

# ISSWSH ANNUAL MEETING

February 19 - 22, 2015

Sheraton Austin Hotel at the Capitol  
Austin, TX - USA

## PROGRAM



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# International Society for the Study of Women's Sexual Health



**SAVE**  
*the*  
**DATE**

**Spring Course**  
**2015**

**Washington, DC - USA**

**Grand Hyatt Washington**

**April 10-12, 2015**

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## **ISSWSH Annual Meeting 2015**

February 19-22, 2015

Austin, TX - USA

Sheraton Austin Hotel at the Capitol

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## WELCOME MESSAGE

It is with great enthusiasm that I welcome you to Austin for the 2015 Annual Meeting of ISSWSH. Inspired by the multi-cultural heritage of this region of the US and the multi-disciplinary identity of our society, we have a wonderfully diverse and stimulating program agenda. In addition to presenting the most current information on research and clinical practice, I believe you will find the presentations to be challenging, thought-provoking and even paradigm shifting.

In the State of the Art lectures, we will learn about the underlying biological mechanisms down to the genetic level that are responsible for differences between genders in basic physiological processes that may contribute to differential responses to hormones or drug therapy. We will delve into the emerging science of epigenetic regulation and how this impacts sexual arousal and desire. We will also consider the nature of desire through the lens of evolutionary psychology and then engage in an exploration of compulsive sexual behavior from a clinical perspective.

In a new symposium format entitled the Master Journal Club, we have a stellar group of internationally renowned faculty who will review a topic of their own choosing based on an important recent "must read" publication and lend us the benefit of their experience and insight. You will also see that we have not shied away from controversy and have, in fact, highlighted its importance in sexual medicine in a symposium on research, theory and treatment of sexual addiction. Another session will be devoted to novel psychotherapeutic approaches for a variety of disorders based on evidence-based outcomes research. Not to be forgotten, medical or surgical intervention remains an important mode of therapy for certain conditions related to sexual dysfunctions. A symposium on vulvar dermatology will examine various types of genital dermatological conditions, their prevalence, diagnoses and treatments. Lastly, we have a guest lecture from the North American Menopause Society to be delivered by Dr. JoAnn Pinkerton who will be speaking on novel treatments for the genitourinary syndrome of menopause (GSM).

This amazing program is the result of the efforts of a group of very dedicated people who made my job relatively easy. In recognition of their efforts, I'd like to thank the ISSWSH Board of Directors for their encouragement and support, Status Plus for their administrative assistance and their formidable experience and expertise in conference planning, and Sharon Parish and former society president Andrew Goldstein for their willingness to roll up their sleeves and get involved in the day-to-day work of our committee. Most of all, please join me in thanking the members of the Scientific Program Committee who energetically accepted a workload that surpasses that of previous program committees. They were engaged in not only the early brainstorming sessions and reaching out to speakers, but formally accepted the duties of reviewing abstracts and papers, moderating sessions and acting as hosts during this meeting.

Lastly, I look forward to your participation in the sessions and encourage you to take advantage of the wealth of knowledge offered by our speakers and members, as well as the social functions and non-structured times that I'm sure will serve as excellent opportunities to catch up with colleagues and be the source of many new memories.

Sincerely,

**Noel N. Kim, PhD**  
Scientific Chairman

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### **POLICY: FILMING, PHOTOGRAPHY, AUDIO RECORDING, AND CELL PHONES**

No attendee/visitor at the ISSWSH 2015 Annual Meeting may record, film, tape, photograph, interview, or use any other such media during any presentation, display, or exhibit without the express, advance approval of the ISSWSH Executive Director. This policy applies to all ISSWSH members, nonmembers, guests, and exhibitors, as well as members of the print, online, or broadcast media.

## CME INFORMATION

### ACTIVITY OVERVIEW AND DESCRIPTION

The primary goal of the meeting is to serve as a multidisciplinary forum in which to discuss the clinical assessment and management, ethical and societal issues, and outcome of sex therapy interventions in clinical cases.

### TARGET AUDIENCE

Potential attendees of the meeting include (but or not limited to) physicians, residents, students, nurse practitioners, physical therapists and sex therapists.

### LEARNING OBJECTIVES

Upon completion of this activity, participants should be better able to:

- ★ Describe the molecular and genetic basis of gender differences.
- ★ Discuss how evolutionary psychological theory can shed light on human behavior in terms of desire and mate selection.
- ★ Describe what epigenetic mechanisms are and how they impact sexual arousal and desire.
- ★ Describe the nature of compulsive sexual behavior, its etiology and treatment options and to remove unnecessary hurdles to access care.
- ★ Discuss the major findings of the most recent clinical studies on sexuality in post-menopausal women and treatment of women with lifelong genital pain.
- ★ Describe the nature of addictive sexual behavior, its etiology and treatment options and to remove unnecessary hurdles to access care.
- ★ Describe novel therapeutic alternatives and incorporate these into their overall strategy in caring for patients with sexual dysfunctions that are related to sexual abuse, anti-depressant use or genital pain.
- ★ Recognize lichen sclerosus, lichen planus, lichen simplex chronicus; Learn the proper treatment for these vulvar dermatoses.
- ★ Recognize the clinical manifestations of Genitourinary Syndrome of Menopause; Apply evidence-based treatment options, both hormonal and nonhormonal, to the management of GSM.
- ★ Describe efficacy of oral, transdermal and local hormone therapy. Understand safety of oral, transdermal and local hormone therapy.
- ★ (1) Participants will be able to utilize the PLISSIT Model to guide their decisions regarding levels of intervention with patients exhibiting sexual concerns; and (2) Participants will have specific suggestions regarding the initiation of discussions of sexual issues patients.
- ★ Identify pain science principles and apply them to typical sexual pain presentations: Apply a multidimensional mindfulness based approach that will address pain and anxiety reduction while consideration the clients culture, context, and goal orientation.
- ★ Evaluate the primary complaint of headache within the medical, social and behavioral spheres to arrive at appropriate treatment strategies.
- ★ Demonstrate how social media can be used for professional education/continuous professional development, networking, clinical trials promotion, and patient education through authoritative health messaging; Identify institutional and individual best practices.
- ★ (1) Discuss the broad epidemiology, prevalence, classification systems and models for female sexual disorders in clinical practice; (2) Summarize current nomenclature as well as new terminology in the area of female sexual dysfunction.
- ★ (1) Implement the patient-centered, collaborative motivational interviewing technique Ask-Tell-Ask in sexual problem counseling for female sexual dysfunctions; (2) Apply principles of patient interviewing to the area of sexual health.
- ★ (1) Describe the detailed physical examination with focus on the genito pelvic region; (2) Discuss possible sources of sexual pain related to skin, musculoskeletal, infective, pharmacologic and genitourinary factors; (3) Cite possible first line treatment opportunities for pelvic floor dysfunction focusing on simple solutions for hypertonus.
- ★ (1) Describe the various diagnostic tests needed to properly diagnose a women with sexual dysfunction; (2) Apply results of diagnostic testing to help determine etiology of sexual function.
- ★ (1) Know the three most common causes of dyspareunia; (2) Learn the appropriate aspects

## CME INFORMATION

of the medical history and physical examination that determine the cause of the dyspareunia; (3) Characterize HPV and other possible vulvar diseases that may be seen through the course of examining women presenting with dyspareunia and therefore can be successfully treated; (4) Learn to recognize which subset of women will benefit from the surgical treatment of dyspareunia; (5) Learn the proper techniques for vulvar vestibulectomy.

- ★ (1) Characterize subset of women who will benefit from the surgical treatment of dyspareunia; (2) Analyze blood tests to understand the relevance of values to vestibular health and vestibulodynia.
- ★ (1) Describe the specific action and indications for use of vaginal lubricants, moisturizers and vulvar creams in the treatment of sexual dysfunction; (2) Describe potential irritants and caustic additives that may hinder sexual comfort; (3) Apply behavioral therapy principles in clinical practice.
- ★ Apply relevant data and appropriate individual choices to the education of patients in order to guide them through the process of HT decision making; Analyze the major differences in available HT choices to help individualize the treatment and enhance the benefits while decreasing the risks for the menopausal patient.
- ★ (1) Identify the benefits and risks associated with off label testosterone use for Hypoactive Sexual Desire Disorder (distressing low sexual desire); (2) Compare and contrast the off label use of various FDA-approved male products in women and compounded testosterone treatment options.
- ★ (1) Recognize the clinical manifestations of Genitourinary Syndrome of Menopause; (2) Apply evidence-based treatment options, both hormonal and non-hormonal, to the management of GSM; (3) Describe innovative treatments for GSM.
- ★ (1) Cite rational and logical use of off-label treatments affecting central excitatory neurotransmitters; (2) Cite rational and logical use of off-label treatments affecting central inhibitory neurotransmitters.
- ★ (1) Discuss the relationship between common psychiatric disorders in women, particularly depression, and female sexual dysfunctions; (2) Describe an evidenced-based approach to the appropriate use of psychopharmacological agents in this clinical context.

★ (1) Differentiate between truth/fiction with regard to prevalence, etiologies and treatment options for sexual issues. (2) Appraise value of sex educator's information and knowledge base; or Associate myths in sex education with their genesis.

★ Associate links between HPV infection and malignancies.

★ Describe the colposcopic, vulvoscopic and oropharyngeal presentations of HPV related disease and understand appropriate follow up and management.

★ Describe risk-reducing strategies whereby the patient may modify his or her behavior to reduce risk.

★ Cite the benefits of HPV vaccination.

### METHOD OF PARTICIPATION

In order to meet the learning objectives and receive continuing education credits, participants are expected to check in at the registration desk each day of the program, attend the program and complete an on-line evaluation and credit request form at the conclusion of the activity. A letter certifying your attendance and credit verification will be mailed to you within 30 days following the completion of the online evaluation and credit request form.

## ACCREDITATION



### PHYSICIANS

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Rutgers, The State University of New Jersey and the International Society for the Study of Women's Sexual Health. Rutgers, The State University of New Jersey is accredited by the ACCME to provide continuing medical education for physicians.

Rutgers, The State University of New Jersey designates this live activity for a maximum of 24.75 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### APA ACCREDITATION STATEMENT

ISSWSH is approved by the American Psychological Association to sponsor continuing education for psychologists. ISSWSH maintains responsibility for this program and its content. Full attendance is required for psychologists; no partial credits will be offered for partial attendance.

### NPWH ACCREDITATION STATEMENT

This activity has been evaluated and approved by the Continuing Education Approval Program of the National Association of Nurse Practitioners in Women's Health for 26.5 contact hours, including 3.0 of pharmacology. NPWH Activity number 15-02. Each participant should claim only those contact hours that he/she actually spent in the educational activity.

***Furthermore we have applied for AASECT credits.***

## PEER REVIEW

In order to help ensure content objectivity, independence, and fair balance, and to ensure that the content is aligned with the interest of the public, CCOE has resolved all potential and real conflicts of interest through content review by a non-conflicted, qualified peer reviewers. This activity was peer-reviewed for relevance, accuracy of content, and balance of presentation by:

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## DISCLOSURE DECLARATIONS

In accordance with the disclosure policies of Rutgers and to conform with ACCME and FDA guidelines, individuals in a position to control the content of this educational activity are required to disclose to the activity participants: 1) the existence of any relevant financial relationship with any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients, with the exemption of non-profit or government organizations and non-health care related companies, within the past 12 months; and 2) the identification of a commercial product/device that is unlabeled for use or an investigational use of a product/device not yet approved.

### **FACULTY**

Published in a separate booklet.

### **PEER REVIEWERS**

Seth Cohen, MD, MPH, Melissa A. Farmer, PhD and Tami Rowen, MD, MS, have no relevant financial relationships to disclose. Shari Goldfarb, MD has the following to disclose:

- ★ Grants/research support: Susan G. Komen Breast Cancer Foundation, Berg Pharma LLC, Health Tell, Fidia Pharma USA

- ★ Speaker: Celgene

### **RUTGERS STAFF**

Elizabeth Ward, MSJ, Executive Director and Tristan Nelsen, MNM, CMP, Senior Program Manager, have no relevant financial relationships to disclose.

### **INTERNATIONAL SOCIETY FOR THE STUDY OF WOMEN'S SEXUAL HEALTH**

David Casalod, Executive Director, Tessa Benitez, Association Manager and Vivian Gies, Meeting Manager have no relevant financial relationships to disclose.

### **OFF-LABEL/INVESTIGATIONAL USE**

This activity contains information on commercial products/devices that are unlabeled for use or investigational uses of products not yet approved. Faculty will disclose off-label/investigational uses within their presentations.

### **DISCLAIMER**

The views expressed in this activity are those of the faculty. It should not be inferred or assumed that they are expressing the views of any manufacturer of pharmaceuticals or devices, Rutgers or International

Society for the Study of Women's Sexual Health.

It should be noted that the recommendations made herein with regard to the use of therapeutic agents, varying disease states, and assessments of risk, are based upon a combination of clinical trials, current guidelines, and the clinical practice experience of the participating presenters. The drug selection and dosage information presented in this activity are believed to be accurate. However, participants are urged to consult all available data on products or procedures before using them in clinical practice.

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## EVENING FUNCTIONS

LOCAL CHAIRMAN: CINDY MESTON, PhD



### WELCOME RECEPTION

**Date:** Thursday February 19, 2015

**Time:** 06:00 p.m. - 07:30 p.m.

**Location:** Capitol View Terrace

Welcome to the ISSWSH 2015 Annual Meeting! Catch up with friends and colleagues, and meet with exhibitors following the first day of the scientific program.



### ISSWSH KEEPS IT WEIRD!

**Date:** Friday February 20, 2015

**Time:** 07:00 p.m. - 10:30 p.m. (Buses will leave at 06:30 p.m.)

**Where:** Hills Café (transportation included)

**Cost:** USD 50.00 per person

We have reserved one of the oldest traditional Texas BBQ restaurants in Austin for the evening, will be serving the State's finest vodka made by Tito's in Austin, and have lined up one of Austin's newest and coolest country bands to get you twirling! You want a local Austin good time? Then here's your chance! Be square and be there!





Save the Date

# Women's Sexual Health Course for NPs

Presented by the National Association  
of Nurse Practitioners in Women's Health (NPWH)

In collaboration with the International Society  
for the Study of Women's Sexual Health (ISSWSH)

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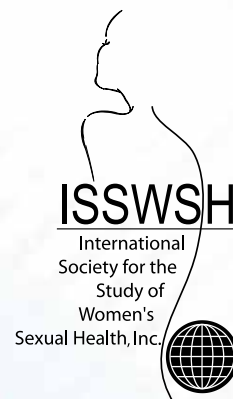
June 26-28, 2015

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Orlando, Florida

This course is designed for nurse practitioners wishing to develop or enhance skills, knowledge, and experience in evaluating and managing issues in women's sexual health. Expert clinicians will present up-to-date evidence and expert consensus with an emphasis on teaching good diagnostic skills and practical management of common dysfunctions in women's sexual health. Upon completion of the course, you will receive Continuing Education Credits as well as a Certificate of Completion.

For more information please visit [www.npwh.org](http://www.npwh.org).



# PROGRAM AT A GLANCE

	THURSDAY, FEBRUARY 19	FRIDAY, FEBRUARY 20
07:00 a.m.	<b>Continental Breakfast</b> (Pre-Course Registrants Only)	<b>Mentor Breakfast</b>
07:30 a.m.		
08:00 a.m.		
08:30 a.m.		<b>State of the Art 2</b> Evolution of Desire
09:00 a.m.		
09:30 a.m.	<b>Annual Pre-Course</b>	<b>Stump the Professor</b>
10:00 a.m.		<b>Coffee Break - Visit Exhibitors</b>
10:30 a.m.		
11:00 a.m.		<b>Research Podium Session 2</b> Clinical Trials & Surgery
11:30 a.m.		<b>Instructional Course 2</b> HPV-Related Cancer
12:00 p.m.	<b>Lunch</b> (Pre-Course Registrants Only)	
12:30 p.m.	<b>Opening Ceremony</b>	<b>Lunch &amp; Learn 1</b> Social Media in Sexual Medicine
01:00 p.m.	<b>Sandra Leiblum Presidential Lecture</b>	
01:30 p.m.		<b>Symposium 2</b> Porn Addiction, Sex Addiction or Just Another OCD?
02:00 p.m.	<b>Research Podium Session 1</b> Education & Psychology	
02:30 p.m.	<b>Instructional Course 1</b> Hormone Therapy for the Management of Menopausal Symptoms: An Update	
03:00 p.m.	<b>Coffee Break - Visit Exhibitors</b>	<b>Coffee Break - Visit Exhibitors</b>
03:30 p.m.		<b>State of the Art 3</b> Epigenetics of Sexual Arousal & Desire
04:00 p.m.	<b>Symposium 1</b> Master Journal Club	<b>NAMS Guest Lecture</b>
04:30 p.m.		<b>ISSWSH Business Meeting</b>
05:00 p.m.	<b>State of the Art 1</b> Biology of Gender Differences	
05:30 p.m.		
06:00 p.m.		
06:30 p.m.	<b>Welcome Reception</b>	
07:00 p.m.	<b>Visit Exhibitors</b>	

Registration / Information Desk

Registration / Information Desk




# PROGRAM AT A GLANCE

SATURDAY, FEBRUARY 21			SUNDAY, FEBRUARY 22			
07:00 a.m.	Registration / Information Desk	Continental Breakfast		Registration / Information Desk	Continental Breakfast	
07:30 a.m.						
08:00 a.m.		JSM Session			Research Podium Session 4 Psychology & Public Health	Instructional Course 4 Mindfulness for the Treatment of Sexual Pain
08:30 a.m.						
09:00 a.m.		Symposium 3 New Roads in Psychotherapy				
09:30 a.m.						
10:00 a.m.						
10:30 a.m.		Coffee Break - Visit Exhibitors				
11:00 a.m.		State of the Art 4 Compulsive Sexual Behavior				
11:30 a.m.						
12:00 p.m.		Lunch & Learn 2 Management of Sexual Headaches	Lunch & Learn 3 Lies Sex Educators Tell			
12:30 p.m.						
01:00 p.m.		Research Podium Session 3 Physiology	Instructional Course 3 Sex Therapy for Primary Care Physicians			
01:30 p.m.						
02:00 p.m.		Coffee Break - Visit Exhibitors				
02:30 p.m.						
03:00 p.m.	Symposium 4 Vulvar Dermatology					
03:30 p.m.						
04:00 p.m.						
04:30 p.m.						
05:00 p.m.	Poster Session (with drinks/food)					
05:30 p.m.						
06:00 p.m.						
06:30 p.m.						
07:00 p.m.						

## SCIENTIFIC PROGRAM - THURSDAY FEBRUARY 19, 2015

### ANNUAL PRE-COURSE


**07:00 a.m. - 07:30 a.m.**

 Continental Breakfast  
(for pre-course registrants only)

 Ballroom Prefunction Area

**07:30 a.m. - 07:40 a.m.**

 Capitol Ballroom E

 Moderator: Sue W. Goldstein, BA, CCRC, IF

**07:40 a.m. - 09:10 a.m.**

#### Identification of Sexual Health Problems

 Capitol Ballroom E

 Moderator: Sue W. Goldstein, BA, CCRC, IF

07:40 a.m. - 08:00 a.m.

**Update on Epidemiology and Nomenclature**  
Sharon J. Parish, MD, IF, NCMP

08:00 a.m. - 08:25 a.m.

**Sexual Health Interview**  
Sharon J. Parish, MD, IF, NCMP

08:25 a.m. - 08:35 a.m.

**Physical Exam**  
Andrew T. Goldstein, MD, IF, FACOG

08:35 a.m. - 09:10 a.m.

**Anatomy and Testing Procedures: Hormonal, Vascular, Neurologic**  
Irwin Goldstein, MD, IF

**09:10 a.m. - 09:50 a.m.**

#### Sexual Pain

 Capitol Ballroom E

 Moderator: Sue W. Goldstein, BA, CCRC, IF

09:10 a.m. - 09:35 a.m.

**Painful Intercourse: Causes, Evaluation and Treatment**  
Andrew T. Goldstein, MD, IF, FACOG

09:35 a.m. - 09:50 a.m.

**Hormone Mediated and Neuro-Proliferative Vestibulodynia: Diagnosis and Treatment**  
Irwin Goldstein, MD, IF

**09:50 a.m. - 10:05 a.m.**

 Coffee Break

 Ballroom Prefunction Area

**10:05 a.m. - 10:25 a.m.**

#### Modification of Reversible Causes

 Capitol Ballroom E

 Moderator: Sue W. Goldstein, BA, CCRC, IF

10:05 a.m. - 10:25 a.m.

**Lubricants, Topical Treatments and Behavioral Therapy**  
Sue W. Goldstein, BA, CCRC, IF

**10:25 a.m. - 12:00 p.m.**

#### Pharmacologic Therapies

 Capitol Ballroom E

 Moderator: Sue W. Goldstein, BA, CCRC, IF

10:25 a.m. - 10:50 a.m.

**Hormonal Treatment: Estrogens and Progestogens**  
Irwin Goldstein, MD, IF

10:50 a.m. - 11:05 a.m.

**Hormonal Treatment: Androgens**  
Sharon J. Parish, MD, IF, NCMP

11:05 a.m. - 11:20 a.m.

**Treatment Options for GSM**  
Sharon J. Parish, MD, IF, NCMP

11:20 a.m. - 11:35 a.m.

**Non-Hormonal Pharmacological Treatments**  
Irwin Goldstein, MD, IF


11:35 a.m. - 11:50 a.m.

**Sexual Dysfunction and Depression: Treatment Considerations**  
Sharon J. Parish, MD, IF, NCMP

11:50 a.m. - 12:00 p.m.

**Q&A**

**12:00 p.m. - 12:15 p.m.**

 Lunch (for pre-course registrants only)

 Capitol View Terrace



# SCIENTIFIC PROGRAM - THURSDAY FEBRUARY 19, 2015

**12:30 p.m. - 12:45 p.m.**

## Opening Ceremony

📍 Capitol Ballroom A-D

👤 Moderators: Sue W. Goldstein, BA, CCRC, IF;  
Noel N. Kim, PhD & Sharon J. Parish, MD, IF, NCMP

**12:45 p.m. - 01:30 p.m.**

## Sandra Leiblum Presidential Lecture

📍 Capitol Ballroom A-D

👤 Moderators: Sue W. Goldstein, BA, CCRC, IF &  
Noel N. Kim, PhD

12:45 p.m. - 01:30 p.m.

### A "Case" for ISSWSH in 2015

Sharon J. Parish, MD, IF, NCMP

**01:30 p.m. - 03:00 p.m.**

## Research Podium Session 1 - Education & Psychology

📍 Capitol Ballroom A-D

👤 Moderators: Debra Herbenick, PhD, MPH &  
Tierney Lorenz, PhD

### 001 Evidence for Specificity of Genital Sexual Arousal in Women: A within Subject Analysis

Pulverman, C.S.<sup>1</sup>; Hixon, J.G.<sup>1</sup>; Meston, C.M.<sup>1</sup>

1: University of Texas at Austin, USA

### 002 What Exactly do you mean by "Sexual Problem?" Specific Descriptions of Self-Identified Impairments in Female Sexual Function

Stephenson, K.<sup>1</sup>; Toorabally, N.<sup>1</sup>; Meston, C.<sup>2</sup>

1: California State University Monterey Bay, USA; 2: University of Texas at Austin, USA

### 003 Relationships among Sex Motives and Sexual Pain in Non-Problem Female Drinkers

Bird, E.R.<sup>1</sup>; Neilson, E.<sup>1</sup>; Heiman, J.R.<sup>2</sup>; Norris, J.<sup>1</sup>; George, W.H.<sup>1</sup>

1: University of Washington, USA; 2: The Kinsey Institute for Research in Sex, Gender, and Reproduction, USA

### 004 Hormonal Birth Control Use Associated with Increased Alcohol Consumption and Intoxication

Taggart, T.C.<sup>1</sup>; Hammett, J.F.<sup>1</sup>; Ulloa, E.C.<sup>1</sup>

1: San Diego State University, USA

### 005 Relationship Status, Partner Notification, and Post-PID Behaviors in Urban Young Women

Jones, L.H.<sup>1</sup>; Chung, S.<sup>1</sup>; Huettner, S.<sup>1</sup>; Gaydos, C.<sup>1</sup>; Butz, A.M.<sup>1</sup>; Anders, J.<sup>1</sup>; Trent, M.<sup>1</sup>

1: Johns Hopkins University, USA

### 006 The Correlates of Female Sexual Dysfunction in Infertile Women

Winkelman, W.D.<sup>1</sup>; Smith, J.F.<sup>1</sup>; Katz, P.<sup>1</sup>; Rowen, T.S.<sup>1</sup>

1: University of California San Francisco, USA

### 007 Sexual Function Following Breast Cancer Surgery: Being Comfortable with Change

Gass, J.<sup>1</sup>; Pesek, S.<sup>2</sup>; Onstad, M.<sup>3</sup>; Fogarty, S.<sup>4</sup>; Stuckey, A.<sup>2</sup>; Edmonson, D.<sup>2</sup>; Raker, C.<sup>2</sup>

1: Women and Infants Hospital, USA; 2: Women and Infants Hospital, USA; 3: MD Anderson, USA; 4: Sinai Hospital, USA

### 008 Future Physicians Define Sex

Cho, J.M.<sup>1</sup>; Talley, H.N.<sup>1</sup>; Rullo, J.E.<sup>2</sup>

1: Mayo Medical School, USA; 2: Mayo Clinic, USA

**01:30 p.m. - 03:00 p.m.**

## Instructional Course 1 - Hormone Therapy for the Management of Menopausal Symptoms: An Update

📍 Capitol Ballroom E

👤 Faculty: James A. Simon, MD, CCD, NCMP, IF, FACOG & Lauren F. Streicher, MD

**03:00 p.m. - 03:30 p.m.**

☕ Coffee Break - Visit Exhibitors

📍 Capitol View Terrace

**03:30 p.m. - 05:00 p.m.**

## Symposium 1 - Master Journal Club

📍 Capitol Ballroom A-D

👤 Moderator: Andrew T. Goldstein, MD, IF, FACOG

03:30 p.m. - 04:00 p.m.

### Therapist-Aided Exposure for Women with Lifelong Vaginismus: A Randomized Waiting-List Control Trial of Efficacy

Yitzchak M. Binik, PhD

04:00 p.m. - 04:30 p.m.

### Bidirectional Association between Depression and Sexual Dysfunction: A Systematic Review and Meta-analysis

Anita H. Clayton, MD, IF

04:30 p.m. - 05:00 p.m.


### Sexual Function in Postmenopausal Women


Lorraine Dennerstein, PhD, DPM, AO

## SCIENTIFIC PROGRAM - THURSDAY FEBRUARY 19, 2015

**05:00 p.m. - 06:00 p.m.**

**State of the Art 1 - Biology of Gender Differences:  
Understanding the "Sexome" Differences**

 Capitol Ballroom A-D


 Moderator: Noel N. Kim, PhD


05:00 p.m. - 06:00 p.m.

**Biology of Gender Differences: Understanding  
the "Sexome" Differences**

Arthur P. Arnold, PhD


**06:00 p.m. - 07:30 p.m.**

 Welcome Reception - Visit Exhibitors

 Capitol View Terrace

# SCIENTIFIC PROGRAM - FRIDAY FEBRUARY 20, 2015


**07:00 a.m. - 08:00 a.m.**

 Mentor Breakfast

 Capitol Ballroom E

**08:00 a.m. - 09:00 a.m.**

**State of the Art 2 - Evolution of Desire**

 Capitol Ballroom A-D

 Moderator: Cindy Meston, PhD

08:00 a.m. - 09:00 a.m.


**Evolution of Desire**

David M. Buss, PhD


**09:00 a.m. - 10:00 a.m.**

**Stump the Professor**

 Capitol Ballroom A-D

 Moderators: Andrew T. Goldstein, MD, IF, FACOG;  
Irwin Goldstein, MD, IF;  
Susan Kellogg-Spadt, PhD, CRNP, IF &  
Sharon J. Parish, MD, IF, NCMP


**10:00 a.m. - 10:30 a.m.**


 Coffee Break - Visit Exhibitors

 Capitol View Terrace

**10:30 a.m. - 12:00 p.m.**

**Research Podium Session 2 - Clinical Trials & Surgery**

 Capitol Ballroom A-D

 Moderators: Melissa A. Farmer, PhD &  
Timothy C. Hlavinka, MD, IF

**009 Body Image and Sexual Considerations of Women Following Genital Plastic/Cosmetic Procedures: The Vulvovaginal Aesthetic Surgery Evaluation ("VASE-2") Study 2-Year Results**

Goodman, M.<sup>1</sup>; Placik, O.<sup>2</sup>; Dalton, T.<sup>3</sup>; Matlock, D.<sup>4</sup>; Simopoulos, A.<sup>4</sup>; Hardwick-Smith, S.<sup>5</sup>

1: Caring For Women Wellness Center, Davis, CA, USA; 2: Associated Plastic Surgeons, S.C., Chicago, IL, USA; 3: University of California, Irvine CA, USA; 4: Laser Vaginal Rejuvenation Institute of America, Los Angeles, CA, USA; 5: Complete Women's Care Center; Houston, TX, USA

**010 Concordance Analysis of Patients Diagnosed Using DSM-IV-TR with Diagnostic Criteria for Female Sexual Interest/Arousal Disorder from a Phase 2B Study with Bremelanotide \***

Clayton, A.H.<sup>1</sup>; Spana, C.<sup>2</sup>; Jordan, R.<sup>2</sup>

1: University of Virginia, USA; 2: Palatin Technologies, Inc., USA-

**011 Sub-urethral Sling Surgery for Stress Incontinence May Result in Orgasmic Dysfunction through Direct Injury to Anterior Vaginal Wall, Peri-Urethral Prostatic Tissue**

Szell, N.<sup>1</sup>; Hartzell, R.<sup>2</sup>; Cohen, D.<sup>3</sup>; Goldstein, S.W.<sup>4</sup>; Gonzalez, J.R.<sup>5</sup>; Goldstein, I.<sup>5</sup>

1: St. John Providence Hospital, USA; 2: San Diego Sexual Medicine, San Diego, USA; 3: Fundamental Physical Therapy and Pelvic Wellness, San Diego, USA; 4: San Diego Sexual Medicine, San Diego, USA; 5: San Diego Sexual Medicine, USA-

**012 Effects on Female Partners of Treating Peyronie's Disease with Collagenase Clostridium \***

Goldstein, S.W.<sup>1</sup>; Knoll, D.<sup>2</sup>; Lipshultz, L.I.<sup>3</sup>; Tursi, J.P.<sup>4</sup>; Smith, T.M.<sup>4</sup>; Kaufman, G.J.<sup>4</sup>; Gilbert, K.<sup>4</sup>; Rosen, R.C.<sup>5</sup>; McMahon, C.G.<sup>6</sup>; Goldstein, I.<sup>1</sup>

1: San Diego Sexual Medicine, USA; 2: Center for Urological Treatment, USA; 3: Scott Department of Urology, Baylor College of Medicine, USA; 4: Auxilium Pharmaceuticals, Inc, USA; 5: New England Research Institutes, Inc, USA; 6: Australian Centre for Sexual Health, Australia-

**013 A Randomized, Single Center, Single-Blind, Crossover Thermographic Study Evaluating the Effect of 1000 mcg Topical Alprostadil Cream Compared with an Over-the-Counter Lubricant \***

Goldstein, S.W.<sup>1</sup>; Gonzalez, J.<sup>1</sup>; Gagnon, C.<sup>1</sup>; Minton, J.N.<sup>1</sup>; Morris, D.<sup>2</sup>; Goldstein, I.<sup>1</sup>

1: San Diego Sexual Medicine, USA; 2: Webbwrites, USA-

**014 A Pain in the Clitoris: A Systematic Description of Clitorodynia**

Parada, M.<sup>1</sup>; D'Amours, T.<sup>1</sup>; Amsel, R.<sup>1</sup>; Pink, L.<sup>2</sup>; Gordon, A.<sup>2</sup>; Binik, Y.M.<sup>1</sup>

1: McGill University, Canada; 2: Wasser Pain Management Centre, Canada-

**015 Surgical Treatment of Clitoral Phimosis and Labial Adhesions Caused by Lichen Sclerosus**

Nichols, A.E.<sup>1</sup>; Rieff, M.F.<sup>2</sup>; King, M.A.<sup>2</sup>; Krapf, J.M.<sup>3</sup>; Goldstein, A.T.<sup>2</sup>

1: George Washington University Medical School, USA; 2: The Centers for Vulvovaginal Disorders, USA; 3: George Washington University, USA-

**016 Patient Experience with Solubilized Estradiol Given Vaginally in a Novel Softgel Capsule (VagiCap™) \***

Kingsberg, S.<sup>1</sup>; Amadio, J.<sup>2</sup>; Graham, S.<sup>2</sup>; Bernick, B.<sup>2</sup>; Mirkin, S.<sup>2</sup>

1: University Hospitals Case Medical Center, USA; 2: TherapeuticsMD-

## SCIENTIFIC PROGRAM - FRIDAY FEBRUARY 20, 2015

**10:30 a.m. - 01:00 p.m.**

### Instructional Course 2 - HPV-related Cancers

📍 Capitol Ballroom E

👤 Faculty: Brooke Faught, MSN, WHNP-BC, IF;  
Shari Goldfarb, MD &  
Susan Kellogg-Spadt, PhD, CRNP, IF

**12:00 p.m. - 01:00 p.m.**

### Lunch & Learn 1 - Social Media in Sexual Medicine

📍 Capitol Ballroom A-D

👤 Faculty: Robert S. Miller, MD, FACP

**01:00 p.m. - 03:00 p.m.**

### Symposium 2 - Porn Addiction, Sex Addiction, or just another OCD?

📍 Capitol Ballroom A-D

👤 Moderator: Michael A. Perelman, PhD, IF

01:00 p.m. - 01:30 p.m.

#### **Sexual Minorities and Out of Control Sex**

Charles A. Moser, MD, PhD

01:30 p.m. - 02:00 p.m.

#### **The Importance of Controversy in Sexual Medicine**

Michael A. Perelman, PhD, IF

02:00 p.m. - 02:30 p.m.

#### **Models Matter: Experimental Studies Falsify Addiction Predictions of Frequent Sexual Behaviors**

Nicole Prause, PhD

02:30 p.m. - 03:00 p.m.

#### **After 30 Years of Theory, What do the Data on Sex Addiction Actually Show?**

David J. Ley, PhD

**03:00 p.m. - 03:30 p.m.**

☕ Coffee Break - Visit Exhibitors

📍 Capitol View Terrace

**03:30 p.m. - 04:30 p.m.**

### State of the Art 3 - Regulation of Sexual Arousal and Desire by Epigenetic Pleasure-Related Mechanisms

📍 Capitol Ballroom A-D

👤 Moderator: Sharon J. Parish, MD, IF, NCMP

03:30 p.m. - 04:30 p.m.

#### **Regulation of Sexual Arousal and Desire by Epigenetic Pleasure-Related Mechanisms**

James Pfaus, PhD

**04:30 p.m. - 05:00 p.m.**

### NAMS Guest Lecture

📍 Capitol Ballroom A-D

👤 Moderator: Lisa Larkin, MD, FACP, NCMP

04:30 p.m. - 05:00 p.m.

#### **Novel Treatments for Genitourinary Syndrome of Menopause (GSM)**

JoAnn V. Pinkerton, MD

**05:00 p.m. - 06:00 p.m.**

### ISSWSH Business Meeting

📍 Capitol Ballroom A-D



# SCIENTIFIC PROGRAM - SATURDAY FEBRUARY 21, 2015


**07:00 a.m. - 08:00 a.m.**


 Continental Breakfast

 Capitol Ballroom E

**08:00 a.m. - 09:00 a.m.**

**JSM Session - The Ten Studies You Must Know About**

 Capitol Ballroom A-D

 Moderators: John P. Mulhall, MD & Sharon J. Parish, MD, IF, NCMP

08:00 a.m. - 09:00 a.m.

**The Ten Studies You Must Know About**

Shari Goldfarb, MD

**09:00 a.m. - 10:30 a.m.**

**Symposium 3 - New Roads in Psychotherapy - Evidence-based outcomes research**

 Capitol Ballroom A-D

 Moderator: Debra Herbenick, PhD, MPH

09:00 a.m. - 09:30 a.m.

**Couples Intervention for Genital Pain**  
Sophie Bergeron, PhD

09:30 a.m. - 10:00 a.m.

**Exercise for Anti-Depressant-Induced Sexual Dysfunction**


Tierney Lorenz, PhD

10:00 a.m. - 10:30 a.m.

**Expressive Writing for Sexual Dysfunction in Women Survivors of Sexual Abuse**

Cindy Meston, PhD


**10:30 a.m. - 11:00 a.m.**

 Coffee Break - Visit Exhibitors

 Capitol View Terrace

**11:00 a.m. - 12:00 p.m.**

**State of the Art 4 - Impulsive/Compulsive Sexual Behavior**

 Capitol Ballroom A-D

 Moderator: Sheryl A. Kingsberg, PhD, IF

11:00 a.m. - 12:00 p.m.


**Impulsive/Compulsive Sexual Behavior**

Eli Coleman, PhD

**12:00 p.m. - 01:00 p.m.**

**Lunch & Learn 2 - Not tonight, I have a headache: Management of Sexual Headaches**

 Capitol Ballroom A-D

 Faculty: Robert P. Cowan, MD, FAAN

**12:00 p.m. - 01:00 p.m.**


**Lunch & Learn 3 - Lies Sex Educators Tell**


 Capitol Ballroom E

 Faculty: Dennis Fortenberry, MD, MS & Debra Herbenick, PhD, MPH

**01:00 p.m. - 02:30 p.m.**

**Research Podium Session 3 - Physiology**

 Capitol Ballroom A-D

 Moderators: Lorraine Dennerstein, PhD, DPM, AO & Nicole Prause, PhD

**017 Brain Global and Local Network Properties Differentiate Naturalistic Vulvovaginal Distension from Vulvar Pressure Pain in Women with Provoked Vestibulodynia**

Farmer, M.A.<sup>1</sup>; Maykut, C.A.<sup>2</sup>; Huberman, J.<sup>3</sup>; Binik, Y.M.<sup>4</sup>; Apkarian, A.V.

1: Northwestern University, USA; 2: University of Nevada at Las Vegas, USA; 3: Queen's University, Canada; 4: McGill University, Canada

**018 Heart Rate Variability as an Index of Female Sexual Dysfunction: Results from a Pilot Study**

Stanton, A.<sup>1</sup>; Lorenz, T.<sup>2</sup>; Pulverman, C.<sup>1</sup>; Meston, C.<sup>1</sup>

1: The University of Texas at Austin, USA; 2: Indiana University, USA

**019 Persistent Genital Arousal Disorder (PGAD): Experience with Management in 35 Consecutive Cases**

Gonzalez, J.R.<sup>1</sup>; Gagnon, C.<sup>1</sup>; Minton, J.N.<sup>1</sup>; Espenscheid, C.<sup>1</sup>; Goldstein, I.<sup>2</sup>

1: San Diego Sexual Medicine, USA; 2: Alvarado Hospital, USA

**020 Comparison of Androgen Levels and FSFI Scores in Women with Hypoactive Sexual Desire Disorder: Those on Oral Contraceptives (OCs) vs. those not on Ocs**

Cohen, S.<sup>1</sup>; Ford, T.<sup>2</sup>; Sheva Marcus, B.<sup>2</sup>; Werner, M.<sup>2</sup>

1: Advanced Urological Care, USA; 2: Center for Female Sexuality

## SCIENTIFIC PROGRAM - SATURDAY FEBRUARY 21, 2015

### 021 Are Primary and Secondary Provoked Vestibulodynia Two Different Entities? A Comparison of Pain, Psychosocial and Sexual Characteristics

Aerts, L.<sup>1</sup>; Bergeron, S.<sup>1</sup>; Corsini-Munt, S.<sup>1</sup>; Pâquet, M.<sup>1</sup>  
1: University of Montreal, Canada

### 022 Symptoms Associated with GnRH Agonist Therapy in Infertility Patients Treated for Endometriosis \*

Warnock, J.<sup>1</sup>; Bundren, J.C.<sup>1</sup>  
1: University of Oklahoma-HSC- Tulsa, USA

### 023 Automated Artifact Detection Procedure for Vaginal Photoplethysmograph Data

Pulverman, C.S.<sup>1</sup>; Meston, C.M.<sup>1</sup>; Hixon, J.G.<sup>1</sup>  
1: University of Texas at Austin, USA

### 024 Effect of Androgen Supplementation on Low Sexual Desire and Arousal in Pre-Menopausal Women with Sexual Dysfunction based on FSFI Data

Cohen, S.<sup>1</sup>; Ford, T.<sup>2</sup>; Sheva Marcus, B.<sup>2</sup>; Werner, M.<sup>2</sup>  
1: Advanced Urological Care, USA; 2: Center for Female Sexuality

### 025 Genetic Alterations in Ovarian Cancer

Ofinran, O.<sup>1</sup>; Hay, D.<sup>1</sup>; Abdul, S.<sup>2</sup>; Khan, R.<sup>1</sup>  
1: University of Nottingham, United Kingdom; 2: Gynaecological Oncology Department, Royal Derby Hospital, Uttoxeter Road, Birmingham

#### 01:00 p.m. - 02:30 p.m.

##### Instructional Course 3 - Sex Therapy for Primary Care Physicians

📍 Capitol Ballroom E

👤 Faculty: Kathryn Hall, PhD & Daniel N. Watter, EdD

#### 02:30 p.m. - 03:00 p.m.

☕ Coffee Break - Visit Exhibitors

📍 Capitol View Terrace

#### 03:00 p.m. - 05:00 p.m.

##### Symposium 4 - Vulvar Dermatology

📍 Capitol Ballroom A-D

👤 Moderator: Lara J. Burrows, MS, MD

03:00 p.m. - 03:30 p.m.

### Surgical Management of Lichen Sclerosus and Lichen Planus

Hope K. Haefner, MD

03:30 p.m. - 04:00 p.m.

### Prevalence of FSD with Vulvar Dermatoses

Susan Kellogg-Spadt, PhD, CRNP, IF

04:00 p.m. - 04:30 p.m.

### Update on Lichen Sclerosus

Andrew T. Goldstein, MD, IF, FACOG

04:30 p.m. - 05:00 p.m.

### Erosive Lichen Planus

Andrew T. Goldstein, MD, IF, FACOG

#### 05:00 p.m. - 06:30 p.m.

##### Poster Session (with drinks/food)

📍 Capitol Ballroom F-H

## SCIENTIFIC PROGRAM - SUNDAY FEBRUARY 22, 2015


**07:30 a.m. - 08:00 a.m.**


 Continental Breakfast

 Capitol View Terrace

**08:00 a.m. - 09:30 a.m.**

**Research Podium Session 4 - Psychology & Public Health**

 Capitol Ballroom A-D

 Moderators: Sophie Bergeron, PhD & Dennis Fortenberry, MD, MS

### **026 Sexual Preferences and Partnerships of Transgender Women Post Transition**

Fein, L.A.<sup>1</sup>; Estes, C.M.<sup>2</sup>; Salgado, C.J.<sup>1</sup>

1: University of Miami Miller School of Medicine, USA; 2: Planned Parenthood of South Florida and the Treasure Coast, USA

### **027 Impact of Sexual Violence on HIV Epidemic in Highlands of Papua New Guinea: Results from a Cohort of Sex Workers**

Wand, H.<sup>1</sup>; Siba, P.<sup>2</sup>

1: University of New South Wales, Australia; 2: IMR, Papua New Guinea

### **028 Sexual Dysfunction and Distress amongst US Army Active Duty Females: A Prevalence Study**

Penick, E.<sup>1</sup>; Hemman, E.<sup>1</sup>; Vaccaro, C.<sup>1</sup>

1: Madigan Army Medical Center, USA

### **029 Attitudes of Parents Related to the Sexuality of Adolescents with Developmental Disabilities Compared to Typically Developing Peers and Siblings**

Stein, S.<sup>1</sup>; Kohut, T.<sup>2</sup>

1: Department of Psychology, Indiana University South Bend; 2: Department of Psychology, Western University

### **030 Sexual Functioning and Disclosure of Sexual Assault: The Mediating Role of Trauma Symptomology**

Staples, J.<sup>1</sup>; Eakins, D.<sup>1</sup>; Neilson, E.<sup>1</sup>; George, W.<sup>1</sup>; Davis, K.<sup>1</sup>; Norris, J.<sup>1</sup>

1: University of Washington, USA

### **031 Unraveling Data on the Sexual Practices, Values and Perceptions of University Youth from the Arab World: The Case of Lebanon**

Ghandour, L.<sup>1</sup>; El Salibi, N.<sup>1</sup>; Yasmine, R.<sup>1</sup>; El Kak, F.<sup>1</sup>

1: American University of Beirut, Lebanon

### **032 Among Sexually Dysfunctional Women Sexual Function is Determined More by Partner's Sexual Satisfaction than own Sexual Satisfaction**

Pulverman, C.S.<sup>1</sup>; Meston, C.M.<sup>1</sup>

1: University of Texas at Austin, USA

### **033 Women's Hostility towards Women as a Predictor of Rape Myth Acceptance**


Gleitz, T.<sup>1</sup>; Powell, H.<sup>1</sup>; Barnett, M.<sup>1</sup>

1: University of North Texas, USA

**08:00 a.m. - 09:30 a.m.**

**Instructional Course 4 - Mindfulness for the Treatment of Sexual Pain**

 Capitol Ballroom E

 Faculty: Karen Brandon, DSc, PT & Tali Rosenbaum, MSc., IF

## POSTERS

### **034 The Contributions of Maternal Morbidity in Pregnancy, Age and Parity to Pregnancy Outcome in a South-West Nigerian Community**

Amosu, A.<sup>1</sup>; Degun, A.<sup>2</sup>; Goon, D.<sup>3</sup>

1: University of Venda, South Africa; 2: University of Ibadan, Nigeria; 3: University of Fort Hare, South Africa

### **035 Relationship between Mental Health & Sexual Dysfunction in Women with Breast Cancer**

Behzadi Pour, S.<sup>1</sup>; Piraye, L.<sup>1</sup>; Naziri, G.<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

### **036 Effective of Cognitive Behavior Therapy on Sexual Satisfaction in Women with Breast Cancer**

Behzadi Pour, S.<sup>1</sup>; Piraye, L.<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

### **037 Sexual Function and Self-disclosure in Unconsummated Marriages**

Behzadi Pour, S.<sup>1</sup>; Naziri, G.<sup>1</sup>; Piraye, L.<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

### **038 A Cycle of Risk? The Role of Social Drinking Factors in the Relationship between Incapacitated Sexual Assault and Drinking Before Sex**

Bird, E.R.<sup>1</sup>; Gilmore, A.K.<sup>2</sup>; George, W.H.<sup>1</sup>; Lewis, M.A.<sup>3</sup>

1: Department of Psychology, University of Washington, USA; 2: VA Puget Sound Health Care System, Seattle Division, USA; 3: Department of Psychiatry and Behavioral Sciences, University of Washington, USA

### **039 Impact of a Longitudinal Educational Experience on Medical Students' Knowledge, Comfort Level, Attitudes and Opinions**

Clayton, A.<sup>1</sup>

1: University of Virginia, USA

### **040 Sexual Function and Sexual Satisfaction are Impaired in Female Partners of Men with Peyronie's Disease**

Davis, S.<sup>1</sup>; Ferrar, S.<sup>2</sup>; Binik, Y.<sup>3</sup>; Carrier, S.<sup>3</sup>

1: University of Toronto, Canada; 2: Concordia University, Canada; 3: McGill University, Canada

### **041 Practices and Perceptions of Contraceptive use Among University Students in Lebanon**

El Kak, F.<sup>1</sup>; El Salibi, N.<sup>1</sup>; Yasmine, R.<sup>1</sup>; Ghandour, L.<sup>1</sup>

1: American University of Beirut, Lebanon

### **042 Vestibular Anesthesia Test (VAT) for Suspected Neuroproliferative Vestibulodynia**

Goldstein, I.<sup>1</sup>; Gagnon, C.<sup>2</sup>; Minton, J.N.<sup>2</sup>; Espenscheid, C.<sup>2</sup>

1: Alvarado Hospital, USA; 2: San Diego Sexual Medicine, USA

### **043 Recurrent Ischemic Low Flow Clitoral Priapism – Update of Management Strategies**

Gonzalez, J.R.<sup>1</sup>; Goldstein, I.<sup>2</sup>

1: San Diego Sexual Medicine, USA; 2: Alvarado Hospital, USA

### **044 The Biomechanics and Physiology of Vaginal Tightening Procedures as They Relate to Orgasm and Sexual Satisfaction**

Goodman, M.<sup>1</sup>

1: Caring For Women Wellness Center, Davis, CA, USA

### **045 Kisspeptin Antagonist, Peptide 234, Blocks both Kisspeptin-10 and Nesfatin-1-induced Luteinizing Hormone Release in the Female Rats**

Kelestimur, H.<sup>1</sup>; Sahin, Z.<sup>1</sup>; Bulmus, O.<sup>1</sup>; Ozcan, M.<sup>1</sup>; Canpolat, S.<sup>1</sup>

1: Turkey

### **046 Surgical Resolution of Dyspareunia after Traumatic Pelvic Injury**

Kim, S.M.<sup>1</sup>; Lee, Y.S.<sup>1</sup>

1: Dae Jeon St Mary's Hospital, The Catholic University of Korea, College of Medicine, Korea, South

### **047 The EIS Model: A Mixed Methods Research Study of a Multidisciplinary Sex Therapy Treatment**

Konzen, J.<sup>1</sup>

1: Alliant International University, USA

### **048 Sexual Desire, It's Complicated: Results from Bi, Lesbian, and Straight Women**

Mark, K.<sup>1</sup>

1: University of Kentucky, USA

### **049 Oral Supplementation with Stronvivo Improves Male Erectile Function and Female Sexual Desire**

Vascoe, J.<sup>1</sup>; Merrill, R.<sup>1</sup>; Vieira, K.<sup>2</sup>

1: Abbey Research Ltd., USA; 2: The Med Writers, USA

### **050 Assessing for Female Sexual Dysfunction: Is Empathy Required for OB-Gynecologists?**

Newman, J.<sup>1</sup>; Curlin, F.<sup>2</sup>; Lindau, S.<sup>3</sup>; Rowen, T.<sup>1</sup>

1: UCSF, USA; 2: Duke, USA; 3: University of Chicago, USA



## POSTERS

### **051 Audit on Informed Consent for Intrauterine Contraception**

Patel, R.<sup>1</sup>; Choudry, B.<sup>2</sup>

1: University of Manchester, United Kingdom; 2: Walkden Medical Centre, United Kingdom

### **052 Sexual Abuse History and Intimate Relationship Conflict: The Role of Sexual Shame**

Proctor, A.<sup>1</sup>; Sherrill, B.<sup>1</sup>; Pulverman, C.<sup>1</sup>; Meston, C.<sup>1</sup>

1: University of Texas, USA

### **053 Prevalence of Dyspareunia in Female Urology Clinic-Characteristics of Dyspareunia Patients**

Sekiguchi, Y.<sup>1</sup>; Maeda, Y.<sup>1</sup>; Azekoshi, Y.<sup>1</sup>; Kinjo, M.<sup>1</sup>; Fujisaki, A.<sup>1</sup>; Nakamura, R.<sup>1</sup>; Yao, M.<sup>2</sup>

1: Womens Clinic LUNA Group, LUNA Pelvic Floor Total Support Clinic, Japan; 2: Department of Urology, Yokohama City University Graduate School of Medicine

### **054 The Relationship between Disclosure of Virginity Status and Dysfunctional Sexual Beliefs**

Sligar, K.<sup>1</sup>; Belfy, A.<sup>1</sup>; Barnett, M.<sup>1</sup>

1: University of North Texas, USA

### **055 A Mindfulness Based Therapeutic Perspective to Sexual Dysfunction/ Healthy Sexual Functioning in Women: Clinical Mental Health DSM-5 Implications**

Stepensky, A.<sup>1</sup>; Johnson, R.<sup>1</sup>

1: University of San Diego, USA

### **056 Age Trends in Sexual Behaviour and Satisfaction in Finnish Heterosexual Women**

Sundstedt, M.<sup>1</sup>; Österman, K.<sup>1</sup>; Björkqvist, K.<sup>1</sup>

1: Åbo Akademi University, Finland

### **057 Oral Contraceptive Use and Overall Relationship Satisfaction: Is There a Link?**

Taggart, T.C.<sup>1</sup>; Hammett, J.F.<sup>1</sup>; Ulloa, E.C.<sup>1</sup>

1: San Diego State University, USA

### **058 Pattern of Seminal Fluid Analysis among Infertile Couples Presenting at a Tertiary Hospital in a Semi-Urban Setting of North-West Nigeria**

Ugwa, E.<sup>1</sup>; Ashimi, A.<sup>2</sup>; Abubakar, M.<sup>2</sup>; Attah, R.<sup>3</sup>

1: Nigeria; 2: Federal Medical Centre, Birnin Kudu, Jigawa State, Nigeria; 3: Aminu Kano Teaching Hospital, Kano, Nigeria

### **059 Risk Factors for Sexual Dysfunction among Women Seeking Infertility Treatment**

Winkelman, W.D.<sup>1</sup>; Smith, J.F.<sup>1</sup>; Katz, P.<sup>1</sup>; Rowen, T.S.<sup>1</sup>

1: University of California San Francisco, USA

### **060 Evaluation of NEOGYN® Feminine Soothing Cream in Treating Female Sexual Function in Postmenopausal Women with Chronic Vulvar Pain and Discomfort**

Kellogg-Spadt, S.<sup>1</sup>; Carlow, J.J.<sup>2</sup>; Haines, M.<sup>3</sup>; Krychman, M.L.<sup>4</sup>

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## ABSTRACTS

001

### **Evidence for Specificity of Genital Sexual Arousal in Women: A within Subject Analysis**

Pulverman, CS<sup>1</sup>; Hixon, JG<sup>1</sup>; Meston, CM<sup>1</sup>

1: University of Texas at Austin, USA

**Objectives:** Men demonstrate category specific genital sexual arousal as they only show arousal to sexual stimuli that match their self-reported sexual preferences and do not show arousal to other types of sexual stimuli (Chivers et al., 2004; Chivers & Bailey, 2005). Women, on the other hand, reportedly lack category specificity and show genital sexual arousal to a large range of sexual stimuli including those that both match and do not match their self-reported sexual orientation, violent sexual stimuli, and stimuli of non-human primates mating (Chivers, 2005). We believe these findings may be a methodological artifact of the way in which the data are analyzed. Analytic techniques that take into account every measurement of genital arousal over time, as opposed to collapsing data into a single data point, may better test for category specificity of genital sexual arousal in women.

**Material and Methods:** Sexually functional heterosexual (n = 18) and lesbian (n = 14) women viewed three erotic films featuring couples of varying sexual orientations (heterosexual, lesbian, and gay) engaged in oral and penetrative sexual activity while genital and subjective sexual arousal were assessed. Genital sexual arousal was assessed with vaginal photoplethysmography.

**Results:** Data from the heterosexual and lesbian women was analyzed separately using smoothing regression splines in the open-source R software environment (R Foundation, 2014) with the mcgv package (Wood, 2006, 2011). Both groups showed an interaction between the film type and subject ( $p < .001$ ), indicating that women showed category specific genital arousal to the films within subject.

**Conclusions:** In women category specificity must be examined within subject rather than collapsing across all subjects. Analytic techniques that incorporate all data points appear to provide enhanced sensitivity and suggest that mixed findings in other areas of research on women's sexual arousal may be better understood through the application of these techniques. These results suggest that vaginal photoplethysmography as a measure of genital sexual response describes women's sexual preferences more accurately than previously believed. Future research could examine women's genital sexual arousal to other types of preferred and non-preferred sexual stimuli and apply

those findings to both treatment and forensic settings.

### **Disclosure:**

Work supported by industry: no.

002

### **What Exactly do you mean by "Sexual Problem?" Specific Descriptions of Self-Identified Impairments in Female Sexual Function**

Stephenson, K<sup>1</sup>; Toorabally, N<sup>1</sup>; Meston, C<sup>2</sup>

1: California State University Monterey Bay, USA; 2: University of Texas at Austin, USA

**Objectives:** Impairments in female sexual function are assessed in a variety of ways ranging from single items to well-validated scales. However, even gold-standard measures such as the Female Sexual Function Index (FSFI) are potentially limited in how accurately they capture the experience of women with "sexual problems" (see Forbes et al., 2014). The aim of the current analyses was to provide additional descriptive information regarding specific rates of impairment and distress for women who self-identified as experiencing "sexual problems," and to compare this information to that gleaned by their responses to the FSFI.

**Material and Methods:** Participants were 97 women currently in sexually active heterosexual relationships who self-identified as having one or more "sexual problems" in regards to sexual desire, arousal, orgasm, and/or pain. They completed semi-structured clinical interviews and self-report measures regarding their sexual function.

**Results:** Women with self-identified problems with sexual desire reported experiencing any desire (spontaneous or responsive) 1.46 days per week on average. Women with self-identified problems in subjective arousal, lubrication, orgasm, and sexual pain reported impaired function during an average of, respectively, 62%, 73%, 80%, and 62% of their partnered sexual experiences. These rates correlated significantly and specifically with scores on respective FSFI subscales, with arousal exhibiting the strongest association with its corresponding scale ( $r = .65$ ) and orgasm the weakest ( $r = .39$ ). Rates of problems being rated as "highly distressing" or "not distressing at all" varied widely across the range of problem areas.

**Conclusions:** Self-described "problems" in female sexual function may indicate notably differing rates of impairment and subjective distress depending on the individual and the facet of sexual function in question. However, FSFI scores are fairly predictive of these individual differences. Implications for the

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measurement of female sexual function are discussed.

### Disclosure:

Work supported by industry: no.

### 003

#### **Relationships among Sex Motives and Sexual Pain in Non-Problem Female Drinkers**

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**Objectives:** Pain during vaginal penetration is a frequent experience among women and is commonly reported to health providers. Research has yet to examine the associations between sexual pain and reasons for having sex, which can be characterized as avoidance and approach motives. Avoidance motives serve to decrease negative experiences such as distress (sex to cope) or partner disapproval (sex to appease partner) while approach motives serve to increase positive experiences such as sexual enhancement or intimacy. Some have suggested that avoidance motives might be associated with increased pain but until now, this hypothesis was untested. Additionally, we suggest that approach motives may be associated with decreased pain.

**Material and Method:** Female binge-drinkers ages 21-30 were recruited from an urban community (N = 856). Inclusion criteria were engaging in sexual risk taking with men and being single or in a dating relationship less than 6 months. Participants completed the Sex Motives Measure and a question assessing pain during vaginal penetration.

**Results:** Six sex motives were regressed on pain during vaginal penetration: four avoidance motives (to cope with negative emotions, to appease one's partner, and to impress one's peer group, and to bolster one's sense of self) and two approach motives (to enhance sexual feelings and to increase intimacy with one's partner). Sex to cope with negative emotions was associated with increased pain during vaginal penetration,  $b = .153$ ,  $t(849) = 3.46$ ,  $p < .01$ .

**Conclusions:** Hypotheses were partially supported in that one avoidance motive (sex to cope with distress) was associated with increased pain. Sex to cope with distress may be associated with pain for a variety of reasons. Cognitive-motivational theories of pain involve a circular process by which sexual pain may occur through attentional shifts away from sexual cues toward non-erotic stimuli, resulting in a lack of lubrication and subsequent pain, which is followed,

again, by attentional shifts away from sexual cues (Dewitte, Van Lankveld, & Crombez, 2011). Which comes first, pain or shifts in attention, is unclear. It is also possible that partner characteristics contribute to experiences of pain in women who have sex to cope with distress. Given that most of the sex motives were unrelated to pain in the current study, future work examining these relationships should consider including variables such as sexual trauma history, sexual pain disorder diagnosis, and partner's sex motives.

### Disclosure:

Work supported by industry: no.

### 004

#### **Hormonal Birth Control Use Associated with Increased Alcohol Consumption and Intoxication**

Taggart, TC<sup>1</sup>; Hammett, JF<sup>1</sup>; Ulloa, EC<sup>1</sup>

1: San Diego State University, USA

Worldwide, alcohol consumption among women is increasing, which is alarming considering women also fall victim to alcohol dependence more quickly than men. Previous research indicates that women's alcohol consumption and absorption rates as well as their subjective experience of feeling intoxicated may differ across specific phases of the menstrual cycle, suggesting that hormonal fluctuations may lead to increased drinking. Relatively few studies have evaluated the effects of alcohol use among women, nor the factors that may alter their response to alcohol, such as hormonal fluctuations. Thus, the present study aimed to examine the effect of one such factor, namely the use of hormonal birth control (HBC), on women's overall alcohol consumption rates and their perceptions of feeling intoxicated due to alcohol. Because research indicates that HBC may decrease hormonal fluctuations, it was hypothesized that women using HBC would be less likely to consume alcohol and to feel less intoxicated than women not using HBC. The present study used archival data from Wave 3 of the National Longitudinal Study of Adolescent Health (Add Health) data set. A sub-sample of 5,504 women provided information on HBC and alcohol use. Participants' use of either birth control pills and/or the implant (e.g., Norplant) and/or the shot (e.g., Depo-Provera) as well as their binge drinking behaviors and subjective perceptions of intoxication in the past 12 months were assessed. The results of multiple linear regression analyses were contrary to our hypotheses: Women who took HBC were significantly more likely to engage in binge

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drinking and to feel more drunk or very high on alcohol than women who did not take HBC. These findings held even after controlling for age, education, and religiosity in all analyses. Our data suggest that hormone levels may in fact have an impact on both the amount of alcohol women consume as well as women's subjective experience of feeling intoxicated. However, due to the present study's correlational design and methodological limitations (e.g., individual item measures, self-report data), more research, particularly experimental research, is warranted in order to more fully assess this interesting conundrum.

### Disclosure:

Work supported by industry: no.

005

### Relationship Status, Partner Notification, and Post-PID Behaviors in Urban Young Women

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1: Johns Hopkins University, USA

**Objectives:** We aim to describe the relationship context of young women with pelvic inflammatory disease (PID), report changes that occur after diagnosis, and determine if partner change is protective for recurrent STIs after PID.

**Material and Methods:** We examine preliminary data (N=47) from the Technology Enhanced Community Health Nursing (TECH-N) study, a single-blind design, randomized controlled trial of a texting combined with a nurse home visit intervention to improve adherence and short term outcomes after PID. Participants in both arms provided baseline data on demographic, relationship status and sexual behaviors and specimens for evaluation of STI at baseline, 1-and 3 months. Participants completed a face-to-face interview at 2-weeks and audio computerized assisted self-interviews (ACASI) at 1 and 3 months. This analysis utilizes data from the baseline and 2-week interviews and 1- and 3 month STI outcomes data. Logistic regression analyses were used to evaluate the relationship between partner change and subsequent acquisition of sexually transmitted infections.

**Results:** Most participants were low income [68%] and African American [91%] with a mean age of 19.2 [2.3]. At baseline, most participants reported exclusive monogamous relationship status during the 3 months prior to diagnosis. At the end of treatment window (2 weeks), 50% of participants believed they could acquire a STI from their current partner if they did not use a condom. At 3 months, 40% of participants were

still with the previously reported partner. Although thirty-two percent of participants who reported they could still get an STI from their partner were diagnosed with an STI at 3-months, compared with 15% of participants who predicted that they could not, this difference did not reach statistical significance [OR 2.62; 95% CI: 0.55-12.5]. There was also no association between maintaining the same partner and having an STI at 3 months [OR 1.0; 95% CI-0.14-7.39]

**Conclusion:** Most urban young women diagnosed with PID largely describe being in exclusive relationships with main partners, but many still consider themselves at risk for future STI. Lack of partner change after PID was not associated with having an STI at 3 months; suggesting that alternative intervention strategies with adolescent couples may prove useful in prevention of recurrent STIs after PID.

### Disclosure:

Work supported by industry: yes, by Johns Hopkins (industry funding only - investigator initiated and executed study).

006

### The Correlates of Female Sexual Dysfunction in Infertile Women

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1: University of California San Francisco, USA

**Objectives:** To measure the sexual, personal, marital and social impact of infertility on females.

**Materials and Methods:** Cross-sectional analysis of 383 women from eight reproductive endocrinology clinics. Participants received an extensive questionnaire and face-to-face and telephone interviews. Respondents classified the underlying cause of infertility (i.e. male factor only, male and female factors, female factor only, unexplained). Each respondent was assessed for the sexual impact, personal impact, marital impact and social impact of infertility. Sexual impact is a composite score of five questions originally taken from Fertility Problem Inventory. Personal impact is a composite score of five items, social impact is a composite score of 25 questions and marital impact is a composite score of seven questions. Each scale has a range from 0 to 100 and higher scores represent greater dysfunction/impact.

**Results:** Among 383 respondents, 23.2% were married one year or less and 24.5% had at least one previous child. Caucasians comprised 70.5% of the respondents and 71.9% had at least a college degree. The majority (58.5%) attributed infertility to only female factors,

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30.4% attributed infertility to a combination of male and female factors, 7.3% attributed infertility to only male factors and 2.5% thought the etiology was unexplained. In the multivariate analysis, female factor infertility was independently associated with worse sexual impact scores (mean=40, CI=32-48) relative to couples with both male and female factors (mean=35, CI=32-39,  $p=0.046$ ). Similarly, female factor infertility was independently associated with worse personal impact scores (mean=61, CI=50-71) compared with couples with both male and female factors (mean=55, CI=51-60,  $p=0.030$ ). Respondents with unexplained infertility reported higher levels of marital and social distress. On adjusted analysis, having a previous child and older age were significantly associated with worse sexual, social and personal impact.

**Conclusions:** Females who perceive their infertility to be due to female factors only are at higher risk for sexual dysfunction and personal distress. These results can be used to identify those patients with infertility who are at the greatest risk of sexual dysfunction so we can more accurately target interventions and provide support.

### Disclosure:

Work supported by industry: no.

007

### Sexual Function Following Breast Cancer Surgery: Being Comfortable with Change

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1: Women and Infants Hospital, USA; 2: Women and Infants Hospital, USA; 3: MD Anderson, USA; 4: Sinai Hospital, USA

**Objective:** The treatment of breast cancer has been shown to be associated with a decline in sexual function. While many studies have evaluated effects of systemic agents on sexuality, few have examined the role surgery plays. We sought to evaluate what aspects of breast surgery impact survivors' sexual function.

**Methods:** A survey including 7 investigator generated questions with the validated Female Sexual Function Index (FSFI) was offered to women who underwent breast cancer surgery at an academic oncology program from 2000-2012. We examined the association between the surgical modality a woman underwent with specific survey responses and the overall FSFI score. The Kruskal-Wallis test was used to analyze FSFI scores and Chi-square or Fisher's exact test were used for categorical data.

**Results:** 268 patients completed the survey. 67.9% underwent lumpectomy(L), 20.5% mastectomy with

reconstruction(MR), and 11.6% mastectomy alone(M). Overall, 85.5% of women reported that their chest played an important role in intimacy and sex before surgery, and it continued to play an important role in 72.3% after surgery. Women who underwent MR were more likely to report that their chest played an important role before surgery than L or M groups (92.7% vs 83% and 87.1%,  $p=0.2$ ). After surgery, only 76.4% of MR patients reported their chest continued to be important during intimacy, as compared to 73.1% for L patients. Only 28.4% reported pleasurable sensations with caressing in the MR group, whereas the L group reported pleasure in 52%. For sexually active patients, there was no significant difference in median FSFI between women whose chests were an important part of intimacy after surgery and whose were not (28.0 vs 27.1,  $p=0.8$ ). FSFI scores were similar among surgical modalities (L: 28.1, MR: 27.5, and M: 26.5,  $p=0.9$ ). Women who were comfortable being seen without clothing had a significantly better FSFI than those who were not (28.2 vs 25.8,  $p=0.5$ ).

**Conclusion:** The chest plays an important role in sexual intimacy for most women both before and after breast cancer surgery. There was no difference in FSFI based on surgical modality, but women who were comfortable with their appearance undressed had a significantly better FSFI. How the breast is altered is not as important as the patient being comfortable with the changes. Understanding the role the breast plays in sexuality may help guide surgeons in discussing surgical options and setting expectations for breast cancer patients preoperatively.

### Disclosure:

Work supported by industry: no.

008

### Future Physicians Define Sex

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**Objectives:** Rates of reported sexually transmitted infections (STIs) have been steadily increasing since 2000 according to the Center for Disease Control (CDC). The CDC's guidelines in assessing sexual risk operate on the assumption that sex is clearly defined. However, at least among undergraduates, the definition of sex varies widely. It has yet to be determined how this inconsistency, in definition, generalizes to those being trained to take sexual health histories (i.e., medical students). An inaccurate definition of what constitutes sex can have harmful effects on the sexual health and wellbeing of patients.



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The objective of the present study is to determine which actions future physicians consider as “having sex” and to identify factors that contribute to their definition.

**Material and Methods:** Survey questions about various sexual behaviors were distributed online to students in one Midwest medical school (N = 103). For each behavior, percentages of endorsement of sex were reported. Differences in percentages were analysed for gender, age, sexual identity, religiosity, and geographic region of hometown.

**Results:** All participants agreed that penile-vaginal penetration with thrusting is considered sex. No other sexual risk behaviors yielded complete consensus. Over 1/4<sup>th</sup> of participants did not consider genital to genital contact without penetration, oral contact with genitals, insertion of foreign object into rectum, and forced insertion of penis into vagina/rectum without consent as having sex. Men were less likely than women to consider insertion of foreign object into rectum as having sex. No other gender differences were found. Non-heterosexuals were more likely than heterosexuals to consider genital to genital contact without penetration as having sex.

**Conclusion:** There is less than complete consensus on what is considered “having sex” among those being trained to assess sexual risk. Disagreement among medical students about the definition of having sex is evidenced in numerous sexual risk behaviors associated with STIs, unwanted pregnancy, and trauma. These findings underscore the importance of sexual health curriculum in medical school.

### Disclosure:

Work supported by industry: no.

009

### Body Image and Sexual Considerations of Women Following Genital Plastic/Cosmetic Procedures: The Vulvovaginal Aesthetic Surgery Evaluation (“VASE-2”) Study 2-Year Results

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1: Caring For Women Wellness Center, Davis, CA, USA; 2: Associated Plastic Surgeons, S.C., Chicago, IL, USA; 3: University of California, Irvine CA, USA; 4: Laser Vaginal Rejuvenation Institute of America, Los Angeles, CA, USA; 5: Complete Women's Care Center; Houston, TX, USA

**Objective:** There is robust evidence-based data that a woman's perceptions and comfort regarding her genitals directly affects the quality of her sexual function. Concern exists that surgically-produced change in genital appearance and/or function may be

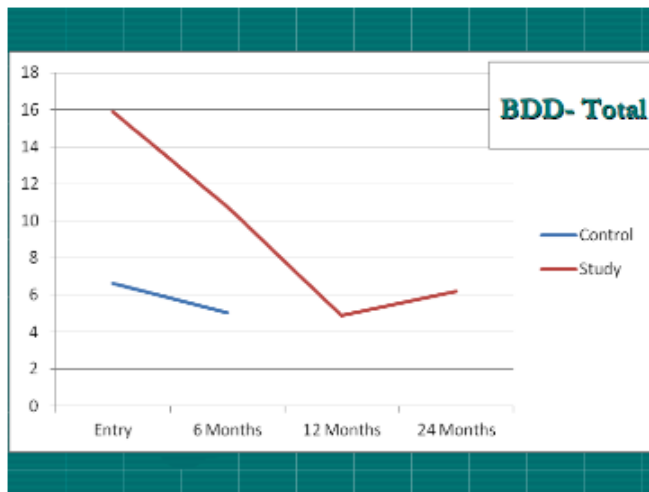
detrimental in certain situations, e.g. in women with body dysmorphia or sexual dysfunction. This study evaluates whether genital plastic/cosmetic surgery (FGPS) improves genital self-image and sexual function and the predictive ability of validated instruments to determine body dysmorphia in women undergoing FGPS

**Materials and Methods:** Prospective convenience cohort study. Data transmitted directly from participants to blinded research assistant. Outcome measures are degree of body dysmorphia, genital self-image, sexual satisfaction and body esteem in women undergoing FGPS vs. controls at entry, 6, 12, and 24 months. Instruments used were the Yale-Brown Obsessive-Compulsive Scale, modified for Body Dysmorphic Disorder (BDD-YBOCS), Female Genital Self-Image Scale (FGSIS), Index of Sexual Satisfaction (ISS), and Body Esteem Scale (BES)

**Results:** In an entry group of 120 FGPS patients compared to 50 controls. Pre-occupation, Behavior, Avoidance and Total scores on the BDD-YBOCS were in the dysmorphic range (7.62, 6.51, 1.78, and 15.9 respectively, compared to control values of 1.90, 2.50, 0.32, and 6.66). At 1 year (67.1% response) these values fell to 2.01, 2.61, 0.29 and 4.91 respectively (p<.001), and at 2 years (47.1% response) total score remained similar to controls (P<.001). (Figure) FGSIS and ISS at entry was significantly lower in FGPS group compared with controls, improving at 1 and 2 years beyond control scores (p<.001). BES remained unchanged, except for queries regarding generals, which showed improvement.

**Conclusions:** FGPS appears to result in significant improvement in genital self-image and overall sexual satisfaction, as rated by validated instruments. Additionally, and controversially, women requesting surgery at entry clearly tested positive for BDD, as rated by a standard and heretofore reliable instrument. Although psychological dogma teaches that surgery cannot correct body dysmorphia, this is what apparently occurred in the case of FGPS, either invalidating this instrument for use when evaluating dysmorphia with relation to female genitalia, or disproving the inability of a surgical procedure to alter apparent dysmorphia in relation to genitalia. Additionally, previously existing statistically significant deviations in genital self-image and sexual satisfaction appear to have been adjudicated following surgery.

## ABSTRACTS



Differences @ entry significant  $p < .0001$ . NS @ 12 & 24 months.

### Disclosure:

Work supported by industry: no.

### 010

#### Concordance Analysis of Patients Diagnosed Using DSM-IV-TR with Diagnostic Criteria for Female Sexual Interest/Arousal Disorder from a Phase 2B Study with Bremelanotide

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1: University of Virginia, USA; 2: Palatin Technologies, Inc., USA

**Objective:** The Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition, Text Revision; DSM-IV-TR) categorizes female sexual arousal disorder (FSAD) and hypoactive sexual desire disorder (HSDD) as discrete diagnoses. The DSM (Fifth Edition; DSM-5) combines FSAD and HSDD into the single diagnosis of female sexual interest/arousal disorder (FSI/AD). Palatin Technologies recently completed a phase 2B trial to assess bremelanotide (BMT) in patients with a diagnosis of HSDD and/or FSAD based on DSM-IV-TR criteria. Data using the DSM-5 diagnostic criteria for FSI/AD were also collected. The objective was to assess the correlation between patients diagnosed with FSI/AD with patients diagnosed with HSDD, FSAD, or mixed HSDD/FSAD using DSM-IV-TR criteria.

**Material and Methods:** Patients enrolled in the study were diagnosed under the DSM-IV-TR criteria. Key diagnostic criteria were: Female Sexual Function Index score of  $\leq 26$ , Female Sexual Distress Scale – Desire Arousal Orgasm score  $> 18$ , exclusion of concomitant medications known to cause sexual dysfunction, a diagnostic interview that confirmed that the female sexual dysfunction was not caused by relationship

issues, comorbid conditions or medications and that it was acquired (not lifelong) and generalized (not situational). In addition, the subject must have normal sexual function previously, be in a stable relationship for at least 6 months, and be pre-menopausal. After diagnosis, the clinician completed a checklist with the draft DSM-5 diagnostic criteria (from April 2011).

**Results:** The initial analysis of the modified intent-to-treat population showed modest correlation between the 2 diagnostic systems, with 68.2% of Study 54 patients (who met the DSM-IV-TR criteria) meeting the FSI/AD diagnosis. Failure to meet the diagnostic criteria occurred in 82 patients due to the absence of distress (Item B;  $N=19$ ) or abnormalities not explained by an alternative Axis I disorder (Item C;  $N=63$ ); 4 patients did not fulfill 3 of 6 criteria in Item A. Additional analysis showed that of those patients who were entered into the study per DSM-IV-TR diagnosis, 72% of mixed HSDD/FSAD patients, 61% of HSDD only patients, and 27% of FSAD only patients, also met the draft DSM-5 criteria.

**Conclusion:** Based on this analysis, the majority of HSDD and mixed HSDD/FSAD patients met both the DSM-IV-TR and draft DSM-5 criteria. Most FSAD only patients did not meet the draft DSM-5 criteria. Palatin Technologies will continue to explore the concordance between the diagnostic criteria as part of its phase 3 program for BMT.

### Disclosure:

Work supported by industry: yes, by Palatin Technologies, Inc. (industry initiated, executed and funded study).

### 011

#### Sub-urethral Sling Surgery for Stress Incontinence May Result in Orgasmic Dysfunction through Direct Injury to Anterior Vaginal Wall, Peri-Urethral Prostatic Tissue

Szell, N<sup>1</sup>; Hartzell, R<sup>2</sup>; Cohen, D<sup>3</sup>; Goldstein, SW<sup>4</sup>; Gonzalez, JR<sup>5</sup>; Goldstein, I<sup>5</sup>

1: St. John Providence Hospital, USA; 2: San Diego Sexual Medicine, San Diego, USA; 3: Fundamental Physical Therapy and Pelvic Wellness, San Diego, USA; 4: San Diego Sexual Medicine, San Diego, USA; 5: San Diego Sexual Medicine, USA

**Objectives:** Multiple physiological changes occur in the female genital tract during orgasm including: smooth muscle relaxation and tumescence of labia minora; clitoris glans, shaft and clitoral corpora cavernosa; vaginal introitus and wall; and peri-urethral, prostatic anterior vaginal wall structures. "Clitoral orgasm" follows clitoral glans and shaft stimulation, with associated rhythmic contractions of the vagina.

## ABSTRACTS

“Vaginal orgasm” follows anterior vaginal wall/peri-urethral tissue stimulation, with associated rhythmic contraction of the vagina, and in some women, with concomitant female ejaculation/squirting. In women with stress incontinence, surgical placement of a sub-urethral sling is in the IDENTICAL anatomic location as the anterior vaginal wall/peri-urethral tissue. Motivated by two women assessed in our office who were distressed after losing female ejaculation orgasmic capabilities following sub-urethral sling placement, we studied the prevalence of orgasmic dysfunction in women who underwent sub-urethral surgery for stress incontinence and subsequently developed a questionnaire to pre-operatively assess unique orgasm types experienced by this cohort.

**Methods:** We examined overall sexual function and orgasmic outcomes of 2,352 women who underwent sub-urethral sling surgeries with follow-up of 10.5 months, range 3 - 24 months, from 21 different publications between 2002 – 2012.

**Result:** Most patients who received a sub-urethral sling for stress urinary incontinence reported either no change or improvement in sexual function post-operatively. However, 14-20% of women experienced worsened sexual function. Approximately 6% of women reported worsening of orgasm frequency and intensity, with significant lowering of post-op versus pre-op orgasm scores. We interviewed healthy women to develop a draft of a questionnaire to be given pre-op to assess orgasmic type, specifically vaginal orgasm with female ejaculation. We are currently testing the questionnaire pre-operatively in women with stress incontinence considering sub-urethral sling surgery, with intent to retest them at specific post-operative periods.

**Conclusion:** After sub-urethral sling placement, it is hypothesized that women, who were pre-operatively experiencing vaginal orgasm with associated female ejaculation/squirting, are at great risk of developing orgasmic dysfunction secondary to direct sub-urethral sling injury to peri-urethral, prostatic anterior wall tissue. Pre-operative identification of women with vaginal orgasm/female ejaculation/squirting may be the key to avoiding post-op orgasmic dysfunction.

### Disclosure:

Work supported by industry: no.

012

### Effects on Female Partners of Treating Peyronie's Disease with Collagenase Clostridium

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CG<sup>6</sup>; Goldstein, I<sup>1</sup>

1: San Diego Sexual Medicine, USA; 2: Center for Urological Treatment, USA; 3: Scott Department of Urology, Baylor College of Medicine, USA; 4: Auxilium Pharmaceuticals, Inc, USA; 5: New England Research Institutes, Inc, USA; 6: Australian Centre for Sexual Health, Australia

**Objectives:** Female partners of men with Peyronie's disease (PD) often suffer from painful intercourse due to the curvature of the penis, or are unable to have intercourse at all based on the severity of the disease. Collagenase clostridium histolyticum (CCH) is now an approved intralesional therapy for treatment of men with PD with a palpable plaque and curvature deformity of  $\geq 30$  degrees at the start of therapy. This study evaluates bother reported by the female sexual partners (FSPs) of the men being treated with CCH in an open label clinical trial.

**Materials and methods:** FSPs who chose to participate in the study completed the female sexual function index (FSFI) and the Peyronie's Disease Questionnaire for FSPs (PDQ-FSP), a 12-item, investigational questionnaire adapted from the men's PDQ. Men with PD received up to 8 injections of CCH 0.58 mg/injection over 24 weeks in this phase 3, open-label study. Assessments included penile curvature deformity measures and the PD questionnaire (PDQ).

**Results:** A total of 189 men and 30 FSPs were enrolled in the study. From baseline to Week 52, a 36.3% (95% CI 30.9%, 41.6%) improvement in penile curvature deformity and a 2.4 point (95% CI 1.8, 3.0) improvement in PDQ bother score was observed in the male subjects. The most common AEs reported were penile hematoma, penile pain, and penile swelling; no serious treatment-related AEs were reported. Following CCH treatment of their male partners with PD, FSPs reported improvement (using the PDQ-FSP) in both their male partner's PD symptoms and female bother by their partner's PD (mean score reductions of 4.8 and 2.0, respectively). Improvement was also observed on the FSFI scales of desire, arousal, lubrication, orgasm, satisfaction, and pain, as well as the full scale total scores. The proportion of FSPs who reported sexual dysfunction (FSFI total score of  $<26.55$ ) decreased from 75% at baseline to 33.3% after partner treatment.

**Conclusions:** Exploratory analyses of FSP responses demonstrated decreases in FSP assessments of their partner's PD symptoms as well as female bother by their partner's PD symptoms after their partner's CCH treatment. Improvement in female sexual function was observed as measured by all 6 domains of the FSFI score, and FSP sexual dysfunction decreased.

## ABSTRACTS

### Disclosure:

Work supported by industry: yes, by Auxilium Pharmaceuticals (industry initiated, executed and funded study).

### 013

#### **A Randomized, Single Center, Single-Blind, Crossover Thermographic Study Evaluating the Effect of 1000 mcg Topical Alprostadil Cream Compared with an Over-the-Counter Lubricant**

Goldstein, SW<sup>1</sup>; Gonzalez, J<sup>1</sup>; Gagnon, C<sup>1</sup>; Minton, JN<sup>1</sup>; Morris, D<sup>2</sup>; Goldstein, I<sup>1</sup>

1: San Diego Sexual Medicine, USA; 2: Webbwrites, USA

**Objectives:** Genital blood flow may be measured by invasive techniques such as vaginal photoplethysmography and non-invasive such as Forward Looking InfraRed (FLIR) thermography. In a prospective, randomized, single center, single-blind, crossover thermographic study FLIR was used to determine changes in peripheral arousal using 1000 mcg topical alprostadil cream (Femprox) vs. an over-the-counter (OTC) lubricant. Alprostadil is a vasoactive compound, increasing intracellular cAMP and activation of protein kinase A, resulting in genital smooth muscle relaxation, vulvovaginal vasodilation and enhanced genital secretion.

**Material and Methods:** In this proof-of-concept study, ten healthy premenopausal women (mean age 32 +/- 12 years) were topically administered study drug to their clitoris and anterior vaginal wall by a designated nurse practitioner who had no other involvement in the study to maintain the blind. Temperatures of the vestibule, clitoris and vulva were continuously monitored by FLIR for 30 minutes before (baseline) and 60 minutes post-application in subjects watching a non-sexual (travel) film. Subjects completed baseline and post-treatment questionnaires assessing genital sensations, maximum intensity and duration of effect; adverse events were recorded.

**Results:** Topical alprostadil cream induced a statistically significant increase in temperature of the vestibule, clitoris and vulva relative to the OTC lubricant in all subjects. Sustained statistically significant treatment differences occurred at 11 minutes post-application for the vestibule, 19 minutes for the clitoris and 9 minutes for the vulva and maintained for the duration of the assessment. Six of ten women reported being aware/conscious of genital sensations with the topical alprostadil cream and not the OTC lubricant, consistent with concordance of physiological and subjective assessments. Discordance was noted in 30% who reported being aware/

conscious of genital sensations with both treatments and 10% who reported not being aware/conscious of genital sensations with either. No adverse events were reported.

**Conclusion:** Topical alprostadil cream administered to healthy premenopausal women induced statistically significant sustained increases in genital temperatures of the vestibule, clitoris and vulva within 19 minutes relative to OTC lubricant. Further studies are planned.

### Disclosure:

Work supported by industry: yes, by Apricus Biosciences (industry funding only - investigator initiated and executed study).

### 014

#### **A Pain in the Clitoris: A Systematic Description of Clitorodynia**

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1: McGill University, Canada; 2: Wasser Pain Management Centre, Canada

A subset of women suffers from clitorodynia, classified as a localized type of vulvodynia. Our knowledge of this debilitating genital pain disorder originates from limited case studies and no empirical data. Further, women with clitorodynia generally resemble those with vulvodynia and are subsequently prescribed the same treatments with low effectiveness.

**Objectives:** The objective of the present study was to address the critical gap in our knowledge of this condition and to assess if clitorodynia should be characterized as a distinct clinical syndrome.

**Material and Methods:** 126 women with clitoral pain completed an online questionnaire that assessed demographic information, descriptive pain characteristics, intensity and impact on daily activities and sexual function. Gynecological and medical history was collected to assess common clinical characteristics of clitorodynia sufferers.

**Results:** A k-means cluster analysis revealed two main clusters that exhibited distinct sets of pain characteristics. An older-aged, high clitoral pain group (H-CP), characterized as experiencing a significantly higher frequency and length of pain episodes, higher subjective ratings of pain intensity and distress, higher scores on the SF-MPQ-2 and higher reported impact on daily activities and sexual function compared to a younger-aged, low clitoral pain (L-CP) group. A significantly greater percentage of women in the H-CP group reported experiencing generalized pain along with clitoral pain, as opposed to localized



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pain, compared to women in the L-CP group. The progression of pain was also more likely to be reported as consistently generalized for the H-CP group compared to the L-CP group, which reported changes in pain symptoms from localized to generalized pain. Finally, an analysis of the progression of subjective ratings of pain revealed a significant decrease in pain intensity and distress ratings over time for both clusters. However, distress ratings improved more for the L-CP group.

**Conclusions:** Our findings reveal that two subtypes of clitoral pain sufferers exist with unique pain characteristics and subjective experiences. These data signify a potential need for reconsideration of the current classification of clitorodynia. This is the largest, most comprehensive dataset of clitoral pain sufferers collected.

### Disclosure:

Work supported by industry: no.

015

### Surgical Treatment of Clitoral Phimosis and Labial Adhesions Caused by Lichen Sclerosus

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1: George Washington University Medical School, USA; 2: The Centers for Vulvovaginal Disorders, USA; 3: George Washington University, USA

**Objectives:** The purpose of this study is to evaluate patient experience and outcomes in women undergoing surgical correction for scarring caused by anogenital lichen sclerosus.

**Materials and Methods:** A retrospective chart review of patients at a vulvar disorders clinic was performed to identify women who had undergone surgical correction of clitoral phimosis or lysis of vulvar adhesions for granuloma fissuratum due to anogenital lichen sclerosus. Twenty-seven women were contacted 4 to 130 months post operatively by a research assistant over the telephone. An 8-question survey was used to determine patient experience and outcomes. Question topics included patient satisfaction with the surgery, effects on clitoral sensation, orgasm and pain with intercourse, post-operative symptoms or complications and the presence of recurrent vulvar scarring.

**Results:** Participants reported that they were either very satisfied (45.8%) or satisfied (37.5%) with the procedure. Of the women who experienced decreased clitoral sensation prior to surgery the majority of women endorsed normal (31.3%) or improved but

not normal (37.5%) clitoral sensation after surgery. Of the women who had experienced pain with sexual intercourse prior to surgery the majority of women reported having pain free sex (33%) or improved but not completely pain free sex (58%) after surgery. Only one participant listed a complication following surgery; pain with penetration.

**Conclusions:** This study shows high patient satisfaction and low complication risk associated with surgical correction of clitoral phimosis and lysis of vulvar adhesions for vulvar granuloma fissuratum caused by anogenital lichen sclerosus. Patients reported improvement in clitoral sensation and ability to achieve orgasm, as well as decreased pain with sexual intercourse. Surgical correction of vulvar scarring is a viable option to restore vulvar anatomy and sexual function in appropriate candidates with anogenital lichen sclerosus.

### Disclosure:

Work supported by industry: no.

016

### Patient Experience with Solubilized Estradiol Given Vaginally in a Novel Softgel Capsule (VagiCap™)

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1: University Hospitals Case Medical Center, USA; 2: TherapeuticsMD

**Objective:** To evaluate the use and satisfaction of a new self-inserted soft gel vaginal formulation capsule (VagiCap™) containing solubilized 10 Åµg 17ß-estradiol (TX-004HR) utilized in a pilot Vulvar and Vaginal Atrophy (VVA) study.

**Methods:** An IRB approved 8 question survey, designed to evaluate the subject experience with a self-administered vaginal gelcap, was administered to 49 healthy postmenopausal women participating in a 14-day, randomized pilot VVA study (n=24 received 10 Åµg solubilized estradiol gelcaps [Test] and n=25 received placebo gelcaps [Placebo]). A total of 679 capsules were self-administered.

**Results:** Overall, 96% of respondents replied that the capsule was easy to insert. About 25% of women from each group indicated that the capsule completely dissolved; vaginal leakage/discharge was reported by 38% and 28% of women in Test and Placebo, respectively. There were no reports of the capsule coming out after administration. The majority of women (63%) in Test group responded they were either "satisfied" or "very satisfied" with the product versus 36% in Placebo. The majority of women responded that it was "very" to "somewhat easy" to



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use the medication in the vaginal capsule and to take the capsule as instructed (97% and 94%, respectively). When asked about preference of the vaginal capsule compared to previous medications or therapies taken for their VVA symptoms, 36% “very much” to “somewhat preferred” the vaginal capsule and 66% said that they would “probably” or “definitely” consider using the vaginal capsule again. More women in the Test group (63%) reported that their quality of life was “somewhat” to “much better” at the end of the study compared to 48% in Placebo.

**Conclusion:** Women who received TX-004HR reported an improved quality of life and satisfaction compared to placebo. TX-004HR may represent a novel option for treating menopause-related VVA that women may find convenient and easy to use.

### Disclosure:

Work supported by industry: yes, by TherapeuticsMD (industry initiated, executed and funded study).

017

### Brain Global and Local Network Properties Differentiate Naturalistic Vulvovaginal Distension from Vulvar Pressure Pain in Women with Provoked Vestibulodynia

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**Objectives:** Provoked vestibulodynia (PVD), which affects 9-16% of North American women, is characterized by persistent vulvar mechanical allodynia and hyperalgesia, with no identifiable tissue pathology. Historically, its diagnosis relies on a cotton-swab punctate pressure test performed by a gynecologist. However, it is unclear whether this test is a valid analog of naturalistic PVD pain experienced during sexual intercourse and other non-sexual situations. Here we test the hypothesis that vulvovaginal distention pain in women with PVD is characterized by distinctive brain functional communication patterns that are not adequately mimicked with vulvar pressure pain, using brain functional magnetic resonance imaging (fMRI).

**Materials and Methods:** Women ages 18-25 (n=15) reporting vulvar pain > 6 months duration were diagnosed with PVD based on Friedrich's criteria and a gynecological exam. Participants continuously rated intensity of experimenter-evoked nonpainful and painful vulvar pressure, as well as nonpainful

and painful vulvovaginal fullness, during fMRI scans. Whole-brain voxel-wise contrasts and graph theory analyses were used to delineate spatial and temporal differences between types of perception

**Results:** Painful pressure and distension pain were associated with brain activity consistent with acute pain, including insula, anterior cingulate cortex, first and second somatosensory cortices, thalamus, pallidum, and caudate activity. Activity in the insula, anterior cingulate cortex, and other regions correlated with clinically-relevant pain and disability parameters. However, whole-brain and subcortical network properties indicated that--independent of their common central representation--these painful stimuli are processed in distinct manners that rely on how information flow is distributed across common, highly-connected clusters of brain regions.

**Conclusions:** The perception of naturalistic PVD pain is characterized by distinct patterns of neural information flow, at both global and local levels, compared to pressure-evoked vulvar pain elicited by diagnostic testing. Findings strongly imply that the primary method of VVD diagnosis may not sufficiently capture the subjective experience of naturalistic VVD distension pain.

### Disclosure:

Work supported by industry: no.

018

### Heart Rate Variability as an Index of Female Sexual Dysfunction: Results from a Pilot Study

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**Introduction:** Heart rate variability (HRV) is a measure of autonomic nervous system activity, which reflects an individual's ability to adapt to physiological and environmental changes. Low resting HRV has been linked to several mental health conditions, including depression, anxiety, and alcohol dependence (Kemp & Quintana, 2013). As HRV is an index of the balance of sympathetic nervous system (SNS) and parasympathetic nervous system activity (PNS), it has proven a useful tool for examining the relative role of SNS activity in female sexual arousal (Lorenz, Harte, Hamilton, & Meston, 2012). Moderate SNS dominance (relative to PNS activity) has been shown to predict women's genital arousal in the laboratory (e.g. Lorenz et al., 2012; Meston & Gorzalka, 1996). These laboratory studies examined the relationship between women's genital sexual arousal and different levels of experimentally induced SNS activation; they did not

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assess the effect of variations in resting SNS activity on clinically relevant sexual arousal function. The present study is the first to examine HRV as a potential marker of clinically relevant sexual arousal function and overall sexual function in women.

**Objective:** To determine the effect of variations in resting state autonomic balance, indexed by HRV, on validated measures of sexual arousal function and overall sexual function.

**Materials and Methods:** Sexual arousal function and overall sexual function were assessed in 72 women, aged 18-39, with the Female Sexual Function Index (FSFI; Rosen et al., 2000), an empirically validated, 19-item questionnaire. ECG was recorded using Biopac MP150 (Biopac Systems, CA, USA) at a sample rate of 200 samples/sec.

**Results:** Women with below average HRV were significantly more likely to report sexual arousal dysfunction ( $p < .001$ ) and overall sexual dysfunction ( $p < .001$ ) than both women with average HRV and women with above average HRV.

**Conclusions:** To our knowledge, these results provide the first empirical evidence for HRV as a marker of sexual dysfunction in women. If this finding is replicated in future studies, HRV may prove to be a cost effective, easy to administer, and non-intrusive index for both assessing sexual function and monitoring treatment progress.

### Disclosure:

Work supported by industry: no.

019

### Persistent Genital Arousal Disorder (PGAD): Experience with Management in 35 Consecutive Cases

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1: San Diego Sexual Medicine, USA; 2: Alvarado Hospital, USA

**Objectives:** Persistent genital arousal disorder (PGAD) is a rare, unwanted and intrusive sexual dysfunction associated with excessive and unrelenting genital arousal and engorgement in the absence of sexual interest. We wished to assess characteristics of women who were diagnosed and managed for PGAD in our clinic

**Material and methods:** A retrospective clinical chart review was performed on the last 35 women who were managed for PGAD.

**Results:** Women (mean age 46 +/- 18 years) had symptoms of PGAD for a mean of 17 +/- 16 years. The following conditions were observed to result

in increased peripheral sensory afferent input in this population (several patients had multiple peripheral suspected etiologies): 1) altered premenopausal hormone integrity - hormonally mediated provoked vestibulodynia; n = 6 (17%), 2) altered menopausal hormone integrity - vulvovaginal atrophy/genitourinary syndrome of menopause; n = 9 (26%), 3) increased nerve fiber density - genetic susceptibility leading to elevated levels of nerve growth factor substances; n = 2 (6%), 4) an injury to, or irritation of, the pudendal nerves that transmit pain and other sensations; n = 10 (29%), 5) abnormal response of tissues to Candida infection, or recognized allergies or non-specific allergies; n = 4 (11%), 6) dermatologic conditions: lichen sclerosus or lichen planus; n = 4 (11%), 7) vulvar granuloma fissuratum; n = 2 (6%), 8) peri-urethral glans pathology; n = 1 (3%), 9) clitorodynia; n = 4 (11%), 10) pelvic congestion syndrome; n = 1 (3%), 11) S2 Tarlov cyst; n = 3 (9%) and 12) high tone pelvic floor dysfunction n = 30 (86%). Decreased central inhibition in this population was noted due to discontinuation of selective serotonin reuptake inhibitors in 4 (n=11). Treatment of PGAD in this population was individually based and included strategies to: 1) reduce the excess peripheral sensory input - with conservative sex therapy/counseling, pelvic floor, pharmacologic, device and surgical treatment, and 2) increase inhibitory regulation of the uninhibited central sexual reflex center. Successful PGAD management utilized all these strategies, to keep the PGAD condition manageable.

**Conclusions:** PGAD is not so rare. An estimated 30% of healthcare providers at numerous sexual meetings have claimed caring for individuals with PGAD. PGAD can be managed logically and rationally so that afflicted women can have improved life quality.

### Disclosure:

Work supported by industry: no.

020

### Comparison of Androgen Levels and FSFI Scores in Women with Hypoactive Sexual Desire Disorder: Those on Oral Contraceptives (OCs) vs. those not on Ocs

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1: Advanced Urological Care, USA; 2: Center for Female Sexuality

**Introduction:** Oral contraceptives (OCs) reduce levels of androgens, especially testosterone, by inhibiting ovarian and adrenal androgen synthesis and by increasing levels of sex hormone-binding globulin (SHBG). However, little attention has been paid to

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the possible adverse effects of oral contraceptives on sexual functioning.

**Aim:** The aim of this study was to examine the potential effects of OCs on women with hypoactive sexual desire disorder (HSDD); more specifically to see if female patients with generalized, acquired HSDD on OCs have lower androgen levels and thus worse Female Sexual Function Index (FSFI) scores than those not on OCs.

**Methods:** All 20 patients were otherwise healthy premenopausal women with HSDD, average age 34 (range: 23-44 years). Length of follow-up was 2 - 36 months. The 20 patients were divided into two groups: those on OCs (N = 10) and those not on OCs (N = 10). Of the twenty women diagnosed with sexual dysfunction, 6 (30%) received DHEA (25-50mg daily), and the other 14 (70%) received daily topical testosterone 1% gel. A comparison was made between the two groups comparing free testosterone, sex hormone-binding globulin (SHBG) and total FSFI scores before and after treatment as well as after cessation of OC's.

**Results:** In the pre-treatment OC group, mean free testosterone was 0.18 ng/dl +/- (0.09/0.4), mean SHBG was 122 nmol/L +/- (26/180), mean FSFI scores 17.3 +/- (2/22). In the post-treatment OC group, mean free testosterone was 1.1 ng/dl +/- (0.02/3), mean SHBG was 70 nmol/L +/- (23/110), mean FSFI scores 26.6 +/- (21/22). In the pre-treatment non-OC group, mean free testosterone was 0.2 ng/dl +/- (0.16/0.35), mean SHBG was 63 nmol/L +/- (35/99), mean FSFI scores 13.0 +/- (2/28). In the post-treatment non-OC group, mean free testosterone was 0.98 ng/dl +/- (0.4/2.6), mean SHBG was 50 nmol/L +/- (30/76), mean FSFI scores 22.0 +/- (12/23). The patients with HSDD on OCs had significantly higher pre-treatment SHBG and this was statistically significant ( $p < 0.05$ ), however the change in free-testosterone and FSFI scores pre and post-treatment between the two groups was not found to be statistically significant ( $p < 0.05$ ).

**Conclusion:** The result of this study showed that premenopausal women on OCs with HSDD had higher SHBG levels than their non-OC counterparts, however, there was no statistical difference in post-treatment free testosterone levels and FSFI scores between the two groups even after OC had been stopped. Future research and a greater powered study are needed.

### Disclosure:

Work supported by industry: no.

021

### Are Primary and Secondary Provoked Vestibulodynia Two Different Entities? A

### Comparison of Pain, Psychosocial and Sexual Characteristics

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1: University of Montreal, Canada

**Objectives:** Provoked vestibulodynia (PVD) is suspected to be the most frequent cause of vulvodynia in premenopausal women. Based on the onset of PVD relative to the start of sexual experience, PVD can be divided into primary (PVD1) and secondary PVD (PVD2). Women with PVD1 report pain from early attempts at vaginal penetration, whereas women with PVD2 are characterized by recalling a pain-free period of penetration before the onset of vulvo-vaginal pain. Studies comparing these subgroups of PVD are often based on small sample sizes and a limited number of measures. Furthermore, findings are inconclusive as to whether differences exist in sexual and psychosocial functioning between women with PVD1 and PVD2. The goal of this study was to compare the socio-demographics, pain characteristics, psychosocial and sexual functioning of a large combined clinical- and community-based sample of premenopausal women with PVD1 and PVD2.

**Material and Methods:** A total of 410 women (n= 132 PVD1; n= 278 PVD2) completed questionnaires on socio-demographic variables and pain history, 0-10 pain numerical rating scale (NRS), McGill-Melzack Pain Questionnaire (MPQ), Female Sexual Function Index (FSFI), Global Measure of Sexual Satisfaction (GMSEX), Beck Depression Inventory (BDI-II), Painful Intercourse Self-Efficacy Scale, Pain Catastrophizing Scale (PCS), STAI Trait, Ambivalence over Emotional Expression Questionnaire (AEQ), Hurlbert Index of Sexual Assertiveness, Experiences in Close Relationships Scale - Revised (ECR-R), and Dyadic Adjustment Scale - Revised (RDAS).

**Results:** At first sexual intercourse, women with PVD2 (17.0  $\pm$  2.5 years) were significantly younger than women with PVD1 (18.4  $\pm$  3.5 years),  $p < .01$ . The average duration of the present committed relationship was significantly longer in women with PVD2 (53.5  $\pm$  44.7 months) compared to women with PVD1 (41.09  $\pm$  40.42 months),  $p < .01$ . Although women with PVD1 described a significantly longer duration of pain (87.9 vs 45.18 months,  $p < .01$ ) compared to women with PVD2, no significant subtype differences were found in mean coital NRS pain score and in total MPQ score. When controlling for the above sociodemographics, no significant differences were found in sexual, psychological and relational functioning between women with PVD1 and PVD2. Nevertheless, on average, both groups were in the

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clinical range of sexual dysfunction and reported impaired psychological functioning.

**Conclusions:** The findings show that after controlling for sociodemographics, there are no significant differences in the sexual and psychosocial profiles of women with primary and secondary PVD. Results indicate that similar psychosocial and sex therapy interventions should be offered to both subgroups of PVD.

**Disclosure:**

Work supported by industry: no.

022

### **Symptoms Associated with GnRH Agonist Therapy in Infertility Patients Treated for Endometriosis**

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**Objective:** Declines in gonadal steroids occurring during various reproductive life events such as menopause, following bilateral oophorectomy, or with certain medications such as gonadotropin-releasing hormone (GnRH) agonist therapy or aromatase inhibitors may impact a woman's vulnerability to sexual symptoms. Women with endometriosis undergoing significant declines in sex steroids during GnRH agonist therapy, such as leuprolide acetate, are hypothesized to report an increase in sexual symptoms.

**Methods:** Fifty-six premenopausal patients with endometriosis, ages 19 to 40, were evaluated at baseline, prior to GnRH agonist therapy (3.75mg IM Q 28 days), and at months 1, 2, and 5. Sexual symptoms were evaluated using the Menopause Symptom Index (MENSI).

**Results:** A t-test for dependent samples indicated a statistically significant increase a variety of menopausal physical and psychiatric symptoms from baseline to: month 1 MENSI ( $t=6.89$ ,  $p<0.001$ ); month 2 MENSI ( $t=10.62$ ,  $p<0.001$ ); month 5 MENSI ( $t=8.87$ ,  $p<0.001$ ). An item level chi-square analysis of the frequency of physical symptoms indicated that the chemical menopause induced in women with endometriosis during GnRH agonist therapy was associated with a significant increase in complaints of loss of sexual desire and vaginal dryness across five months of treatment. In addition, an increase in hot flushes, heart palpitations, headaches, sleep disturbance, numbness, and pain in bone joints were noted across five months of time. There was no change in pain with intercourse across the five months in these women with endometriosis.

**Conclusion:** GnRH agonist therapy in women is associated with an increase in sexual symptoms in women with endometriosis. The increase in sexual symptoms appears to be associated with GnRH agonist therapy and the decline in ovarian hormones. Lowered sex steroids are associated with symptomatic vulvovaginal dryness and atrophy which negatively affects sexual health.

**Disclosure:**

Work supported by industry: yes, by Pfizer (no industry support in study design or execution).

023

### **Automated Artifact Detection Procedure for Vaginal Photoplethysmograph Data**

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**Objectives:** Vaginal photoplethysmography assesses female genital sexual arousal and like other physiological assessments is sensitive to participant movement. The standard procedure for detection of movement artifacts from vaginal pulse amplitude (VPA) data consists of visual inspection of the data and manual removal of artifacts (Laan, Everaerd, & Evers, 1995). The manual nature of this procedure introduces subjectivity and an automatic artifact detection procedure could enhance the accuracy, standardization, and speed of data processing.

**Material and Methods:** Participants were 18 adult women instructed to make specific movements (known to produce movement artifacts) according to a standardized protocol. This allowed for the exact location of the artifacts to be known. Data were processed with both artifact detection methods. The automated processing method uses a series of smoothing regression splines to model the data and identify outliers. In this iterative approach the data is modeled, artifacts are identified and removed, and the data is modeled again and the process repeated until all of the artifacts have been identified and removed. Manual processing was conducted according to the standard procedure in the field, with visual identification of artifacts by trained research administrators.

**Results:** True artifacts (determined by experimenter's instructions) were used as a key and compared to the artifacts identified with the manual and automated processing methods. The sensitivity index of each method for each data file was calculated. The sensitivity index comparing the actual artifacts to the manually-detected ( $d' = 2.47$ ) and automatically-



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detected ( $d' = 3.48$ ) artifacts respectively indicated that although both methods were acceptable, the automatic method was significantly more accurate in detecting true artifacts ( $t = 4.97$ ,  $p < .001$ ). The primary difference in sensitivity (indexed by  $d$  prime) was traced to a lower false alarm rate for the automated method relative to the manual method.

**Conclusions:** Artifacts were detected more accurately with the mathematically-based automated process than the manual process. The automated method removes subjectivity from the cleaning process, greatly reduces the amount of time required for processing, and retains more of the original data due to a lower false alarm rate. The automated method was programmed in the open-source R software environment (R Foundation, 2014) and can easily be made available to other researchers.

### Disclosure:

Work supported by industry: no.

024

### Effect of Androgen Supplementation on Low Sexual Desire and Arousal in Pre-Menopausal Women with Sexual Dysfunction based on FSFI Data

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1: Advanced Urological Care, USA; 2: Center for Female Sexuality

**Objective:** To evaluate, with validated instruments, sexual function in pre-menopausal women with low desire who received androgen supplementation therapy (AST).

**Patients and Methods:** Retrospective chart review, of twenty otherwise healthy pre-menopausal women on AST average age 34 (range: 23-44 years), was performed using the Female Sexual Function Index (FSFI) questionnaire. FSFI questionnaires were administered at every follow-up visit; length of follow-up was 2 - 36 months. Of the twenty women diagnosed with sexual dysfunction, 6 (30%) received DHEA (25-50mg daily), and the other 14 (70%) received daily topical testosterone 1% gel.

**Results:** Overall, 18/20 women (90%) who received AST reported experiencing a meaningful treatment benefit ( $P < 0.05$ ). Mean pre-AST FSFI scores were  $15.27 \pm (2/22)$  and mean post-AST FSFI scores improved to  $24.5 \pm (12/33)$ . More specifically, mean pre-AST desire and arousal scores were  $1.74 \pm (1/4)$  and  $1.77 \pm (0/4)$  and mean post-AST desire and arousal scores improved to  $3.3 \pm (1/5)$  and  $3.89 \pm (1/6)$  ( $P < 0.05$ ). Mean pre-treatment free testosterone in all women was  $0.21\text{ng/dl} \pm (0.09/0.4)$  and mean

post treatment was  $1.04\text{ng/dl} \pm (0.22/3.11)$  ( $p < 0.05$ ). The most common side effects reported were mild acne while on DHEA and hair growth at the site of testosterone 1% gel application.

**Conclusions:** The endocrine milieu, particularly sex steroid hormones, is critical both in the maintenance of desire and arousal. In contrast to post-menopausal female sexual dysfunction, that has been modestly researched, there is less evidence addressing the treatment of low desire and arousal in pre-menopausal women; particularly with regard to the use of androgen therapy. Administering DHEA or testosterone 1% gel in pre-menopausal women who present with symptoms of low desire and arousal resulted in clinically meaningful benefits with a low side effect profile.

### Disclosure:

Work supported by industry: no.

025

### Genetic Alterations in Ovarian Cancer

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1: University of Nottingham, United Kingdom; 2: Gynaecological Oncology Department, Royal Derby Hospital, Uttoxeter Road, Birmingham

**Introduction:** Several factors and genetic pathways play important roles in the pathogenesis of ovarian cancer. These include CpG island (DNA) methylation and global hypomethylation. CpG or CG islands are short stretches of DNA where C, cytosine and G, guanine are adjacent nucleotides connected via a phosphodiester bond. DNA methylation is the reversible covalent addition of a methyl group to the 5-position of the cytosine ring within these CpG dinucleotides. The CG sequence is not methylated in active genes, but in inactive genes, they are usually methylated to suppress their expression, for example, the CpG island hypermethylation of tumour suppressor genes TP53, leads to gene silencing and increase in likelihood of cancer. These DNA methylation changes contribute directly to tumourigenesis and detection of these changes can be used for early diagnosis or disease monitoring and prognosis.

**Objectives/Materials and Methods:** To determine the methylation profile of normal ovarian tissues, borderline ovarian tissues and ovarian cancer tissues using an ELISA-based method of absolute global DNA quantitation from matched ovarian tissue samples.

**Results:** Our global methylation profiling shows that normal ovarian tissues were less methylated than



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the fully methylated control DNA, and the cancer and borderline DNA were hypomethylated when compared to the normal ovarian tissue. There was no difference in the methylation patterns between borderline ovarian tissues and cancer tissues.

**Conclusion:** There were changes in the global methylation patterns of the different ovarian tissues, which may have a role in differentiating between types of ovarian tumours.

### Disclosure:

Work supported by industry: no.

026

### Sexual Preferences and Partnerships of Transgender Women Post Transition

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1: University of Miami Miller School of Medicine, USA; 2: Planned Parenthood of South Florida and the Treasure Coast, USA

**Objectives:** The transition process undertaken by transgender women can affect sexual desire both negatively and positively. For transwomen cross-sex hormone therapy has been associated with reduced libido and sexual desire while gender confirmation surgery (vaginoplasty) has been shown to increase sexual desire and satisfaction. Transwomen are also more likely than transmen experience hypoactive sexual desire disorder. To investigate the effects of transitioning on transwomen's sexual experiences, we developed a survey to explore their current and past sexual partnerships, including sexual partner preference, as they relate to the transition.

**Materials and Methods:** IRB approval was obtained to design and distribute a survey using SurveyMonkey.com within our referral network of transgender patients. Transgender women were asked to identify their phase of transition (pre, mid, post) and if they have a current primary sexual partner and any past sexual partners. They were also asked if their sexual preference had changed since beginning their transitions.

**Results:** The survey was accessed by 71 transgender women. After excluding incomplete surveys and responses from those who had not begun their transition, 54 surveys were ultimately analyzed. Overall, 33% (18/54) reported having no current primary sex partner, only one of whom had never had a sex partner in her life. Among these 18 transwomen, 15 (83%) had initiated hormone therapy and 4 (22%) had undergone orchiectomy. None had undergone gender confirmation surgery (vaginoplasty). Since beginning their transition, 28% (15/54) of transgender

women reported a change in sexual preference. Of these 15, 4 (27%) reported current natal male partners, 4 (27%) reported current natal female partners, and 1 (7%) reported a current transgender female partner. Six (40%) reported no current sexual partner.

**Conclusions:** Our results suggest that transwomen do report lacking a primary sexual partner after initiating their transition but prior to vaginoplasty despite having had sexual partners in the past. Additionally, over 25% of respondents reported a change in sexual preference since initiating their transition. These results suggest that the transition does have an impact on sexual partnerships and preferences of transwomen. Further investigation is needed to evaluate longitudinal outcomes and rationales for these sexual relationship changes.

### Disclosure:

Work supported by industry: no.

027

### Impact of Sexual Violence on HIV Epidemic in Highlands of Papua New Guinea: Results from a Cohort of Sex Workers

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1: University of New South Wales, Australia; 2: IMR, Papua New Guinea

**Objectives:** Papua New Guinea (PNG) is located in the south-western Pacific Ocean and is considered to be one of the most geographically, culturally and linguistically diverse country in the world. PNG is also estimated to have the highest number of HIV infections in the Asia-Pacific region. This is the first study to report results from the PNG-Australia Sexual Health Improvement Program (PASHIP).

**Materials and Methods:** PASHIP study used respondent-driven sampling frame work to recruit female sex workers (SW) from the Eastern Highlands Province of PNG during the period of 2009-2012. All participants received the behavioural survey and those who volunteered were tested for HIV infection. Logistic regression models were used to assess the associations between socio-demographic, sexual behaviours and HIV testing and diagnosis. We also estimated population level impacts of educational media and interventions for providing HIV/AIDS awareness and HIV testing uptake.

**Results:** 523 SW with a median age of 20 years were included in the study. Although vast majority of women (90%) had heard about HIV/AIDS and more than 82% knew the most common transmission route of HIV, only 30% of them reported consistent condom

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use in past four weeks and 39% them consented to be tested for HIV infection. HIV prevalence was 7% (95% Confidence interval (CI):4%-11%) among those who volunteered to get tested; Lack of education (adjusted odds ratio (AOR):9.62, 95%CI: 2.86 - 32.30), being raped in past 12 months (AOR:3.48, 95%CI:1.08 -11.21) and diagnosis with sexually transmitted infections (AOR:3.19, 95%CI:1.03-10.0) were significantly associated with prevalent HIV. Population level impact of knowledge/awareness of HIV accounted for ~60% of the "untested" cases and ~70% of the HIV diagnoses; while educational interventions were all significantly associated with HIV testing behaviour (Figure); population level-impacts of mass media interventions (television and radio) as well as booklets/pamphlets were similar to those HIV/AIDS prevention programs.

**Conclusions:** Our findings suggest that SW in PNG are at high risk for HIV transmission. Sexual violence, such as rape, was determined to be the most significant factor associated with HIV seropositivity. Future prevention and treatment programs need to target this key-population to prevent the spread of HIV.

### Disclosure:

Work supported by industry: no.

### 028

#### **Sexual Dysfunction and Distress amongst US Army Active Duty Females: A Prevalence Study**

Penick, E<sup>1</sup>; Hemman, E<sup>1</sup>; Vaccaro, C<sup>1</sup>

1: Madigan Army Medical Center, USA

**Objective:** To determine the prevalence of sexual dysfunction and distress in active duty female service members as well as to document whether deployment impacts their sexual function.

**Materials and Methods:** Active duty military women between the ages of 18 – 65 scheduled for a routine gynecology visit at Madigan Army Medical Center were invited to participate in an anonymous survey study. Respondents completed a demographics questionnaire, the Female Sexual Function Index (FSFI), Female Sexual Distress Scale-Revised (FSDS-R), and the General Health Survey Short Form (SF-12), which measured physical and mental wellness. The goal sample size was 163 women based on the active duty population at Joint Base Lewis McChord and distressing sexual complaints occurring in 12% of US women overall. Data was analyzed using t tests, ANOVA, and Fisher's exact test as appropriate.

**Results:** The overall survey response rate was 56% (192/339). The prevalence of female sexual dysfunction was 54.9% in US Army active duty women.

The prevalence of female sexual distress was 25.7%. Overall, deployment did not appear to impact sexual function as there were no statistically significant differences in scores noted on the FSDS-R ( $p = 0.894$ ). However, the FSFI total sum of scores was noted to be statistically significant between the deployed and not deployed groups ( $p = 0.033$ ), favouring improved sexual function in those women who had deployed. A possible confounding variable was that deployed women had higher scores in the physical composite of the SF-12 (SF physical score 71.20 v. 68.29,  $p = 0.045$ ). A multivariate logistic regression was performed controlling for physical and mental functioning; however, deployment was not a risk factor for sexual dysfunction or sexually related distress.

**Conclusion:** The prevalence of female sexual dysfunction and associated distress is high in US Army active duty women despite a high level of physical fitness. In addition, deployment does not appear to impact sexual function.

### Disclosure:

Work supported by industry: no.

### 029

#### **Attitudes of Parents Related to the Sexuality of Adolescents with Developmental Disabilities Compared to Typically Developing Peers and Siblings**

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1: Department of Psychology, Indiana University South Bend; 2: Department of Psychology, Western University

Several studies within the last fifteen years indicate the increased rate of forced sexual interactions for people with intellectual and developmental disabilities (IDD), compared with non-disabled individuals, worldwide with incidence for these events ranging from 44% in children with IDD (Briggs, 2006; Kvamm, 2004) to 83% in adults (Johnson & Sigler, 2000) with IDD. One of the possible risk factors explaining these statistics is lack of sexuality education for this population. Sex education efforts for individuals with IDD are lacking, especially for those with the lowest IQs. However, the need for educational programming is immense.

This study assesses the beliefs and sexuality education programming needs of parents of children with and without disabilities. Sixty-two parents responded to a 31-question, online survey comprised of forced-choice, multiple option, and open-ended questions about themselves, their child, and their perception and attitudes about their child's sexuality.

While participants generally understood that many

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persons with IDD are sexually victimized at some point in their life (mean estimate = 57.3%), few parents of children with IDD within our sample believed that their child may have a coercive sexual experience before the age of 18 (28.6%). Furthermore, parents of children with IDD were significantly less likely to recognize that their child could have a consensual sexual interaction before age 18 than parents of children without disabilities (28.6% vs. 72.4%). Despite the low recognition for sexual risk among this group, most parents of children with IDD (89.3%) acknowledged the utility of sexuality education for their child. The top three types of people favored to deliver sex education included the participant themselves (93.0%), the child's other parent (70.2%), or a sexuality educator (61.4%). Medical provider was tied with child's other parent for parents of children with special needs. The three most frequently endorsed resources that parents indicated would be helpful in providing their child with sexuality education included interactive websites (55.6%), workshop with a professional (50.0%), and a book with a lesson plan (37.0%). Parents of children with special needs were significantly more likely to endorse workshops with a professional compared to parents of typically developing children (64.3% 34.6%,  $p < .05$ ). The disparity in parents' perception of risk and actual risk for children and adults with IDD is a fertile area of intervention for medical and mental health professionals and sexuality educators who interact with this population.

### Disclosure:

Work supported by industry: no.

### 030

#### **Sexual Functioning and Disclosure of Sexual Assault: The Mediating Role of Trauma Symptomology**

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1: University of Washington, USA

**Objective:** Previous research has demonstrated that a history of adult sexual assault (ASA) is associated with negative outcomes, including trauma symptomology and fear of sexual intimacy. Disclosing sexual assault to family, friends or health care providers may be protective against such negative outcomes. Few studies have investigated the intersection of ASA, disclosure, trauma symptomology, and sexual functioning. This study examined the association between disclosing ASA, current sexual functioning, and trauma symptomology.

**Method:** Participants included 652 female heavy episodic drinkers at risk for sexually transmitted infections, age 21-30, recruited from the community. Participants had a history of ASA. Mediation analyses were conducted using bootstrapping and controlling for ASA severity. Separate mediation analyses were conducted with sexual functioning divided into: sexual desire, anxiety during sex, and pain during sex.

**Results:** Mediation analysis revealed indirect associations for each construct. Trauma symptomology mediated the relationship between disclosure and sexual desire such that disclosing ASA was associated with lower trauma symptomology, which was associated with lower sexual desire (95% CI [-0.0715, -0.0054]). Trauma symptomology also mediated the relationship between disclosure and anxiety during sex such that disclosing ASA was associated with lower trauma symptomology, which was associated with lower anxiety (95% CI [-.1170, -.0189]). Trauma symptomology mediated the relationship between disclosure and pain during sex such that disclosing ASA was associated with lower trauma symptomology, which was associated with lower pain (95% CI [-.0770, -.0081]). Not disclosing ASA history was associated with increased trauma symptoms, which was associated with higher sexual desire, higher anxiety during sex, and higher pain during sex.

**Conclusion:** This is consistent with a model in which exposure to sexual stimuli can heighten subjective arousal while concurrently eliciting responses that inhibit physiological sexual response in ASA survivors (Rellini, 2008). The downstream impact of ASA on sexual functioning appears complex with potentially self-contradictory response patterns within the same individual. Disclosing experiences of ASA may serve a protective function by lessening trauma symptomology, thereby mitigating effects on aspects of sexual functioning. However, further research is warranted to more fully understand the effects on sexual desire, which may not be consistent with the protective impact.

### Disclosure:

Work supported by industry: no.

### 031

#### **Unraveling Data on the Sexual Practices, Values and Perceptions of University Youth from the Arab World: The Case of Lebanon**

Ghandour, L<sup>1</sup>; El Salibi, N<sup>1</sup>; Yasmine, R<sup>1</sup>; El Kak, F<sup>1</sup>

1: American University of Beirut, Lebanon

**Objectives:** this study is the first to investigate the

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sexual behaviours, attitudes and perceptions of private university students from Lebanon.

**Material and Methods:** A cross-sectional online survey was conducted among university students attending a large private university in the capital city Beirut.

**Results:** Of those who responded to ever having had oral or anal or vaginal sex (n=1838), half (n=943) were sexually active, a third of which reported having had anal and/or oral sex particularly to avoid hymen-breaking (higher percentages among females). Penetrative sexual practices with an unfamiliar partner were 8 times more likely in males ( $p < 0.0001$ ). Female students, however, were twice more likely to report engaging in sexual practices when they did not really want to, and having been in a relationship where they felt things were moving too fast physically ( $p\text{-value} < 0.0001$ ). About 1 in 5 female students reported non-consensual sex at sexual debut compared to 13% of males ( $p = 0.013$ ); again, 20% of the females reported ever having been sexually abused versus 7% of the males ( $p < 0.0001$ ). Males were twice more likely to be drinking or using drugs at sexual debut. Common socio-cultural concerns about sexual initiation are gaining a bad reputation (60%), social rejection (69%), religion (75%) and parental disapproval (76%), feeling guilty afterwards (70%), and losing self-respect (69%), all more commonly reported by females.

**Conclusion:** Establishing baseline estimates of youth sexual values and practices, while examining gender differences, is fundamental for directing research and implementing effective youth programs.

### Disclosure:

Work supported by industry: yes, by Ford Foundation (industry funding only - investigator initiated and executed study).

032

### Among Sexually Dysfunctional Women Sexual Function is Determined More by Partner's Sexual Satisfaction than own Sexual Satisfaction

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1: University of Texas at Austin, USA

**Objectives:** About 27% of women in the United States report sexual arousal dysfunction (Shifren, Monz, Russo, & Segreti, 2008). A variety of treatments have been tested for the treatment of arousal problems, yet success rates are low (Heiman, 2002). Women's sexual function has been conceived of as more contextually and relationally focused than men's sexual function

(Basson et al., 2004), therefore more investigation into external factors that affect women's sexual function is highly warranted.

**Materials and Methods:** Fifty-one heterosexual couples completed self-report measures prior to participating in a treatment study for female sexual arousal dysfunction. Women were currently experiencing DSM-IV-TR Female Sexual Arousal Disorder with or without Hypoactive Sexual Desire Disorder and/or Orgasmic Disorder. Women completed the Female Sexual Function Index (Rosen et al., 2000) and Sexual Satisfaction Scale for Women (Meston & Trapnell, 2005). Men completed a series of questions on sexual function and satisfaction adapted from the FSFI and SSS-W.

**Results:** In a linear regression analysis controlling for women's sexual satisfaction, men's sexual satisfaction significantly predicted women's sexual function ( $r = .61$ ,  $F(2,49) = 14.29$ ,  $p < .001$ ). The standardized regression coefficients were .33 ( $p < .05$ ) for women's sexual satisfaction and .40 ( $p < .01$ ) for men's sexual satisfaction. Men's sexual satisfaction was a stronger predictor of women's sexual function than women's own sexual satisfaction.

**Conclusions:** Supporting the notion that women's sexual function is more context dependent than men's, this study suggests that women may be more sensitive to relational factors than intrapersonal factors when evaluating their sexual function. This finding argues for treating female sexual dysfunction as a couple's problem, rather than an individual problem. The notion of treating sexual dysfunction in the couple has been called for previously in studies on men with erectile dysfunction (Aubin et al., 2009; Heiman et al., 2007). Incorporating both members of the couple into the treatment program could reduce shame and increase motivation, potentially leading to better outcomes.

### Disclosure:

Work supported by industry: no.

033

### Women's Hostility towards Women as a Predictor of Rape Myth Acceptance

Gleitz, T<sup>1</sup>; Powell, H<sup>1</sup>; Barnett, M<sup>1</sup>

1: University of North Texas, USA

Just-world/defensive attribution theories (Shaver, 1970, 1985; Burger, 1981) have indicated that women show hostility towards women as a defense mechanism due to fear of sexual assault (Batchelder, Koski, & Byxbe, 2004). Holding hostility towards



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women allows women to distance themselves from victims of rape, and deny the possibility of becoming a victim themselves (Batchelder et al., 2004). Little extant literature provides any indication of a relationship between sociosexual orientation, the tendency to engage in sexual behavior outside of a committed relationship (Penke & Asendorpf, 2008), and rape myth acceptance among women. However, rape myths typically support the idea that victims of sexual assault are more promiscuous (Suarez & Gadalla, 2010). Thus, individuals higher in sociosexual orientation, who typically engage in or support sexual behavior outside of a committed relationship, may also support rape myths as a defense mechanism, lessening their own fear by finding fault in the actions of the victim. The purpose of this study was to investigate whether sociosexual orientation could be a predictor of rape myth acceptance, and compare its prediction to that of hostility towards women. We hypothesized (H1) that sociosexual orientation would predict rape myth acceptance among women. We also hypothesized (H2) that hostility towards women would predict rape myth acceptance among women. Female undergraduate students (N = 698) at the University of North Texas were recruited through SONA, and answered self-report questions from the Hostility Towards Women Scale, the Illinois Rape Myth Acceptance Scale, and the Revised Sociosexual Orientation Inventory. Results of multiple regression analysis found that hostility towards women predicted rape myth acceptance ( $\beta = .261$ ,  $p = .000$ ), as well as sociosexual orientation ( $\beta = .009$ ,  $p = .009$ ) among women. These results indicate that hostility towards women is a better predictor of rape myth acceptance than sociosexual orientation among women. This fits with the just-world/defensive attribution theories that hostility towards women is used as a defense mechanism for women to distance themselves from victims of sexual assault through the acceptance of rape myths, alleviating some of the fear that it could also happen to them (Shaver, 1970, 1985; Burger, 1981)

### Disclosure:

Work supported by industry: yes, by University of North Texas (industry funding only - investigator initiated and executed study).

034

### The Contributions of Maternal Morbidity in Pregnancy, Age and Parity to Pregnancy Outcome in a South-West Nigerian Community

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1: University of Venda, South Africa; 2: University of Ibadan, Nigeria;

3: University of Fort Hare, South Africa

**Objective:** The study was carried out to examine the effects of maternal morbidity, age and parity on pregnancy outcome. The high prevalence of low birth weight (LBW) babies is a major public health problem. The impact of maternal morbidity, age and parity on pregnancy outcome are analysed and discussed.

**Materials and Methods:** This is a cross-sectional retrospective study of pregnant mothers who delivered in eight randomly selected health facilities located within four randomly selected local government areas (Yewa North, Yewa South, Ifo and Ado-Odo Ota ) in Ogun State, Nigeria.. It involved the examination of 13,903 case notes of mothers who delivered in the eight randomly selected health facilities with fairly complete records. All available records of normal and assisted deliveries were used including the associated maternal and infant characteristics for the period 2009-2011. These included the birth weight of each of the infants, infant survival at birth, maternal age and parity, and all properly diagnosed illnesses suffered by the mothers during pregnancy. Data collected were analyzed using the SPSS package version 17.0 to generate frequencies, means, standard deviations, chi-square tests, and regression models.

**Results:** The overall incidence of low birth weight (LBW) was 17.3% with mothers below 20 years of age and primiparous mothers recording the highest LBW incidences of 9.86% and 11.4% respectively. LBW incidence for pregnant mothers diagnosed for malaria was 7.25%, those with iron deficiency anaemia recorded 2.89%, sexually transmitted infections (STIs) patients had 3.56%, while pregnancy related hypertensive patients accounted for 2.38% of the LBW incidence. Pregnant mothers diagnosed for STIs, malaria and iron deficiency anaemia delivered 209, 143 and 140 stillborn babies respectively. Also, primiparous (182) and Para 1(169) mothers recorded most of the stillborn deliveries when compared with multiparous mothers. Maternal morbidity, parity and age, were all found to be significant for LBW and stillbirths ( $p < 0.001$ ).

**Conclusion:** Highest incidence of LBW newborns are observed in primiparous mothers and those below 20 years of age. Malaria, iron deficiency anaemia in pregnancy and STIs have detrimental effects on foetal growth.

### Disclosure:

Work supported by industry: no.

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035

### Relationship between Mental Health & Sexual Dysfunction in Women with Breast Cancer

Behzadi Pour, S<sup>1</sup>; Piraye, L<sup>1</sup>; Naziri, G<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

**Objective:** Breast cancer is a quarter most common cancer among women and the second leading cause of cancer deaths in women. Several problems creates for women with this disease such as sexual dysfunctions. This study was performed to investigate the relationship between the prevalence of sexual dysfunctions and mental health status in women with breast cancer.

**Material and Methods:** The research method was descriptive. The population was consisted all women with breast cancer that had been admitted to cancer diseases centers in Shiraz in the year 2014. 80 women with breast cancer were purposefully selected from this community and they were responded both questionnaire, Female Sexual Function Index and General Health Questionnaire. The research instruments were two questionnaires: 1) General Health Questionnaire (GHQ-28) have been used and reliability of this questionnaire was reported 0/91 with using test-retest. 2) The second questionnaire was Female sexual function index (FSFI) and it's reliability was 0/79.

**Result:** Results showed that there was a significant negative relationship between sexual dysfunction and it's subscales and mental health In women with breast cancer ( $p < 0/05$ ).

**Conclusions:** According to this study's results and the results of previous studies, which is consistent with the survey results, women with breast cancer have high levels of sexual dysfunctions that this feature is part of their present illness and it reduced mental health.

**Disclosure:**

Work supported by industry: no.

036

### Effective of Cognitive Behavior Therapy on Sexual Satisfaction in Women with Breast Cancer

Behzadi Pour, S<sup>1</sup>; Piraye, L<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

**Subjective:** The purpose of this study was to determine of the effectiveness of cognitive behavior therapy on sexual satisfaction in women with breast cancer.

**Material and Method:** The present study was a semi-experimental study that design with pre test-post

test ,experimental and control group was used. The statistical population included all women who referred to breast cancer center in Shiraz. Among the subjects, 32 persons were randomly selected and then assigned to two equal experimental and control group. The experimental group received 10 sessions of cognitive behaviour teaching. The control group did not receive psychological intervention. The research instruments were the sexual satisfaction questionnaire. The questionnaire was administered at pre-test and post test stages.

**Result:** There was a significant difference between both groups for the mean of differential scores of sexual satisfaction that is, the educational program was significantly effective on increasing sexual satisfaction in women with breast cancer.

**Discussion and Conclusion:** Given the effect of cognitive behavioral teaching on the improvement of sexual satisfaction in women with breast cancer.

**Disclosure:**

Work supported by industry: no.

037

### Sexual Function and Self-disclosure in Unconsummated Marriages

Behzadi Pour, S<sup>1</sup>; Naziri, G<sup>1</sup>; Piraye, L<sup>1</sup>

1: Shiraz Islamic Azad University, Iran

**Objectives:** The research goal was to study the relationship between the unconsummated marriage and couples' sexual function and sexual self-disclosure.

**Material and Method:** A total of 20 couples selected via an accessible sampling method answered to Spouses Sexual Disclosure Scale (SSDS), International Index of Erectile Function (IIEF) and Female Sexual Function Index (FSFI).

**Results:** There was a positive significant relationship between unconsummated marriage and the couples' low sexual performance and couples' low sexual self-disclosure. The relationship between the couples' sexual performance and their low sexual self-disclosure was not significant.

**Discussion:** In couples with unconsummated marriage sexual function and sexual self-disclosure are extremely low, and these variables have interactive effects over each other.

**Disclosure:**

Work supported by industry: no.

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038

### **A Cycle of Risk? The Role of Social Drinking Factors in the Relationship between Incapacitated Sexual Assault and Drinking Before Sex**

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1: Department of Psychology, University of Washington, USA;  
2: VA Puget Sound Health Care System, Seattle Division, USA; 3: Department of Psychiatry and Behavioral Sciences, University of Washington, USA

**Objectives:** Sexual assault rates on college campuses are extremely high and in recent years have been highlighted by the White House Council as a high priority issue in need of immediate attention. Alcohol use in sexual situations can be a risk factor for sexual assault victimization and revictimization, which is associated with compounding negative mental health consequences. Previous research has yet to examine increased drinking before sex in association with incapacitated sexual assault (ISA) and has largely neglected factors related to the social contexts in which alcohol consumption and sexual activity occur on college campuses. The current study examined the relationship between ISA and drinking before sex. Additionally, social-related drinking factors including drinking to conform motives, social drinking motives, and perceived drinking norms were examined as being associated with ISA history and drinking before sex.

**Material and Method:** Six hundred and three undergraduate college women completed a survey online. Participants were recruited from introductory psychology courses for a study about "drinking and sexual behaviors."

**Results:** Path analysis indicated that both ISA before college and since entering college were associated with higher perceived drinking norms, more social drinking motives, and more drinking to conform. However, only drinking norms and social drinking motives indirectly associated ISA history with more drinking before sex.

**Conclusions:** As hypothesized, a history of more ISA was associated with more drinking before sexual activity. Also as hypothesized, social-related drinking factors played a significant role in this relationship. In the effort to prevent sexual assault on college campuses, links between social drinking norms, social motivations to drink, and the "hook-up culture" are important factors to consider due to the cultural specificity that characterizes college environments. Additionally, because a history of more ISA was associated with increases in social-related drinking factors, future research should seek to understand unique characteristics and risks of women with a sexual assault history who drink in college settings. Future work should also examine these relationships

using longitudinal data collection methods. These social factors can be easily targeted through brief interventions and these findings can inform future programming to promote more careful use of alcohol in sexual situations.

#### **Disclosure:**

Work supported by industry: no.

039

### **Impact of a Longitudinal Educational Experience on Medical Students' Knowledge, Comfort Level, Attitudes and Opinions**

Clayton, A<sup>1</sup>

1: University of Virginia, USA

**Objective:** Measure changes in attitudes, comfort level, and sense of knowledge related to human sexuality/sexual medicine across a longitudinal, 15-month medical school experience.

**Materials and Methods:** On-line administration of a sexual health topics assessment prior to initiation of classes (August 2013) in the first year of medical school and following the 15-month systems-based curriculum (November 2014) which includes pre-recorded lectures, in-class role-playing experiences, case-based discussions, patient panels, and senior student/provider dialogues. Aggregate change in medical students responses reflecting the role of physicians, attitudes regarding sexual behaviors, opinions about sexual and reproductive situations, level of comfort with sexual issues, knowledge about sexual medicine, and demographics will be evaluated to determine programmatic quality and potential modifications/improvements.

**Results:** To be determined after completion of the second survey administration in November 2014.

**Conclusions:** A longitudinal educational experience in sexuality/sexual medicine in the first 15 months of medical school affects students' comfort level, knowledge, attitudes, and opinions.

#### **Disclosure:**

Work supported by industry: no.

040

### **Sexual Function and Sexual Satisfaction are Impaired in Female Partners of Men with Peyronie's Disease**

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## ABSTRACTS

**Objectives:** Peyronie's disease (PD) causes significant changes in penile appearance and may prevent penetrative sex. There is significant impact of PD on the sexual and mental health of men, but no studies have examined partner effects. The present study examined the impact of PD on the sexual function, sexual satisfaction, and relationship satisfaction, of the partners of men with PD.

**Materials and Methods:** Men with PD and their partners were given the following questionnaires: Dyadic Adjustment Scale (DAS), Global Measure of Sexual Satisfaction (GMSEX) and also asked to assess the degree to which PD interfered with a variety of sexual activities. In addition, women filled out the Female Sexual Function Index (FSFI) and men filled out the International Index of Erectile Function (IIEF). Hierarchical regression analyses were used to predict women's sexual function, sexual satisfaction, and dyadic adjustment.

**Results:** A total of 41 couples returned the survey. The mean FSFI score was 22.5 which is indicative of sexual dysfunction and the mean GMSEX score was 25.9, which is below previous samples of healthy women. The mean DAS score was 51.0, which is within healthy norms. There were no significant differences in men and women's GMSEX or DAS scores. Women's sexual dysfunction was significantly predicted by greater age, shorter relationship length, less sexual satisfaction, and greater male perceived sexual interference. Women's sexual satisfaction was predicted by greater relationship length, less female perceived sexual interference, and better sexual function. There were no significant predictors of DAS.

**Discussion:** Based on these results, it appears that PD is also associated with sexual dysfunction and lower satisfaction in female partners, but not relationship function. As has been found in the male literature, the degree to which PD interferes with sexual intercourse is an important predictor of sexual function and satisfaction, more so than men's erectile function, which was not predictive of any outcomes. Interestingly, relationship length was also an important predictor of sexual function and satisfaction, which may indicate that couples that have been together for longer are able to more effectively find ways of maintaining better sexual function and satisfaction despite the development of PD. Future exploration of dyadic influences would be important information for maintaining quality of life in men with PD and their partners.

### Disclosure:

Work supported by industry: no.

041

### Practices and Perceptions of Contraceptive use Among University Students in Lebanon

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1: American University of Beirut, Lebanon

**Objectives:** Investigate perceptions and practices related to contraceptive use among university students in Lebanon.

**Methods:** Cross-sectional online survey on sexual practices, attitudes, and perceptions among undergraduate and graduate students, aged 18-30, attending the 4<sup>th</sup> largest private university in Lebanon.

**Results:** Out of 713 participants, 547 (77%) reported having had sexual intercourse without a condom during their lifetime with females twice more likely to do so as compared to males (p-value=0.003). Among those, 57% did not use condom the last time they had sexual intercourse (anal/vaginal sex). 96% of students have engaged in oral sex, 85% had vaginal sex, and 45% had anal sex. Sexual activity was more likely to occur among an unfamiliar and with multiple partners. As compared to females, males who reported non condom use were five to seven times more likely to engage in first oral (p-value=0.000), anal (p-value=0.000), and vaginal sex (p-value=0.000) with an unfamiliar partner. Also, they were two times more likely to report having had 3-5 partners in their lifetime (p-value=0.000) and ten times more likely to report 6-11+ partners within the past 12 months as compared to their female counterparts (p-value=0.003). While the majority (92%) of students perceived birth control pills and condom use as effective in preventing pregnancy, women were two times more likely to experience an unplanned or unwanted pregnancy (p-value=0.044), 90% of whom resorted to abortion. 55% of participants agreed that it is a big deal to have sex without a condom once in a while; however, adjusting for socio-demographics, males were two times more likely than females to agree that unless you have a lot of sexual partners you don't need to use condoms (p-value=0.003). Transmission of sexually transmitted infections was perceived risky through vaginal or anal intercourse (73%). Yet, males were twice more likely to perceive that oral sex is not as big of a deal as sexual intercourse (p-value=0.0035).

**Conclusions:** Effective use of contraceptive methods is critically important for reducing the risk of unintended pregnancy and promoting sexual health and wellbeing among youth. Despite the high prevalence of sexual activity and considering that our sample consists of university students, results clearly show that youth are still engaging in unsafe sexual behaviors and



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lacking knowledge with regard to safe sexual practices. Strategies addressing contraceptive use among youth should enable both males and females to make informed choices that respect and fulfill their sexual rights.

### Disclosure:

Work supported by industry: yes, by Ford Foundation (industry funding only - investigator initiated and executed study).

042

### Vestibular Anesthesia Test (VAT) for Suspected Neuroproliferative Vestibulodynia

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1: Alvarado Hospital, USA; 2: San Diego Sexual Medicine, USA

**Objectives:** Neuroproliferative vestibulodynia should be a rule out diagnosis of other conditions associated with provoked vestibulodynia such as abnormal hormones, dermatologic disorders, infections, hypertonic pelvic floor, allergies, desquamative inflammatory vaginitis, vulvar granuloma fissuratum. In neuroproliferative vestibulodynia, increases of mast cells in vestibular mucosa has been noted, thought to lead to proliferation of C-afferent nociceptors and significant diffuse but vestibule-limited allodynia. A vestibular anesthesia test (VAT) may be consistent with neuroproliferative vestibulodynia if absence of pain during: Q-tip testing of the vestibule; digital palpation of the vestibule; penetration at the introitus with vaginal dilator; maneuvers historically resulting in pain. We examined short-term clinical experience with the VAT in 17 consecutive women.

**Material and methods:** A long-acting local anesthesia was administered submucosally to vestibular tissue; no local anesthesia was administered to vulva or vagina. The vestibule boundary was carefully delineated with a marking pen. Multiple syringes were filled with bupivacaine (1.3%) in liposome isuspension. Submucosal injections were made at 1 o'clock utilizing only 1-2 mL volume at a time, allowing the region to become numb. Clockwise administration of local anesthesia was followed until the entire vestibule was numb to Q-tip testing.

**Results:** Approximately 10 minutes following VAT sensation in the perineum, vulva, and vagina was tested and found to be intact in all 17 women. 12 patients had a positive VAT. A negative VAT, pain during: Q-tip testing of the vestibule and/or digital palpation of the vestibule was found in 3 patients. Pain during penetration at the introitus with vaginal dilator and/or other maneuvers historically associated

with pain was noted in 2 patients. Thus 12/17 patients had a positive VAT and were considered as having neuroproliferative vestibulodynia. Side effects of the procedure included pain, bruising and swelling that resolved in several days. Of the 12 patients, 7 had complete vestibulectomy with vaginal advancement flap and 6 are currently pain-free post-op.

**Conclusion:** A positive VAT may indicate pathology exclusively in the vestibule caused by neuroproliferative vestibulodynia. Future studies are needed to see if predictions can be made regarding pain-free patients after surgical removal of the diseased vestibular tissue and healthy vagina anastomosed to healthy vulva..

### Disclosure:

Work supported by industry: no.

043

### Recurrent Ischemic Low Flow Clitoral Priapism - Update of Management Strategies

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**Objectives:** Ischemic, low flow clitoral priapism is an unusual sexual health medical emergency, a closed compartment syndrome associated with peripheral clitoral arousal persisting for hours to months despite the absence of sexual stimulation. There is associated significant swelling, pain and tenderness in the clitoral shaft and crurae, with no involvement of the glans clitoris. Pathophysiology is based on unrelenting corporal veno-occlusion related primarily to hematologic disorders or psychotropic medications, or may be idiopathic. The latter is hypothesized as clitoral corporal smooth muscle cell dysfunction with inability to contract once relaxed, likely a genetic problem of intracellular calcium transport. Patient management requires prompt intervention to reduce symptoms and reduce irreversible structural and functional cavernosal tissue damage. The aim is to review medical and surgical management strategies for recurrent ischemic low flow clitoral priapism.

**Materials and Methods:** Two women presented to our clinic in the last year with ischemic recurrent low flow clitoral priapism.

**Results:** A 56-year old woman presented with > 6 months of recurrent ischemic, low flow clitoral priapism. She was on psychotropic drugs for obsessive compulsive disorder. She was initially managed with repeated clitoral shaft intracavernosal injections (3:00, 9:00 o'clock) of phenylephrine 100 mcg or oral long-acting Sudafed. After each injection clitoral shaft

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pain and swelling resolved, cavernosal arterial inflow increased, but the adrenergic effect lasted only 12-15 hours. She was eventually successfully managed by cavernosoglanular shunt with snake maneuver with resolution of signs and symptoms and documentation by post-op Doppler ultrasonography of excellent cavernosal artery blood flow bilaterally. A 31-year old woman presented with idiopathic, recurrent episodes of ischemic low flow priapism. She has had 2 episodes in 15 months that have occurred upon wakening in the AM. She was managed medically for the acute symptoms with clitoral shaft intracavernosal injections (3:00, 9:00 o'clock) of phenylephrine 100 mcg and she has used oral long-acting Sudafed as needed to prevent recurrence. She has been trained in self-injection of intracavernosal phenylephrine (100 ug) for emergency use.

**Conclusions:** Medical (adrenergic-based) and surgical (corporaglanular shunt with snake maneuver-based) treatments have successfully treated two women with distressing signs and symptoms of recurrent ischemic low flow clitoral priapism.

### Disclosure:

Work supported by industry: no.

044

### The Biomechanics and Physiology of Vaginal Tightening Procedures as They Relate to Orgasm and Sexual Satisfaction

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**Objectives:** Vaginal tightening procedures promise improved sexual pleasure for women and include narrowing of vaginal caliber via repair of the pelvic floor, re-approximation of levator muscles and elevation of the perineal body in women who note vaginal laxity adversely effecting sexual enjoyment and orgasmic ability. Sexual dysfunction or decreased sexual sensation may be an early symptom suffered in the progression of prolapse. (1) This paper discusses the biomechanical effects of vaginal tightening on the physiology of sexual pleasure/orgasm.

**Materials/Methods:** Literature review; biomechanical and physiological analysis.

**Results:** The literature is scant and mostly retrospective (2,3), but suggests enhancement of sexual pleasure and orgasmic ability via a surgical "tightening" procedure. The one prospective study in the literature alludes to improvement of both body image and sexual function at 6 months. (4) A better powered 2 year follow-up study (submitted for

publication) is confirmatory. Post-operative results show elevation of perineal body, downward vaginal tilt, and diameter narrowing with increase in frictional forces.

**Conclusion:** "Vaginal tightening operations" are variations on traditional site-specific anterior and posterior colporrhaphies and perineorrhaphies. Modifications include 3-layer closure designed to re-approximate levator musculature, elevate the perineal body, diminish vulvar vestibular size, and re-establish the downward tilt of the vagina for improved stretch of clitoral bulb/cruae and autonomic receptors in vaginal walls, especially anterior wall (AVW), and cervix. Variations may also include proximal vaginal narrowing. Results are improved by addition of post-operative pelvic floor exercises.

Applying O'Connel et al's "unification" theory of the clitero-urethro-vaginal complex (5) with dual skeletal and autonomic innervation of erectile and glandular elements, and applying Buisson et al (6) and Brody's (7) research, greater intra-vaginal distension via increased penile size or decreased vaginal diameter results in greater "stretch," increasing the vaginocavernosis reflex and direct pressure on the AVW and clitoral structures. Increased inflation from penile size or decreased vaginal caliber increases vaginal orgasmic ability caused by stretch of the internal erectile clitoral structures in the AVW. (8) The tighter the vaginal barrel and stronger the perineal body, the greater "force" and stretch on the clitero-vaginal complex.



Re-establish angle; increase AVW, cervical pressure.

### Disclosure:

Work supported by industry: no.

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045

### **Kisspeptin Antagonist, Peptide 234, Blocks both Kisspeptin-10 and Nesfatin-1-induced Luteinizing Hormone Release in the Female Rats**

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1: Turkey

The aim of this study was to determine the modulatory effects of peptide 234 (an antagonist of GPR54 receptors) on the kisspeptin-10 and nesfatin-1-induced luteinizing hormone secretion in the female rats.

The pre-pubertal Sprague-Dawley female rats were weaned on day 21. They were intracerebroventricularly cannulated under general anesthesia with ketamine 60 mg/kg plus xylazine (rompun) 5 mg/kg. In the first experiment, the combined gonadotropin-releasing effects of kisspeptin-10 and peptide 234 were explored. Groups of female rats (n=7 per group) were injected with kisspeptin-10 (1 nmol), peptide 234 (50 pmol), or kisspeptin-10 plus peptide 234, daily. In the second experiment, the female rats (n=7) were injected with nesfatin-1 (25 nmol), peptide 234 (50 pmol), or nesfatin-1 plus peptide 234, daily. Rats injected with physiological saline served as controls. Blood samples were obtained from day 60 when diestrus, which was determined by vaginal smears, was observed. Serum LH levels were measured by ELISA.

Kisspeptin-10 and nesfatin-1 elicited significant ( $P \leq 0.001$ ) elevations of circulating LH levels, being  $8.28 \pm 0.64$  ng/ml and  $7.22 \pm 0.32$  ng/ml, respectively compared to controls ( $4.31 \pm 0.34$  ng/ml). Coadministrations of peptide 234 and kisspeptin-10 or peptide 234 and nesfatin-1 decreased significantly ( $P \leq 0.001$ ) LH levels, being  $4.7 \pm 0.47$  ng/ml and  $4.82 \pm 0.31$ , respectively.

In conclusion, kisspeptin antagonist, peptide 234, modulates not only the effect of kisspeptin on gonadotropin secretion but also the effect of nesfatin-1, and nesfatin-1 seems to exert its effects on reproductive functions by means of kisspeptin/GPR54 system in the female rats.

#### **Disclosure:**

Work supported by industry: yes, by TUBITAK project # 113S193.

046

### **Surgical Resolution of Dyspareunia after Traumatic Pelvic Injury**

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As the more of patients with traumatic pelvic injuries survive, the more patient population demand for optimal quality of life, including treatment of sexual dysfunction, even after the most severe injuries. We present the case of a 31-year-old woman who suffered from dyspareunia after severe pelvic injury. After multi-department cooperation, including the excision of a disunited fragment of pelvic bone and an adhesion band at the vaginal wall, dyspareunia was considerably resolved and the patient recovered sexual function. In cases of severe pelvic injury, physicians used to be satisfied with patient's survival alone and tend to regard sexual dysfunction as a trivial outcome. Many cases of sexual dysfunction resulting from traumatic pelvic injury, such as dyspareunia, could be improved by planned surgical interventions.

#### **Disclosure:**

Work supported by industry: no.

047

### **The EIS Model: A Mixed Methods Research Study of a Multidisciplinary Sex Therapy Treatment**

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1: Alliant International University, USA

Marital and sexual satisfaction have a significant role in overall well-being and mental health. When a married couple is not experiencing a satisfying sexual relationship, partners tend to be less satisfied in their overall relationship. There is a paucity of controlled outcome studies researching effectiveness of sex therapy interventions. This study utilized a convergent parallel mixed method approach that evaluated the effectiveness of a manualized sex therapy approach. The research involved: (a) correlational analyses of quantitative data related to primary tenets of the model, (b) a randomized controlled trial using the EIS manual, and (c) qualitative analysis of participants' perceptions of intimacy and their experiences of change in therapy. Participants were heterosexual, married, Christian couples who were between 30-64 years old, 70% Caucasian, 22% Latino/Hispanic, 5% Black/African American, and 3% Asian. Pre-treatment correlational analysis revealed an association between negative psychosexual events during development and a lower sexual self-schema for women. Thirteen couples were randomly assigned to the treatment group and received between 12 and 24 weeks of treatment, and 16 couples were assigned to the waitlist group. A treatment-as-received repeated measures of analysis showed significantly greater improvement for treatment couples in sexual and

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marital satisfaction, marital intimacy, and verbal sexual intimacy for men and women, and sexual function for women. Results provide initial support for the theory and interventions of the EIS model. For post-treatment differences between treatment and control groups, treatment effect sizes were large for sexual and marital satisfaction, marital intimacy, and verbal intimacy for both men and women, and for sexual functioning for women, ranging from .89 to 2.13. Treatment effect sizes for all outcome variables pre-post for the treatment group were also large, ranging from .82 to 2.37,  $p < .05$  to  $p < .001$ , with the exception of sexual functioning for men. Content analysis of qualitative open-ended questions enriched and supported quantitative findings.

### Disclosure:

Work supported by industry: no.

### 048

#### **Sexual Desire, It's Complicated: Results from Bi, Lesbian, and Straight Women**

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1: University of Kentucky, USA

**Objectives:** Sexual desire is often defined as a motivational state where a combination of forces bring us toward and away from sexual behavior. Low sexual desire is the most common sexual complaint reported by women, and sexual desire and desire discrepancy have become more frequently studied in part due to the potential for pharmaceutical intervention. However, sexual desire is not fully understood in sexually diverse populations. The current study aimed to answer the following research questions: 1) Are there significant differences in women's level of dyadic, solitary, and overall sexual desire in diverse sexual identity groups? 2) Is desire discrepancy experienced differently between women of diverse sexual identity groups? and 3) What are the contextual factors contributing to changes in sexual desire and desire discrepancy in women of diverse sexual identity groups?

**Material and Method:** Quantitative data were collected from 685 women (150 bi-identified, 74 lesbian-identified, and 407 straight-identified) through an online survey on sexual desire and sexual desire discrepancy. Women were an average age of 32 and 80.8% were in a romantic relationship at the time of data collection. Qualitative data were collected in the form of face-to-face semi-structured interviews from 26 women (9 bi-identified, 8 lesbian-identified, and 9 straight-identified) to contextualize the quantitative

findings. Women were an average age of 29 and 89% were in a romantic relationship at the time of data collection.

**Results:** Quantitative findings indicated that levels of sexual desire were significantly different among different identity groups, such that bisexual-identified women scored significantly higher on solitary, dyadic, and overall desire than gay- and straight-identified women. Desire discrepancy was a universal experience that did not significantly differ between women of different identity groups. Qualitative findings provided context around the cultural influence on sexual desire in the different orientation groups. Bisexual- and lesbian-identified women expressed vastly different reasons for ebbs and flows of sexual desire than straight-identified women.

**Conclusions:** Sexual desire is multifaceted and women of diverse sexual identities may experience sexual desire in a different way than straight-identified women. Future research on the utility of this perspective of sexual desire and implications for clinicians working with women struggling with low sexual desire in their relationships will be discussed.

### Disclosure:

Work supported by industry: no.

### 049

#### **Oral Supplementation with Stronvivo Improves Male Erectile Function and Female Sexual Desire**

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1: Abbey Research Ltd., USA; 2: The Med Writers, USA

**Objective(s):** Stronvivo is an Informed Choice certified nutritional supplement, comprised of USP-verified, pharmaceutical grade ingredients, designed to improve the health of the endothelium, stimulate the production of nitric oxide, improve circulation, boost energy and inhibit platelet aggregation and adherence. Given that these processes play an integral role in sexual function, it was hypothesized that Stronvivo would have additional beneficial effects in this area. The current study was an open-label trial exploring the effect of Stronvivo supplementation on various subjective ratings of sexual functioning.

**Material(s) and Method(s):** The sample included 60 adults (m/f 51/9), ages 30-84, BMI 21-56. Patients were administered 6 capsules of Stronvivo daily for 90 days, which equated to a total daily intake of: 2,000mg of L-arginine, 1,000mg of L-citrulline, 1,000mg of L-carnitine, 30mg of zinc, and 400mg of magnesium. Patients were assessed at four time points: baseline (prior to supplementation with Stronvivo), 30-day



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follow-up, 60-day follow-up and 90-day follow-up. Measures included: FSFI, IIEF, ADAM and PHQ-9.

**Result(s):** Mean scores on the subscales of the FSFI, (i.e., Desire, Arousal, Lubrication, Orgasm, Satisfaction, Pain) demonstrated linear improvement. Mean full-scale FSFI scores were as follows: baseline M=20.84; 30-day M=24.77; 60-day M= 25.39; and 90-day M=29.33 with the biggest improvements shown in the domains of Desire (1.94), Arousal (1.47), Orgasm (1.42) and Lubrication (1.26). For males, significant improvement was noted in terms of IIEF total scores from baseline (M=43.65) to 60 days (M=52.40). Ratings of erectile dysfunction improved from baseline to 60 days and ratings of sexual desire improved from baseline to all other time points. On the ADAM, over half the sample meeting criteria for androgen deficiency at baseline no longer met criteria after 30 days (n=22; 51%). Finally, significant improvement in depressive symptoms (PHQ-9) was noted for males after 30 days and for females after 60 days.

**Conclusion(s):** Though results must be interpreted with caution, females reported improvements in all areas of sexual functioning, as well as significant improvements in subjective mood while taking Stronvivo. Males reported improved erectile function and sexual desire following initiation of Stronvivo. Further, taking Stronvivo for a month led to reduced symptoms of androgen deficiency and significant improvements in subjective mood.

### Disclosure:

Work supported by industry: yes, by Abbey Research Ltd. (industry initiated, executed and funded study).

### 050

#### Assessing for Female Sexual Dysfunction: Is Empathy Required for OB-Gynecologists?

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1: UCSF, USA; 2: Duke, USA; 3: University of Chicago, USA

**Objectives:** Up to 12% of American women undergo female sexual dysfunction that causes personal distress, and often, desire medical counseling on this subject. Obstetricians and gynecologists, as providers trained in women's reproductive health, should be well-prepared to address this need. However, in a survey completed in over 1800 practicing OB-Gynecologists, only about 40% routinely brought up this subject. In a study looking at predictors of discussing issues of sexual health in male patient, the largest predictor of provider patient communication on this subject was having training in communication skills. No such study has been performed relating

to women's sexual health. The objective of this data analysis was to look particularly at the ratings of empathy to assess whether this had an impact on providers' discussions with female patients regarding sexual dysfunction and sexual satisfaction.

**Materials and Methods:** The data were obtained from OB-GYNs Approaches to Sexual and Reproductive Health Care: A National Survey that was mailed to a stratified random sample of 1800 practicing OB-Gyns through a sample from the American Medical Association's Physician Masterfile. In this study, the physicians were asked about their self-perceived empathy and how empathetic their colleagues, particularly nurses, or their own patient population would rate them. The providers were also asked about how often they asked about sexual dysfunction and sexual satisfaction. A chi-square analysis was then used to compare their self-perceived empathy ratings with their assessment of sexual dysfunction and satisfaction.

**Results:** Using cross tabulations, physicians who were rated above average on empathy scores were significantly more likely to assess for sexual dysfunction, in a routine or sometimes manner, (84 vs 72%, p= 0.0033) and satisfaction (74 vs 60%, P: 0.0001) when rated by their colleagues. Similar findings were notable for self-perceived empathy ratings of their own empathy and how they perceived patients viewed them.

**Conclusions:** In this large survey, empathy was found to be a strong predictor of whether physicians engaged in counseling regarding sexual dysfunction as well as sexual satisfaction. As sexual function is an important part of female health and well-being, perhaps further training of OB-Gyn residents in empathy and communication skills overall would improve patient counseling on sexual dysfunction as well as sexual satisfaction.

### Disclosure:

Work supported by industry: no.

### 051

#### Audit on Informed Consent for Intrauterine Contraception

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1: University of Manchester, United Kingdom; 2: Walkden Medical Centre, United Kingdom

**Aims:** Looking at whether patients are adequately informed about insertion of intrauterine contraception at Walkden Medical Centre. Particularly focussing on ensuring that the clinicians tell specific information

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to the patients set out in The Faculty of Sexual and Reproductive Healthcare's Guidelines and NICE Long-acting reversible contraception guidelines. After all this information, the patients have sufficient information to give informed consent for the procedure.

**Methodology:** An EMIS search was completed for all patients who had any intrauterine device (IUD) in the past year. Their consultation notes were examined to find information that had been recorded by the clinician as proof they have adequately informed the patient about the IUD. The information included in the notes was then crosschecked against the information that NICE recommends should be conveyed and recorded in a table.

**Results:** 51 patients were identified in total. The consultation records show the following; 100% of patients had a 'chaperone offered', 'gynaecological exam' and given a 'follow-up appointment' (65% attendance rate). 98% of patients had been told to 'check threads'. 93% of patients had 'fertility advice' and 91% had 'procedural information'. 70% of patients had been told the 'effect on their periods'. 56% had an STI check and 47% had been told about the 'failure rate', 'risks and side effects'. Only 19% had been told about when to seek medical attention and 2% patients had been told the duration time of the IUD. 0% of patients were told about the method of action of the IUD and no contraindications were checked.

**Conclusions:** The results were mixed with some categories being recorded more than other. It may be the case that the patient was informed about the procedure verbally but not recorded in the consultation notes, which could explain some of the poor results.

**Recommendations:** Present findings to practice to raise awareness of the findings. Implement a consent form that can be printed off, completed by the patient, which contains all the relevant information and the scanned back into the EMIS database.

### Disclosure:

Work supported by industry: no.

052

### Sexual Abuse History and Intimate Relationship Conflict: The Role of Sexual Shame

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1: University of Texas, USA

The negative effects of sexual abuse on later sexual and relational well-being have been well documented (Noll et al., 2003; Rumstein-McKean & Hunsley, 2001). Less known are the mechanisms by which sexual

abuse negatively impacts relational intimacy. One potential mediator of this relationship is shame. Shame influences the social and emotional adjustment of sexual abuse survivors (Negrao, Bonanno, Noll, Putnam, & Trickett, 2005). Shame is best understood as an individual's intense disappointment concerning the self (Ferguson, 2005). Researchers have identified the need for domain-specific types of shame to apply to different aspects of the self (Rizvi, 2010). Sexual shame is classified as a negative reflection on the self with specific negative feelings about sexual thoughts, experiences, or behaviors (Kyle, 2013). To date, no study has examined the role of sexual shame in relational dysfunction among sexual abuse survivors.

Sexual shame was examined as a potential mechanism underlying the relationship between sexual abuse status and relationship conflict using a mediation model. Sexual abuse was defined as any form of unwanted sexual contact at any age. Men (n = 89) and women (n = 245) from a college student sample completed online surveys on abuse history, sexual shame, and frequency of intimate relationship conflict. Results showed that history of abuse predicted greater relationship conflict ( $b = -.123$ ,  $t(348) = -2.30$ ,  $p = .022$ ), with sexual shame significantly mediating this relationship ( $z = -3.85$ ,  $p < .001$ ). Sexual shame was an even better predictor of relationship conflict than abuse status  $b = .291$ ,  $t(348) = 5.665$ ,  $p < .001$ .

Results highlight the importance of specifically addressing sexual shame in therapeutic interventions with survivors of sexual abuse reporting relationship conflict. Therapy could help ameliorate the negative effects of sexual abuse on relational intimacy by providing a healthy and objective perspective on sexual shame.

### Disclosure:

Work supported by industry: no.

053

### Prevalence of Dyspareunia in Female Urology Clinic-Characteristics of Dyspareunia Patients

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**Background:** Integra theory<sup>1)</sup> which is the development basis of TVT by P.P.Petros referred pelvic floor disorders were one of causes of dyspareunia. Pelvic floor disorders consist of stress urinary incontinence, overactive bladder and pelvic organ

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prolapse which are treated in female urology clinic. We conducted a study of the prevalence of dyspareunia in female urology clinic for researching the relation between pelvic floor disorders and dyspareunia.

**Participants & Intervention:** 747 patients visited first between Aug. 2013 and Jan. 2014 to our clinic. They took the questionnaire included dyspareunia, chronic pelvic pain and lower urinary symptoms.

**Results:** There were 105 patients (14%) had dyspareunia. The average age of dyspareunia patients was  $45.5 \pm 14.3$  (max.72, min.19). The diagnosis of patients were chronic pelvic pain syndrome/ interstitial cystitis 37 (35.2%), urinary incontinence 15 (14.3%), acute cystitis 14 (13.3%), overactive bladder 12 (11.4%), pelvic organ prolapse 11 (10.5%), female sexual dysfunction 10 (9.5%), hematuria 3 (2.9%), nocturnal enuresis 2 (1.9%) and urinary calculi 1 (1%). Therefore pelvic floor disorders held 36.2% of dyspareunia. Additionally people complained of back pain were 26 (24.8%), people complained of abdominal pain were 40 (38.1%) and people complained of pain in the vulva were 49 (46.7%). The rates of nullipara were 52.8% of chronic pelvic pain syndrome/ interstitial cystitis and 29.7% of pelvic floor disorders, There were significant statistically differences between them. ( $p < 0.05$ ) And the rates of complaining abdominal pain were 55.6% of chronic pelvic pain syndrome/ interstitial cystitis and 35.1% of pelvic floor disorders, There were also significant statistically differences between them. ( $p < 0.05$ )

**Conclusion:** 14% of dyspareunia in our study is same as the prevalence of dyspareunia in Europe and USA<sup>2)</sup> It suggested that there were many potential patients with female sexual dysfunction in Japan. The probability of pelvic floor disorder in dyspareunia patients is equivalent that of chronic pelvic pain syndrome/interstitial cystitis. Therefore the dyspareunia related to pelvic floor disorders can be treated by pelvic floor rehabilitation and pelvic floor operation

### Disclosure:

Work supported by industry: no.

054

### The Relationship between Disclosure of Virginity Status and Dysfunctional Sexual Beliefs

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Disclosure of virginity status refers to an individual's revelation of their status as a virgin or non-virgin, based on their subjective definition of virginity.

Feminist Theory contends that the sexual double standard along with sexual labeling negatively impact women's sexual experiences and expression of those experiences (Holland et al., 1996). This study investigated the relationship between disclosure of virginity status, gender, and dysfunctional sexual beliefs. College students (N = 986) were administered the Sexual Dysfunctional Beliefs Questionnaire and the newly-developed Disclosure of Virginity Status Scale. No significant differences by gender were found in disclosure of virginity status. Among women, disclosure of virginity status negatively associated with several sexual dysfunctional beliefs, including: sexual conservatism ( $r = -.121$ ,  $p = .001$ ), sexual desire/pleasure as a sin ( $r = -.143$ ,  $p < .001$ ), age-related beliefs ( $r = -.129$ ,  $p = .001$ ), body image beliefs ( $r = -.157$ ,  $p < .001$ ), and affection primary ( $r = -.153$ ,  $p < .001$ ). There was no association found between motherhood primacy and disclosure. Among men, there was no relationship found between disclosure of virginity status and sexual dysfunctional beliefs. These findings may indicate that disclosure of virginity status among younger women reflects a rejection of the sexual double standard, and thus serves to buffer against dysfunctional sexual beliefs. Future research could incorporate variables such as gender role conformity and explore whether it mediates the relationship between dependent variables and dysfunctional sexual beliefs.

### Disclosure:

Work supported by industry: no.

055

### A Mindfulness Based Therapeutic Perspective to Sexual Dysfunction/Healthy Sexual Functioning in Women: Clinical Mental Health DSM-5 Implications

Stepensky, A<sup>1</sup>; Johnson, R<sup>1</sup>

1: University of San Diego, USA

The complexity of the clinical problems stemming from sexual dysfunction (e.g., anxiety and depression) is best reflected in the diversity found in the psychological treatment literature. The exacerbation of this problem is due in large part to a failure to address underlying factors of female sexuality. Despite the prevalence of female sexual distress, there is no one recognized treatment. For example, some women seek professional help for a variety of medically based sexual symptomatology. The symptoms may include arousal and genital pain. Other patients experience symptoms that reflect a disconnection between self-reported feelings of arousal, pleasure, and the body's

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physiologic response. From a clinical mental health perspective, Mindfulness is an empirically based approach that aims to cultivate a state of present-moment, non-judgmental awareness of the mind and body. Mindfulness skills have been incorporated into both individual and group treatment programs (e.g. Mindfulness Based Stress Reduction). The approach has been found to be effective for significantly improving several domains of sexual response while decreasing sex-related distress. As a result, this approach may be proven useful in addressing the sexual distress symptoms often reported by women and viewed as sexual distress in women. The proposed poster session examines the clinical research literature on the effect of mindfulness for three categories of known to be barriers to healthy sexual functioning for women. This poster also provides information on attention, self-judgment, and associated clinical diagnostic symptoms that may have DSM-5 relevance.

### **Disclosure:**

Work supported by industry: no.

### **056**

#### **Age Trends in Sexual Behaviour and Satisfaction in Finnish Heterosexual Women**

Sundstedt, M<sup>1</sup>; Österman, K<sup>1</sup>; Björkqvist, K<sup>1</sup>

1: Åbo Akademi University, Finland

The present study examined onset and frequencies of sexual activities, sexual satisfaction, and amount of love and equality in the relationship, among a sample of women in Finland. 1,044 heterosexual women between 18 and 65 years of age filled in an online questionnaire. Of the respondents, 80.6 % had a partner.

Frequencies for different sexual activities for women with and without a partner are presented. Significant variation due to age regarding sexual satisfaction, love and equality in the relationship, and sexual pleasure and orgasm were found. Women in their forties experienced more sexual pleasure and were more satisfied with their ability to reach orgasm than women in their twenties. Scores of love and equality were low for women in their forties. It was found that respondents born in the 80s had experienced their first orgasm significantly earlier than all other age groups. The age group born in the 70s stood out as late beginners of sexual activity: they had not had their first sexual relationship any earlier than those born in the 60s. Results showed that the oldest respondents in the study, born in the late 1940s, had experienced their first kiss, first intercourse, and first

orgasm during intercourse at a significantly older age compared to the respondents born later.

A clear decreasing trend was found for the age of the first intercourse and first orgasm during intercourse. Regarding age at first sexual relationship and first kiss, however, no clear trends were found.

### **Disclosure:**

Work supported by industry: no.

### **057**

#### **Oral Contraceptive Use and Overall Relationship Satisfaction: Is There a Link?**

Taggart, TC<sup>1</sup>; Hammett, JF<sup>1</sup>; Ulloa, EC<sup>1</sup>

1: San Diego State University, USA

A high proportion of women today take oral contraceptive pills (OCPs). In addition to preventing pregnancy, many women take OCPs for non-contraceptive benefits, such as alleviating severe cramping, endometriosis, and excessive menstrual bleeding; getting rid of severe and persistent acne; normalizing irregular cycles, and mitigating symptoms of premenstrual dysphoric disorder (PMDD) and PMS (Dawood, 2006; Jones, 2011). Interestingly, because hormones can be linked to mood, researchers are beginning to explore what role OCPs may play in mental health. Approximately 17% of women experience major depression during their lifetime, coincidentally, incidence is highest during the reproductive years (Hasin, Goodwin, Stinson, & Grant, 2005), and many more experience depressive symptoms that do not warrant a clinical diagnosis but still may be disabling (Rushton, Forcier, & Schectman, 2002; Wight, Sepulveda, & Aneshensel, 2004). Relatively little research has focused on OCPs and mental health outcomes until recently. One recent study utilized a national longitudinal dataset and reported an association of OCP use with reduced levels of depressive symptoms (Keyes et al., 2013). Since the dataset used by Keyes was archival, there were many notable limitations. While they controlled for many factors, other potentially confounding variables could not be ruled out due to the study's design. Specific hormone levels contained in the OCPs were not documented, and, thus, were unable to be assessed. Despite the limitations, the results indeed warrant further exploration of the topic. We would like to not only replicate, but also extend the findings from Keyes' study. Specifically, we would like to assess for the dosing levels of synthetic estrogen and progestin contained in OCPs in order to assess a potential dose-response or threshold.



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Further, we would like to include variables that Keyes' study was unable to assess for use as covariates or potential moderators (i.e. sexual orientation, overall relationship satisfaction, sexual satisfaction, mood changes, concurrent medications being taken, previous clinical diagnoses of depression, experiences of sexual trauma and/or intimate partner violence). It is hypothesized that once hormone levels are being regulated due to OCPs, individuals may experience less mood swings and thereby may enjoy more relationship satisfaction with their partners. In order to properly assess this, we would like to control for as many potential confounding variables as possible, which is why we are asking about sensitive topics such as intimate partner violence and past sexual abuse history, as it is well documented that these factors have long-term effects in many areas, but especially in interpersonal relationships (Alexander & Lupfer, 1987; Browne & Finkelhor, 1986; DiLillo, 2001; Finkelhor, Hotelling, Lewis, & Smith, 1989; Testa, VanZile-Tamsen, & Livingston, 2005). Participants will be recruited using Amazon Mechanical Turk, a crowdsourcing Internet marketplace, which touts a more demographically diverse sample than typical college samples with high quality, reliable data (see Buhrmester, Kwang, & Gosling, 2011). Participants will consist of 300 women between the ages of 18 and 32, who are currently in a relationship and are not pregnant. Results will be presented at the conference. Funded by SDSU Research Grant.

### Disclosure:

Work supported by industry: no.

058

### Pattern of Seminal Fluid Analysis among Infertile Couples Presenting at a Tertiary Hospital in a Semi-Urban Setting of North-West Nigeria

Ugwa, E<sup>1</sup>; Ashimi, A<sup>2</sup>; Abubakar, M<sup>2</sup>; Attah, R<sup>3</sup>

1: Nigeria; 2: Federal Medical Centre, Birnin Kudu, Jigawa State, Nigeria; 3: Aminu Kano Teaching Hospital, Kano, Nigeria

**Objective:** The present study was undertaken to review the seminal fluid analysis (SFA) of male partners of couples presenting with inability to conceive at a gynaecological clinic using World Health Organization (2010) criteria and to identify the correlation between poor semen quality and age.

**Materials and Method:** This was a retrospective study done at the Federal Medical Centre, Birnin Kudu, Nigeria located in a semi-urban setting. The sample size was 63. Ethical clearance was obtained. Patients' case records and laboratory registers were retrieved

to review the reports of SFA. Data was analyzed by using SPSS Version 16. Descriptive statistics was used. Association between age and semen parameters was determined using Pearson's coefficient of correlations and chi-square test and  $p < 0.05$  was considered statistically significant.

**Results:** Only 63 of 308 male partners presented for seminal fluid analysis. This is 20.5% of the couples. After analysis, 52.38% were normospermic, while 26.98% and 20.64% were azoospermic and oligospermic respectively. Asthenospermia was the commonest motility/morphology abnormality occurring in 60.3%. The volume, motility, morphology and pH showed weak correlations with age.

**Conclusion:** Male partners are significant contributors to the infertile couple problems in this study; therefore awareness is needed in order to engage more males in evaluation and treatment of infertility.

Table1. Age distribution

Age	Frequency	Percentage	Mean±SD	Overall Mean±SD
25-30	24	38.1	27.9±2.3	34.1±5.8
31-35	14	22.2	34.5±0.9	
36-40	21	33.3	39.2±1.3	
>41	4	6.4	45.7±3.3	
Total	63	100		

Table2. Distribution of Sperm count

Parameter	Frequency	Percentage
Normospermia	33	52.38
Oligospermia	13	20.64
Azoospermia	17	26.98
Total	63	100

Table 3. Semen profile and age-related correlation

Semen Parameter	Frequency	Percentage	Mean±SD	r	P-value
Volume			2.8±1.8	-0.15	0.08
<1.5	11	17.6			
1.5-3	32	50.9			
>3	20	31.5			
Count			40.1±52.3	0.01	0.1
<15	30	47.6			
>15-40	12	19.1			
>40	21	33.3			
Motility			28.2±27.7	-0.18	0.081
<32	38	60.3			
32-50	10	15.9			
>50	15	23.8			
Morphology			46.1±35.6	-0.21	0.075
<4	21	33.3			
4-50	7	11.1			
>50	35	55.6			
pH			8.3±0.67	0.30	0.06
<7.2	8	12.7			
7.2-8	27	42.9			
>8	28	44.4			

### Disclosure:

Work supported by industry: no.

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059

### **Risk Factors for Sexual Dysfunction among Women Seeking Infertility Treatment**

Winkelman, WD<sup>1</sup>; Smith, JF<sup>1</sup>; Katz, P<sup>1</sup>; Rowen, TS<sup>1</sup>

1: University of California San Francisco, USA

**Objectives:** To assess the demographic characteristics associated with sexual dysfunction among infertile women

**Materials and Methods:** Cross-sectional analysis of 383 women from eight reproductive endocrinology clinics. Participants received an extensive questionnaire and face-to-face and telephone interviews. Basic demographic information and medical histories were obtained from all participants. Questions about sexual impact were originally taken from the Fertility Problem Inventory and included items about level of sexual enjoyment, perceived attractiveness to partner, inability to have sex because of fertility problems and persistent thoughts about having a child during intercourse. Total potential scores ranged from 0 to 100 and higher scores represent greater sexual dysfunction.

**Results:** Among 383 respondents, 23.2% were married one year or less. Most participants (75.5%) reported having no prior children. The average sexual impact score was 38 with a range from 0 to 90 and standard deviation of 20. Among couples seeking treatment for infertility, females reported greater sexual dysfunction (mean=39, SD=20) when compared to males (mean=25, SD=18). Respondents who were 20 to 35 years old experienced significantly more sexual dysfunction than respondents more than 45 years old, (mean of 39, CI 36-42 and mean of 23, CI 9-39 respectively,  $p=0.01$ ). Among female respondents, total length of infertility, years of marriage, parity and religion were not associated with increased sexual dysfunction.

**Conclusions:** Among women seeking infertility treatment there are high levels of sexual dysfunction. In couples suffering from infertility, women have significantly higher rates of sexual dysfunction when compared to men. There is significantly more sexual dysfunction among younger women suggesting that infertility impacts patient's lives differently throughout the reproductive years.

#### **Disclosure:**

Work supported by industry: no.

060

### **Evaluation of NEOGYN® Feminine Soothing Cream in Treating Female Sexual Function in Postmenopausal Women with Chronic Vulvar Pain and Discomfort**

Kellogg-Spadt, S<sup>1</sup>; Carlow, JJ<sup>2</sup>; Haines, M<sup>3</sup>; Krychman, ML<sup>4</sup>

1: Center for Pelvic Medicine, Byrn Mawr Pa and Dept. Obgyn, Drexel University College Medicine Philadelphia, PA; 2: Discovery Statistics, San Clemente, CA; 3: Neogyn, Inc., Jersey City, NJ; 4: Southern California Center for Health & Survivorship Medicine, Newport Beach, CA

**Objective:** The menopausal process is a natural progression for women. In addition to exacerbation of vasomotor symptoms, vaginal and vulvar dryness, pruritis, and atrophy of the vulvar skin, postmenopausal women often experience painful intercourse (dyspareunia) and gradual decline of sexual interest. The aim of this study was to evaluate the effect of Neogyn®, a feminine vulvar soothing cream, in relieving chronic mild-to-moderate outer genital discomfort or pain in otherwise healthy, postmenopausal women. Neogyn® is a cellular lysate cream that is hormone, fragrance and paraben free. It is a proprietary blend of proteins and interleukins specifically formulated by Swiss scientists. The study was also designed to evaluate the hypothesis that chronic vulvar pain and discomfort are highly associated with patient reported sexual dysfunction and dissatisfaction.

**Design:** Convenience sampling was used at two geographically diverse clinical institutions to enrol 24 postmenopausal women in this single-group, open label, pre- post-test study design. At the time of screening, all subjected reported vulvar and intercourse related pain and discomfort. The patients were consented, examined and screened to ensure qualification. The subjects were not on any other treatments for vulvar pain or discomfort. Subjects were educated with anatomical pictures on where to and how to apply 0.25-0.30g of the study product to their outer genital areas once daily or as much as clinically indicated for 12 weeks. Assessments at baseline and 12 weeks consisted of an 11-pt numeric rating scale of discomfort, the Female Sexual Dysfunction Index (FSFI), and the McGill Genital Pain Questionnaire. Global assessments of the treatment were also made at 4 and 8 weeks.

**Results:** Twenty-four predominantly (93%) white postmenopausal women ages ranging from 53-80 (average  $62.4 \pm 7.7$ ) were enrolled between June and November 2013. With a response range of 0 for no discomfort and 10 the worse possible discomfort;

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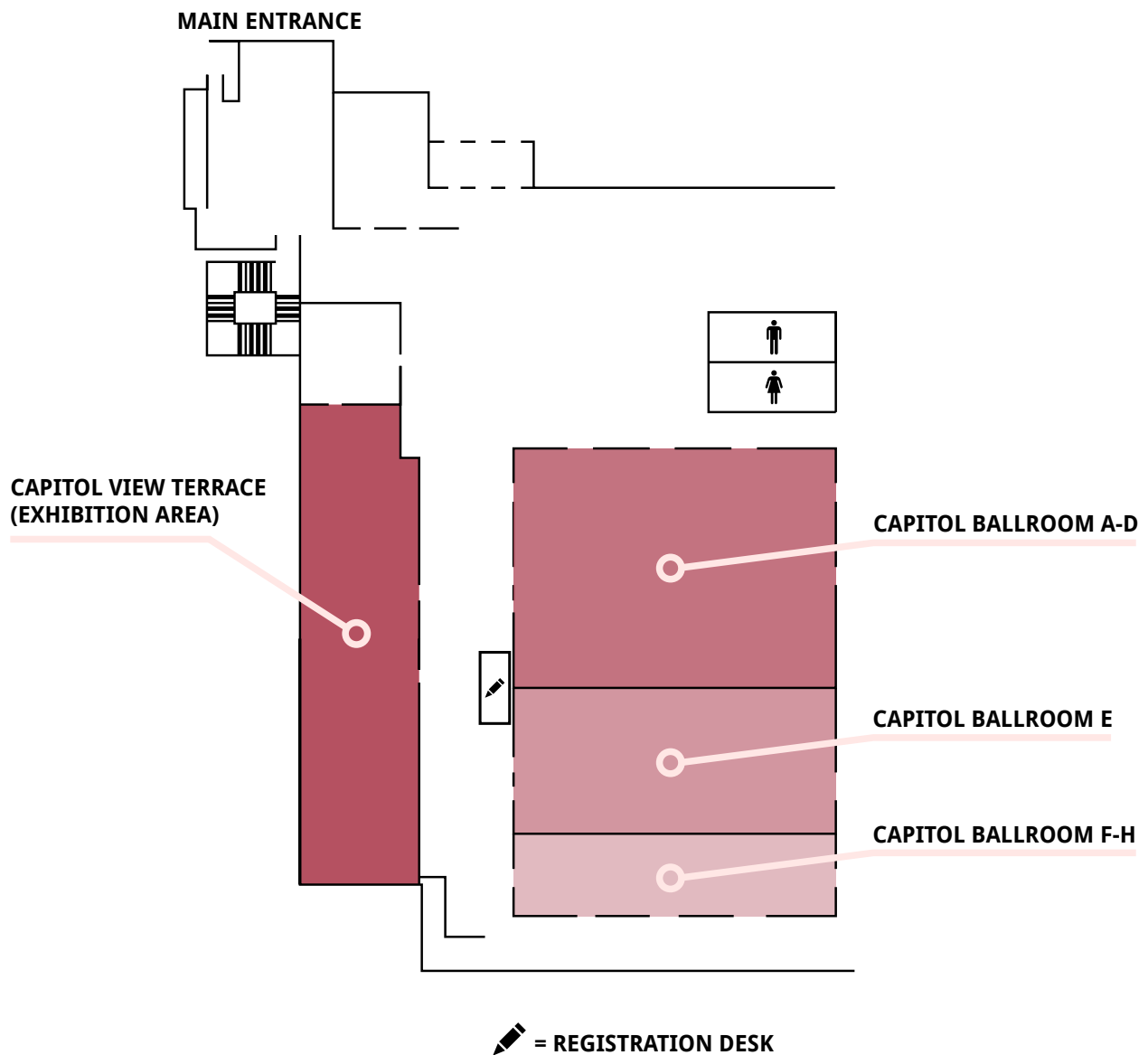
the average vulvar discomfort score was  $6.2 \pm 1.8$  at baseline and  $2.7 \pm 2.5$  at 12 weeks representing a 56% improvement in outer genital discomfort ( $p < 0.0001$ ). Utilizing the McGill Genital Pain Questionnaire, 3 (12.5%) subjects reported none-mild pain at baseline in contrast to 13 (56%) subjects reporting none-mild pain at 12 weeks ( $p < 0.05$ ). The total FSFI score significantly improved from  $14.2 \pm 7.6$  at baseline to  $21.4 \pm 8.4$  at 12 weeks ( $p = 0.006$ ). When comparing the baseline and 12-week FSFI domain average scores, there was also a 77% improvement in the Pain domain ( $p = 0.029$ ), a 46% improvement in the Arousal domain ( $p = 0.016$ ), and a 30% improvement in the Satisfaction domain ( $p = 0.082$ ). Based on the global assessments of the treatment, the study product was well tolerated by the majority of the subjects with 83.3% of the subjects at 4 weeks and 86.4% of the subjects at 12 weeks reporting they were satisfied with the treatment. Overall at the final 12-week evaluation, 14/23 (60.9%) subjects reported that their level of discomfort had improved, 13/23 (56.6%) reported that the quality of their sex life had improved, and 18/23 (78.3%) experienced a meaningful benefit from the study cream.

**Conclusion:** Vulvar pain and discomfort can have a significant impact on a woman's quality of life. It is apparent that the study product, Neogyn® Soothing Cream, can relieve vulvar pain and discomfort and henceforth improve sexual well being in many postmenopausal women. Neogyn® is a novel non-hormonal vulvar product that should be added to the treatment paradigm options for outer genital discomfort.

**Disclosure:**

Work supported by industry: yes, by Neogyn, Inc.

## FLOOR PLAN





## NOTES

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