Client Characteristics at a Specialized Workers’ Compensation Board Psychological Trauma Program

Jennifer M. Hensel, M.D., Resident in Psychiatry
Work and Well-Being Research and Evaluation Program, CAMH
Department of Psychiatry, University of Toronto
Overview

- **Background:**
  - Psychological Trauma and Psychological Trauma in the Workplace
  - The Psychological Trauma Program
- Study Question and Design
- Results
- Conclusions
- Future Work
Psychological Trauma

- Overwhelming traumatic events, both physical and non-physical, cause psychological distress
- Historically, “shell shock” in soldiers returning from combat
- Post trauma, at risk for:
  - Post-traumatic stress disorder (PTSD)
  - Other psychiatric illness, i.e. Depression, Anxiety
  - Relapse of pre-existing mental illness
Psychological Trauma

Pre-Trauma Factors → Trauma and Peri-Trauma Factors → Post-Trauma Factors

Mental Illness i.e. PTSD, Depression

Adapted from Klein et al., Psychiatry, 2006.
Post-traumatic Stress Disorder (PTSD)

- DSM-IV criteria:
  - Event: intense fear, helplessness, horror
  - Symptoms: re-experiencing, avoidance, hyperarousal
- Lifetime prevalence: 5-14%
  - Breslau, Can J Psychiatry, 2002
- F>M, independent of trauma
- Rates may be higher in developing countries with ongoing war and political unrest
Psychological Trauma

- In the workplace:
  - Unique environment that provides sense of purpose, identity and contribution; how we “make a living”
  - May be site of accidents, harassment, violence, natural disasters

- Risk factors for post-traumatic stress:
  - Occupation: Protective Services, Retail
    - MacFarlane et al., *Occup Med*, 2007
  - Injury: Upper extremity injuries
    - Cheung et al., *Rehab Psychol*, 2003

- Issues re: return to work, compensation, liability
Return to Work (RTW)

- Multifactorial – sociodemographics, psychological factors, occupation and injury descriptors, employer factors

- Prolonged duration to RTW associated with:
  - No employment, other earners at home
  - Previous psychiatric history, personality traits
  - Injury severity and pain
  - High strain, low control, labour-intensive work
  - Lack of employer support and RTW programs

The Psychological Trauma Program (PTP)

- Affiliated with CAMH, University of Toronto
- Referral initiated by provincial Workplace Safety and Insurance Board (WSIB)
- Yearly, approx. 1800 claims filed, approx. one third of these are referred to the PTP
- Multi-disciplinary staff
- Comprehensive assessment and treatment recommendations
- Treatment programs offered to workers from the GTA
Study Question

- What are the personal and occupational characteristics of the workers presenting to the PTP?
- Which characteristics are associated with employment status within one year of referral?
Study Design

- Administrative database of all PTP referrals between 1999 and 2006
- Inclusion Criteria: Referred from WSIB within one year of traumatic event
- Exclusion Criteria: None
- Statistics: Chi-squared and Binary Logistic Regression ($\alpha = 0.05$)
Results

Part 1. Frequencies and Descriptive Statistics

Administrative Database: 1720 workers

Referred within one year: 531 workers

Part 2. Logistic Regression

Employment Status: 336 workers

Working: 96 workers

Not Working: 240 workers
## Results: Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>Male</td>
<td>75.7%</td>
</tr>
<tr>
<td>Age (years)</td>
<td>25 or Under</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>26 to 35</td>
<td>24.7%</td>
</tr>
<tr>
<td></td>
<td>36 to 45</td>
<td>35.4%</td>
</tr>
<tr>
<td></td>
<td>45 to 55</td>
<td>23.9%</td>
</tr>
<tr>
<td></td>
<td>55 or Older</td>
<td>5.1%</td>
</tr>
<tr>
<td>Education</td>
<td>Less than High school</td>
<td>27.0%</td>
</tr>
<tr>
<td></td>
<td>High school +/- Part</td>
<td>42.6%</td>
</tr>
<tr>
<td></td>
<td>Post-secondary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-secondary +/- Post-graduate</td>
<td>30.4%</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married/Common-law</td>
<td>65.2%</td>
</tr>
<tr>
<td></td>
<td>Widowed/Divorced/Separated</td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>19.7%</td>
</tr>
<tr>
<td>Canadian Born</td>
<td>No</td>
<td>48.5%</td>
</tr>
<tr>
<td>Place of Residence</td>
<td>Urban</td>
<td>91.4%</td>
</tr>
</tbody>
</table>
# Results: Occupation and Event

<table>
<thead>
<tr>
<th>Time at Accident Employer</th>
<th>Less than 1 month</th>
<th>1 to 6 months</th>
<th>6 to 12 months</th>
<th>12 to 24 months</th>
<th>Longer than 24 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6.7%</td>
<td>13.2%</td>
<td>10.6%</td>
<td>11.3%</td>
<td>58.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Event</th>
<th>Accident/Strain</th>
<th>Robbery/Assault</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>68.9%</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Occurrence</th>
<th>Single</th>
<th>Repeated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>94.5%</td>
<td>5.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Injury Severity</th>
<th>No injury</th>
<th>Injury only</th>
<th>Impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18.1%</td>
<td>26.4%</td>
<td>49.5%</td>
</tr>
</tbody>
</table>
Results

58.5% of workers had one or more co-morbid DSM diagnoses.

Occupation was associated with sex, education, marital status, country of birth and time at employer (p<0.01)

Occupation

Based on Canadian Classification and Dictionary of Occupations (CCDO)

Primary Diagnosis

Based on Structured Clinical Interview for DSM Disorders (SCID-1)
59.0% of workers are not working at the time of assessment. Of these, 50.0% are on medical disability and 48.6% are on psychiatric disability. The remainder are unemployed.

Employment status is significantly associated with injury severity (p<0.001).
**Results: Logistic Regression**

**Primary outcome: Not working at time of assessment**

<table>
<thead>
<tr>
<th></th>
<th>OR</th>
<th>Sig</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital Status (ref. married)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed/Divorced/Separated</td>
<td>3.061</td>
<td>.026</td>
<td>1.14-8.20</td>
</tr>
<tr>
<td>Never Married</td>
<td>1.009</td>
<td>ns</td>
<td>.41-2.47</td>
</tr>
<tr>
<td><strong>Injury Severity (ref. no injury)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injury only</td>
<td>1.942</td>
<td>ns</td>
<td>.68-5.51</td>
</tr>
<tr>
<td>Impairment</td>
<td>2.760</td>
<td>.048</td>
<td>1.01-7.55</td>
</tr>
<tr>
<td><strong>No. of Secondary Diagnoses (ref. none)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 or more</td>
<td>2.549</td>
<td>.004</td>
<td>1.34-4.83</td>
</tr>
</tbody>
</table>

Model adjusted for sex, age, marital status, education, country of birth, time to referral and time with employer.
Results: Gender Differences

- M>F, no differences across diagnoses
- F: More often divorced/separated than never married.
- F: More often employed in professional and clerical roles
- M: More often employed in labour roles.
- F: More repeated and ongoing traumas.
- F: Fewer physically impairing injuries but less likely to RTW if physically impaired.
Conclusions

- Workers presenting to the PTP are more often male labourers after an accidental trauma causing physical impairment.
- 59.0% of workers referred within one year are not working at the time of assessment.
- The most common primary diagnosis made is PTSD; nearly 60% have a secondary diagnosis.
- No RTW within one year of referral is associated with being divorced/separated, physical impairment and presence of multiple psychiatric diagnoses.
- Some gender differences were observed.
Future Work

- Expand the PTP database to include cases up to present with employment status data in the analysis.
- Further explore how our population is unique and investigate gender differences.
- Develop a follow-up study to examine return to work outcomes at time points further out from assessment.
- Build a predictive model to guide interventions.
Acknowledgements

- Carolyn Dewa, Ph.D.
  - Work and Well-being Research and Evaluation Program, CAMH

- Ash Bender, M.D.

- Jason Bacchiochi, Ph.D.

- Marianne Pelletier
  - Psychological Trauma Program, CAMH
This presentation was given at:

We Can Do It:
Evidence and Interventions for Transforming Mental Health in the Workplace
4th Annual Canadian Congress for Research on Mental Health and Addiction in the Workplace
Nous pouvons y arriver!
Des interventions éprouvées pour améliorer la santé mentale au travail
Le 4ème congrès canadien annuel pour la recherche sur la santé mentale et les toxicomanies en milieu de travail

Congress Sponsors / Commanditaires du congrès

Platinum / Platine

Sun Life Financial

Silver / Argent

Public Health Agency of Canada
Agence de la santé publique du Canada

HSRCU
Health Systems Research and Consulting Unit
Unité de recherche et de consultation sur les systèmes de santé

Bronze / Bronze

Manulife Financial

Great-West Life

Institute of Health Economics (IHE)