Evaluation of sexual function

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What is sex?
Sex is a biopsychosocial phenomenon: There are always somatic, psychologic, relational and contextual factors involved in the way women express their sexuality.

Sex = Body, Mind, Context and Culture
SEXUAL RESPONSE MODELS

2. Basson, 2001

FIGURE 3. Non-linear Model of Female Sexual Response
Developed by Basson

Basson’s non-linear model acknowledges how emotional intimacy, sexual stimuli, and relationship satisfaction affect female sexual response.
BACKGROUND OF SEXUAL FUNCTIONING

- Predisposing Factors
- Maintaining Factors

- Early Development
- Precipitating Factors
- Current Functioning

Surgical, radiotherapeutic, pharmacologic interventions, frequently have an effect on sexual functioning.

Physicians should be able to include some screening questions about sexual functioning and potential sexual trauma, in each history taking.

In case of sexual problems, physicians should be able to explore these in a more detailed history taking, in order to assess the severity and, if indicated, decide to whom to refer the patient.
ATTITUDE OF PHYSICIAN

- Open
- Empathic
- Non-directive
- Non-judging
- Professional voyeurism
PRO-ACTIVE HISTORY TAKING

Screening questions that are relevant for each consultation

• Is your sexual relationship affected by the problem, the symptom, the disease, for which you visit the consultation today? If so:
  - What type of problem do you experience?
  - Extent of bother, how can I help you?

• Do you think that concerning seks, everything functions normal?
  Arousal, lubrication, erection, sensitivity. If not:
  - Do you consider this as a problem? If so: ask more!

• Do you have negative sexual experiences? Heeft u negatieve seksuele ervaringen? If so:
  - Do you think these experiences influence your current symptom?
  - Do you think that if you need treatment, we need to take your negative experiences into account?
  - Do you need help for your negative sexual experiences?

• Do you have questions about other aspects of sexual functioning?
Exploring the problem

The most important questions in clinical practice

1. What exactly is the main problem? (characteristics of the main problem in relation to the sexual response cycle)

2. How does the partner perceive the problem?

3. What is the exact question to the physician? Does the patient ask to eliminate the dysfunction, increase sexual satisfaction or how to learn to cope with the problem?

4. Does only one sexual problem exist, or is comorbidity present of more than one problem?

5. Are other medical, psychological, relational or situational factors present that negatively influence sexual functioning?
Characteristics of the main problem in relation to the sexual response cycle

A. What exactly is the problem? In which phase of the response cycle?
B. Primary (since sexarche) or secondary problem (onset)?
C. Generalised? Depending on the conditions?
   • Response in the night
   • Masturbation
   • Different partners
D. Natural course of symptoms?
E. Aggravating factors?
F. Context, stimulus, communication?
Psychosomatic loop in SD

Independent on the primary cause, is due to secondary psychologic reaction of patient and partner, the problem always bio-psychosocial.
Pelvic floor is an emotional organ

Pelvic floor tonus is an emotional response; an expression of a general defense mechanism activated in case of trauma, pain or fear for pain.

Patient and care-provider need to understand what provoked this defense mechanism and which factors maintain the overactivity

Pelvic physiotherapy will not work in case provoking factors are not addressed simultaneously
Overactivity of the pelvic floor

- ≥ 3 symptoms known to be related to overactive pelvic floor
- Clinical evidence at pelvic examination
  - Can not relax
  - Increased rest-tonus
  - Increased muscle volume

van Lunsen RHW, Ramakers MJ. Acta Endoscopica 2002
Van der Velde et al, ongepubliceerde data
EMG of the pelvic floor
Measurement of vaginal sensibility

St Mark’s electrode attached to the investigator’s finger
Gradually increase of stimuli from 1 to 40 milli-Ampere until threshold of sensation
Measurement in four different locations
• Distal anteror and posterior vaginal wall (3cm from introitus)
• Proximal anterior and posterior vaginal wall (fornix anterior and posterior)
Measurement repeated 3 times per location
Validated in separate study

*Lakeman MME, Laan E, Roovers JPWR: A new method to measure vaginal sensibility; Neurourology and Urodynamics nov 2009*
Measurement of vaginal sensibility

• Lakeman MME, Laan E, Roovers JPWR: A new method to measure vaginal sensibility; Neurourology and Urodynamics 2009
• Intra-observer reproducibility is good
• Inter-observer reproducibility is moderate

*Lakeman MME, Laan E, Roovers JPWR: A new method to measure vaginal sensibility; Neurourology and Urodynamics nov 2009*
Methods

• RCT: vaginal hysterectomy +/- anterior and/or posterior colporraphy vs abdominal sacrocolpopexy
• Setting: 3 hospitals in the Netherlands
• Measurement before and three months after surgery
• Statistics: SPSS, non parametric tests
• Not everyone willing to undergo vaginal measurements
Results

- Vaginal versus abdominal approach

\[ \Delta \text{vag sens} = \text{vag sens before surgery} - \text{vag sens after surgery} \]

Location 1: Distal anterior vaginal wall, Location 2: Distal posterior vaginal wall, Location 3: Proximal anterior vaginal wall, Location 4: Proximal posterior vaginal wall

Lakeman et al, J Seks Med 2011
Conclusions

- Vaginal prolapse surgery negatively affects vaginal sensibility
- Distal vagina is affected more as compared to proximal vagina
Vaginal plethysmography

Potential of sexual arousal does not depend on presence of dyspareunia.

Vaginal Pulse Amplitude (ΔmV)

- dyspareunia
- controls

Type of movie
- orale sex
- coitus

Brauer, Laan, ter Kuile, 2006
Effects of vaginal prolapse surgery on vaginal congestion

<table>
<thead>
<tr>
<th>Procedure</th>
<th>N=29</th>
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<tbody>
<tr>
<td>Age</td>
<td>52.2 (38.1-62.8)</td>
</tr>
<tr>
<td>BMI</td>
<td>25.4 (20.1-34.2)</td>
</tr>
<tr>
<td>Anterior colporraphy</td>
<td>9 (31.5)</td>
</tr>
<tr>
<td>Posterior colporraphy</td>
<td>7 (24%)</td>
</tr>
<tr>
<td>Sacro-spinous fixation</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>AC + PC</td>
<td>3 (10%)</td>
</tr>
<tr>
<td>SSF + AC</td>
<td>6 (21%)</td>
</tr>
<tr>
<td>SSF + PC</td>
<td>2 (7%)</td>
</tr>
</tbody>
</table>

Vaginal Pulse Amplitude (VPA) (mV)

- - - Before surgery
--- After surgery

Voor OK
6 mnd na

10-second VPA epochs
Effects of mesh surgery on sexual function, may we wrongly attributed to mesh. Explanation could be status of vagina with history of surgical trauma.
Conclusion

A. History taking is the most important part of evaluation of sexual function
B. Some questions need to be asked to all patients
C. Pelvic floor muscle function needs to be assessed in all women
D. Quantifying vaginal sensibility and vasocongestion is technically feasible, but at moment only used in studies.