



Sex after Prostate Cancer? Is it Possible?

Christian J. Nelson, PhD, MA Public Affairs
Chief, Psychiatry Service
Attending Psychologist
Memorial Sloan Kettering Cancer Center

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- **There are no financial disclosers to report**





Many Men are Diagnosed with Prostate Cancer





Prostate Cancer

- **Most common cancer in men**
- **Over 200,000 diagnosed yearly**
- **More common than breast cancer**
 - 1 in 6 men will develop prostate cancer
 - 1 in 8 women will develop breast cancer

American Cancer Society, Facts and Figures



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Prostate Cancer

- **90% are diagnosed with early stage disease**
- **Excellent survival rates**
 - 5-year survival rate: 99%
 - 10-year survival rate: 91%
 - 15-year survival rate: 76%
- **Men diagnosed at a younger age**

American Cancer Society, Facts and Figures



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Prostate Cancer

- **Early-stage treatments**
 - Radical Prostatectomy (RP)
 - Radiation
- **Those who select surgery**
 - Younger
 - Healthier
- **Trend toward surgery**
 - More treatment options if recurrence





All Prostate Cancer Treatments Impact Sexual Functioning





Erectile Function Recovery After RP: Meta-Analysis

- **Selection criteria**
 - > 18m post RP
 - > 50 subjects
 - Patient reported assessment
- **Yielded 22 studies (out of 212)**
- **Erectile function (EF) recovery range: 25-78%**
 - No uniform definition of EF recovery
 - “A few times; sometimes; occasionally”
- **Meta analysis erectile function recovery rate:**
 - 56%
 - Studies did not assess PDE5i use

Erectile Function Recovery After RP: Back to Baseline

Back to Baseline at 24m Post-RP

| Subjects | N | With PDE5i | No PDE5i |
|-------------------------|-----|------------|----------|
| Total Sample | 180 | 43% | 22% |
| Good Baseline Erections | 132 | 36% | 16% |

Back to Baseline For Men with Good Baseline Erections by Age

| Age | N | With PDE5i | No PDE5i |
|------|----|------------|----------|
| < 60 | 81 | 48% | 23% |
| ≥ 60 | 51 | 16% | 4% |

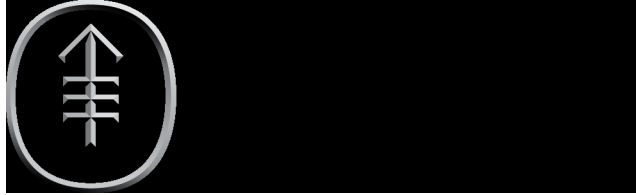


Sexual Dysfunction After Localized Treatment for Prostate Cancer

- **Of 1,236 men 4.3 years after treatment:¹**
 - 85% rated that erectile dysfunction (ED) was a problem
- **Of 553 men who had a RP, at 70m after treatment:²**
 - 17% had erections firm enough for intercourse

¹Schover et al., Cancer, 2002; ²Donavan et al., NEJM, 2016





So What?



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What I hear

- **“Well...at your age, does it really matter?”**
- **“You shouldn’t be upset, your cancer is gone.”**
- **“You will get used to it.”**





Impact of ED

- **ED is associated with depression^{1,2}**
- **ED bother does not dissipate³**
 - Report lower general life happiness
 - No logical predictors
- **Significant relationship difficulties⁴**

¹Araujo et al., Psychosom Med, 1998; ²Nelson et al., JSM, 2010; ³Nelson et al., JSM, 2010; ⁴Muller et al., 2002



ED: Quality of Life

| Predictors | Low physical satisfaction | Low emotional satisfaction | Low general happiness |
|-----------------------|---------------------------|----------------------------|-----------------------|
| No problems | 1 | 1 | 1 |
| Premature ejaculation | 0.79 | 0.97 | 1.28 |
| ED | 4.38 | 2.40 | 2.48 |
| Low desire | 3.14 | 1.57 | 2.61 |

Laumann, JAMA, 1999



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ED Bother

- **183 men with prostate cancer treated with surgery**
- **Pre-op, 12m, and 24m**
- **ED Bother**
 - ED a problem
 - Embarrassed or ashamed
 - Enjoyment of life
- **ED and ED Bother were correlated (.46)**
- **Bother did not decrease over time**
- **No significant baseline predictors**
 - Age, race, marital status, PSA, EF, sexual desire, sexual satisfaction

Nelson et al., JSM, 2010



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We Can Help



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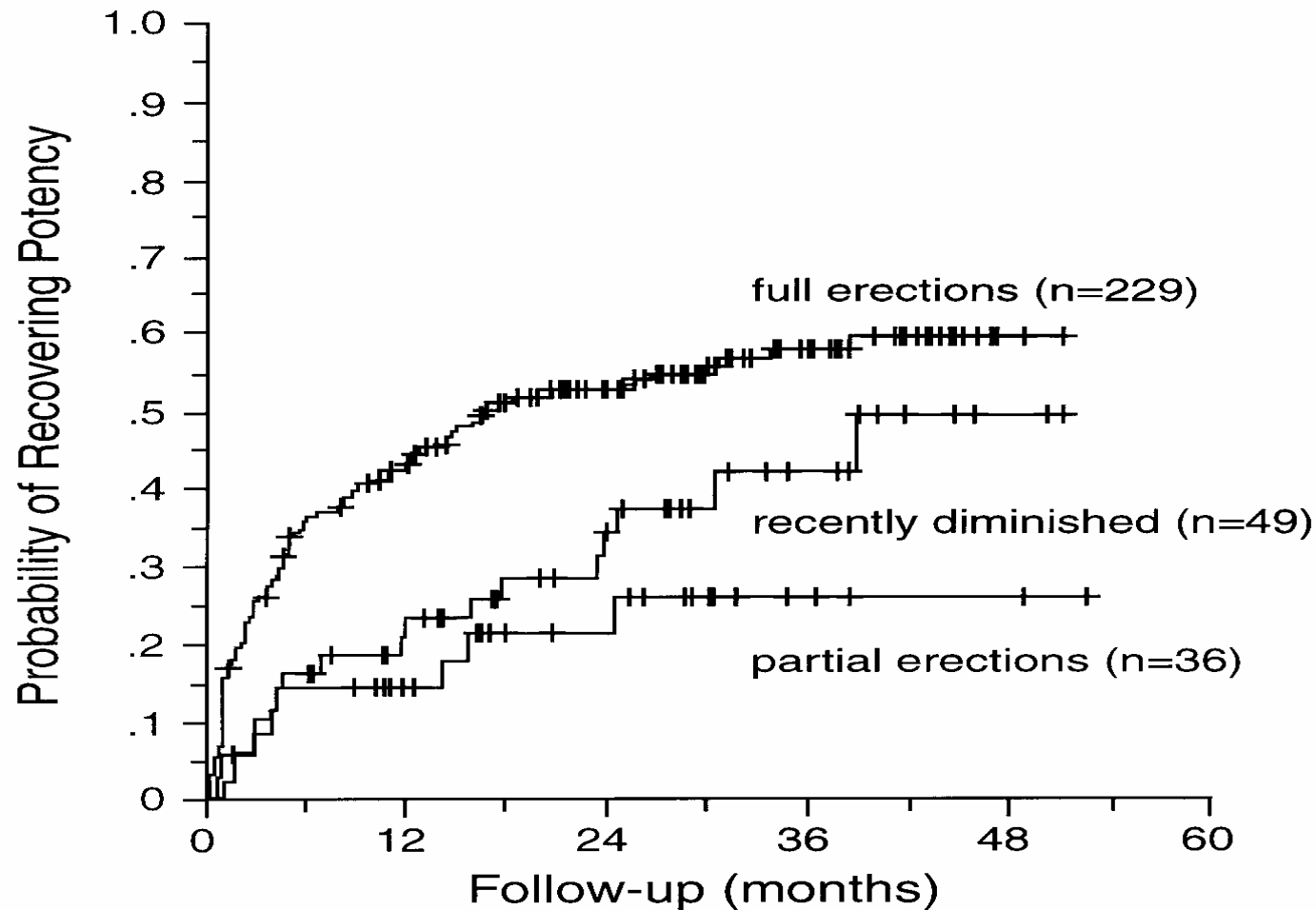


ED Treatments

- **Pills**
- **Penile injections**
- **Vacuum devices**
- **Muse**
- **Penile implant**



Recovery of Erections According to Preoperative Sexual Functioning



Rabbani F, Stapleton AM, Kattan MW, Wheeler TM, Scardino PT. J Urol 2000; 164:1929.



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Prophylactic Therapy

- RP patients with functional erections pre-op
- Patient groups:
 - 58 in rehabilitation group
 - 74 in non-rehabilitation group
- Erectile rigidity ≥ 6 , 3 times a week
 - 12% responded to pills at 4 months
 - 29% responded to pills at 8 months
 - Non-responders moved to penile injections
- % of patients capable of having medication-unassisted intercourse at 18 months post RP:
 - 52% of rehabilitation group
 - 19% of non-rehabilitation group



Penile Rehabilitation

MSKCC protocol

- **Early postoperative evaluation**
- **Immediate trial of pills**
- **Move directly to injections if pills do not work**
- **Regular erectile activity (3 times a week)**
- **25mg (1/4 tab of 100mg) pill on days not injecting**
- **Re-challenge with full dose pill every two or three months**
- **Follow program for 18-24 months**

Mulhall et al., JSM, 2005; Montorsi et al., J Urol, 1997



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Men Avoid and Drop-out of ED Treatment





Men Avoid & Drop-out of ED Treatment

- **Many drop out of treatment**
 - 50% of PDE5i users¹
 - 50% of injection users²
- **Self-report injection use³**
 - Only 60% continue at 4 months
 - Only 33% at a rate suggested for rehabilitation
- **Syringe count injection use⁴**
 - Mean injections/week: 0.9
 - Only 10% at a rate suggested for rehabilitation

¹IMS Health, 2001; ²Sundaram et al., Urology, 1997; ³Nelson et al., JSM, 2013;

⁴ Nelson et al., SMSNA, 2015



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Pilot of Intervention to Improve Compliance with an Erectile Rehabilitation Program

NIH R21 CA 149536



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Phases of Intervention Development

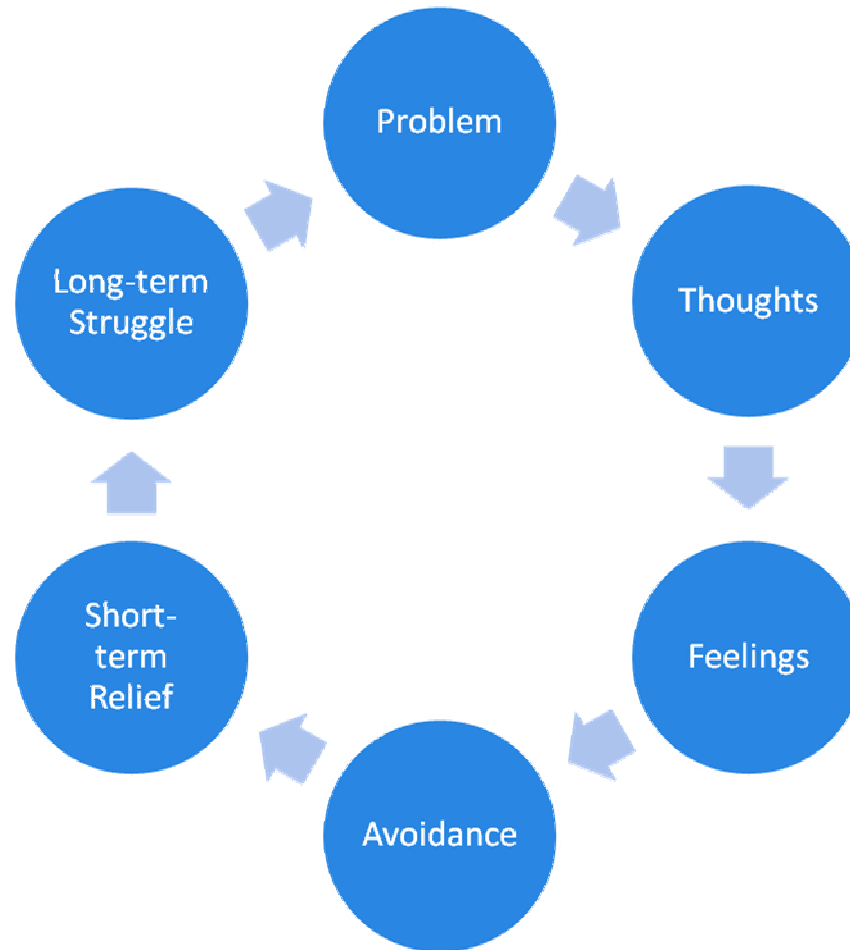
- **Phase I:**

- Qualitative study to help inform pilot intervention

- **Phase II:**

- Pilot intervention using Acceptance & Commitment Therapy (ACT) concepts to improve compliance with penile rehabilitation
- Aims: Feasibility and Efficacy

ACT: Cycle of Avoidance and Control

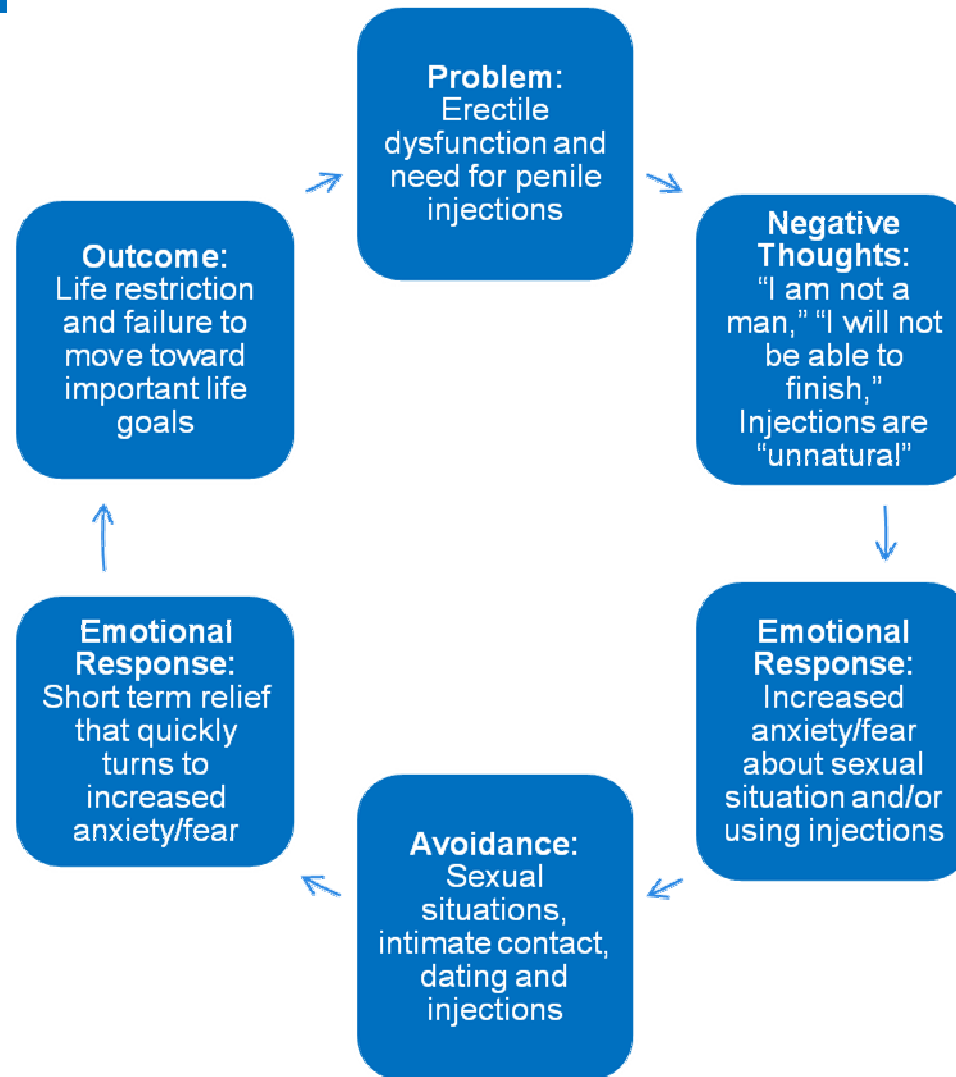


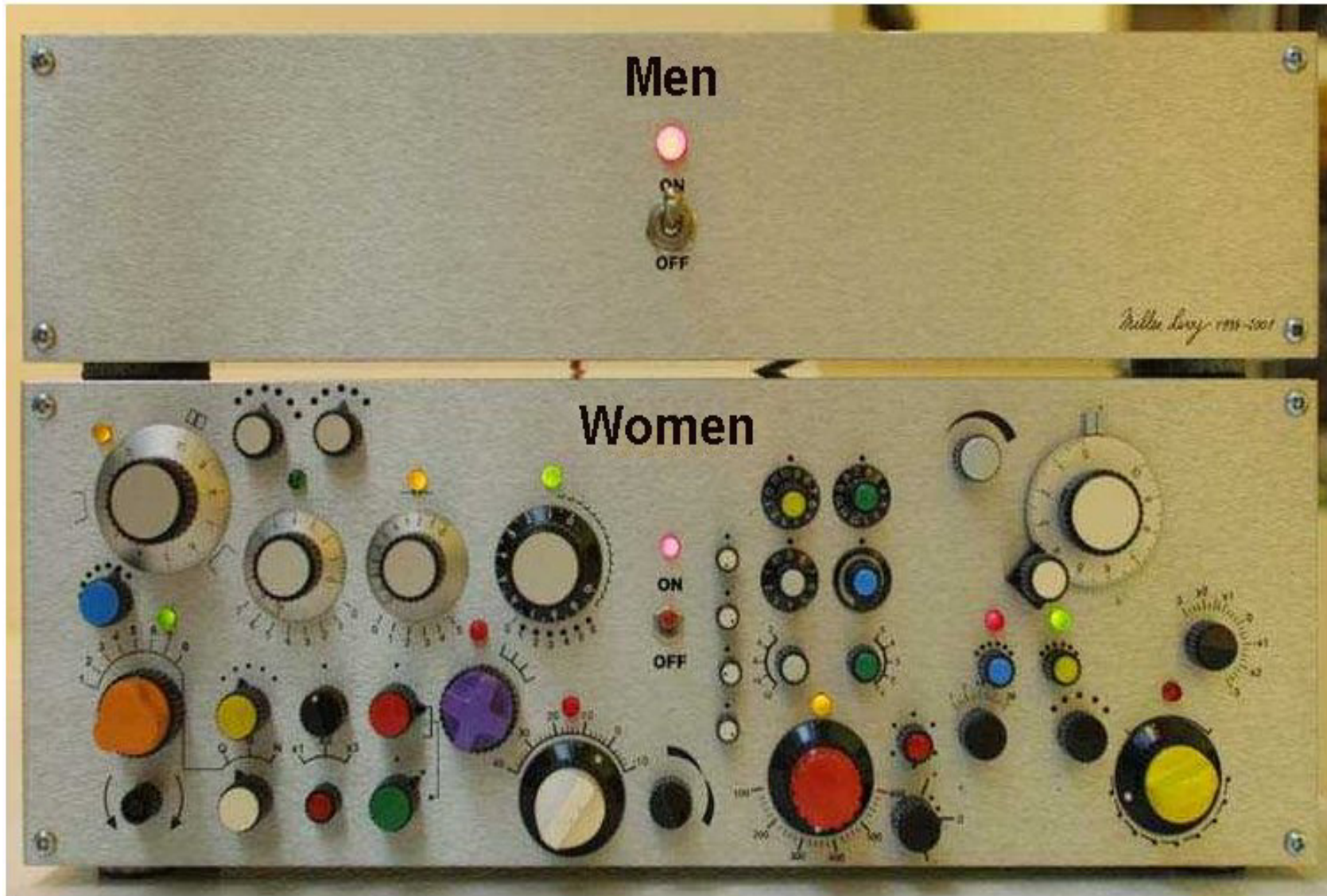


Qualitative Study: Cycle of Frustration and Avoidance

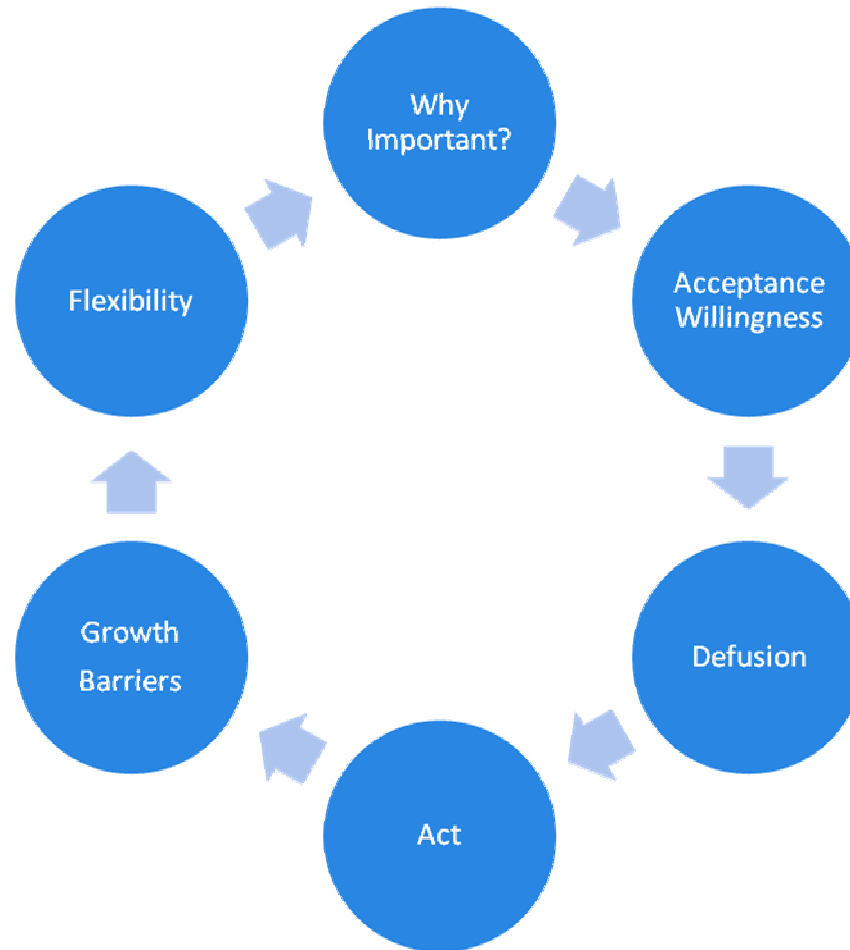
- **Disappointment/shame related to ED**
 - “I’m not a man”
 - Distress and depressive symptoms
- **Fear/anxiety of entering into a sexual situation**
 - Fear of not having a firm erection
 - “Injections are a turn-off”
 - “The whole process is humiliating”
- **Avoidance of sexual situations**
- **Loss of valued life experience**
- **Increased frustration/distress/depression**

ACT-ED: Cycle of Avoidance and Control





ACT: Cycle of Acceptance and Commitment



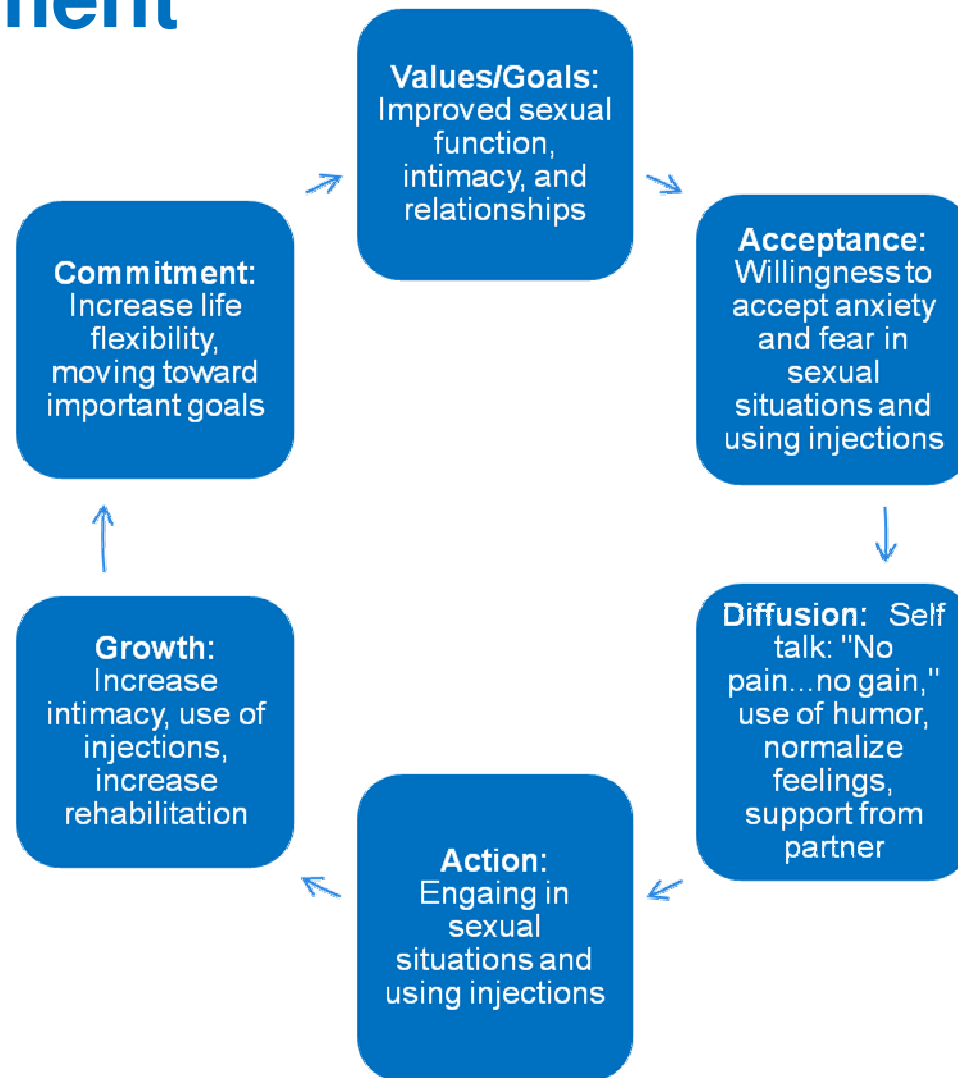


Acceptance and Commitment Therapy

- **Define important values**
- **Accept emotional pain or barriers to achieving valued activities**
 - Acknowledge the distress
 - Willingness to experience the emotional distress
- **Emotional processing of psychological distress**
 - “Exposure” therapy
- **Commitment**



ACT-ED: Cycle of Acceptance and Commitment





ACT-ED Intervention

- **Coaching vs. Therapy**
- **Explore importance of sexuality**
- **Accept short-term anxiety for long-term goal**
 - Listen to patients’ “predictions” about injections
 - Willingness to experience anxiety and frustration
- **Defuse anxiety and frustration**
 - Cognitive/emotional processing
 - Humor
 - Focus on physical sensations in sexual situation
- **Discuss barriers and solutions**
- **Commitment**
 - Set injection target





Willingness

“Courage is simply the willingness to be afraid and act anyway.” – Robert Anthony





Pilot Intervention

- **Randomized:**
 - Injection Training + ACT-ED
 - Injection Training + Nurse Practitioner (NP) Information Phone Calls
- **ACT-ED lasts 4 months**
 - 4 individual sessions (in person/phone, 30-45min)
 - 3 check-in phone calls (5-10min)
- **NP information phone call**
 - Enhanced monitoring (EM)
 - 7 phone calls on the same schedule as ACT-ED





Pilot Intervention

- **Inclusion criteria**

- Within 9 months post-RP
- Had good erectile functioning pre-surgery
 - ≥ 24 IIEF Erectile Function Domain
- Advised to start penile injections

- **Exclusion criteria**

- Specific injection phobia
- A history of bipolar disorder or psychotic disorder
- Current major depression





Primary Outcomes

- **Feasibility**
 - Acceptance rate
 - Completion rate
- **Injection Use (syringe count)**
 - Objective way to assess use of injections



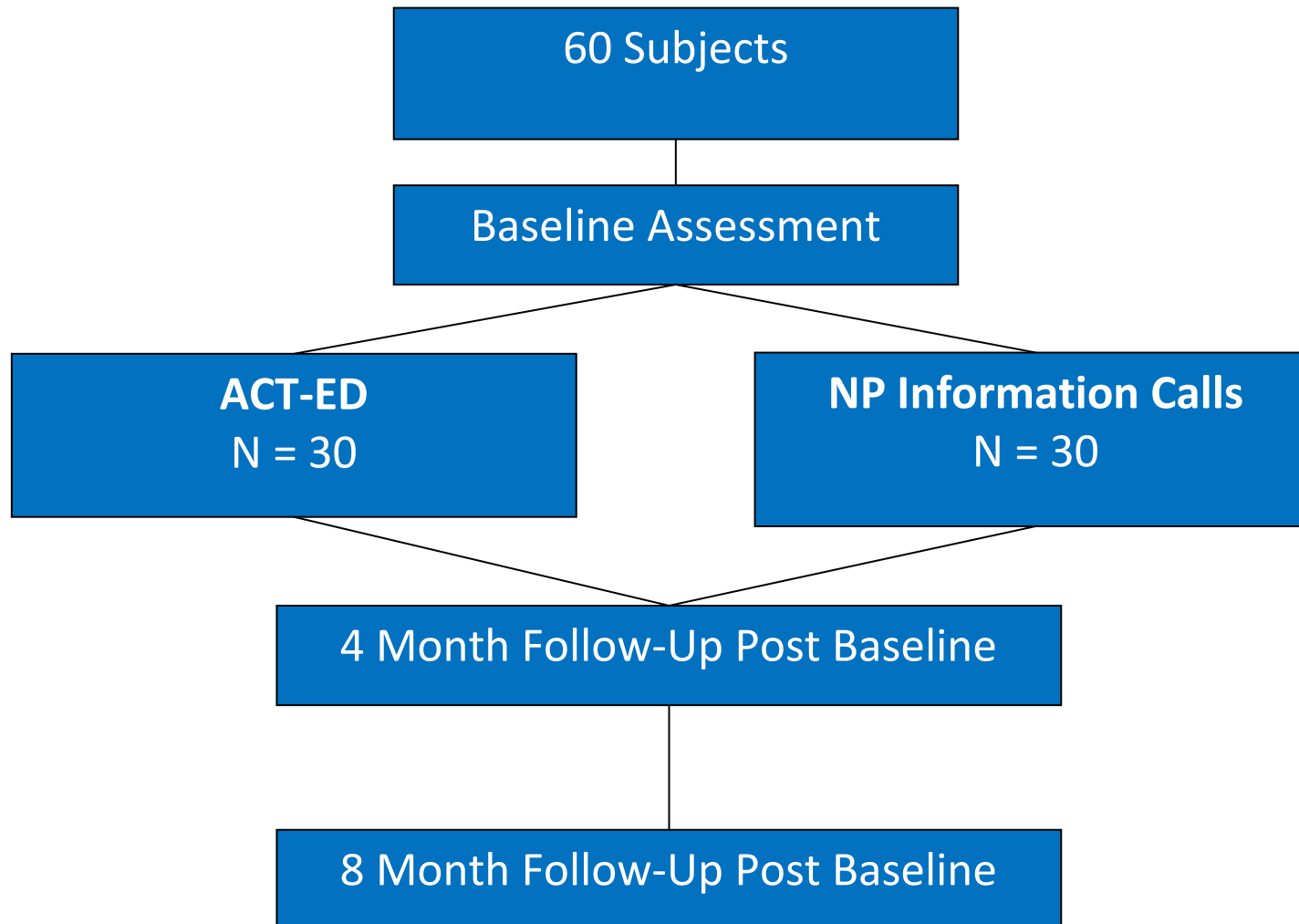


Secondary Outcomes

- **ED treatment satisfaction (EDITS)**
- **Sexual self-esteem and relationship quality (SEAR)**
- **Sexual bother (SB)**
- **Prostate cancer treatment regret**



Pilot Intervention Design



Sample Characteristics

| Sample Characteristics | | |
|------------------------|--------------|--------------|
| Total N | | 53 |
| N by Group: | Intervention | 26 |
| | Control | 27 |
| Mean Age (years) | | 60 \pm 7 |
| Race | White | 82% |
| | Black | 18% |
| Relationship Status: | Partnered | 73% |
| | Single | 37% |
| Months Post-Surgery | | 4 \pm 2 |
| EFD w/Injections | Intervention | 24.5 \pm 6 |
| | Control | 25.8 \pm 6 |





Primary Outcome: Feasibility

- **Acceptance rate**

- 63% (53 out of 84)
- 84 subjects approached
- 63 subjects recruited
- 53 subjects started the study

- **Completion rate for intervention group**

- 71% (21 out of 26)
- No difference compared to EM group



Primary Outcome: Injection Use - 4 Months

Injection Use at 4 Months

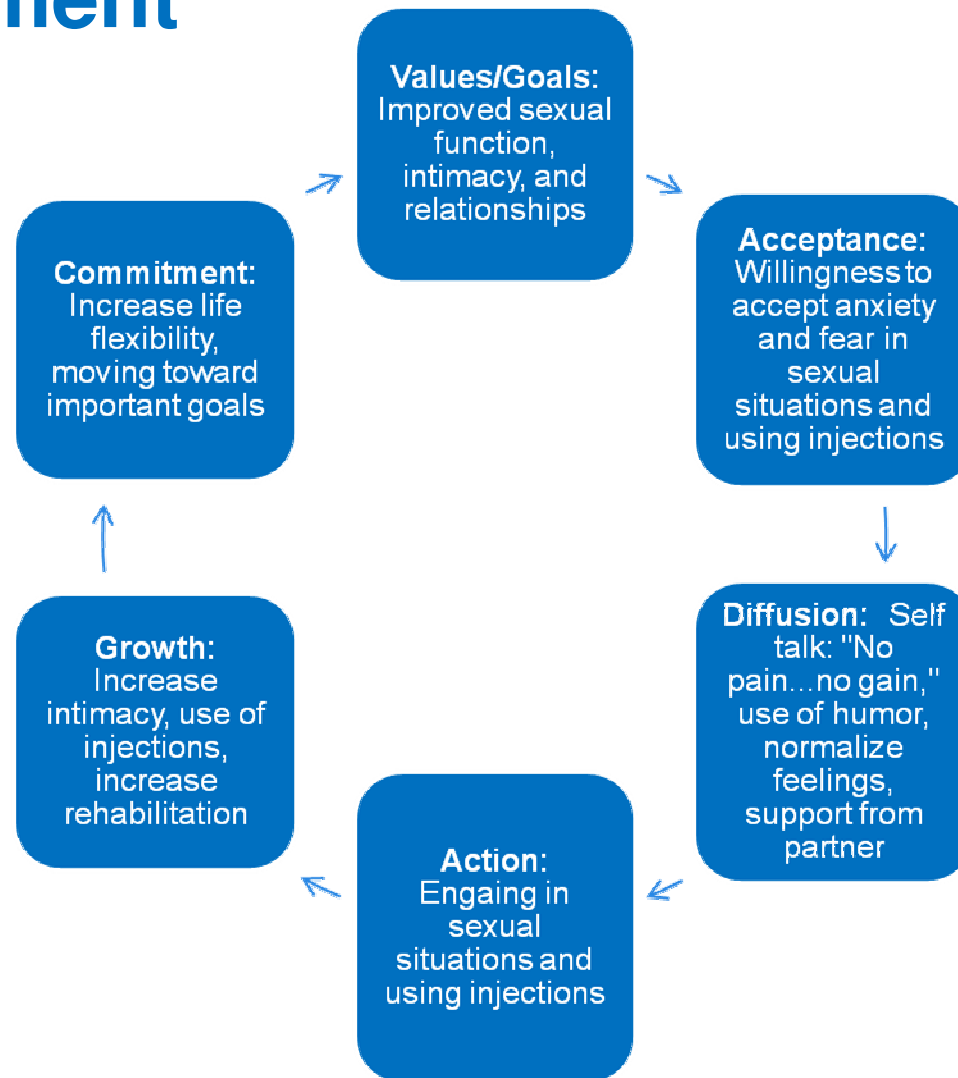
| Variable | Control | Intervention | p |
|----------------------------------|---------|--------------|--------------|
| Mean Weekly Injection Use | 0.9 | 1.7 | 0.001 |
| % Adherence (≥ 2 x weekly) | 10% | 44% | 0.04 |

Secondary Outcomes: 4 Months

| Variable | Intervention vs. Control | p | d |
|--|--------------------------|-------------|-------------|
| ED Treatment Satisfaction (Range = 0-44) | ↑ 6.6 points | 0.09 | 0.71 |
| Sexual Self-Esteem (Range = 0-100) | ↑ 9.5 points | 0.03 | 0.76 |
| Sexual Bother (Range = 0-15) | ↓ 1.2 points | 0.20 | 0.51 |
| Prostate Cancer Treatment Regret (Range = 0-25) | ↓ 4 points | 0.01 | 1.18 |

Cohen's d effect size: 0.2 = weak; 0.5 = moderate; 0.8 = strong

ACT-ED: Cycle of Acceptance and Commitment



Penis broken.
Please use
Finger!

Thanks

SAFETY

CANCEL

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