Confronting Sexual Issues after Rectal Cancer Treatment

Dr. Isabel White
Clinical Research Fellow in Psychosexual Practice
Royal Marsden NHS Foundation Trust
Email: isabel.white@rmh.nhs.uk
Controversies in sexual consequences of rectal cancer treatment

- Sexual morbidity = low profile in colorectal services
- Lack of systematic screening / clinical assessment
- Multi-factorial: early surgical impact, later neo-adjuvant / adjuvant RT & chemotherapy & psychological impacts
- Lack of integrated management pathways in cancer centres & units
- Inadequate service provision (especially for women) in secondary / tertiary centres
- Default primary care sector management despite case complexity & pan-pelvic co-morbidity
Rectal Cancer Treatment impact on Human Sexual Response Cycle

Anxiety / Depression
Hormone Imbalance
Pelvic splanchnic/ pelvic plexus nerve injury
RT Vascular Fibrosis
CT Peripheral Neuropathy
Erectile Dysfunction
Vaginal dryness
Vaginal shortening / stenosis
Dyspareunia

Anxiety
Pelvic autonomic nerve damage
Superior hypogastric plexus
Reduced semen volume (RT)
Altered orgasmic sensation
Delayed / Absent Orgasm

Pelvic vaso-congestion
Post coital bleeding
Post-coital pain
Reduced sexual enjoyment

Anxiety / Depression
Fatigue
Altered Masculinity/ Femininity
Body Image Changes / Stoma formation
Hormone Imbalance
Bowel & Urinary control issues

Arousal

Orgasm

Resolution

Satisfaction
- Dutch TME vs. TME & Neo-Adj RT trial (n=990 sexually active pts evaluated baseline to 24m
- 79.2% male & 51.7% female sexually active at pre-Tx baseline
- 76% male & 62% female had new / aggravated existing sexual dysfunction
- Post-op ED developed / worse in 79.8% associated with age >65, nerve damage & AP-resection
- Ejaculation problems developed / worse in 72.2% associated with autonomic nerve damage, anastomotic leak & neo-adjv RT
- Dyspareunia developed / worse in 59% & vaginal dryness in 56.6% associated with neo-adjv RT & stoma formation
Prevalence of Sexual Difficulties after Pelvic RT
(Adams et al 2014)

- 24% of women & 53% men (n=418) after primary or adjuvant pelvic RT stated their treatment had adversely affected their ability to have a sexual relationship

- Treatment-related sexual difficulties were as frequent in people 6-11 yrs post RT as those 1-5 years post-RT

- Principle mechanism(s) of tissue injury at 12-36 m post-RT: progressive fibrosis, endothelial damage, inflammatory changes, ischaemia, necrosis; affects pelvic vasculature & nerve plexes
Survey of Dutch Society for Surgical Oncology members: 38% responded

67.9% were colorectal surgeons

85.4% of colorectal surgeons felt sexual impact discussion was their responsibility

49.6% of colorectal surgeons never / rarely discuss sexuality with pts (possibly) having a stoma

79.9% of colorectal surgeons often / always discuss sexuality in rectal surgery with possible nerve damage
- **Male surgeons >46 yrs** of age more likely to discuss sexual impact (p=0.0006)
- **Male patients** more likely to have discussion of sexual impact (p<0.001)
- 70.4% of respondents said sexual health discussion *during FUP* was never discussed / discussed with <50% of cases
- 87.7% said sexual concerns were never raised or raised by <50% of patients
- **Barriers** to discussion included: advanced pt. age (50.6%), not relevant for cancer type (43.8%), lack of time (39.9%), no motive for discussion (35.2%)
- 50% of respondents had written materials about sexuality in clinic
- 89.4% of respondents *never prescribed* pde-5i medication for men with treatment-induced ED
- 5.8% made onward referral for treatment of sexual problems
- 46.3% of respondents wanted more training re sexual counselling

Krouwel et al 2015
EORTC QLQ – CR29
Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the past week. Please answer by circling the number that best applies to you.

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A Little</th>
<th>Quite a bit</th>
<th>Very Much</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

For men only:
56. To what extent were you interested in sex?
57. Did you have difficulty getting or maintaining an erection?

For women only:
58. To what extent were you interested in sex?
59. Did you have pain or discomfort during intercourse?
**International Index of Erectile Function (IIEF)**
- 15 items
- Domains: Sexual desire (2), Erectile Function (6), Orgasm / Ejaculation (2), I/C Satisfaction (3), Overall Satisfaction (2)

**Sexual Health Inventory for Men / IIEF-5**
- 5 items
- Domains: Erectile Function (4), I/C Satisfaction (1)

### The IIEF-5 Questionnaire (SHIM)

Please encircle the response that best describes you for the following five questions:

<table>
<thead>
<tr>
<th>Question</th>
<th>Very low</th>
<th>Low</th>
<th>Moderate</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How do you rate your confidence that you could get and keep an erection?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2. When you had erections with sexual stimulation, how often were your erections hard enough for penetration?</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. During sexual intercourse, how often were you able to maintain your erection after you had penetrated your partner?</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>4. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. When you attempted sexual intercourse, how often was it satisfactory for you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

**Total Score:** __________________

1-7: Severe ED  8-11: Moderate ED  12-16: Mild-moderate ED  17-21: Mild ED  22-25: No ED
**Female Sexual Function Index (FSFI)** (Baser et al 2012)

Validated in Gynae-oncology & BMT sample
19 items
Clinical cut-off score established for FSD (< 26.55 / Total score of 36)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Questions</th>
<th>Score Range</th>
<th>Factor</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desire</td>
<td>1, 2</td>
<td>1 – 5</td>
<td>0.6</td>
<td>1.2</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Arousal</td>
<td>3, 4, 5, 6</td>
<td>0 – 5</td>
<td>0.3</td>
<td>0</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Lubrication</td>
<td>7, 8, 9, 10</td>
<td>0 – 5</td>
<td>0.3</td>
<td>0</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Orgasm</td>
<td>11, 12, 13</td>
<td>0 – 5</td>
<td>0.4</td>
<td>0</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Satisfaction</td>
<td>14, 15, 16</td>
<td>0 (or 1) – 5</td>
<td>0.4</td>
<td>0</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>17, 18, 19</td>
<td>0 – 5</td>
<td>0.4</td>
<td>0</td>
<td>6.0</td>
<td></td>
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<td>0</td>
<td>6.0</td>
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**Full Scale Score Range**  
1.2 – 36.0

*A score ≤ 26.55 is classified as FSD.*
Development and Validation of a 6-Item Version of the Female Sexual Function Index (FSFI) as a Diagnostic Tool for Female Sexual Dysfunction

Abstract

Introduction. A limiting step in the evaluation of female sexual dysfunction (FSD) is the availability of a rapid screening procedure. Often, practitioners avoid investigating sexual symptoms due to concerns of insufficient time or lack of proper tools to address FSD.

Aim. The purpose of this study was to prepare and validate an abridged form of the most popular psychometric diagnostic test (Female Sexual Function Index, FSFI-19) to provide a fast screener of FSD for easy use in outpatient visits, epidemiological studies, and assessment of treatment response.

Methods. We interviewed and administered the FSFI-19 to 200 women attending outpatient clinics for sexual and reproductive medicine. Forty women were excluded because they had no sexual activity or failed to attend the retest visit. Patients were evaluated on two subsequent visits to validate the abridged form of the questionnaire. Overall, 105 were found to suffer from a FSD.

Main Outcome Measure. We assessed, individually, the sensibility and sensitivity of all questions of the full-length FSFI. We then estimated the performance of each item with respect to the specific sexual domain they address. By selecting the best combination of performing items in each domain, we built an abridged, 6-item form of the FSFI.

Results. The Receiver Operating Characteristic curves of the FSFI-6 showed that women who scored ≤19 were classified as having FSD. Using the cut-off of 19, the sensitivity and specificity of the test were, 0.93 and 0.94, respectively. Reliability, internal consistency, and stability on retest were also good.

Conclusions. The abridged FSFI-6 is a valuable tool for screening women that are likely to suffer from FSD. In six simple questions, taking no more than 3 minutes, a score of less than 19 indicates the need for further investigations, including the full-length FSFI-19 and a dedicated interview. In conclusion, this is a novel tool that can help any doctor to disclose FSD rapidly and efficiently. Isidori AM, Pozza C, Esposito K, Giugliano D, Morano S, Vignozzi L, Corona G, Lenzi A, and Jannini EA. Development and validation of a 6-item version of the Female Sexual Function Index (FSFI) as a diagnostic tool for female sexual dysfunction. J Sex Med 2010;7:1139–1146.
Patients with Colorectal Cancer Referred to RM Psychosexual Service 2010-16 (n=34)

<table>
<thead>
<tr>
<th>Primary Diagnosis</th>
<th>Age (Yrs)</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anus</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Colon</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

RM Psychosexual Therapy Service Referral Characteristics
Colorectal Cancer = n=34 / 13% of total clinic referrals
Female n=24 / Male n=10 (70% female gender)
Median age range 50-59 years

RM GI Consequences of Treatment Service Referral Characteristics
Colorectal Cancer = 12% of total clinic referrals
70% Female gender
Median age 63 years
### Colorectal Pts in RM Psychosexual Service 2010-16 (n=34)

<table>
<thead>
<tr>
<th>Sexual Concerns</th>
<th>Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Loss of desire</strong></td>
<td>14 ♀ &amp; 6 ♂</td>
</tr>
<tr>
<td><strong>Erectile Dysfunction (ED)</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>Sexual Pain</strong></td>
<td>14 ♀ &amp; 2 ♂</td>
</tr>
<tr>
<td>Female Anorgasmia / reduced intensity</td>
<td>6</td>
</tr>
<tr>
<td>Anejaculation</td>
<td>3</td>
</tr>
<tr>
<td>Relationship Discord</td>
<td>6</td>
</tr>
<tr>
<td>Psychological Morbidity (anxiety / depression)</td>
<td>5</td>
</tr>
<tr>
<td>RT / surgical vaginal changes (stenosis, shortening, dryness, bleeding, altered alignment)</td>
<td>16</td>
</tr>
<tr>
<td>RT bowel changes (urgency, faecal leakage)</td>
<td>8</td>
</tr>
<tr>
<td>Permanent Stoma</td>
<td>5</td>
</tr>
<tr>
<td>Peripheral Neuropathy</td>
<td>3</td>
</tr>
<tr>
<td>Recto-vaginal fistula</td>
<td>1</td>
</tr>
</tbody>
</table>
Sexual Consequences of Cancer Treatment
Management Pathway
March 2016

Appendix 4: Erectile Dysfunction following Radical Pelvic Surgery

Male Sexual Dysfunction Post Radical Pelvic Surgery Treatment Pathway

Radical Pelvic Surgery

- Nerve Sparing
  TWOC
  PDE5 Inhibitor OD (tadalafil 5mg) / once week/PRN
  3/12 PDE5 Inhibitor in treatment tariff

- 6-8 Weeks Post-op
  Attend post-op ED/ Continence seminar
  Commence vacuum therapy 10 minutes daily.
  Continue PDE-5 Inhibitor

- 3 Months Post-op follow-up
  If no response after 3-4 months change to different PDE5 Inhibitor at maximum dose for 6-8 doses.
  Highlight and arrange start of Aprostadi if required.
  Continue with vacuum device.

- 6 Months follow-up
  Consider all PDE5 Inhibitors and Aprostadi if PDE5 Inhibitors are not effective.
  If no response consider combination therapy under guidance of andrology team.

- 3 Months Post-op follow-up
  3-6 months
  Psychological / Couple difficulties
  Psychological, couple Psychossexual Counseling

- 6 Months Post-op follow-up
  6 months
  Discuss option of penile implant if not responding to above treatment

Post treatment review
For patients who feel they have any unmet needs

12 – 24 Months
If no return of erectile function discuss penile implant.

*Hospital prescription only for once daily dosing
Appendix 8: Female Sexual Difficulties after Pelvic Surgery (1)

Pre-habilitation (pre-surgery/informed consent)
Discuss common sexual consequences of pelvic surgery (2)
& self-management recommendations re vasomotor symptoms & vaginal changes (3)

Primary/Interval surgery

On Treatment Completion (2-3 weeks post-surgical review)
[Service delivery formats: end of treatment review consultations,
post-Tx seminars, women’s health clinics, web-based]

Provision of intimate lubricants, Initiation of systemic HRT (via GP) for treatment-induced menopause
AND/OR non-hormonal vaginal moisturizers for post-menopausal/oestrogen-receptor +ve women
Pelvic floor exercises
Patient education re timing of resumption of sexual relations (4)

3-6 months
PV examination & review of vaginal health, resumption of sexual relations, sexual positions advice (5), HRT/menopause management & urinary/bowel function

6-9 months
PV examination & review of vaginal health (3 & 6), sexual rehabilitation, sexual positions advice (5),
Initiate HRT/menopause management plus/minus addition of vaginal oestrogen (via GP),

12 months
PV examination, vaginal health advice re maintenance of vaginal health & pelvic floor exercises
HRT/menopause management plus/minus addition of vaginal oestrogen (via GP)

12-24 months (7)

Disruptive menopause symptoms:
GP, menopause clinic, uro-gynaecology, complementary therapies
Persistent sexual pain:
GP, menopause clinic, uro-gynaecology review, psychosexual counselling
Psychological/couple difficulties:
psychological, couple or psychosexual counselling

Persistent menopause symptoms:
GP, menopause clinic, uro-gynaecology, complementary therapies
Persistent sexual pain:
GP, menopause clinic, uro-gynaecology review, psychosexual counselling, pain clinic
Psychological/couple difficulties:
psychological, couple or psychosexual counselling
Non-resumption of sexual relations (with distress): psychosexual counselling

Persistent menopause symptoms:
GP, menopause clinic, uro-gynaecology, complementary therapies
Persistent sexual pain:
GP, menopause clinic, uro-gynaecology review, psychosexual counselling, pain clinic
Psychological/couple difficulties:
psychological, couple or psychosexual counselling
**Sexual Rehabilitation Development Priorities**

- **Improve routine clinical screening & assessment for sexual morbidity** (EORTC PROMS & US PROMIS checklist screener)
- Develop **integrated pan-pelvic management pathways** for consequences of treatment (MacMillan v.MDT pilot)
- Use **validated sexual morbidity PROMS** in prospective longitudinal studies
- **Increase no. & quality of intervention studies** (female sexual morbidity / psychosexual programmes)
- **Evaluate efficacy and cost-effectiveness** of new clinical management approaches: Apps, on-line CBT / mindfulness programmes, nurse-delivered brief psycho-educational / CBT
Thank You: Any Questions?
Email: isabel.white@rmh.nhs.uk