

Gap in sexual dysfunction management between men and women seen in primary care

Student: Elizabeth E. Stanley, B.S.E^{1,2} Preceptor: Kathryn Martinez, PhD, MPH
1. Cleveland Clinic Lerner College of Medicine, 2. Case Western Reserve University, School of Medicine, Masters of Public Health Program, 3. Cleveland Clinic Center for Value Based Care Research

Organization

The Center for Value Based Care Research is a research group within the Cleveland Clinic's Internal Medicine Department.

9500 Euclid Ave, G10, Cleveland, OH 44195

Population

Women with female sexual dysfunction (FSD)

- FSD: clinically distressing problems with desire, arousal, orgasm, or pain during sex
- Affects 1 in 8 women in the US¹
- A growing number of treatment options are available
- FSD is thought to be under-diagnosed and under-treated

Learning Objectives

1. To apply data management and statistical analysis skills in order to clean & analyze data from the Electronic Health Record in R
2. To synthesize results and create a manuscript for publication in a peer reviewed journal
3. To design a survey of healthcare provider perceptions of sexual dysfunction

Activities

- Writing, debugging, and running code in R to clean and analyze data
- Meeting with interdisciplinary team of clinicians and statisticians to refine project designs and discuss interpretation of results
- Drafting project proposals, abstracts, and manuscripts

Deliverables

1. R Code used for data cleaning & analysis
2. Survey of health care provider

Methods: Deliverable 1

Study Sample: Primary care patients with an incident diagnosis of FSD or ED seen at a large, integrated health system between 2016-2020

Variables definitions:

- Sexual dysfunction identified with ICD-10 codes
- Treatment: medication prescription or referral within 3 days of diagnosis deemed appropriate by guidelines from ISSWSH, ACOG, AAFP²⁻⁶
- Patient characteristics: age, race, insurance type, marital status
- Specialty of physician who diagnosed sexual dysfunction

Statistical Analysis

- Descriptive statistics
- Mixed effects logistic regression to estimate odds of treatment, including patient characteristics and diagnosing physician specialty

1 in 3 female sexual dysfunction patients received an appropriate medication prescription or referral at the time of diagnosis

**FSD diagnosis by a primary care physician carried lower odds of treatment than diagnosis by an OB/GYN:
 OR 0.6 (95% confidence interval: 0.52 – 0.69)**

**The opposite was true for ED:
 PCP vs. urology: OR 1.50 (95% CI: 1.36 – 1.64)**

Deliverable 2: Survey

	How important is managing each of the following types of sexual dysfunction, compared to your patients' other medical conditions that primarily affect quality of life (e.g. arthritis or irritable bowel syndrome)?		
	Sexual dysfunction is less important	Equally important	Sexual dysfunction is more important
Female desire, arousal, or orgasm disorder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pain with intercourse in women (i.e. dyspareunia, vulvodynia)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genitourinary syndrome of menopause/vulvovaginal atrophy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Erectile dysfunction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	What specialty do you think is responsible for managing each of the following types of female sexual dysfunction (check all that apply)?				
	Primary care	Women's Health Institute PCP	OB/GYN	Psychology	Psychiatry
Disorders of desire, arousal, orgasm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pain with intercourse (i.e. dyspareunia, vulvodynia)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Genitourinary syndrome of menopause/vulvovaginal atrophy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Among all women, what is the prevalence of disorders of desire, arousal, orgasm?	<input type="checkbox"/> 0-9%	<input type="checkbox"/> 10-19%	<input type="checkbox"/> 20-29%	<input type="checkbox"/> 30-39%	<input type="checkbox"/> 40-49%	<input type="checkbox"/> 50-59%	<input type="checkbox"/> >60%
Among women aged <50, what is the prevalence of pain with intercourse?	<input type="checkbox"/> 0-9%	<input type="checkbox"/> 10-19%	<input type="checkbox"/> 20-29%	<input type="checkbox"/> 30-39%	<input type="checkbox"/> 40-49%	<input type="checkbox"/> 50-59%	<input type="checkbox"/> >60%
Among postmenopausal women, what is the prevalence of genitourinary syndrome of menopause (also known as vulvovaginal atrophy)?	<input type="checkbox"/> 0-9%	<input type="checkbox"/> 10-19%	<input type="checkbox"/> 20-29%	<input type="checkbox"/> 30-39%	<input type="checkbox"/> 40-49%	<input type="checkbox"/> 50-59%	<input type="checkbox"/> >60%
Among men aged 60-69, what is the prevalence of erectile dysfunction (often or always having trouble achieving or keeping an erection)?	<input type="checkbox"/> 0-9%	<input type="checkbox"/> 10-19%	<input type="checkbox"/> 20-29%	<input type="checkbox"/> 30-39%	<input type="checkbox"/> 40-49%	<input type="checkbox"/> 50-59%	<input type="checkbox"/> >60%

Lessons Learned

- R coding skills: merging datasets, parsing strings, mixed effects logistic regression analysis, creating tables
- Data is messy! As a result, most time will be spent cleaning it up
- Every research method and data source has limitations: using multiple methods enables a stronger understanding of the topic
- The most effective teams are multidisciplinary and have members with different strengths and expertise

Public Health Implications

- FSD is a public health problem, impacting the quality of life of 1 in 8 women
- We found that FSD is under-treated, especially when patients are initially diagnosed in primary care
- Further work is needed to understand the underlying reasons, to enable intervention development

References

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