Identifying Environmental Risk Factors for Relapse from Substance Use Disorders

Monica Rousseau, MPH
University of South Florida
Objectives

• By the end of Part 1 of the presentation, attendees will be able to describe the gaps in current relapse prevention models
• By the end of Part 2 of the presentation, attendees will be able to describe community-wide risk factors for relapse
Objectives

• By the end of Part 2 of the presentation, attendees will have a better understanding of and describe potential interventions to deploy in their local communities to reduce risk of relapse among people in recovery from substance use disorders.
Outline

• Part One: Background
  – Scope and Significance of Problem
  – Guiding Theories
  – Current Literature
  – Gaps in Practice, Theory, Literature

• Part Two: Qualitative Study
  – Methods
  – Results
  – Implications
Part 1
Scope of Problem

Downstream Problem
Scope of Problem

Scope of the problem...

- Drug overdose is now the leading cause of accidental death in the U.S (Rudd, 2016).

- Alcohol and drug use have been credited with an unprecedented decline in life (Case & Deaton, 2015).

- Opioid use alone costs the U.S. more than 500 billion dollars annually (CEA, 2017).
Scope of Problem

National, State, and Local Responses

– It is a public health priority to identify and implement the most cost-effective and efficacious interventions to reduce addiction and its consequences
Scope of Problem

Areas of solutions

– Primary Prevention
  • Increasing access to evidence-based curricula, campaigns, measures to decrease access

– Secondary Prevention
  • Increasing SBIRT initiatives, care navigation,

– Tertiary Prevention
  • Increasing medicine/medication assisted treatment (MAT) access, care coordination, RSS
    – MAT is the use of FDA-approved medications in combination with behavioral therapies to help patients manage and recover from their SUDs (Bonhomme et al., 2009).
Scope of Problem

Given that...

- 12 month SUD relapse rates continue to exceed 60% (McLellan et al., 2000; Hendershot et al., 2011)
- and only 35%-54% of people with SUDs ever reach remission status (Fleury et al., 2016)

...it’s imperative to spend substantial attention on preventing relapse.
Scope of Problem

Given that...

- Not all people will want to engage in MAT
- MAT is not available for all SUDs, depending on the substance
- SUDs are evolving, chronic diseases (HHS, 2015)

...we must have diverse interventions to prevent relapse.
Relapse Research

Definitions

- **Lapse** is the initial return to the problematic behavior the individual is seeking to change (Hendershot et al., 2011).

- **Relapse** is a setback that occurs during the behavior change process in which the progress of the behavior change or maintenance is disrupted by a consistent reversion to the previous, problematic behavior (Hendershot et al., 2011).

There are two main models of Relapse

- Cognitive Behavioral Model of Relapse (Marlatt and Gordon 1985)
- Dynamic Model of Relapse (Witikietz and Marlatt 2004)
Relapse Models

Cognitive Behavioral Model of Relapse
- Marlatt and Gordon 1985
- Based on cognitive-behavioral theories
- Emphasizes contextual factors
- Key components
  - **Antecedent**: an immediate, high risk situation
  - **Self-efficacy**: a sense of control
  - **Abstinence Violation Effect**: the loss of self-efficacy after breaking personal goals or rules.
Relapse Research

Cognitive Behavioral Model of Relapse

- High-Risk Situation
  - Ineffective Coping Response
  - Decreased Self-Efficacy + Positive Outcome Expectancies (for initial effects of the substance)

- Effective Coping Response
  - Increased Self-Efficacy
  - LAPSE (initial use of substance)
  - Abstinence Violation Effect + Perceived Effects of the Substance

- Decreased Probability of Relapse
  - Increased Probability of Relapse
Relapse Research

Dynamic Model of Relapse

– Witikietz and Marlatt 2004
– To better reflect the nonlinear process
– Key components remain; new key components

• **Tonic processes**: distal risks predispositions that raise a person’s risk for lapse or relapse
  – Ex: personality, genetics, family, relationships, etc.

• **Phasic responses**: proximal factors that serve to prevent lapse or relapse.
  – Ex: cognitive processes such as cravings, moods, temporary changes in outcome expectancies, and the immediate effects of substance use
Relapse Research

Dynamic Model of Relapse
Gaps in Theory

• Many scholars believe there should be more emphasis outside of the intrapersonal determinants of relapse (Hendershot et al., 2011).

• Despite referencing social determinants and wide scale interventions, identified determinants mainly encompass intrapersonal and interpersonal determinants (Hsu & Marlatt, 2012).
Literature Review

• Socio-Ecological Model
  – Bronfenbrenner, 1979
  – Behavioral change is influenced by altering risk and protective factors within several domains
  – Reciprocity
  – “Environmental Factors”

Image from localfood.ces.ncsu.edu/
Literature Review

- **PRISMA**- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)
- PubMed, Web of Science, Scopus, and PsycINFO for applicable studies
- Keywords
  - SUDs, addiction, substance abuse, dependence, recovery, remission, recovery maintenance, abstinence, relapse, lapse, relapse prevention, risk factors, protective factors, predictors, relapse determinants, socio-ecological, environmental, social determinants of health, biopsychosocial
- Exclusion Criteria
  - MAT
  - Anything before 2008
Literature Review

- Records Identified: 165
- Records Removed after Duplicates: 110
- Records Screened: 110
- Full-Text Articles Assessed: 26
- Studies Included in Final Synthesis: 16
Gaps in Literature

• Only two studies had data which spanned all domains of the socio-ecological model.
• Only three studies concluded that policy level factors influenced relapse and listed specific policies.
  – lack of funding for housing (Manuel et al., 2017)
  – restrictive Chinese ID card laws for people (Yang et al., 2015)
  – state regulations ensuring sobriety (Wright et al., 2014)
Gaps in Literature

- Observations from Literature Review
  - Need for diverse research methods
    - Only 2 were qualitative, published studies
  - Need to research risks at different levels of recovery
    - Most articles focused on short-term recovery
  - Need for more research on the topic
  - Need for more research conducted in the United States.
Gaps in Literature

• Need for more research on the topic
  – Only 16 studies were identified for full review.
    • Of these 16, only 11 included environmental factors related to relapse
    • Of those 11, only 5 studied populations in the United States
    • Of those 5, only 3 were published.
Part 2
Significance of Study

• It is of paramount importance to begin focusing attention on successfully intervening and preventing relapse.
• In order to do so, we must first better understand the environmental risk factors that influence relapse.
Scope of Problem

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Purpose

The purpose of this study was to identify the environmental risk factors for substance use disorder relapse in Pasco County, Florida.
Study Question

What are the environmental risk factors related to relapse among Pasco County residents living in recovery from substance use disorders?
Scope of Problem

• Local Problem
  – 46,000+ people with a Substance Use Disorder (SAMHSA, 2017)
  – SUDs linked with top causes of deaths (Florida Charts, 2018)
  – 5th highest drug overdose mortality rate out of 67 counties (County Health Rankings, 2017)
Study Methods

• Exploratory, qualitative study
  – Institutional Review Board exempt
  – Identify the environmental risk factors for relapse
    • Policy Risk Factors
    • Community Risk Factors
    • Organizational Risk Factors
  – Recorded, semi-structured interviews
Study Methods

• Exploratory, qualitative study
  – Open ended questions
    • Personal experiences
    • Most significant roadblocks in personal life
    • Most significant roadblocks to people living in recovery in Pasco County
    • Emotions they felt prior to lapse
  – 30-60 minutes per interview
Study Methods

• Purposive Sample
  – Must have lapsed at least once
  – Must have been in recovery for more than one year
  – Must live, or lived, in Pasco County, Florida for more than one year of time while in recovery
  – Recovery status and the lapses must NOT include MAT medications (ex: buprenorphine)
Study Methods

Recruitment

– People in recovery and peer support specialists helped recruit study participants in recovery

– The PI met with individuals who expressed interest in the study
  • Explained the purpose of the study
  • Obtained written consent to participate in a recorded interview.
Study Methods

- Participant Characteristics
  - N=17
  - 10 women; 7 men
  - Ages 25-60
  - Number of lapses ranged 1- 40
    - Median: 3
Study Methods

• Participant Characteristics
  – All poly-substance use
  – 12 stated an opioid as drug of choice
  – 13 people with a drug of choice that doesn’t have MAT
  – 10 had a lapse after 1 year of abstinence
  – 13 had a lapse within one year of abstinence
Study Methods

Data Analysis

– Transcribed all text
– Framework Analysis
  • Socio Ecological Model
  • Theory at a Glance
  • Split responses according to length of time in recovery
– MAX.QDA Software
# Results: Environmental Roadblocks

<table>
<thead>
<tr>
<th>Domain/Theme</th>
<th># Coded Segments</th>
<th># of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Policy/ Law Roadblocks</td>
<td>37</td>
<td>6</td>
</tr>
<tr>
<td>Community Roadblocks</td>
<td>90</td>
<td>17</td>
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## Results - Policy Roadblocks

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>Industry Regulation</td>
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<td>1</td>
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<tr>
<td>Health Insurance</td>
<td>3</td>
<td>3</td>
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<tr>
<td>Felony Charges</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>• Jobs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Housing</td>
<td></td>
<td></td>
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<tr>
<td>• Driver’s License</td>
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<tr>
<td>• Higher Ed</td>
<td></td>
<td></td>
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<tr>
<td>• Paying Court Costs</td>
<td></td>
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</tr>
</tbody>
</table>
“...I can't get out of hospitality and I'm struggling to get my license back, and no one will give me a home to live in.... So I have to live with my parents. It's just it was just literally like a cumulative of those things. And prior to relapse that that was just like you know what. ‘Maybe a drink will make everything better’. ”
### Results - Community Roadblocks

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<tr>
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<tbody>
<tr>
<td>Easy Access to Drugs</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Drug Use Culture</td>
<td>7</td>
<td>3</td>
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<tr>
<td>Stigma</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Lack of Accessible Resources</td>
<td>44</td>
<td>13</td>
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<tr>
<td>• Employers, Public Transportation</td>
<td></td>
<td></td>
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<tr>
<td>• Tx After-care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Housing</td>
<td></td>
<td></td>
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<tr>
<td>• 12-Step</td>
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</tbody>
</table>
Results- Community Roadblocks

“I thought that I would relapse on alcohol faster because it's more readily available and I drank every single day...And like, I was in an apartment complex where I mean one of my relapses, I found a pill on the washer of the laundry in the laundry room. Like who finds a pill and then just takes it off of the laundry? But who leaves it? But so that's what I was surrounded by.”
## Results: Organizational Roadblocks

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# Results - Organizational Roadblocks

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<th>Code</th>
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<td>Probation</td>
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<td>RSS Providers</td>
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<tr>
<td>Stigma</td>
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<td>7</td>
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<td>Workplaces</td>
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<td>• Hiring</td>
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<td>• Procedures</td>
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<tr>
<td>• Culture</td>
<td></td>
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<tr>
<td>• Scheduling</td>
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</tbody>
</table>
Results - Organizational Roadblocks

- “But I also kept working alongside people that were using and drinking… I was a server. Back then I was a server. Now I actually have a real- or not that that's not a real job- but I was a server so I was surrounded by it.”

  – Example of organizational culture roadblock
Results- Organizational Roadblocks

• I definitely also, specifically after hearing about multiple pathways and talking that through, I think a lot of the 12 step programs are definitely...they're kind of clicky so they're like be in here or don't be in here - you know.
Results: Environmental Factors

- Public Policy/Law Roadblocks
  - Industry Regulation
  - Health Insurance
  - Felony Charges

- Community-wide Roadblocks
  - Lack of Accessible Resources
  - Stigma
  - Drug Use Culture
  - Easy Access to Drugs

- Organizational/Institutional Roadblocks
  - Workplaces
  - Probation
  - RSS Providers

\[ \sum \text{SUM} = 93 \]
## Results:
**Most Significant Barriers- Pasco vs Personal**

<table>
<thead>
<tr>
<th>Domains of Roadblocks</th>
<th>Most Sig. Pasco</th>
<th>Most Sig. Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most Significant Barrier: Pasco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most Significant Barriers to Recovery: Pi</td>
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<td></td>
</tr>
<tr>
<td>Public Policy/Law Roadblocks</td>
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<td>Organizational/Institutional Roadblocks</td>
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<tr>
<td>Interpersonal</td>
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<tr>
<td>Intrapersonal</td>
<td></td>
<td></td>
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<tr>
<td>SUM</td>
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<td>31</td>
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## Results

<table>
<thead>
<tr>
<th>Domain/Theme</th>
<th>Lapse after 1 Year</th>
<th>Lapse within 1 Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Policy/Law Roadblocks</td>
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<td></td>
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<tr>
<td>Intrapersonal</td>
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<td></td>
</tr>
<tr>
<td><strong>SUM</strong></td>
<td>46</td>
<td>67</td>
</tr>
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</table>
Results

overwhelmed

shame

depressed
reverse
deflated
doubt
complacent
hopeless
jealous
alone
disgusted
stressed
pity

disappointed
scared
stress

isolated
pissed
devastating
defeated
Conclusions

- **Environmental Roadblocks:**
  - 10 broad roadblocks were identified
  - Community Domain had the most roadblocks
  - Issues finding housing, jobs, and 12-step fellowships were most commonly referenced and pressing issues for people living in recovery in Pasco
  - Probation was a leading issue for people with felonies
Conclusions

• People who lapse after 1 year have different experiences than those who lapse within 1 year
  - Struggle understanding illness vs struggle stabilizing and integrating in the community
  - Emotions of people just before lapse
    - A burden of shame
Strengths and Limitations of Study

Strengths

– Innovative design
– Hard to reach population
– Ability to influence local conditions and shape community investments

Limitations

– Not generalizable results
– Researcher Bias
– Abstinence-based group; 12-Step centered
Implications

• Implications for Population
  – Majority of participants used multiple substances
  – 13 participants with a drug of choice that doesn’t have MAT
  – Emphasizes the concept that we must have diverse interventions to prevent relapse.
  – Results inform potential interventions that would benefit underserved populations
Implications

• Implications for Prevention/Public Health
  – Better help PH professionals create health in all policies
    • Health in All Policies= #HiAP
    • Opportunities to highlight the health repercussions of policies related to violating parole, revoking licenses, health care expansion etc.
    • Opportunities to influence such policies
  – Stigma Campaigns
    • Opportunities for targeted to be within Recovery Community
Implications

- Implications for Prevention/Public Health
  - Working with organizations to increase access to 12 step fellowships/mutual aid support groups
    - Employers who hire people with felonies could be encouraged to promote nearby/co-located support groups
  - Transportation
  - Informing institutional opportunities for improvement
    - probation
Implications

• Implications for Behavioral Health
  – Could help expand upon theoretical models of relapse
    • Informs and elaborates upon antecedents and tonic processes
  – Could influence discharge planning, continuity of care/aftercare
    • Leveraging the knowledge of peers about local support group culture
Implications

• Implications for Behavioral Health
  – Inform ROSC
  – Help inform long-term strategies to keep people engaged with providers
    • 6-month mark; 12-month mark, etc.
  – Inform incidental funding
    • Social skills, life skills, finding a “home” 12-step
Departing Thoughts

• We can continue to offer treatment, but until we better understand and fix the reasons our neighbors keep falling back into the river, we will not be fully successful.

• We must address all factors within SEM
  – Intrapersonal, interpersonal, organizational, community, and policy

• Next steps: Design interventions. Deploy. Evaluate.
Questions?
References


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