatment needs.

6 References

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7 Appendix

7.1 FSFI Questionnaire

Appendix A—Female Sexual Function Index (FSFI)*

Question	Response Options
Q1: Over the past 4 weeks, how often did you feel sexual desire or interest?	5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
Q2: Over the past 4 weeks, how would you rate your level (degree) of sexual desire or interest?	5 = Very high 4 = High 3 = Moderate 2 = Low 1 = Very low or none at all
Q3: Over the past 4 weeks, how often did you feel sexually aroused (“turned on”) during sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
Q4: Over the past 4 weeks, how would you rate your level of sexual arousal (“turn on”) during sexual activity or intercourse?	0 = No sexual activity 5 = Very high 4 = High 3 = Moderate 2 = Low 1 = Very low or none at all
Q5: Over the past 4 weeks, how confident were you about becoming sexually aroused during sexual activity or intercourse?	0 = No sexual activity 5 = Very high confidence 4 = High confidence 3 = Moderate confidence 2 = Low confidence 1 = Very low or no confidence
Q6: Over the past 4 weeks, how often have you been satisfied with your arousal (excitement) during sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never

Question	Response Options
Q7: Over the past 4 weeks, how often did you become lubricated ("wet") during sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
Q8: Over the past 4 weeks, how difficult was it to become lubricated ("wet") during sexual activity or intercourse?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult
Q9: Over the past 4 weeks, how often did you maintain your lubrication ("wetness") until completion of sexual activity or intercourse?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
Q10: Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult
Q11: Over the past 4 weeks, when you had sexual stimulation or intercourse, how often did you reach orgasm (climax)?	0 = No sexual activity 5 = Almost always or always 4 = Most times (more than half the time) 3 = Sometimes (about half the time) 2 = A few times (less than half the time) 1 = Almost never or never
Q12: Over the past 4 weeks, when you had sexual stimulation or intercourse, how difficult was it for you to reach orgasm (climax)?	0 = No sexual activity 1 = Extremely difficult or impossible 2 = Very difficult 3 = Difficult 4 = Slightly difficult 5 = Not difficult
Q13: Over the past 4 weeks, how satisfied were you with your ability to reach orgasm (climax) during sexual activity or intercourse?	0 = No sexual activity 5 = Very satisfied 4 = Moderately satisfied 3 = About equally satisfied and dissatisfied 2 = Moderately dissatisfied 1 = Very dissatisfied
Q14: Over the past 4 weeks, how satisfied have you been with the amount of emotional closeness during sexual activity between you and your partner?	0 = No sexual activity 5 = Very satisfied 4 = Moderately satisfied 3 = About equally satisfied and dissatisfied 2 = Moderately dissatisfied 1 = Very dissatisfied

Question	Response Options
Q15: Over the past 4 weeks, how satisfied have you been with your sexual relationship with your partner?	5 = Very satisfied 4 = Moderately satisfied 3 = About equally satisfied and dissatisfied 2 = Moderately dissatisfied 1 = Very dissatisfied
Q16: Over the past 4 weeks, how satisfied have you been with your overall sexual life?	5 = Very satisfied 4 = Moderately satisfied 3 = About equally satisfied and dissatisfied 2 = Moderately dissatisfied 1 = Very dissatisfied
Q17: Over the past 4 weeks, how often did you experience discomfort or pain during vaginal penetration?	0 = Did not attempt intercourse 1 = Almost always or always 2 = Most times (more than half the time) 3 = Sometimes (about half the time) 4 = A few times (less than half the time) 5 = Almost never or never
Q18: Over the past 4 weeks, how often did you experience discomfort or pain following vaginal penetration?	0 = Did not attempt intercourse 1 = Almost always or always 2 = Most times (more than half the time) 3 = Sometimes (about half the time) 4 = A few times (less than half the time) 5 = Almost never or never
Q19. Over the past 4 weeks, how would you rate your level (degree) of discomfort or pain during or following vaginal penetration?	0 = Did not attempt intercourse 1 = Very high 2 = High 3 = Moderate 4 = Low 5 = Very low or none at all

* For the complete FSFI questionnaire, instructions and scoring algorithm, please see www.FSFIquestionnaire.com, or contact Raymond Rosen Ph.D., (Department of Psychiatry: UMDNJ-Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854)

Appendix B—Scoring System

The individual domain scores and full scale score of the FSFI are derived by the computational formula outlined in the table below. Individual domain scores are obtained by adding the scores of the individual items that comprise the domain and multiplying the sum by the domain factor (see below). The full scale score is obtained by adding the six domain scores. It should be noted that within the individual domains, a domain score of zero indicates that no sexual activity was reported during the past month.

Domain	Questions	Score Range	Factor	Minimum score	Maximum score
Desire	1, 2	1–5	0.6	1.2	6.0
Arousal	3, 4, 5, 6	0–5	0.3	0	6.0
Lubrication	7, 8, 9, 10	0–5	0.3	0	6.0
Orgasm	11, 12, 13	0–5	0.4	0	6.0
Satisfaction	14, 15, 16	0 (or 1)–5	0.4	0	6.0
Pain	17, 18, 19	0–5	0.4	0	6.0
Full Scale Score Range				2.0	36.0

Citation: Wiegel, M., C. Meston, and R. Rosen, *The female sexual function index (FSFI): cross-validation and development of clinical cutoff scores*. *J Sex Marital Ther*, 2005. **31**(1): p. 205-208.

7.2 Survey (English version)

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Page 1 of 14

Women's Health and Language Survey

We are recruiting research participants between the ages of 18-45 who speak English or Spanish for our study. Our goal is to determine how often patients report issues of painful sex with their healthcare provider and if language is a barrier in discussing their sexual health. Participation involves completing a survey that will take about 5-10 minutes. No identifiable information will be collected about you, and the survey is anonymous. In addition to the survey questions, we will request information about your age, race/ethnicity, primary language spoken in clinic and pregnancy status. The survey can be completed electronically while you are in the office.

There are no personal benefits or risks to participating in this study. Participation is voluntary, and you can stop taking the survey at any time. You will receive a \$10 gift card for your time and participation upon completion of the survey.

If you have any questions, please contact Natalie Eisenach at neisenach@kumc.edu. For questions about the rights of research participants, you may contact the KUMC Institutional Review Board (IRB) at (913) 588-1240 or humansubjects@kumc.edu

Please complete the survey below.

Thank you!

Are you between the ages of 18-45?

- Yes
 No

Confidential

Page 2 of 14

What is your age?

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32
- 33
- 34
- 35
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- 37
- 38
- 39
- 40
- 41
- 42
- 43
- 44
- 45

What race/ethnicity do you identify with?

- American Indian
- Asian
- African American
- Hispanic/Latino
- Pacific Islander
- White
- Other

What language do you speak at your healthcare appointments?

- Spanish
- English

Confidential

Page 3 of 14

Are you pre or post- menopausal?

- Pre-menopausal
- Post-menopausal
- Don't know

Are you currently pregnant?

- Yes
- No

How many weeks pregnant are you?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
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- 32
- 33
- 34
- 35
- 36
- 37
- 38
- 39
- Don't know

04/13/2018 8:41pm

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Page 4 of 14

How many times have you been pregnant?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20+

How many times have you given birth?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20+

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Page 5 of 14

How many vaginal deliveries have you had?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20+

How many cesarean sections have you had?

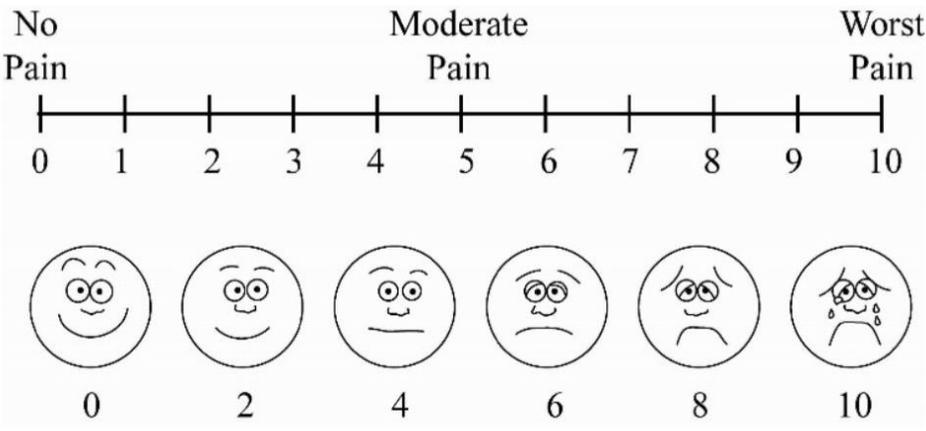
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20+

Have you ever had surgery on your uterus, fallopian tubes, ovaries or vagina (other than cesarean sections)?

- Yes
- No

Have you ever had problems with pain during sex (intercourse)?

- Yes
- No



Using the picture above, please rate the pain level on this scale: (0-10).

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

Have you been sexually active in the past four weeks?"

- Yes
- No

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Page 7 of 14

(The following 19 questions ask about your sexual feelings and responses during the past 4 weeks. Please answer the following questions as honestly and as clearly as possible. Your responses will be kept completely confidential. In answering these questions following definitions apply:

Sexual activity can include caressing, foreplay, masturbation and vaginal intercourse.

Sexual intercourse is defined as penile penetration (entry) of the vagina.

Sexual stimulation includes situations like foreplay with a partner, self-stimulation (masturbation) or sexual fantasy.

Sexual desire or interest is a feeling that includes wanting to have a sexual experience, feeling receptive to a partner's sexual initiation, and thinking or fantasizing about having sex.

Over the past 4 weeks, how often did you feel sexual desire or interest?

- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how would you rate your level (degree) of sexual desire or interest?

- Very high
- High
- Moderate
- Low
- Very low or none at all

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Page 8 of 14

Sexual arousal is a feeling that includes both physical and mental aspects of sexual excitement. It may include feelings of warmth or tingling in the genitals, lubrication (wetness) or muscle contractions.

Over the past 4 weeks, how often did you feel sexually aroused ("turned on") during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how would you rate your level of sexual arousal ("turn on") during sexual activity or intercourse?

- No sexual activity
- Very high
- High
- Moderate
- Low
- Very low or none at all

Over the past 4 weeks, how confident were you about becoming sexually aroused during sexual activity or intercourse?

- No sexual activity
- Very high confidence
- High confidence
- Moderate confidence
- Low confidence
- Very low or no confidence

Over the past 4 weeks, how often have you been satisfied with your arousal (excitement) during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

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Page 9 of 14

Over the past 4 weeks, how often did you become lubricated ("wet") during sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how difficult was it to become lubricated ("wet") during sexual activity or intercourse?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

Over the past 4 weeks, how often did you maintain your lubrication ("wetness") until completion of sexual activity or intercourse?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how difficult was it to maintain your lubrication ("wetness") until completion of sexual activity or intercourse?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

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Page 10 of 14

Over the past 4 weeks, when you had sexual stimulation or intercourse, how often did you reach orgasm (climax)?

- No sexual activity
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, when you had sexual stimulation or intercourse, how difficult was it for you to reach orgasm (climax)?

- No sexual activity
- Extremely difficult or impossible
- Very difficult
- Difficult
- Slightly difficult
- Not difficult

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Page 11 of 14

Over the past 4 weeks, how satisfied were you with your ability to reach orgasm (climax) during sexual activity or intercourse?

- No sexual activity
- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

Over the past 4 weeks, how satisfied have you been with the amount emotional closeness during sexual activity between you and your partner?

- No sexual activity
- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

Over the past 4 weeks, how satisfied have you been with your sexual relationship with your partner?

- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

Over the past 4 weeks, how satisfied have you been with your overall sexual life?

- Very satisfied
- Moderately satisfied
- About equally satisfied and dissatisfied
- Moderately dissatisfied
- Very dissatisfied

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Page 12 of 14

Over the past 4 weeks, how often did you experience discomfort or pain during vaginal penetration?

- Did not attempt intercourse
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how often did you experience discomfort or pain following vaginal penetration?

- Did not attempt intercourse
- Almost always or always
- Most times (more than half the time)
- Sometimes (about half the time)
- A few times (less than half the time)
- Almost never or never

Over the past 4 weeks, how would you rate your level (degree) of discomfort or pain during or following vaginal penetration?

- Did not attempt intercourse
- Very high
- High
- Moderate
- Low
- Very low or none at all

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Page 13 of 14

Has a healthcare provider discussed painful sex with you?

- Yes
- No

Who initiated the discussion?

- Patient
- Healthcare provider
- Both

Was an interpreter used during the discussion?

- Yes
- No

Were measures taken to improve the problem?

- Yes
- No
- I did not have a problem with pain

How did the measures taken affect your pain during sex?

- Very much better
- Much better
- A little better
- No change.
- A little worse.
- Much worse.
- Very much worse.

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Page 14 of 14

Where did you complete this survey?

- University of Kansas Clinic
- JayDoc Free Health Clinic

Thank you, this is the end of the survey.

Sorry, you are not eligible at this time.

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