Impact of Stressful Life Events on Alcohol Relapse

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Stress and Relapse

- Stressful life events (SLE) → relapse
- SLE → relapse link stronger for some
  - Personality Disorder (PD) type
  - Early onset of alcohol use disorder (AUD)
  - Typology of SLE
Prior research: mixed findings

- Cole et al. 1990
- ~6,700 male employees
- Cumulative SLE $\rightarrow$ ↑drinks
Prior research: mixed findings

- Cooper et al. 1992
- SLE-alcohol link stronger for some
  - Males
  - High expectancy of alcohol effects
  - Avoidant coping with emotions
Prior research: mixed findings

- Droomers et al. 1999
- Epidemiologic sample (~1800 adults)
- No link found
  - Cumulative SLE • ↑drinks
Methodological Limitations: Prior Research

- Retrospective design
- Brief followup periods
- Treatment-seeking alcoholics sampled
- Poor measurement of SLE
Aims of this study

- Explore SLE-alcohol link
  • Typology of SLE: total/types/timing
- SLE-alcohol link among subgroups
  • PD type
  • AUD chronicity (early onset, adult onset)
Collaborative Longitudinal Study of Personality Disorders (CLPS): Scientific Collaborators

- **Brown University**
  M. Tracie Shea, Ph.D. (PI), Shirley Yen, Ph.D., Robert L. Stout, Ph.D., Ph.D., Cynthia L. Battle, Ph.D., Ingrid R. Dyck, M.P.H., Caron Zlotnick, Ph.D., Jane L Eisen, M.D., Anthony Pinto, Ph.D.

- **Columbia University/IMHR/University of Arizona**
  Andrew E. Skodol, M.D. (PI), Donna S. Bender, Ph.D., John C. Markowitz, M.D., Tracey Vorus, Ph.D., David Hellerstein, M.D.

- **Harvard University**
  John G. Gunderson, M.D. (PI), Mary C. Zanarini, Ed.D., Maria Daversa, Ph.D.

- **Yale University**
  Thomas H. McGlashan, M.D. (PI), Carlos M. Grilo, Ph.D., Charles A. Sanislow, Ph.D., Elizabeth Ralevski, Ph.D., Emily Ansell, Ph.D.

- **Texas A & M University**
  Leslie C. Morey, Ph.D. (PI), Brian D. Quigley, Ph.D., Christina Boggs, B.S., Christopher J. Hopwood, Ph.D.

- **Other**
  Denise A. Chavira, Ph.D. (UCSD), Regina T. Dolan-Sewell, Ph.D. (NIMH), David C. Rettew, M.D., (U of VT), John M. Oldham, M.D. (Baylor), Candace N. White, Ph.D. (Penn State), Cindy J. Aaronson, M.S.W., Ph.D., (Mt. Sinai), Maria E. Pagano, Ph.D. (Case Western Reserve), Megan B. Warner, Ph.D. (New School), Meghan McDevitt-Murphy, Ph.D. (Memphis), Dawn M. Johnson, Ph.D. (Kent State), David Dunkley, Ph.D. (McGill)
Collaborative Longitudinal Personality Disorders Study (CLPS)

- 4 Collaborative Sites
  Brown, Columbia, Harvard, Yale

- 573 PD Subjects
  STPD (N = 86), BPD (N = 175), AVPD (N = 158), OCPD (N = 154)

- Followed Longitudinally for 6+ Years
  To determine the stability of symptoms, diagnoses, and predictors of clinical course
Methods: Participants

• Average age = 32.8 years
• 64% female
• Self-referred: 39%
• 76% Caucasian
• Average education: 13 years
Methods: Baseline evaluation

- Rater-administered interview
- Structured Clinical Interview for DSM-IV Axis 1 Disorders (SCID-I/P)
  - AUD status: history, current
- Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV)
Methods: Follow-up

• Follow-up interviews over 6 years
  - 6 months, 12 months, yearly thereafter
• Longitudinal Interval Follow-Up Evaluation (LIFE)
  - Axis 1 symptoms tracked weekly
• Life Events Assessment (LEA)
  - Start/end dates of SLE tracked
Methods: Interrater Reliability

- **SCID-I/P interrater reliability**
  - Axis I disorders
  - Median • coefficients: 0.57-1.0
- **DIPD interrater reliability**
  - Axis II disorders
  - Median • coefficients: 0.68-0.73
- **Test-retest reliability**
  - Median • coefficients: 0.69-0.74
Methods: Relapse Defined

• Relapse observed prospectively
• Axis 1 symptoms tracked weekly
  - AUD symptoms meet full DSM-IV criteria for AUD for two+ consecutive weeks
  - Referred to as “new onset”
    • Adults with no AUD history
  - Referred to as “relapse”
    • Adults with AUD history
Methods: LEA

- 59 SLE “negative”
- 23 SLE “positive”
- SLE assessed across 6 domains
  - Work/school (e.g. Laid off)
  - Family/living matters (e.g. Miscarriage or still birth)
  - Love relations (e.g. Spouse/mate died)
  - Crime/legal matters (e.g. Burglarized)
  - Financial matters (e.g. Suffered financial loss not related to work)
  - Health (e.g. Serious injury occurred/worsened)
Methods: Data Analyses

• Analysis of variance, $^2$ tests
  - demographics, SLE levels by subgroup

• Event History Analyses
  - Kaplan-Meier survival estimates for time to relapse
  - Cox proportional hazards regressions to model time-varying status of SLE
Rate SLE Endorsed Over 6 Years
### Predictors of Relapse Over 6 Years

<table>
<thead>
<tr>
<th>Type of SLE</th>
<th>H+</th>
<th>OCPD</th>
<th>ASPD</th>
</tr>
</thead>
</table>
| Positive (+) | 1.71  
   p=.21 | 3.13   
   p=.0001 | 0.57   
   p=.02 | 1.94   
   p=.04 |
| Negative (-) | 1.95   
   p=.0001 | 3.02   
   p=.0001 | 0.57   
   p=.03 | 1.92   
   p=.04 |

H+ = history of alcoholism
# SLE Impact on Relapse By Alcoholism History

<table>
<thead>
<tr>
<th>SLE Type</th>
<th>H+</th>
<th>H-</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (+)</td>
<td>2.17*</td>
<td>0.77</td>
</tr>
<tr>
<td>p=.09</td>
<td></td>
<td>p=0.79</td>
</tr>
<tr>
<td>Negative (-)</td>
<td>1.74</td>
<td>2.40</td>
</tr>
<tr>
<td>p=.005</td>
<td></td>
<td>p=0.0004</td>
</tr>
<tr>
<td>Romance (-)</td>
<td>1.88</td>
<td>4.91</td>
</tr>
<tr>
<td>p=0.30</td>
<td></td>
<td>p=0.01</td>
</tr>
<tr>
<td>Finance (-)</td>
<td>5.51</td>
<td>1.21</td>
</tr>
<tr>
<td>p=.02</td>
<td></td>
<td>p=.84</td>
</tr>
</tbody>
</table>

*Hazard ratios from cox regressions, controlling for ASPD, OCPD

H+ = history, H- = no history
## SLE Impact on Relapse By OCPD

<table>
<thead>
<tr>
<th>SLE Type</th>
<th>PD+/H- N=169 (9)</th>
<th>PD-/H- N=157 (19)</th>
<th>PD+/H+ N=71 (16)</th>
<th>PD-/H+ N=108 (30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (+)</td>
<td>1.79 p=.41</td>
<td>1.32 p=.79</td>
<td>1.06 p=.95</td>
<td>3.03 p=.04</td>
</tr>
<tr>
<td>Negative (-)</td>
<td>2.54 p=.006</td>
<td>1.96 p=.05</td>
<td>0.72 p=.55</td>
<td>2.26 p=.0001</td>
</tr>
<tr>
<td>Romance (-)</td>
<td>9.84 p=.005</td>
<td>2.39 p=.40</td>
<td>1.23 p=.44</td>
<td>3.63 p=.04</td>
</tr>
<tr>
<td>Finance (-)</td>
<td>1.22 p=.84</td>
<td>1.44 p=.69</td>
<td>1.16 p=.79</td>
<td>6.02 p=.001</td>
</tr>
</tbody>
</table>

*PD+ = OCPD+, PD- = OCPD-, H+ = history, H- = no history

*N = number of adults (number of relapse events)

*Hazard ratios from proportional hazards regression analysis
# SLE Impact on Relapse By ASPD

<table>
<thead>
<tr>
<th>SLE Type</th>
<th>PD+/H- N=11 (1)</th>
<th>PD-/H- N=315 (27)</th>
<th>PD+/H+ N=24 (11)</th>
<th>PD-/H+ N=155 (35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive (+)</td>
<td>--</td>
<td>0.80 p=.35</td>
<td>5.80 p=.05</td>
<td>1.43 p=.55</td>
</tr>
<tr>
<td>Negative (-)</td>
<td>--</td>
<td>2.49 p=.0002</td>
<td>1.87 p=.06</td>
<td>1.55 p=.07</td>
</tr>
<tr>
<td>Romance (-)</td>
<td>--</td>
<td>5.17 p=.008</td>
<td>1.62 p=.62</td>
<td>1.49 p=.58</td>
</tr>
<tr>
<td>Finance (-)</td>
<td>--</td>
<td>1.21 p=.79</td>
<td>6.21 p=.02</td>
<td>1.39 p=.38</td>
</tr>
</tbody>
</table>

*PD+ = ASPD+, PD- = ASPD-, H+ = history, H- = no history

*Hazard ratios from proportional hazards regression analysis

N = number of adults (number of relapse events)
Summary of Findings

• Significant link between (-) SLE and relapse; link between (+) SLE and relapse only for those with no AUD history
• 2-fold increase in relapse for those with ASPD vs. 50% decrease in relapse for those with OCPD
• Romance • relapse link for OCPD+/H-
• Finance • relapse link for ASPD+/H+
Clinical Implications

• Assessment
  - Consider PD assessment at intake
  - Consider SLE/relapse link in light of PD subtype

• Treatment
  - Relapse prevention strategies may be targeted based on PD subtype and typology of SLE
  - Improved use of limited resources