Behavioral Change
Interventions for the
Prevention Toolbox

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Relevance of HIV Prevention
Interventions for STD Prevention and
Vice-Versa

• HIV is an STD and other STDs may enhance HIV transmission
• Similar behavioral goals
  – Sexual behavior change
    • Reduce number of partners
    • Condom use
  – Getting tested and getting partner(s) tested
  – Treatment and treatment adherence
• Many interventions developed for HIV prevention impact STD outcomes

Historical Perspective

• Before HIV
  – Major focus on identification and treatment of bacterial STDs as a means of preventing further spread (secondary prevention)
  – Prevention messages were given as an add-on
• After HIV
  – Increased emphasis on behavioral interventions to prevent acquisition of (incurable) infections (primary prevention)

Behavioral Interventions Then and Now

• Then
  – Intuitively a good thing to do: “An ounce of prevention is better than a pound of cure”
  – Mostly in the form of education messages:
    • Reduce the number of partners
    • Use condoms
• Now
  – Scientific evidence supports behavioral interventions
  – Major shift of focus from provider-delivered messages to involvement of the client and/or community in developing a tailored prevention plan
Client-Centered Counseling

Pioneered by the CDC as a behavioral intervention for HIV pre- and post-test counseling to be:
“Counseling conducted in an interactive manner through the use of open-ended questions and active listening. The focus is on developing prevention objectives and strategies with the client rather than simply providing information.”

Steps in Client-Centered Counseling

- Personalized risk assessment
- Support patient-initiated behavior change
- Help patient recognize barriers to risk reduction
- Negotiate an acceptable and achievable risk-reduction plan
- Refer patient to other specialized services, if needed

Open-ended Question Examples

- What do you think your risk is for STD?
- What happened the last time you had sex?
- What made you decide not to use a condom?
- What made you decide to use a condom?
- What do you think you can do to reduce your risk for STDs the next time you have sex?

STD/HIV Prevention Counseling: Does it Work?

- HIV prevention counseling: >$100 million of the federal prevention budget for HIV/AIDS
- Critical question: Is HIV/STD prevention counseling effective at changing high-risk behaviors and preventing new infections?
- The efficacy of HIV prevention counseling has not been definitively shown
Client-Centered Counseling Problems

- How to best identify steps in the prevention process?
- How to best assist client in developing a prevention plan?

Stage of Change / Transtheoretical Model

- Pre-Contemplation
  - Client sees no need to change behavior

- Contemplation
  - Sees the need to change behavior, but sees barriers
  - Has changed behavior for a short period of time

- Ready for Action
  - Is ready to change behavior and may have already taken some steps
  - Has changed behavior for a long period of time

- Action
  - Has changed behavior for a short period of time

- Maintenance
  - Has changed behavior for a long period of time

Stage-Based Counseling

Rochester STD/HIV Behavioral Counseling Model

- Step 1: Behavioral Risk Assessment
  - R - Nature and status of current sexual relationships
  - N - Number of partners - of both client and their partners and current sexual practices
  - A - History and attitudes about:
    - C - Condom use
    - T - STD/HIV testing
    - S - Substance use for the client and their current partner(s)

- Step 2: Identification of target behavior
  - Use information from risk assessment to select a target behavior with the client:
    - Gold standard (sexual behavior)
      - Postpone/avoid sexual intercourse
      - Mutually monogamous relationships
      - Consistent condom use
      - Get STD/HIV testing and treatment
    - Harm reduction (sexual behavior)
      - Consistent condom use with outside partners
      - Non-penetrative sexual practices
      - Condom use for vaginal/anal sex not for oral
      - Other options: any first step a client is willing to take
Stage-Based Counseling
Rochester STD/HIV Behavioral Counseling Model

• Step 3: Assess client’s readiness to change
• Step 4: Utilize a counseling strategy most likely to influence behavior change

Influencing Factors

<table>
<thead>
<tr>
<th>Pre-Contemplation</th>
<th>Contemplation</th>
<th>Ready for Action</th>
<th>Action and Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Appraisal: Knowledge, Perceived risk, Perceived benefits, Outcome expectations</td>
<td>Self Perceptions: Beliefs, Self-efficacy, Emotional/Arousal</td>
<td>Self Perceptions: Beliefs, Self-efficacy, Emotional/Arousal, Social influence, Sexual relationship dynamics, Perceived social norms, Family, Religious norms, Environmental and structural factors</td>
<td>Responding to changes in: Self-efficacy, Skills, Environmental and Structural Access, Policy, Law</td>
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Behavioral Interventions: What is the Evidence?

- Project Respect (N=5758) –
  - RCT involving 5 STD clinics
  - Target population = heterosexual HIV-
  - Outcome self-reported 100% condom use for vaginal sex and STD
  - Arm 1 (enhanced counseling)
  - Arm 2 (CDC counseling)
  - Arms 3 and 4 (didactic)

Kamb ML et al. JAMA, October 7, 1998
Next Challenge: Prevention for Positives

- Rising concern about increased risk behaviors among persons with HIV infection as a result of
  - HAART optimism
  - Prevention burn-out
  - Younger at-risk individuals not being reached by old messages
- Increasing need for appropriate behavioral interventions for persons with HIV inside and outside the care setting

Case 1

- KH is a 40+yo WM who presented to ED with fever and sore throat. Sore throat +/- odynophagia x 1 month
- ROS - +sores in mouth, +myalgias, +fever and chills, +cough due to throat irritation. Remainder negative.

More history...

- HIV dx 2004. Last CD4 1100 with VL <50 when last measured. Lost insurance and out of care since 2005
- RUE DVT
- Soc – lives with mom in W-S, no tobacco x 5yr (former 15pkyr), +“social” alcohol use (former heavy use assoc. with DUI 2000), +IV crystal meth (last 1 wk PTA)
Exam

- T-100.7, P – 80, R – 20, BP – 124/80, 100% sat on RA

- WNWD in NAD. OP- mild pharyngeal erythema, 0.5cm ulcer to left of uvula, shoddy submandibular LA. Skin – multiple tattoos.

Labs and such...

- CBC, hepatic and FBP nl
- Flu-
- UA -
- Blood cx x 4 –
- Throat cx – nl flora
- GC throat cx – neg
- HSV throat cx – neg
- HSV-1 Ab equivocal
- HSV-2 Ab+
- Hep A Ab-, HBsAb-, HbsAg-, HCV Ab-
- UDS + amphetamines

- CXR – normal
- CT angio – No PTE. Prominent axillary, subpectoral and supraclavicular nodal tissue
- Echo – normal. No veg.

- Patient discharged...

RPR 1:256

3 weeks lapsed between discharge and presentation to clinic
Additional History

• Syphilis in 2004, treated in Atlanta with 2.4 million units of Bicillin. + Jarisch-Herxheimer rxn
• Former stripper, sex with men only, 10 partners/6mo, last contact 2 days ago, exposure at all orifices

Clinic Visit

• Throat pain and sores continue
• “Well yes, I do have places on my penis but I thought they were nothing....”
• “BTW...I have ringing in my ears and I don’t think I hear as well as I used to”

Additional work-up

• LP
  – WBC 55 (100% mono)
  – RBC 0
  – Protein 38 (15-45)
  – Glucose normal
  – VDRL 1:2
• Now s/p 10d IV PCN G (in house)

This is reality!
History of HIV Treatment

Sena et al. AIDS Patient Care 2008; 22(12): 955-963


What to do?
Provider-Delivered Interventions in the HIV Primary Care Setting

- Partnership for Health
  Richardson JL et al, AIDS 2004

- Options/Opciones Project
  Fisher JD et al, JAIDS 2005

- Positive STEPS
  Gardner LI et al, AIDS Patient Care and STDs 2008

- Ask, Screen, Intervene
  NNPTC, AETC collaboration

Conclusions

- Several scientifically proven brief behavioral interventions are available for use in the STD and the HIV clinic setting

- As clinicians, we should strive to incorporate tailored, risk-reduction interventions into our individual patient encounters

Resources

- National Network of Prevention Training Centers (www.nnptc.org)

- AL/NC STD/HIV PTC (www.stdptc.org)

- North Carolina Department of Health (www.epi.state.nc.us/epi/hiv/training.html)