Emotional Response to Traumatic Injury

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SUMR Scholar 2013
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ROADMAP

- Background
- Significance
- Aims
- Timeline
- Methods
- Intake Descriptives
- Role in Project
- Lessons Learned
- Acknowledgements
BACKGROUND: Health Disparity

- Black men have higher exposure to stressors and are more likely to be injured than white men.
- Black men are also more likely to have psychological consequences after injury.
- Less likely to be diagnosed and treated.
BACKGROUND: Injury

- When suffering from acute trauma injury these patients are resuscitated, treated, and quickly sent back out to the community.
- Many times psychological effects are not recognized.
- Hinders a complete recovery.
- Contributes to injury recidivism.
BACKGROUND: Injury

Injury
Peri-traumatic subjective experiences

Risks
Personal
Institutional
Environmental

Psychological Effects
Depression
PTS

Protective
Personal
Institutional
Environmental

Known Outcomes
Disability
Substance abuse
Injury recidivism
Criminal behaviors
BACKGROUND: Injury

- The risk of sustaining a recurrent injury is 40%
  - Being black is an independent risk factor for injury recidivism
- 37-58% admitted to a trauma service experience depression
- 20% admitted to a trauma service develop PTSD
AIMS

- Evaluate and refine a model elucidating the interplay among peri-traumatic subjective experiences, risk factors, and protective factors that best predict the future development of depression and PTSD in black men after traumatic injury.

- Evaluate the predictive ability of two established, short clinical screeners to predict future development of post injury depression and PTSD and to examine whether predictive performance could be improved by including additional risks and protective factors.

- Gain richer understanding of black males’ experiences, to elucidate strategies that enhance or detract from their attitude towards seeking help for psychological symptoms after injury.
900 black men admitted to urban trauma center with diagnosis of injury
- At least 18 years old
- English speaking
- Glasgow coma scale: 15
- Living within an 18 mile radius

Consecutively enrolling participants
- 120 men are enrolled as of 7/31/13
# DEMOGRAPHICS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average or Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>35.6 years</td>
</tr>
<tr>
<td>Relationship status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>63.3 %</td>
</tr>
<tr>
<td>Living w/ partner or married</td>
<td>30.0%</td>
</tr>
<tr>
<td>Trouble paying rent or mortgage in past 12 months</td>
<td>49.3%</td>
</tr>
<tr>
<td>Employed (full or part time)</td>
<td>42.5%</td>
</tr>
<tr>
<td>Unemployed (looking or not looking)</td>
<td>48.4%</td>
</tr>
<tr>
<td>Income (&lt; $20,000)</td>
<td>38.3%</td>
</tr>
<tr>
<td>Education (completed high school)</td>
<td>75.1%</td>
</tr>
<tr>
<td>No primary care doctor</td>
<td>60.0%</td>
</tr>
<tr>
<td>Couldn’t afford to see a doctor</td>
<td>35.8%</td>
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METHODS

Quantitative Data
- Measuring interaction between:
  - Risk & protective factors
  - Personal
  - Institutional
  - Environmental
  - Peri-traumatic experiences with depression/PTSD

Mixed Methods

Qualitative Data
- Black males’ experience with injury
  - Coping strategies
  - Approaches towards seeking care
METHODS: Intake

- In-Hospital Structured Interview
  - Conducted before discharge
  - Survey, approximately 220 questions
  - 45 minutes - 1 hour
Survey Instruments

- Peri-traumatic Subjective Experience
  - Peri-traumatic Distress Inventory (PDI)
  - RAND Peri-traumatic Dissociative Experiences Questionnaire
  - Trauma Screening Questionnaire
  - APS-POQ Pain Measures
Survey Instruments

- Cumulative Life Exposure
  - Personal
    - Risk Factors
      - Education
      - National Adverse Childhood Experiences
      - Military Deployment
      - Simple Screening Instrument for Substance Abuse
    - Protective Factors
      - Trait Hope Scale
      - General Self Efficacy Scale
Survey Instruments

- **Institutional**
  - **Risk Factors**
    - Perceived Ethnic Discrimination Questionnaire – Community Version
    - Insurance Status & primary care physician
  - **Protective Factors**
    - Social Support Scale

- **Environmental**
  - **Risk/Protective Factors**
    - Address data
    - Neighborhood Environment Scale
METHODS: Outcome

- 3 Month Post-Discharge Outcome Assessment
  - Follow up visit; usually at participant’s home
  - Quick Inventory Depressive Symptoms Self Report (QID-SR)
  - PTSD Checklist- Civilian Version (PCL-C)

- Qualitative Interview
METHODS: Outcome

- Qualitative Interview
  - Recorded interview for randomly selected participants
  - 1 chosen out of every 4 men
  - Subset around ~180 men
  - Open ended question
## Intake Descriptives

### Predictive Screener  n = 119

<table>
<thead>
<tr>
<th>Variable</th>
<th>% (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penn Predictive Screener Score</td>
<td></td>
</tr>
<tr>
<td># of Subjects above depression cutoff score</td>
<td>56.7 (68)</td>
</tr>
<tr>
<td># of Subjects above PTSD cutoff score</td>
<td>52.5 (62)</td>
</tr>
<tr>
<td>Australian Screener Score</td>
<td></td>
</tr>
<tr>
<td># of Subjects above depression cutoff score</td>
<td>40.8 (49)</td>
</tr>
<tr>
<td># of Subjects above PTSD cutoff score</td>
<td>68.3 (82)</td>
</tr>
</tbody>
</table>

### Trauma Symptom Measures  n = 119

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peri-traumatic Distress Inventory (0-52)</td>
<td>20.81(11.87)</td>
</tr>
<tr>
<td>Trauma Screening Questionnaire (0-10)</td>
<td>3.94(3.22)</td>
</tr>
<tr>
<td>RAND Peri-traumatic Dissociative Experiences Questionnaire (10-50)</td>
<td>21.62(9.53)</td>
</tr>
</tbody>
</table>
## Intake Descriptives

### Risk and Resiliency Scales  n = 119

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
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</thead>
<tbody>
<tr>
<td>Hope Scale Total (“Future”*, 12-96)</td>
<td>70.76(10.09)</td>
</tr>
<tr>
<td>“Agency” Scale(4-32)</td>
<td>25.61(5.24)</td>
</tr>
<tr>
<td>“Pathway” Scale(4-32)</td>
<td>25.95(6.02)</td>
</tr>
<tr>
<td>“Hope” Scale(Agency + Pathway, 8-64)</td>
<td>51.55(8.87)</td>
</tr>
<tr>
<td>General Self-Efficacy Scale (10-40)</td>
<td>32.92(6.32)</td>
</tr>
<tr>
<td>Perceived Ethnic Discrimination Questionnaire (17-85)</td>
<td>32.72(14.09)</td>
</tr>
<tr>
<td>Exclusion (4-20)</td>
<td>9.32(4.16)</td>
</tr>
<tr>
<td>Workplace Discrimination (4-20)</td>
<td>7.81(3.86)</td>
</tr>
<tr>
<td>Stigmatization (4-20)</td>
<td>7.33(4.05)</td>
</tr>
<tr>
<td>Threat and Harassment (4-20)</td>
<td>6.00(3.44)</td>
</tr>
<tr>
<td>Police (1-5)</td>
<td>2.54(1.49)</td>
</tr>
<tr>
<td>Avg Amount of Support (0-10)</td>
<td>3.16(2.51)</td>
</tr>
<tr>
<td>Avg Level of Satisfaction (1-6)</td>
<td>5.57(0.77)</td>
</tr>
</tbody>
</table>
## Intake Descriptives

### ACE Childhood Questionnaire  n =119

<table>
<thead>
<tr>
<th>Variable</th>
<th>% (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects reporting at least 1 category</td>
<td>86.6 (103)</td>
</tr>
<tr>
<td>Subjects reporting at least 2 categories</td>
<td>66.4 (79)</td>
</tr>
<tr>
<td>Subjects reporting 3 or more categories</td>
<td>52.1 (62)</td>
</tr>
<tr>
<td>Subjects reporting 4 or more categories</td>
<td>40.3% (48)</td>
</tr>
<tr>
<td>Average # of categories per subject</td>
<td>2.82 (1.99)</td>
</tr>
</tbody>
</table>

### Neighborhood Environmental Survey

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present (0-18) [n=59]</td>
<td>7.95 (3.92)</td>
</tr>
<tr>
<td>Past (0-18) [n=59]</td>
<td>7.83 (4.14)</td>
</tr>
</tbody>
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ROLE IN PROJECT

- Enter intake data
- Transcribe qualitative interviews
- Administer structured intake interviews
- Accompany interviewer on follow-up visits
- Conduct preliminary data analysis
LESSONS LEARNED

- Many factors affect people’s health
- Be tenacious!
- Transcribing can be a cumbersome journey
- Valuable interviewing skills
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- Special thanks to:
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  - Shanae Johnson and LDI staff
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