SEXUAL HEALTH DURING PREGNANCY AND THE POSTPARTUM

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- None

Learning Objectives

- Understand patterns of sexuality during pregnancy and the postpartum
- Gain insight on strategies that will inform counseling and discussions with patients on expected changes in sexual health during pregnancy and the postpartum

Pregnancy, Childbirth and Women's Sexual Health

- Childbirth is a central event in a woman's reproductive life cycle
- Sex is a healthy and normal part of pregnancy and after childbirth
- How a woman experiences sexuality during pregnancy may change
- Only 15% of women discuss a postpartum sexual problem with a health provider

Barrett G, et al. Br J Obstet Gynaecol 2000; 107:186-95
Rogers RG, et al. J Midwifery Women's Health 2009; 54(2): 98-103

Sexual Changes

- First Trimester
  - Loss of interest (nausea, vomiting, breast tenderness)
  - ^Awareness of early pregnancy –> decreased sexual function
    - Lower FSFI scores – arousal, lubrication, orgasm, satisfaction
    - Decreased frequency sexual activity
- Second Trimester
  - Studies are mixed – sexual activity may decrease or increase
- Third Trimester
  - Intercourse less comfortable due to physical changes
    - Decline in frequency sexual activity
    - Decline in orgasm
    - Increase in vaginal pain
- Postpartum
  - Increased dyspareunia
  - Worsened body image

Galazka I, et al. JSM 2014 (online)
Lowenstein L, et al. JSM 2013; 10:621-622
^Corbacioglu A et al. JSM 2012; 9:1897-1903

Antepartum

Physical Factors Associated with Pregnancy that can Reduce Sexual Activity

- Dyspareunia
  - Pelvic vasocongestion
  - Vaginal congestion with reduced lubrication
  - Subluxation of pubic symphysis and sacroiliac joints
  - Retroverted uterus (particularly in first trimester)
  - Weight of partner on uterus during intercourse in third trimester
- Fatigue
- Back Pain
- Deep engagement fetal head
- Infection (candida, trichomonas, BV)
- Hemorrhoids
- Urinary tract infections
- Stress Incontinence
- Vulvar varicose veins

Read, J. BMJ 2004; 329 (4): 559-561
Reamy KJ, White SE. J Psychosom Obstet Gynaecol 1985; 4:263

Adaptation to Altered Coital Positions & Activities During Pregnancy

- As pregnancy progresses
  - woman-on-top, side-by-side, on-all-fours, and rear entry are more common
- Alternatives to vaginal intercourse while maintaining sexual intimacy
  - Kissing, hugging, breast fondling, sex toys, massage, mutual masturbation, oral sex
- Couples with greater degree intimacy accept and negotiate a wider variety of sexual positions

Sacomori C, et al J Sex Marital Ther 2010; 36: 124-36

Contraindications to Sexual Intercourse During Pregnancy

Absolute Contraindications

- Unexplained vaginal bleeding
- Placenta previa
- Premature dilatation of the cervix (preterm labor or cervical insufficiency)
- Preterm Premature Rupture of Membranes (PPROM)

Relative Contraindications

- History of premature delivery
- Multiple pregnancy

Sexual Safety

- Rape, Intimate Partner Violence, Sexual abuse
  - Historical or present risk
- STIs - HIV, Herpes
  - Safe sex practices
- Depression and associated factors
  - Previous history of depression
  - Social conflict/Lack of social support
  - Unintended pregnancy
  - Relationship quality

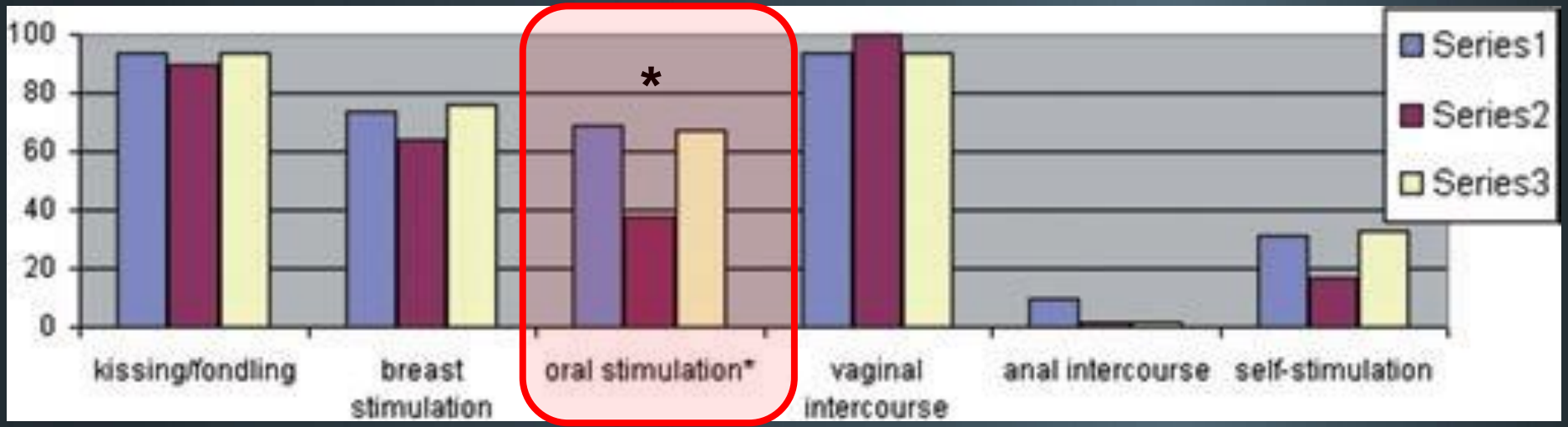
Other Considerations

- Whether pregnancy was desired
- Pre-pregnancy sexual function
- Support network
- Quality of partner relationship
- Previous pregnancy and delivery outcomes
- Chronic diseases
- Depression, anxiety
- Socioeconomic constraints
- Health status of current children
- Present, previous, future contraceptive use

McCabe M et al. JSM 2010; 7 (pt 2): 327-336
Read J. BMJ 2004; 329 (7465): 559-561

Prospective Study of the Effects of Pregnancy on Female Sexual Function and Body Image

Sexual Practices



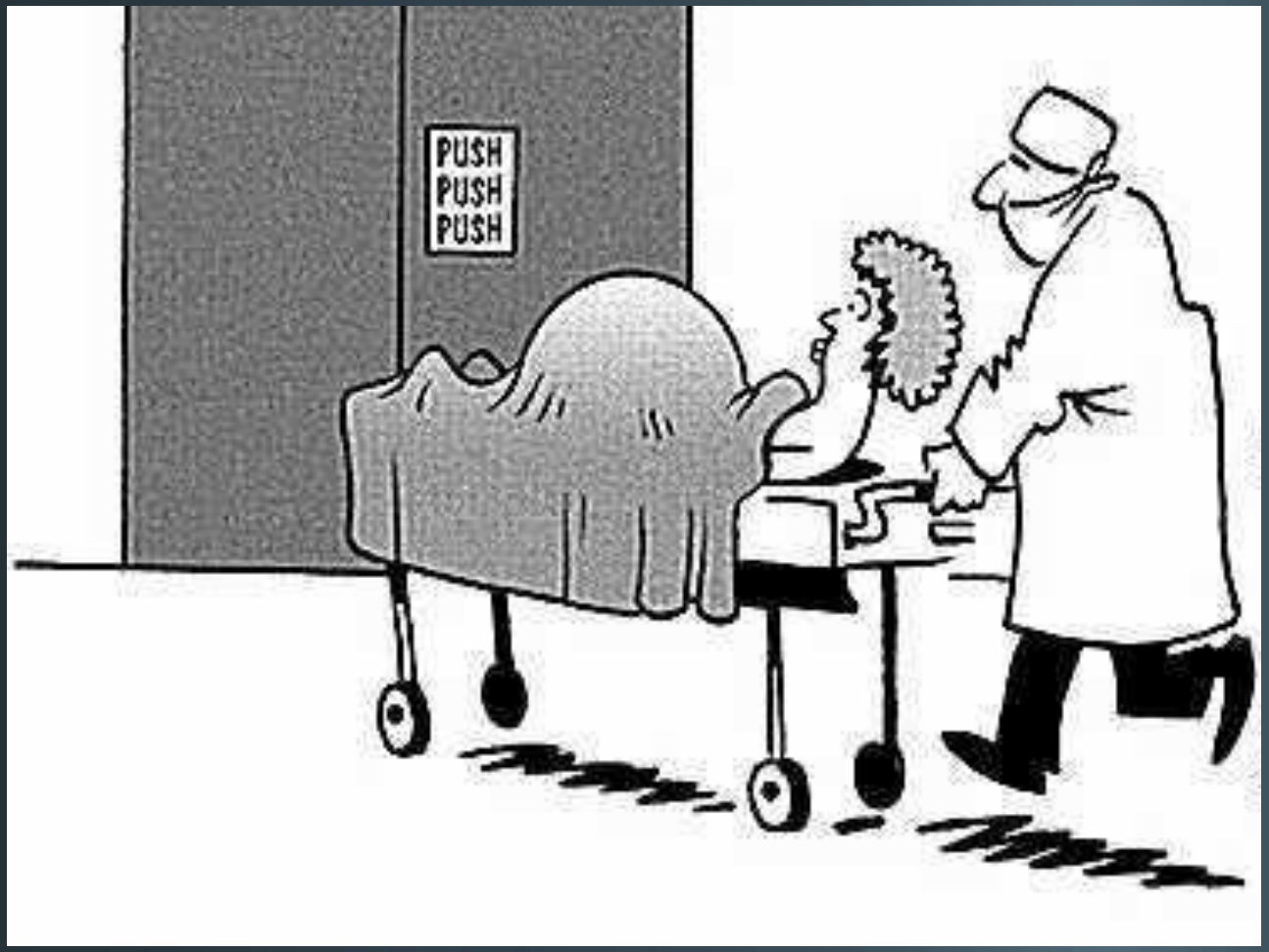
***P < 0.05**

Series 1 = 1st trimester
Series 2 = 3rd trimester
Series 3 = 6 months postpartum

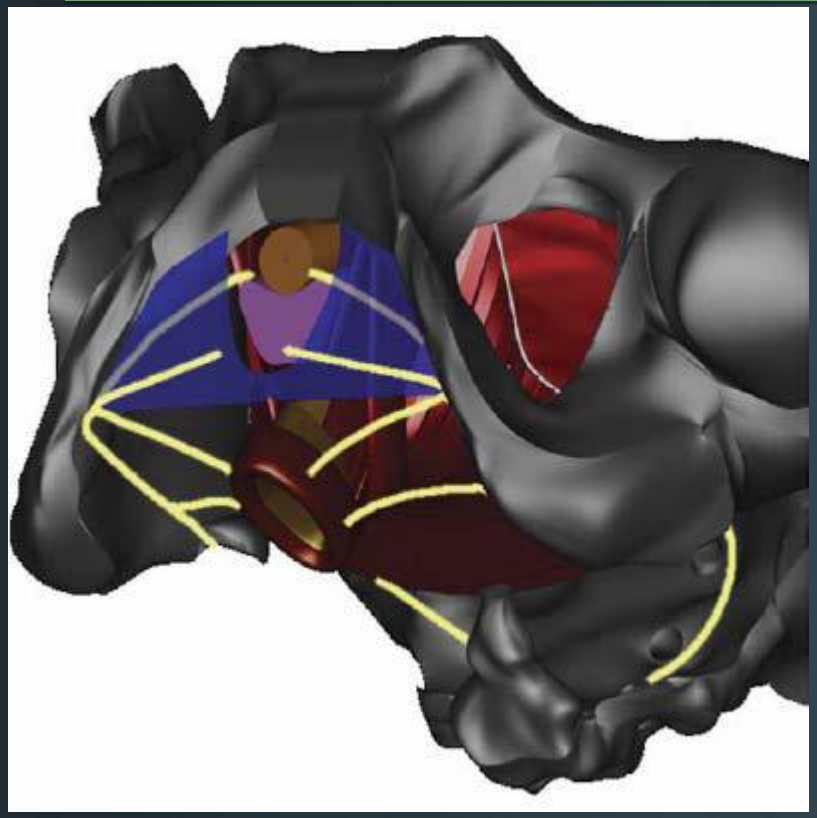
Body image did not change significantly during pregnancy but was worse at 6 months postpartum

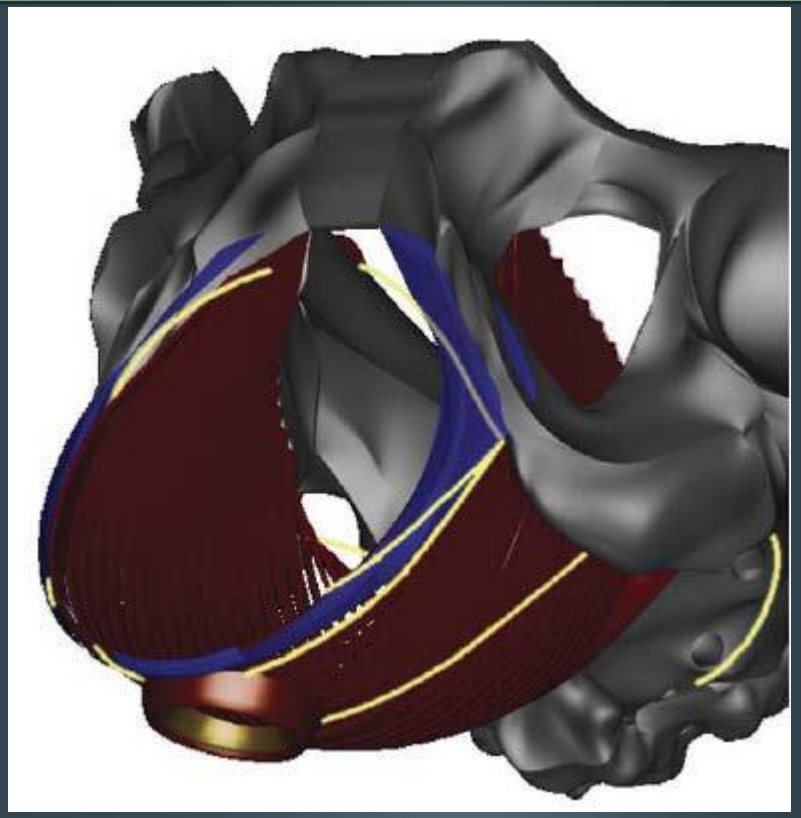
Pauls RN, et al. J Sex Med 2008; 5: 1915-1922

Intrapartum



The Pelvic Floor During the Second Stage of Labor





Urogenital Diaphragm = **Blue**
Levator Ani = **Dark Red**
Pudendal Nerve = **Yellow**

Handa VL Semin Perinatol 2006; 30:253-256

Pudendal Neuropathy

- Pudendal nerve – primary afferent nerve for the perineum, vulva, and clitoris

- Pudendal nerve trauma has been demonstrated after vaginal delivery
  - Compression of nerve by fetal head can result in acute nerve dysfunction and ischemic injury (similar to compartment syndrome)

  - Stretch injury (prolonged 2nd stage labor, operative delivery, fetal birth weight)

Handa VL Semin Perinatol 2006; 30:253-256, McKenna KE. J Urol 2002; 20:93-100
Snooks SJ, et al. Int J Colorectal Dis 1986; 1:20-24

Cesarean or Vaginal Delivery to Protect Women's Sexual Function?

- Protective effect of C/S on sexual function is limited to the early postnatal period (0 – 3 months)
  - Dyspareunia
- At 6 months the differences are reduced/reversed, not statistically significant
  - Dyspareunia
  - Sexual Response
  - Postcoital problems

Barrett, G et al. Birth 2005; 32:4, 306-311

Second Stage of Labor and Sexual Function

Prospective cohort of primiparous women comparing C/S prior to 2nd stage of labor to vaginal birth and sexual function at 6 months postpartum

Sexual function	Vaginal Birth *n* = 336	Caesarean Section *n* = 138	
Sexually active (%)	281 (88)	123 (92)	0.14
Female Sexual Function Index scores (mean ± SD)	28.5 ± 5.4	26.6 ± 6.3	0.004
Desire (mean ± SD)	3.8 ± 1.2	3.3 ± 1.2	<0.001
Arousal (mean ± SD)	4.1 ± 1.8	4.1 ± 1.5	0.89
Lubrication (mean ± SD)	4.5 ± 2.0	4.4 ± 4.1	0.73
Orgasm (mean ± SD)	4.2 ± 2.0	4.3 ± 1.7	0.52
Satisfaction (mean ± SD)	4.7 ± 1.4	4.6 ± 1.3	0.49
Pain (mean ± SD)	5.1 ± 1.2	4.9 ± 1.3	0.37
Pain			
No perineal pain, PPI = none (%)	301 (92)	131 (95)	0.27

Rogers RG, et al. BJOG 2014; 121:1145-1154

Route of Delivery

- Planned prinary C/S (prior to onset of labor)
  - Lowest rates of long-term sexual dysfunction
- Normal spontaneous vaginal delivery (NSVD)
  - Exposure to genital and anal sphincter lacerations
  - Morbidity dependent on degree of trauma to perineum
- Operative delivery (forceps/vacuum)
  - Highest rate of short-term maternal/neonatal complications
  - Long-term sexual dysfunction
  - More relevant during first delivery and/or macrosomia

(confounding factors – age, parity, associated co-morbidities, substance abuse, relationship issues, use of validated measures of sexual function)

Lurie S et al. Arch Gynecol Obstet 2013; 288: 785-792
Safarinejad M et al JSM 2009

Labor and Delivery Interventions to Minimize Perineal Trauma in Women with Sexual Pain Disorders

- Perineal massage/stretching
  - Optimal if performed daily x 6 wks prior to delivery
  - 9% reduction in trauma requiring suturing if performed daily x 10 minutes in primiparous women*
- Birth Positioning
  - Non-supine positions (i.e. upright, side-lying, squatting, semi-sitting, hands/knees)
    - Shorter 2nd stage labor
    - Fewer episiotomies
    - Greater comfort
- Avoiding Directed and Valsalva Pushing
  - Instead push once feel urge, with exhalation rather than breath-holding
- Mindfulness in Childbirth
  - Promotes a sense of calm and emotional well-being
  - Encourages women to stay in the present moment and avoid controlling every step of labor and delivery process
  - Aids in anxiety reduction

Rosenbaum TY, Padoa A, JSM 2012
*Labrecque M, et al AJOG 1999

Perineal pain

- Dyspareunia reported by 41% - 67% of women 2 – 3 months postpartum
  - Depends on severity of perineal trauma at delivery
- Perineal pain resolves by 3 months, while dyspareunia may take longer
- Women with a history of chronic pelvic pain may experience persistent postpartum genital or pelvic pain beyond 1 year*

Handa VL Semin Perinatol 2006; 30:253-256
*Paterson LQP, et al; JSM 2009

Postpartum Perineal Pain in a Low Episiotomy Setting: Association with Severity of Genital Trauma, Labor Care, and Birth Variables

Lawrence Leeman, MD, MPH, Anne M. Fullilove, MIS, Noelle Borders, MSN, CNM, Regina Manocchio, MSN, CNM, Leah L. Albers, CNM, DrPH, and Rebecca G. Rogers, MD

Prospective Study of Midwifery Patients (N=565)

Pain Assessment Measure	*Major Trauma*	*Minor or No Trauma*	p
	At the time of postpartum hospital discharge		
Pain on VAS (range 0–10) (±SD)	2.16 ± 1.61	1.48 ± 1.40	<0.001
Discomforting or worse pain on PPI	55%	35%	<0.001
Use of analgesic medicines	45%	35%	0.02
	At 6 weeks or 3 months postpartum		
Pain on VAS (range 0–10) (±SD)	0.19 ± 0.49	0.17 ± 0.65	NS
Discomforting or worse pain on PPI	3.2%	2.5%	NS
Use of analgesic medicines	7.1%	6.3%	NS

VAS = visual analog scale; PPI = present pain intensity component of McGill pain. questionnaire.

Birth 2009; 36:4, 283-288

Does Spontaneous Genital Tract Trauma Impact Postpartum Sexual Function?

Rebecca G. Rogers, MD, Noelle Borders, CNM, MSN, Lawrence M. Leeman, MD, MPH, and Leah L. Albers, CNM, DrPH

- Prospective cohort 576 women exposed to minor vs major perineal trauma
  - Validated measure postpartum sexual function - Intimate Relationship Scale (IRS)
  - Both trauma groups equally likely to be sexually active

RESULTS

- No difference in complaints of dyspareunia
- Women with major trauma
  - Less desire to be held, touched, stroked by partner
- Women requiring perineal suturing
  - Lower IRS scores

J Midwifery Women's Health 2009; 54:98-103

Other Factors to Consider

- Function of psychological, behavioral, and cultural factors
  - Transition to role as a mother
  - Changes in body image
  - Marital satisfaction
  - Mood, fatigue
  - Anxiety or apprehension regarding infant's well-being
- Partner's reaction to birth process

Handa VL Semin Perinatol 2006; 30:253-256
Dejudicibus MA, McCabe MP, J Sex Res 2002; 39: 94-103

So What About the Male Partner?

Sexual Problems During or After Pregnancy

- For the Male Partner
  - Lack of desire
  - Erectile dysfunction
  - Premature ejaculation (49.5%)*
- Fears raised by:
  - Watching the delivery
  - Causing pain on intercourse
  - Fatherhood

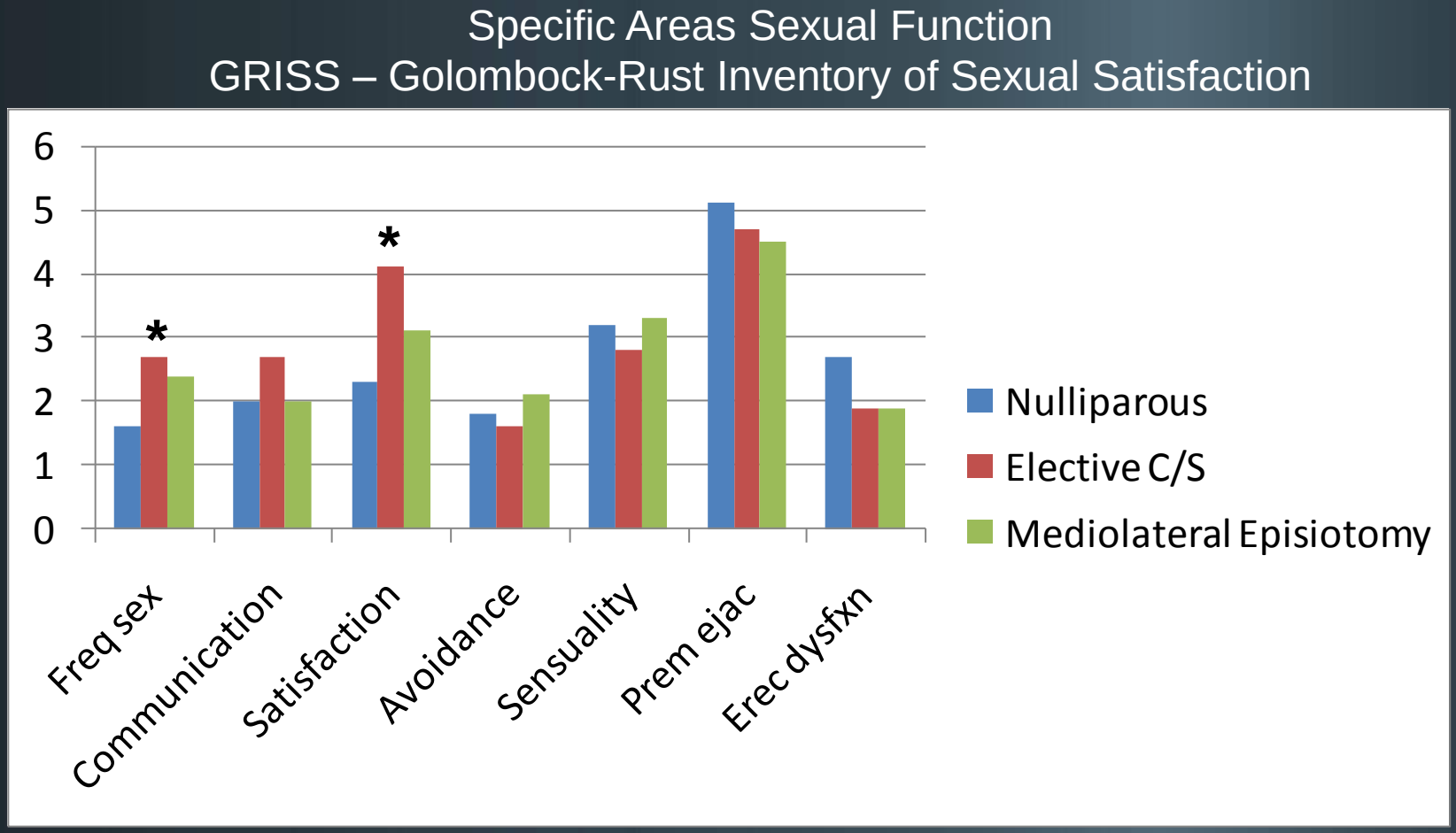
Read, J. BMJ 2004; 329 (4): 559-561
*Gungor S BI, et al. J Sex Med 2008; 5: 155-63

Does Mode of Delivery Affect Sexual Functioning of the Man Partner?

- 107 men accompanying wives to outpatient clinics in OB/GYN
- Three groups defined by men whose partners had:
  - Elective cesarean delivery (N=21)
  - Vaginal delivery with mediolateral episiotomy (N=36)
  - Not given birth (N=50)
- GRISS – Golombock-Rust Inventory of Sexual Satisfaction

Gungor, S et al. J Sex Med 2008; 5:155-163

Does Mode of Delivery Affect Sexual Functioning of the Man Partner?

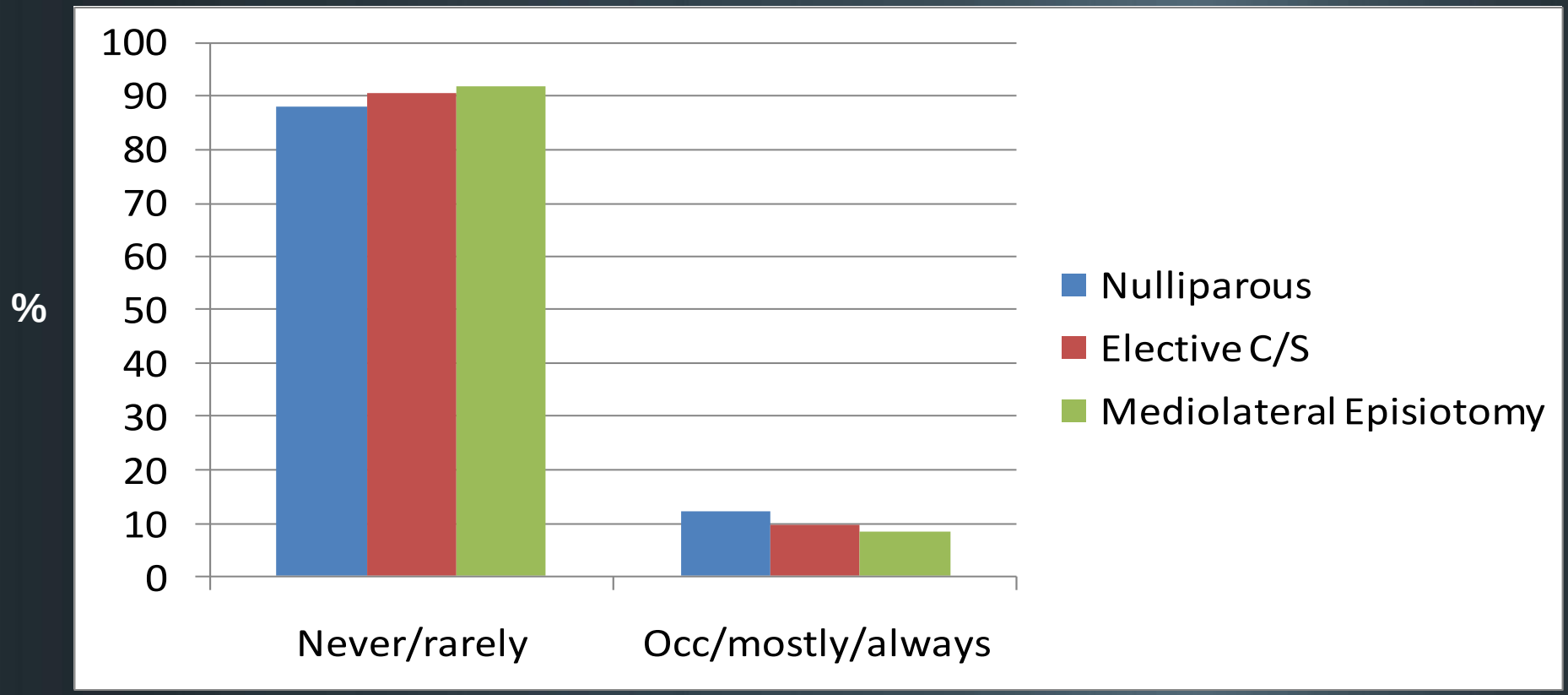


***P < 0.05**

Gungor, S et al. J Sex Med 2008; 5:155-163

Does Mode of Delivery Affect Sexual Functioning of the Man Partner?

Q: Do you ever happen to think your spouse's vagina is so loose that it affects your sexual pleasure?



Gungor, S et al. J Sex Med 2008; 5:155-163

Postpartum

"You change him, and I'll change the tire."

Factors Influencing Postpartum Sexuality

- Underlying sexual dysfunction
  - Sexual pain disorders
  - Hypoactive sexual desire
- Route of delivery
  - Perineal injury
- Breastfeeding
- Postpartum mood changes

Lowenstein L, et al JSM 2013; 10:621-622

Postpartum Sexuality

- Beyond the physical state of vaginal health, and resumption of sexual intercourse,
- Postpartum sexuality also depends on:
  - Woman's sexual drive and motivation
  - General state of health and quality of life
  - Emotional readiness to resume sexual intimacy with partner
  - Adaptation to balance of role/identify as a mother vs identify as sexual being
  - Relationship with partner

Rezaee R, Kingsberg S. OBG Management 2012; 24(1): 24 – 38.

Postpartum

- Sexual intercourse can be resumed as early as 2 weeks postpartum based on one's comfort & desire
- Within 3 months postpartum, 80% - 93% of women have resumed intercourse
- During this period, 66% experience at least one problem related to sexual function
  - Dyspareunia
  - Decreased libido
  - Difficulty achieving orgasm
  - Vaginal dryness
- Usually resolve in first postpartum year

Connolly A, et al. Int Urogynecol J Pelvic Floor Dysfunct 2005; 16: 263-267

Time to Resumption of Sexual Activity Following Childbirth

The frequencies of women resuming sexual activity at 3 different time points postpartum.

	Time to resumption from birth*							
	0–6 weeks		7–12 weeks		>12 weeks		Total reengagement	
Activity	N	%	N	%	N	%	N	%
Vaginal intercourse	57	26	132	61	28	13	217	100
Oral sex partner receiving	68	56	39	32	10	8	117	96†
Oral sex birth mother receiving	24	20	35	30	46	38	105	88†
Masturbation	40	40	45	46	14	14	99	100

*Only women who reported prebirth engagement in each activity are included in each category
†Total reengagement for oral sex partner receiving and oral sex birth mother receiving does not sum to 100% due to the fact that some women engaged in performance of oral sex on their partner but did not receive oral sex themselves or vice versa

- The majority of women resumed performing oral sex on their partner as well as engaged in masturbation early in the postpartum period
- Receipt of oral sex and intercourse were resumed much later after birth.

Hipp LE, et al JSM 2012

Breastfeeding

Hormonal Changes

- Vaginal dryness, dyspareunia, decreased arousal, delayed recovery of sexual function after childbirth, leaking milk, increased nipple sensitivity

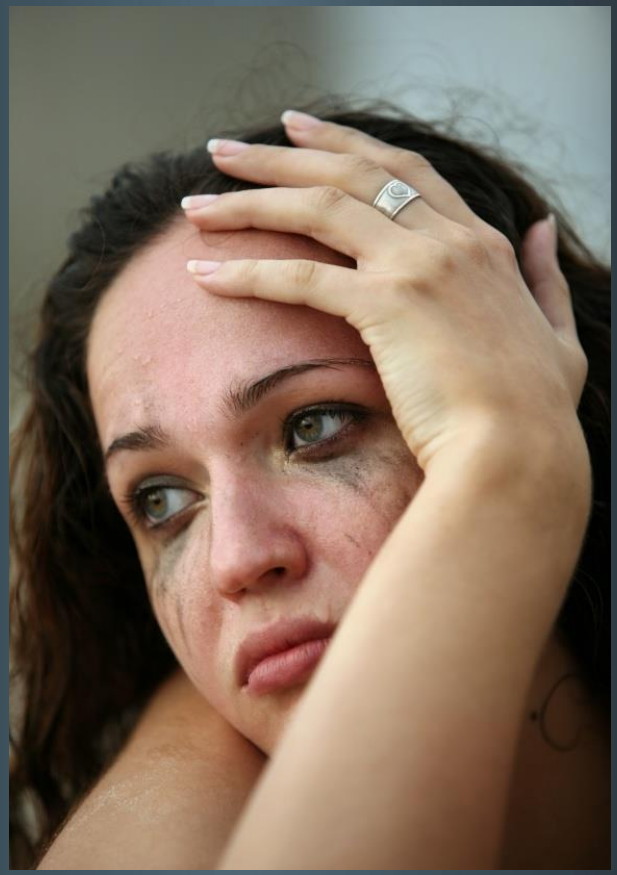
Erotic feelings – (experienced by 33-50%)*

- Oxytocin – arousing sensations similar to orgasm from intense uterine contractions

*Von Sydow K. J Psychosom Rsch 1999; 47:27-49

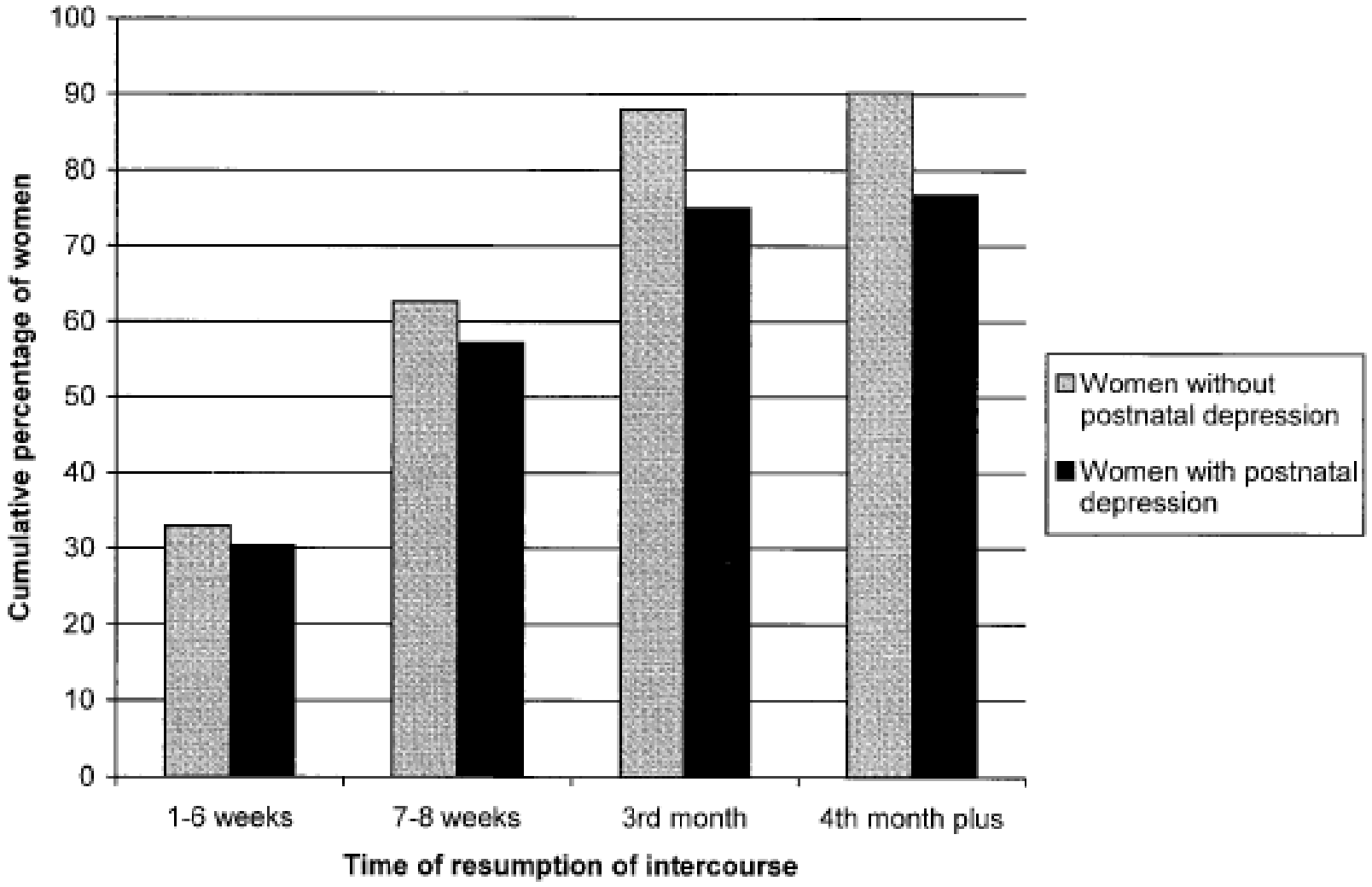
Postpartum Depression

- Affects 10 – 15% of women
- Depressed women have decreased sexual desire
- More likely to report sexual health problems postpartum
- 25% felt they resumed intercouse too soon



Morof D, et al Obstet Gynecol 2003; 102: 1318-25

Postnatal Depression and Sexual Health



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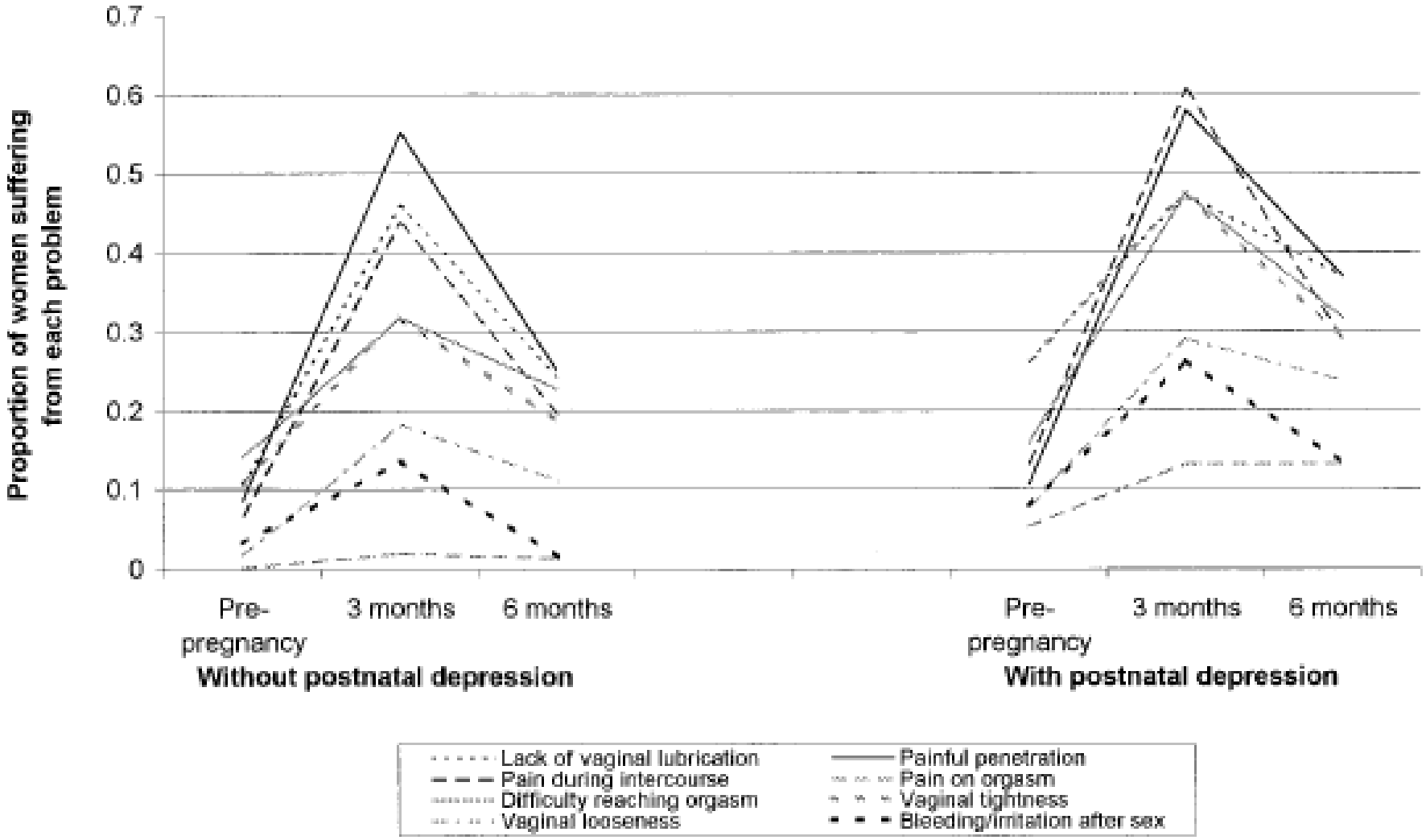
Postnatal Depression and Sexual Health



Morof D, et al. Obstet Gynecol 2003; 102:1318-25

The Relationship Between Depressive/Anxiety Symptoms During Pregnancy/Postpartum and Sexual Life Decline after Delivery

Journal of Sexual Medicine 2013

Alexandre Faisal-Cury, MD, PhD,* Hsiang Huang, MD, MPH,† Ya-Fen Chan, PhD,‡ and Paulo Rossi Menezes, PhD*

Multivariable analysis with crude and adjusted relative risk for sexual life decline, 95% CI, and P values *(sexual life decline occurred in 21.1% of the cohort)*

	Sexual decline		
	Unadjusted RR (95% CI)	Adjusted RR (95% CI)	*P* value
Depressive/anxiety symptoms			<0.001
None	1	1	
Pregnancy only	1.03 (0.58:1.83)	1.12 (0.64:1.96)	
Postpartum only	3.60 (2.51:5.10)	3.45 (2.39:4.98)	
Pregnancy and postpartum	3.09 (2.15:4.43)	3.17 (2.18:4.59)	
Age			0.008
16–19	1	1	
20–29	1.56 (0.97:2.50)	1.70 (1.07:2.70)	
30–44	1.93 (1.17:3.20)	2.11 (1.22:3.65)	
Previous miscarriage			0.02
No	1	1	
Yes	1.69 (1.25:2.30)	1.54 (1.06:2.23)	

Adjusted for marriage status, wealth score, forceps delivery, episiotomy, previous pregnancy, previous miscarriage.

Practical Recommendations: Counseling on Sexuality during Pregnancy and the Postpartum

- Engage in dialogue with couple on emotional, marital and sexual expectations during pregnancy
  - Maintain mutual emotional bonds and physical intimacy
  - Enrich relationship harmony and stability
  - With small adjustments, couples can still enjoy sexual activity and achieve satisfaction
- Acknowledge possible fears, doubts, dispel misconceptions
- Discuss normal variation/fluctuation in sexual behavior and provide reassurance

Lowenstein L, et al. JSM 2013; 10:621-622
Von Sydow K. J Psychosom Rsch 1999; 47(1) 27-49

Practical Recommendations: Counseling on Sexuality during Pregnancy and the Postpartum

- Give technical advice on range of sexual options:
  - Non-coital sexual activities
  - Alternative coital positions
  - Goal: promoting sexual life that is intimate and satisfying
- Provide anticipatory guidance on postpartum changes in sexual function
  - Encourage open communication between partners on sexual expectations during pregnancy and the postpartum
- Consider couples counseling/therapy postpartum

Lowenstein L, et al. JSM 2013; 10:621-622
Von Sydow K. J Psychosom Rsch 1999; 47(1) 27-49

Future Directions

- Research must clarify the biological, psychological and physiological mechanisms
- Incorporate validated sexual function questionnaires at baseline before and during pregnancy, as well as postpartum
- Quality-of-life and its impact on postpartum sexual dysfunction
- Design prospective, longitudinal trials which clarify the long-term impact of various obstetrical interventions (controlling for potential confounders)

Handa VL Semin Perinatol 2006; 30:253-256