Peer-driven interventions in harm reduction

Review of the evidence & new interventions

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Today's presentation

1. Introduction
2. Methodology
3. Peer models targeting vulnerable populations
4. Peer Driven Intervention model:
   - Theoretical framework
   - Community-based; HIV prevention PDI
   - Small-Group model supportive care PDI
5. New intervention areas and populations
   - PROZE trial
Widely applied

- Patients with chronic disorders or survivors of serious diseases (Messias, Moneyham et al. 2009)
- Cancer patients/survivors:
  - high levels of satisfaction, evidence of psychosocial benefits mixed (Hoey, Ieropoli et al. 2008)
  - decrease risky health behaviors (Nathan, Ford et al. 2009)
- Post-partum mothers (Merewood and Philipp 2003)
- HIV prevention interventions in developing countries (Medley, Kennedy et al. 2009)
Community-based outreach

- 1960s: “Behind the Walls of Respect”
  - Chicago: former heroin users provide (paid) outreach to hidden populations of IDUs to encourage participation in MMT (Hughes et al., 1977)


- Successful, but studies described limitations and problems (e.g. Broadhead & Fox, 1993; Broadhead, Fox & Espada, 1990)
Observation

• Mostly ex-users hired as outreach workers going into their communities with prevention messages and/or recruit problem drug users into treatment

• Outreach as model for peer approaches?
Why Peers?

- Public Health Emergency: HIV
- Vulnerable = Hidden
- Limitations of professional outreach (times, access, trust)
- Costs & Benefits
- Empowerment (New Public Health)
- Practice what you preach…
- Human rights (HR2)
"The most effective responses to the epidemic grow out of people’s action within their own community and national context."
Methodology: Review

• Pubmed and Web of Science
  – Keywords: “social support”, “peer support”, “peer driven”, “peer influence”, “peer counseling”, “peer led”, “peer education/teacher/leader” and substance
  – Mesh terms “drug(s)” and “user(s)” or “abuse(r)” or “abuse(r)(s)” or “addict(s)”,
  – from 1993 to 2009
  – Humans, English and Dutch.

• Google searches for best practice PDI

• Studies and best practice programs examined for effects, effort, rewards/incentives.

• Review articles: strengths and limitations of existing peer interventions.
Terms related to peer involvement
(Shiner 1999; Messias, Moneyham et al. 2009)

- Often no clear definition of:
  - (world of) meaning behind term
  - the role, status, or relationship with professional staff

Terms related to peer involvement:
- peer education
- peer facilitators
- peer tutors
- peer counseling
- peer health advocates
- peer outreach
- peer teacher
- peer trainers
- peer support
- peer driven
- peer helper
- peer leader
- peer education
- peer facilitators
- peer tutors
- peer counseling
- peer health advocates
- peer outreach
- peer teacher
- peer trainers
- peer support
- peer driven
- peer helper
- peer leader
“Believe me, fellows, everyone from the Pharaoh on down is an equally valued member of the team.”
Most common peer models targeting vulnerable populations

- Peer education model
- Peer counseling model
- Peer leader model
- **Peer driven intervention**

- Drug user groups
- Peer approaches to the distribution of harm reduction supplies (secondary exchange/distribution)
Peer education model

- Relatively small number of participants
- Selected by project staff; on recommendation of friends, specific characteristics (e.g. gender), etc.
- Often intensive training
- Hierarchical structure
- Rewards differ
- Peer development
Peer counseling model

- Relatively small number of participants
- Selected by project staff
- Specific (considerable!) inclusion criteria
- Intensive training
- Multiple responsibilities
- Intensive experience (problems with diversity; emotional stress) (Messias, Moneyham et al. 2009)
- Peer development
Peer leader model

- Relatively small number of participants
- Selected by project staff, recommended by peers
- Explicit criteria (similarity to peers in drug use; ethnicity; neighborhood; network characteristics, e.g. centrality or gatekeeper at drug-use sites)
- Intensive training sessions
- Paid for attending training, not for outreach
- Role model status
- Peer development
Peer Driven Intervention model

- Community-based HIV prevention model (CB-PDI)
  - Theoretical framework
  - Efficacy and outcomes
- Small-Group Supportive Care model
  - Efficacy and outcomes
- New intervention areas and populations
  - Internet studies (*i-RDS*)
  - HIV testing among MSM
  - PROZE trial
Community-based HIV prevention PDI

- Staff only recruits seeds
- Seeds: limited selection criteria
  - “Connectors,” “Salesmen” (Gladwell, 2000)
  - “Sociometric Stars” (Heckathorn, 1997)
- Peers: None beyond intake criteria
- P2P2P2P2P2P2P...
  - Network based *Chain Referral* system
  - Coupon system + tracking (RDS) software
- Limited training
- Two roles: participants receive peer education and serve as peer educators
  - From *recipient* to a *broker* of information
Community-based HIV prevention PDI

• Education:
  – education session with prof. health educator
  – Peer education: up to six times additionally during each intervention cycle/module.
• Education on own turf, when opportune and convenient
• Peer delivery (main characteristic) and modest development (not primary goal)
• Employs both primary and secondary incentives
• Rewards based on output, not status
six elements associated with behavior change

1. Increases in knowledge
2. Skills-building
3. Motivation and incentives
4. Peer pressure
5. Social norms
6. Repetition

Offered in combination
Theoretical framework

- Social influence relationships: more than dyadic
- inclinations and regulatory interests
- primary incentives & secondary incentives
- social sanctions are rarely strictly individualized

- Result in collective rewards or collective punishments
- Alter reward structure of mutual interdependence.

- encourages norm change in peer networks
### Studies and outcomes CB-PDI

**That’s Sic (HCV):**
- under 25 year old IDUs in Australia
- Education and recruitment were effective in working with target group.
- HCV knowledge increased by 23.7%
- Risk behaviors decreased between 72 and 95%

**ECHO:**
- Peers scored significantly higher on knowledge test (i.e. TOI clients)
- Both PDI and TOI significant reductions in risk behavior
- PDI outperformed TOI: recruitment power, sample representativeness
- Much lower (1/30) recruitment and education costs.
- Impact weakened by policy environment.

<table>
<thead>
<tr>
<th>Studies conducted</th>
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<tr>
<td>- Echo, Connecticut, USA</td>
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<td>- Bragino and Rybinsk, Russia</td>
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<td>- Vietnam and China border</td>
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<tr>
<td>- Texas and New Mexico, USA</td>
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<td>- Multiple sites, Ukraine</td>
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<td>- That’s Sic, Melbourne, Aus</td>
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**Bragino and Rybinsk, Russia:**
- Standard PDI vs. simplified PDI
- Rewards for education + recruitment vs. Education only
- Both: high recruitment rates and reductions in HIV risk behavior
- Standard PDI: better recruiting
- Simplified PDI: better knowledge test

“You get what you pay for”
Small-Group Social Support PDI

UCONN-Yale ARV adherence PDI

- PDI model adjusted to a "small-group" supportive care design
- Institution-based intervention
- 12 weekly meetings
- Goal: adherence to ARV treatment for HIV positive IDUs (Broadhead, et al. 2002)
- Teams of 3 patients worked together achieving treatment goals.
- Two participants were rewarded when the third reached his or her goals.
Pear to Pear Support

www.MentalHealthHumor.Today.com
Small-group ARV adherence PDI: Mixed Results

• Phase I:
  – 1097 active IDUs were recruited for HIV testing,
  – 959 returned for their results.
  – Only 145 HIV positive recruits

• Phase II:
  – Of these 145, 78 enrolled and were randomly assigned in the PDI or a control group.

• Significant improvements in health over time in PDI, while the health of the control group respondents remained unchanged or deteriorated (Broadhead et al, 2005)

• Problems Phase II:
  – Sample size
  – Complicated informed consent procedure
  – Release of medical data.
  – Conceptualization as “functionally equivalent to professional supportive care” → Too ambitious?
New intervention areas and populations

- Internet studies (*i-RDS*)
  - Cyprian Wejnert, Cornell University
  - Linus Bengtsson, Karolinska Institute
  - Project Residence, Nightlife study, The Hague

- HIV testing among MSM (*i-PDI*)
  - Mixed model: Online interviewing & education and HIV testing at regular testing sites

- PROZE trial
PROZE

Project Zorg voor Elkaar
(Care4EachOther—CEO)

Dit project wordt mogelijk gemaakt door:
PROZE Intervention

- Based on UCONN-Yale PDI
- (Ex-) Homeless, not on the street, but in sheltered housing facilities
- Supplementary supportive care design
  - No substitute for professional care, but additional to standard care
- Teams of 3 participants ("Musketeers") work together in achieving personal goals (16 weeks)
  - Goals are self-set; based on (Dutch) "8-step model"
- Bi-weekly large group meeting of triades
PROZE: Purpose

To increase the effectiveness of care and transitional shelter services by implementing peer driven fellow care, with the aim of reducing dropout rates and improving progression through care systems towards more stable and permanent housing situations.

Research questions

- What is the (surplus) effect of ‘standard’ care combined with (16 wks) PDI supportive care compared to standard care only?
- Long term effects of both interventions, 0.5 to 1.5 years after ending the experimental condition?
- Client-profiles vs. success rates?
PROZE Research Design

• Un-blinded Randomized controlled Trial
  – Control group: standard care (Housing support + ACT) (N=103)
  – Experimental group: standard care + PROZE (N=103)
  – Zelen design (pre-randomization, double consent)

• Outcome measures: living and housing situation, quality of life, daily functioning, patient satisfaction

• Measurements
  – T0—T4
  – Lancashire quality of Life Profile (Dutch translation)
  – Routine Outcome Monitor Amsterdam
  – Process evaluation (based on PREFFI)
  – Triangulation
  – Measurements: EMO — Intervention:
Research Design PROZE
Deze brief geeft informatie over het project Musketeers. Je bent uitgenodigd om aan dit project mee te doen.

Het is belangrijk dat we je goed informeren over dit project, zodat je weet waar je aan begint. Daarom krijg je deze brief mee en vragen we je om een toestemmingsovereenkomst te ondertekenen. Als je deze brief moeilijk kunt lezen, vraag dan hulp aan familie of je hulpafleider.

Met jouw handtekening op het toestemmingsovereenkomst verklaar je dat je begrijpt wat in deze brief staat. Je handtekening betekent niet dat je verplicht bent de 16 weken van het project ook af te maken. Je deelname is vrijwillig.

Wat is het project Musketeers en wie doen er mee?
Het project Musketeers is een nieuwe vorm van lotgenotenzorg die bedoeld is dak- en thuislozen die in de maatschappelijke opvang wonen te helpen hun kwaliteit van leven te verbeteren.

De naam 'Musketeers' refereert aan het beroemde verhaal over de 3 musketiers, die elkaar ten alle tijden bijstonden. We hopen dat hun motto ook jullie motto wordt: één voor allen, allen voor één.

Het project Musketeers duurt 16 weken en is bedoeld om jou te ondersteunen bij het bereiken van jouw persoonlijke doelen. Dit kunnen doelen zijn als het vinden van woonruimte, verbetering van je gezondheid, uitbreiding van je vriendenkring of vinden van een passend dagbesteding. Zij bepaalt zelf wat je belangrijk vindt en waar je aan wilt werken in de komende zestien weken.

Wat houdt het in om mee te doen?

Concluding Remarks (i)

- Outreach served as a model for most peer approaches, except the PDI (and self-organisation)
- Few peer reviewed studies
- Many papers reviewed give little detail on intervention
- Main models: PEM, PCM, PLM & PDI
- PEM, PCM & PLM:
  - small group of peers trained
  - significant investments in time, training
  - outreach to ‘peers’ beyond personal networks
- PDI:
  - much larger group active as broker of information
  - much smaller and time-limited role
  - Outreach to (3-5) peers in their personal networks
Concluding Remarks (ii)

• Requirements for active participation:
  – PEM, PCM & PLM: rather many
  – PDI: few

• *Formal* (PEM, PCM & PLM) vs. *informal* (PDI) education

• *Formal* role modelling (PEM, PCM & PLM) vs. *informal* (group-mediated) social control

• Emphasis:
  – Peer development: PEM, PCM & PLM
  – Peer delivery: PDI
  – (change vs. equality)
Concluding Remarks (iii)

• Rewards structures
  – Vary between projects, but…
  – PEM, PCM & PLM: primary incentives only
  – PDI: both primary and secondary incentives

• Peer approaches can outperform traditional outreach
  – In particular in more private settings
  – PEM, PCM & PLM: same drawbacks as traditional outreach, although to a lesser degree?
  – PDI: problems with incentives, but manageable and not unique to model or incentive types
Concluding Remarks (iv)

• PDI
  – draws larger, more diverse samples of participants than traditional outreach work
  – results in larger and longer lasting effects on knowledge, skills and behavior
• Cost-benefits
  – PEM, PCM & PLM: no reports found
  – “PDI: ± 30 times less costly than traditional outreach”
• No studies found that compared two or more peer approaches…
  – Complex comparison
  – EC research funding?
• PROZE-RCT: See you next year?
Thank you!

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