Clinical/Vocational Outcome Measurement Guided Physical/Mental Health Rehabilitation: A multi-disciplinary clinical coordination based approach

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Executive Director, Rehabilitation Research, Education & Evaluation Services (RREES)
Session Objectives – Part I

- Review current rehab process pitfalls re segmentation/poor vocational integration

- Present comprehensive outcome measurement based approach as “glue” to address pitfalls

- Present holistic model for impair’t/job demand specific disability assess’t and voc rehab guidance
Part II: Mental Health

- Empirical review benefits/limits of psychotherapy (CBT) intervention from rehab perspective

- Review critical importance of integrating/sequencing psychotherapy with empirically based functional interventions

- Present CP-FAE as a vocational rehabilitation process with employer as partner and appropriate OT follow up to facilitate RTW
The problem: The state of rehabilitation service provision in Ontario

- General lack of rehab barriers reviews at start/end of treatment stages
- Poor outcome measurement in midst of & at end of treatment stages
- Patient progress not transparent to all parties
- Loss of rehab gains as lack transition between rehab phases i.e. no case management
- Disruption of IE/IME assessments
- Bias in IE/IME assessments
- Minimal or very late vocational rehabilitation provision
Clinical Management & ADL/Essential Job Tasks Link

Pre-condition Functioning

Illness Onset

ADL/Essential Job Tasks Criterion (Physical, Cognitive, Socioemotional)

Sporadic Active Treatment

Rare Vocational Rehabilitation

Measuring Progress Towards Max ADL & Essential Job Task Criterion
Current System Outcome

- Poorer rehabilitation outcomes
- Increased mental health impairments
- Increased family crisis and breakdown
- Increased financial burden/crisis
- Increased burden on other systems (OHIP, welfare, ODSP, CPP)
- New IE system adverse impacts
- Entitlement appeals now typically only through costly and slow legal process
Return to Work Probability: The case for aggressive intervention and vocational management

*Probability of returning to work:
- 50% after 6 months
- 20% after one year
- 10% after two years


Increasing likelihood of extended benefit exposure & deteriorating mental health and familial status
A Solution

- “Clinical case coordination” through integrated Clinical/Vocational Model
THIS IS WHERE WE WANT TO BE VS CURRENT “JAGGED LINE” APPROACH

- Pre-condition Functioning
- Illness Onset
- Essential Job Tasks Criterion (Physical, Cognitive, Socioemotional)
- Integrated Active Treatment
- Vocational Rehabilitation
- ROMS Measures Progress Towards Essential Job Task Criterion
Outcome Guided Rehabilitation Intervention Stages

1. Rehab Baseline: Barriers & Disability Profile

2. RESPECTIVE PRIMARY BARRIERS ASSESSMENT
   - Neurological assessment
   - Orthopedic assessment
   - Psychological assessment
   - Social work/family assessment
   - Sleep assessment
   - Headache assessment
   - Dizziness, substance abuse vs. anxiety/panic attacks
   - Vision/hearing assessment

   Indicated Intervention(s)

   ROMS RE-ASSESSMENT I
   (If intervention occurred for initial Primary Barriers)

3. PHYSICAL INTERVENTION(S)
   - Physiotherapy
   - Work conditioning
   - Vestibular rehabilitation
   - In home OT
   - Work hardening

   ROMS (PHYSICAL) RE-ASSESSMENT II

4. PSYCHOLOGICAL I INTERVENTION
   - Pharmacological
   - Psychological intervention
     - Cognitive Behavioural
     - Stress/symptom management counselling

   ROMS Demonstrated Progress

5. PSYCHOLOGICAL II INTERVENTION
   - Home/community behavioural programming (12-16 weeks)
   - Psychological support

   ROMS Demonstrated Minimal/No Progress

6. OCCUPATIONAL DISABILITY DETERMINATION (See “Own occ.” & “Any occ.” diagrams)

7. VOCATIONAL REHABILITATION/INTERVENTION
   - Counselling support should generally accompany vocational rehabilitation to manage symptom relapse

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3. PHYSICAL INTERVENTION(S)
- Physiotherapy
- Work conditioning
- Vestibular rehabilitation
- In home OT
- Work hardening

4. PSYCHOLOGICAL I INTERVENTION
- Pharmacological
- Psychological intervention
  - cognitive behavioural
  - stress/symptom management counselling

5. PSYCHOLOGICAL II INTERVENTION
- Home/community behavioural programming (12-16 weeks)
- Psychological support

Indicated Intervention(s)

ROMS RE-ASSESSMENT I
(If intervention occurred for initial Primary Barriers)

ROMS (PHYSICAL) RE-ASSESSMENT II

ROMS RE-ASSESSMENT III
Determine status after Level I Intervention and/or at interim

ROMS Demonstrated Progress

ROMS Demonstrated Minimal/No Progress

ROMS RE-ASSESSMENT IV+
How do we get to where we want to go?

- Requires a clinical conceptual framework regarding what to measure and why
Rehabilitation Assessment and Intervention Process Model: Relating Concepts and Assessment Instruments

Assessment Tools Legend

RCL: The Rehabilitation Checklist
PPCLES: The Pre/Post Condition Life Event Survey
R-ADLS: The Rehabilitation Activities of Daily Living Survey
R-SOPAC: The Rehabilitation Survey of Problems and Coping
RNHSI: The Rehabilitation Neuropsychological and Health Status Inventory
ITS: The Impact of Trauma Scale

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J. Douglas Salmon, Jr., Ph.D. and
And Marek J. Celinshi, Ph.D.
What is Rehabilitation Outcome Measurement System (ROMS)?

- Comprehensive graphical outcome measurement system
- Subset of Assessment Process Model above
- Based on validated measures in WSIB and MVA populations in Ontario
Review of Key Measures

- Rehabilitation Checklist (RCL)
- Rehabilitation Survey of Problems/Coping (R-SOPAC)
- Rehabilitation Activity of Daily Living Survey (R-ADLS)
- Functional Status Measures (FSM)
- Extensive technical manuals/validation (~300 WSIB; 100 MVA; ~200 un/employed)
Rehabilitation Checklist

I. Prioritized Rehabilitation Barriers

- Physical symptoms
- Emotional symptoms
- Cognitive symptoms
- Psychosocial (family, financial, ESL, comfort, etc.)
- Prior job (unsafe, too heavy/demanding, unavailable, etc.)
- Employment (ESL, low education/skills, etc.)
Mental Health Concern/Referral

- Emotional rehabilitation barriers endorsed (especially priority)
- Worsening emotional condition (G)
- Worsening physical condition (F), contrary to medical evidence
- Fear towards workplace, driving, etc. (A.42)
- Marital/family problems (A.10)
- Dependence upon medication, alcohol/substances (A.31, A.35)
Maladaptive Disability Perceptions: “Red Flag”

- Fear of re-injury/worsening condition (A.7)
- Fear of dying (A.34)
- Extreme life role/overall disability ratings (Sec.C)
- Past/Future worsening condition (Sec. F-G)
- Poor self prognosis (Sec. I,J)
## II. LIFE ROLES DISABILITY RATING AND RANKING

1. Household chores  
2. Relationship with friends  
3. Parental activities  
4. Volunteer work  
5. Relationship with spouse/lover  
6. Self-sufficiency (dress, transportation etc.)  
7. Sports/hobby participation  
8. Social participation  
9. Regular work  
10. Learning/Memory  
11. Modified work  
12. Overall disability
# Rehabilitation Survey of Problems and Coping

by J. Douglas Salmon, Jr., Ph.D. and Marek Celinski, Ph.D.

## Part 1: Survey of Problems

**Instructions:** Below is a list of items. Circle the number, ranging from 0-Not a Problem to 6-Extreme Problem, beside the item that best describes how much of a problem each one is for you. **Please note:** The higher the number, the more of a problem it is for you.

Please indicate the degree to which you are able to cope with your condition or problem overall:

<table>
<thead>
<tr>
<th></th>
<th>Cannot Cope</th>
<th>Can Cope</th>
<th>Can Cope</th>
<th>Can Cope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At All</td>
<td>Satisfactorily</td>
<td>Very Well</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Not a Problem</th>
<th>Moderate Problem</th>
<th>Extreme Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sleep</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Balance</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3. Concentration</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>4. Dizziness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>5. Self-confidence</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>6. Noise in ears</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Sexual activity</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>8. Reading</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9. Nightmares</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>10. Pain (other than headache)</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>11. Hand co-ordination</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>12. Memory</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>13. Depression/Sadness</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>14. Headaches</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>15. Epileptic Seizures</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>16. Anger/Irritability</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>17. Decision making</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>18. Tired/Low energy</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>19. Nervous/Worried</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>20. Planning/Organizing</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>21. Feeling helpless</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>22. Upsetting memories</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>23. Muscle tension</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. Fear of Driving/ of being a passenger</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25. Embarrassed of my appearance</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
# Rehabilitation Survey of Problems and Coping

**by J. Douglas Salmon, Jr., Ph.D. and Marek Celinski, Ph.D.**

## Part 2: Survey of Coping

**Name:**

**Date:**

**Instructions:** Below is a list of items. Circle the number, ranging from 0-Cannot Cope at All to 6-Can Cope Very Well, beside the item that best describes **how well you can cope and manage** in terms of living your normal life in spite of each problem. **Please note:** The **higher** the number, the **better** you are able to cope.

<table>
<thead>
<tr>
<th>1. Sleep</th>
<th>Cannot Cope At All</th>
<th>Can Cope Satisfactorily</th>
<th>Can Cope Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Balance</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Concentration</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Dizziness</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Self-confidence</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Noise in ears</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Sexual activity</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Reading</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Nightmares</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Pain (other than headache)</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Hand co-ordination</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Memory</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Depression/Sadness</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Headaches</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Epileptic Seizures</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Anger/Irritability</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Decision making</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Tired/Low energy</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Nervous/Worried</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Planning/Organizing</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Feeling helpless</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Upsetting memories</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Muscle tension</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Fear of Driving/ of being a passenger</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Embarrassed of my appearance</td>
<td>0 1 2 3 4 5 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please indicate how disabled you feel overall: [ ]
<table>
<thead>
<tr>
<th>Scale</th>
<th>Structure/Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>Dizziness</td>
</tr>
<tr>
<td></td>
<td>Sleep Disturbance</td>
</tr>
<tr>
<td></td>
<td>Pain (non-headache)</td>
</tr>
<tr>
<td></td>
<td>Balance</td>
</tr>
<tr>
<td></td>
<td>Noise in ears</td>
</tr>
<tr>
<td></td>
<td>Muscle Tension</td>
</tr>
<tr>
<td></td>
<td>Headaches</td>
</tr>
<tr>
<td></td>
<td>Hand Coordination</td>
</tr>
<tr>
<td>Emotional</td>
<td>Depression</td>
</tr>
<tr>
<td></td>
<td>Feeling Helpless</td>
</tr>
<tr>
<td></td>
<td>Upsetting Memories</td>
</tr>
<tr>
<td></td>
<td>Embarrassed of Appearance</td>
</tr>
<tr>
<td></td>
<td>Fear of Driving/Passenger</td>
</tr>
<tr>
<td></td>
<td>Nervousness</td>
</tr>
<tr>
<td></td>
<td>Self-confidence</td>
</tr>
<tr>
<td></td>
<td>Sexual Activity</td>
</tr>
<tr>
<td></td>
<td>Nightmares</td>
</tr>
<tr>
<td></td>
<td>Fatigue</td>
</tr>
<tr>
<td></td>
<td>Anger</td>
</tr>
<tr>
<td>Cognitive</td>
<td>Planning/Organizing</td>
</tr>
<tr>
<td></td>
<td>Memory</td>
</tr>
<tr>
<td></td>
<td>Concentration</td>
</tr>
<tr>
<td></td>
<td>Decision Making</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
</tr>
<tr>
<td>Research Items</td>
<td>Epileptic Seizures</td>
</tr>
<tr>
<td></td>
<td>Self-perceived coping overall</td>
</tr>
<tr>
<td></td>
<td>Self-perceived disability overall</td>
</tr>
</tbody>
</table>
Figure 7.5
Three-Cluster Solution

Cluster 1: Adaptive Coper
Cluster 2: Distressed-Diffuse Symptoms
Cluster 3: Mild to Moderate Circumscribed Symptoms
### Table 7.19
**Employed, Unemployed, Clinical R–SOPAC Means Comparison.**

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Age</th>
<th>Intensity – Total (Mean)</th>
<th>Coping – Total (Mean)</th>
<th>Overall Total (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>88</td>
<td>43.7</td>
<td>24.4</td>
<td>20.5</td>
<td>44.9</td>
</tr>
<tr>
<td>Unemployed</td>
<td>102</td>
<td>36.2</td>
<td>37.0</td>
<td>34.3</td>
<td>71.3</td>
</tr>
<tr>
<td>Clinical</td>
<td>194</td>
<td>40.8</td>
<td>77.9</td>
<td>68.0</td>
<td>145.8</td>
</tr>
</tbody>
</table>

### Table 7.20
**Employed, Unemployed, Clinical R–SOPAC Test Results.**

<table>
<thead>
<tr>
<th>Group</th>
<th>Intensity – Total (Mean)</th>
<th>Coping – Total (Mean)</th>
<th>Overall Total (Mean)</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed vs. Unemployed</td>
<td>&lt;.001</td>
<td>&lt;.0001</td>
<td>&lt;.001</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Unemployed vs. Clinical</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.005</td>
</tr>
<tr>
<td>Clinical vs. Employed</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
<td>ns</td>
</tr>
</tbody>
</table>
### Rehabilitation Activities of Daily Living Survey II (OM)

**Client's Name:** Jane Smith  
**Observer Name:**

**Age:** 34  
**Gender:** Female  
**Today's Date:** 01/01/23  
**Condition Onset:** 10/19/00  
**Administration #:**

**Instructions:** Please read each of the activities below and indicate how much you were limited BEFORE your condition and are limited CURRENTLY. Do this by entering a percentage rating from 0% to 100% in the appropriate column, where 0% indicates no limitation, and 100% indicates complete limitation. For example, if you could climb stairs and needed only a little assistance before the onset of your condition, you might enter 20% under “Before Condition.” Likewise, if you are currently experiencing a high, yet not complete, degree of limitation, you might enter 85% under “Currently.” If the activity is not applicable to you, or your limitation is not yet known, please circle “NA” in the appropriate row. Next, please indicate any symptoms (up to 3) that have limited you in performing these activities. Do this by writing them down in the space provided under “Limiting Symptoms.”

<table>
<thead>
<tr>
<th>Activity</th>
<th>% Limitation</th>
<th>% Limitation</th>
<th>Limiting Symptoms (pain, depression, memory, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathing/Showering</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Grooming</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Dressing/Undressing</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Toileting</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Sleeping</td>
<td>0</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
</tr>
</tbody>
</table>

| Walking                   | 0            | NA           | 35                                                 |
| Climbing Stairs           | 0            | NA           | 35                                                 |
| Driving                   | 0            | NA           | 35                                                 |
| Riding in a Vehicle       | 0            | NA           | 35                                                 |
| Public Transportation Use | 0            | NA           | 35                                                 |
| Sitting                   | 0            | NA           | 35                                                 |
| Standing                  | 0            | NA           | 35                                                 |
| Other                     | NA           | NA           | 0                                                 |

| Planning/Deciding What to Buy | 0 | NA | 0 | NA |
| Grocery Shopping/Unpacking  | 0 | NA | 60 | NA |
| Other                        | NA | NA | NA |

| Meal Planning/Organizing   | 0 | NA | NA |
| Meal Preparation/Cooking   | 0 | NA | NA |
| Washing Dishes             | 0 | NA | NA |
| Other                       | NA | NA | NA |

| Sweeping                   | 0 | NA | 0 | NA |
| Dusting                    | 0 | NA | 0 | NA |
| Vacuuming                  | 0 | NA | 0 | NA |
| Bed Making                 | 0 | NA | NA |
| Cleaning Bathrooms         | 0 | NA | 60 | NA |
| Washing Floors             | 0 | NA | 90 | NA |
| Cleaning Oven              | 0 | NA | 60 | NA |
| Cleaning Refrigerator      | 0 | NA | 60 | NA |
| Garbage Removal            | 0 | NA | 0 | NA |
| Other                       | NA | NA | NA |

*Please ensure that you have filled in the “Limiting Symptoms” column.
Continue Survey on Reverse Side*
<table>
<thead>
<tr>
<th>Activity</th>
<th>% Limitation Before Condition</th>
<th>% Limitation Currently</th>
<th>Limiting Symptoms (pain, depression, memory, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing Laundry</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Ironing</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Sewing</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Grass Cutting</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>pain</td>
</tr>
<tr>
<td>Gardening</td>
<td>0 % NA</td>
<td>60 % NA</td>
<td>pain</td>
</tr>
<tr>
<td>Snow Shoveling</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>pain</td>
</tr>
<tr>
<td>Home Repairs</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>pain</td>
</tr>
<tr>
<td>Other</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Relating to Partner</td>
<td>0 % NA</td>
<td>60 % NA</td>
<td>depression, stress</td>
</tr>
<tr>
<td>Relating to Children</td>
<td>0 % NA</td>
<td>60 % NA</td>
<td></td>
</tr>
<tr>
<td>Relating to Relatives</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>depression, stress</td>
</tr>
<tr>
<td>Relating to Friends</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>stress</td>
</tr>
<tr>
<td>Sexual Activity</td>
<td>0 % NA</td>
<td>60 % NA</td>
<td>stress, self-confidence</td>
</tr>
<tr>
<td>Informal Social Activities</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Formal Social Activities</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
<tr>
<td>Recreational Activities and Hobbies</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>depression, pain</td>
</tr>
<tr>
<td>Sports/Exercise</td>
<td>0 % NA</td>
<td>35 % NA</td>
<td>pain, self-confidence</td>
</tr>
<tr>
<td>Other</td>
<td>0 % NA</td>
<td>0 % NA</td>
<td></td>
</tr>
</tbody>
</table>

Daily Banking/Bills, Finances
Keeping Appointments
Remembering Errands
Understand/Recall What You Have Read
Following/Recalling a Movie/TV Program
Recalling Conversations/Events
Remembering/Following Directions
Prioritizing Activities
Organizing Activities, Projects
Forgetting Iron/Stove On, Lock Doors, etc.
Handling Several Things at Once
Concentrating With Distractions
Other

Initiating/Following Conversation
Finding Words to Express Thoughts
Writing So Others Understand
Understanding What Others Say
Talking On the Telephone
Typing/Keyboarding
Other

Please ensure that you have filled in the “Limiting Symptoms” column. Thank You for completing this survey.
Rehabilitation Activities of Daily Living Survey (R-ADLS)

- For all disability groups with any combination of physical, cognitive, emotional symptoms
- From acute care to community integration
- Measures identifies relative contribution of above symptoms per ADL domain
- Allows measurement of entire domain or item
- Uses both categorical and numerical data
Clinical Management & ADL/Essential Job Tasks Link

**Pre-morbid ADL/Essential Job Tasks Criterion (Physical, Cognitive, Socioemotional)**

Pre-condition Functioning

Illness Onset

Active Treatment

Vocational Rehabilitation

-ROMS Measures Progress Towards Essential Job Task Criterion
ROMS slides
Clinical/Vocational Integration & Essential Job Tasks Link

Illness Onset

Pre-condition Functioning

“Essential Job Tasks” (EJT) Criterion (Physical, Cognitive, Social-emotional)

Active Treatment

Vocational Rehabilitation

Terminal “EJT” Shortfall

Measured by:
- FAE
- CP-FAE
- NPA

ROMS Measures Progress Towards Essential Job Task Criterion
Impairment & “Own Occupation” Disability Determination

Illness/Injury

Impairment/Diagnosis Determination

Physical Impairments/Dx
- IME/s (neurol., orthop., etc.)
- Allied physical assessment (PT speech, etc.)

Emotional/Behavioural Impairments/Dx
- Psychological assessments
- Psychiatric assessment

Cognitive Impairments/Dx
- Neuropsychological assessments

Occupational Disability Determination: Can client perform essential job tasks?

Physical Functional Abilities (FAE)
- IME’s –basic sensory-motor (e.g. visual, hearing)
- FAE Specific

Emotional/Interpersonal Functional Abilities (CP-FAE)
- Comprehensive Psychological Disability Assessment
- Cognitive/Psych. FAE
- Neuropsychological

Cognitive Functional Abilities (CP-FAE)
- Neuropsychological (Neurocognitive impairment)
- Cognitive/Psych. FAE (or NPA) (Non-neurological impairments)

Situational Work Assessment: All demands (sedentary/light & non-technical/managerial)

Physical Demands (PDA)

Emotional/Psychosocial Demands (CP-JDA)

Cognitive Demands (CP-JDA)

Job Demands Analysis

Dr. J. Douglas Salmon, Jr. © 2001, 2006
Vocational Rehabilitation

- Job modifications/accommodations
- Adaptive devices
- Job sharing
- Job trials, work hardening/volunteer work
- *Alternative work
- *Retraining
  - *Informed by Psycho/Neurovocational Assessment
Model Key Points

- Expedite determination of diagnosis, primary rehab barriers & perform rehab baseline

- Aggressive physical treatments/psychotherapy & functional interventions for *evolving* primary barriers

- Outcome measures required to guide intervention stages & maximize functional recovery

- Comprehensive measurement of status relative to “essential job tasks”
Summary Key Points cont…

- Aggressive vocational rehabilitation for essential task functional shortfall
- Funding continuation facilitated via progress measurement
- Facilitates demonstration of client motivation
- Useful as client discussion/motivational tool
Model Advantages

- Advances maximal clinical/vocational progress
- Continually review residual symptom/other barriers, ADL and occupational shortfalls
- Funding continuation contingent upon progress
- Facilitates demonstration of client motivation
- Useful as client discussion/motivational tool
Part II - Mental Health Rehabilitation: Key tools and strategies
Scope of Mental Illness Problem

- **Loss of productivity and Cost**
  - Ranked 7 out of the leading 20 economic burden contributors for Canada
    - Estimated direct and indirect costs of $14.4 billion/year for depression and general psychological distress, (Stephen & Joubert, 2001)
  - Similar results reported in the US
    - Annual costs per capital greater for depression than those for hypertension, heart disease and back injuries, (Druss, Rosenheck & Sledge, 2001)

- **World Health Organization (WHO) identified depression as the single disorder with the greatest disease burden worldwide** (Astun, 2001)
Distressed Individuals

- Are involved in 3 times MORE accidents
- Are 5 times MORE likely to file for WSIB
- Are 4 times MORE likely to miss work
- Make MORE health insurance claims
- Are MORE likely to produce errors
- May cause distress for others in the workplace
Everyone Has Personal Problems

- 40% of Canadian marriages experience significant distress
- 10% of the workforce abuses drugs/alcohol
- Up to 10% to 15% of the workforce is sufficiently distressed to affect productivity every day
- Lifestyle diseases account for half of ALL illnesses
Mental Health Tracks: Common Presenting Problems

Interpersonal Conflict/Perceived Injustice

Burn out/Work Stress Claims
• Home, Work, combo

Primary Mental Health
• Major depressive disorder
• Generalized anxiety disorder
• Panic disorder with/out agoraphobia
• Obsessive compulsive disorder
• Schizophreniform spectrum disorders
• Trauma: PTSD, Borderline PD

Secondary Mental Health
• MSK chronic pain
• Fibromyalgia
• Chronic disease
• Cancer, heart attack, etc.

Substance Abuse

Neurocognitive Disorders
• CVA, brain tumors, early dementia, TBI
• Learning disabilities (displacement, etc)

What strategies do you currently use to discern the first two?
Sources of Workplace Stress

- Management demands/expectations
- Management Structure
- Work activities
- Work environment/systems
- Ergonomic Issues
- Work Interactions
- Company financial performance/vulnerability
- External Factors
Workplace stress factors:

- Can be the primary source of actual/presenting mental health disability &/or job burn out

- Can exacerbate a primary mental health condition

- Can be a barrier or counter-incentive to return to work after any (physical/mental) disabling condition
Interpersonal Conflict/Perceived Injustice

- Early problem identification key:
  - Often not diagnosable condition
  - May be strong entitlement orientation and/or objective injustice
  - STD/LTD may be form of punishing employer
  - Only resolvable via employer acknowledging/addressing employee concerns
  - Counselling may help overcome employee misperceptions
  - May require re-assignment of employee
Burn out/Work Stress Claims

- Sources of work stress must be clearly identified
  - Ergonomic assessment ➞ identify job/task modifications/accommodations
  - If family life/balance contributing ➞ reduce/alter work schedule &/or individual/family intervention
  - Burn out (work stress) typically requires work reallocation, re-assignment or alternate work
  - Early psychovocational assessment may be indicated, with vocational rehabilitation follow up
Mental Health Diagnostic Conditions

- Primary/secondary mental health conditions
- Substance abuse
- Neurocognitive disorders

Require:

- Diagnosis
- Clinical/functional intervention
- Expedited vocational accommodation/support/rehabilitation
Early Diagnosis/Identification: Which track is it for a given claim?

- Tools of the trade:
  - Neuro/Psychological/psychiatric assessment ➔ Diagnosis
  - Rehabilitation Baseline/Profile ➔ Rehab barriers, coping/functional status & outcome monitoring
  - Combined approach
Outcome guided mental health.pdf
Mental Health Graphs Here
Why doesn’t psychotherapy alone result in functional improvements required for RTW?

- As time passes a clinical problem transforms into a lifestyle problem
- Long periods of work absence promote the development of a sedentary disability lifestyle
- Clinicians have tools designed to target clinical problems, not lifestyle ones

“A Tool Kit for Targeting Psychosocial Risk Factors for Prolonged Disability”, University Centre for Research on Pain and Disability
Functional Recovery Requires:

- Empirically based functional reactivation program

Prime example:

- *Progressive Goal Attainment Program (P-GAP)*;
  - 10 session weekly 1:1 structured, time limited program
  - Originally strictly pain focussed, now broadened to mental health
Psychosocial Risk Factors Targeted by PGAP

- Catastrophizing
- Fear of movement/re-injury
- Perceived disability
- Depression
- Perceived Injustice

“Community-Based Approach to Managing Psychosocial Risk Factors for Pain and Disability”, Tamra Ellis
PGAP Outcome/Cost Comparison

- “… PGAP yield outcomes similar to those obtained in multidisciplinary treatment programs”

- “…PGAP costs 80% less than multidisciplinary programs”

- Demonstrated efficacy with MSK and depressive symptoms; evolving mental health support

“A Community-Based Intervention for the Prevention of Pain Related Disability”, University Centre for Research on Pain and Disability & Sullivan et al
MH Residual Impairments/Vulnerabilities, Restrictions & Limitations
“Given recent estimates that about 75 percent of the new jobs in the economy have to do with cognitive ability, not physical ability, and that the heavy lifting in the economy is now being done with people’s minds, not with their backs, this aspect of mental disability is more significant than it might have been a number of years ago”.

Rod Phillips, President/CEO, Warren Sheppell Consultants Corp
Cognitive/Psychological Job Demands Analysis (CP-JDA)

- Parallel’s *physical* job demands analysis (JDA)

- For occupational requirements/essential job demands substantially cognitive/interpersonal in nature

- Assesses workplace characteristics relative to cognitive and psychological demands

- Example occupational areas among many others: professional, executive, managerial, administrative, technical, trades, consulting/advising, teaching, business/financial services, health services, editing/writing, inventory, quality monitoring/control.
Cognitive/Psychological Job Demands Analysis (CP-JDA)

- Partial to full day combination of interview and observation of the worksite; May be combined with *physical* JDA

- Uses analysis techniques and methodology as per The Revised Handbook for Analyzing Jobs, thus *objective measurement* of the cognitive and psychological job demands

- Baseline measurement tool to consider individual’s cognitive and psychological capacities for disability benefit determination and return to work planning via:
  - Cognitive/Psychological Functional Ability Evaluation (CP-FAE)
  - Multi-day Situational Work Assessment/Comprehensive Employability Assessment
Cognitive/Psychological Job Demands Analysis (CP-JDA)

Domains considered:

- General learning ability
- General educational development
- Occupational aptitude
- Sustained concentration and persistence
- Attention/memory/learning
- Higher level cognitive abilities (problem solving, thinking, decision making, executive skills)
- Social interaction
- Stress demands
- Work traits
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

- Parallels physical functional ability evaluation (FAE); *Designed to be used in conjunction with the CP-JDA*
- Assesses strengths and limitations of individual relative to cognitive and psychological demands of a given occupation or generally.
- Applicable to any condition—physical, emotional or cognitive—significant impacting individual’s thinking, cognitive and interpersonal processes and abilities e.g.
  - Mental health/psychological impairment
  - Stress claims
  - Chronic pain
  - Fibromyalgia
  - Chronic Fatigue
  - Neurocognitive disorders
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

- Combined with psychological diagnostic assessment
- Recent diagnosis needed to identify diagnostic based limitations, restrictions, facilitators, accommodations
- 1.5 day interview and standardized assessment
- Client collaborative interview focuses on:
  - Identifying barriers/stressors within the work environment
  - Identifying workplace facilitators
  - Identifying impairment related limitations/restrictions
  - Identifying workplace modifications, accommodations, adaptive strategies/devices, scheduling
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

Example Worker Characteristics/Role: Barriers and facilitators

- Punctuality
- Attendance
- Appearance
- Adherence to/concerns with work policies
- Level of responsibility
- Work attitude/philosophy
- Job enjoyment/satisfaction
- Work Approach
- Creativity involved
- Complex tasks involved
- Repetitive Tasks
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

Work relationship characteristics reviewed:

- Relationship with boss
- Relationship with supervisees
- Coworkers
- Customers
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

Organizational parameters reviewed:

- Employment, turnover, layoffs
- Qualifications
- Training
- Organization of workplace
- Management style/accessibility
- Co-workers
- Physical space
- Organizational culture/fit
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

Other areas considered:

- Communication modes
- Supervision/supervisory characteristics
- Learning opportunities/demands
- Training expectations
- Rehabilitation opportunities/considerations
- Prioritized rehabilitation barriers
- Perceived symptom intensity/coping
Cognitive/Psychological Functional Ability Evaluation (CP-FAE)

Objective testing domains considered:

- General learning ability
- General educational development
- Occupational aptitude
- Sustained concentration and persistence
- Attention/memory/learning
- Higher level cognitive abilities (problem solving, thinking, decision making)
- Social interaction
- Stress demands
- Work traits

- All sub-domain areas compared to CP-FAE demands to determine if client meets job demands
- Diagnosis based impairment ratings grounded in AMA Disability Guides methodology
## Higher Level Cognitive Abilities

<table>
<thead>
<tr>
<th>Ability</th>
<th>Essential (Y/N, NA)</th>
<th>CP- Job Demands Analysis</th>
<th>CP-FAE Demands Measurement*</th>
<th>CP-JDA &amp; CP-FAE Demands Match</th>
<th>Limiting Symptom/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vigilance/monitoring</td>
<td>Y</td>
<td>Testers must log errors found immediately to share this information with the group. Testers must vigilantly monitor e-mails to ensure they are working on the most current software platform. Constant; Moderate (4)</td>
<td>Mild impairment</td>
<td>Does not meet</td>
<td>- weak mental control, visual attention span &amp; immediate verbal memory; this would likely be highly cognitively fatiguing activity for her, thus degrading task performance over time</td>
</tr>
<tr>
<td>Multi-tasking ability</td>
<td>Y</td>
<td>Constantly working between 4 different programs, each represented on the screen, monitoring e-mails, reviewing documents and keeping focused on task at hand. Constant; Moderate (4)</td>
<td>Borderline</td>
<td>Borderline</td>
<td>- weak mental control, visual attention span &amp; immediate verbal memory; this would likely be highly cognitively fatiguing activity for her, thus degrading task performance over time</td>
</tr>
<tr>
<td>Planning</td>
<td>Y</td>
<td>Tester must plan testing scenarios in order to complete testing Occasional; Moderate (3)</td>
<td>No impairment</td>
<td>Meets</td>
<td></td>
</tr>
<tr>
<td>Reasoning/problem solving</td>
<td>Y</td>
<td>Tester must read and comprehend complex release package information and then independently create testing scenario to properly address the desired test and outcome. Constant; High Moderate (4)</td>
<td>Moderate impairment</td>
<td>Does not meet</td>
<td>- Poor reading comprehension; weak mental control, visual attention span &amp; verbal memory/learning</td>
</tr>
<tr>
<td>Social Interaction</td>
<td>Essential (Y/N, NA)</td>
<td>CP- Job Demands Analysis</td>
<td>CP-FAE Demands Measurement*</td>
<td>CP-JDA &amp; CP-FAE Demands Match</td>
<td>Limiting Symptoms/Comments</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Interaction with public (customer service)</td>
<td>N</td>
<td>Testers support the program users, but these users are internal to the bank.</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Give/accept instructions</td>
<td>Y</td>
<td>Give feedback to manager, cross training with co-workers, trouble shooting and assisting callers with questions Occasional; Moderate to High Moderate (3/4)</td>
<td>No impairment</td>
<td>Meets</td>
<td></td>
</tr>
<tr>
<td>Supervisory feedback given/response accepted</td>
<td>Y</td>
<td>If tester makes an error (i.e. tester thinks problem is solved and manager determines otherwise), manager gives this feedback to tester Occasional; Moderate to High Moderate (3/4)</td>
<td>No impairment</td>
<td>Meets</td>
<td></td>
</tr>
<tr>
<td>Cooperation with co-workers (relative to behavioural issues)</td>
<td>Y</td>
<td>Co-workers must communicate and share information about problems found Frequent; Moderate (3)</td>
<td>No impairment</td>
<td>Meets</td>
<td></td>
</tr>
</tbody>
</table>
CP-JDA/FAE (Combined PVA)
Follow Up Rehab Services

A. OT supported own occupation trial
   - Modifications, accommodations, aids, etc

B. Alternate occupation consideration
   - Informed by CP-FAE (and PVA) profile
   - Employer forwards (3) alternate occupations for CP-FAE comparison to job demands (CP-JDA)
   - OT supported occupational trial
Situational Work Assessments

- Address similar client (mental health/mixed disability) population to that of CP-FAE

- Better suited to front-line workers vs professional/managerial (CP-FAE preferred)

- Better addresses social-interactional skills, but lower cognitive demands tapped vs CP-FAE
Situational Work Assessments

Description:
- 2 to 3 (neurological clients) day simulated work and standardized method-time-measurement (MTM) work sample assessment to address issues of:
  - cognitive efficiency
  - stamina
  - learning capacity
  - reasoning
  - problem solving abilities
  - stress tolerance
  - behavioural control capacity
  - social interaction skills
  - work traits
  - *relative to specific (own-occupation) and general (any occupation) job demands*
Situational Work Assessments

- Standardized assessment protocol of work samples completed at the beginning of the first day and end of the last day, in order to objectively measure:
  - (1) stamina issues
  - (2) *aptitude levels relative to minimum aptitude requirements for occupations being considered for the individual.*

- If client is working or work site available, may be possible to perform the evaluation at the place of employment.
Considering Alternate Occupations

CP-JDA & CP-FAE/SWA combination address top of VR hierarchy:

- Same/modified job, same employer
- Different job, same employer
- Alternate work demands may be compared to employee’s CP-FAE/SWA profile
Session Summary

- Physical/brain/mental health rehab must strive for seamless integration of intra/inter stage service delivery through systematic outcome measurement.

- Must bring the VR process forward to look for opportunities to expedite and enhance outcomes i.e. clinical/vocational outcome based service delivery.

- In mental health, chronic pain must better integrate primary psych interventions and functional re-activation programs like PGAP; we need better understanding of when these should be used in tandem vs. sequence & compare outcomes.
Summary continued...

- CP-JDA/FAE to be used as more of a VR tool beyond disability asst, affording employer as partner in identifying potential occs, thereby segue into support for RTW attempts

- CP-FAE integrally linked to accurate MH diagnosis, and resulting restrictions/limitations/accommodations, as well as personality and psychosocial dimensions/environmental work barriers
Acknowledgements

- Dr. Marek Celinski
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- Sid Kimel
- Ronal Patel
- Tyler Salmon
- Dr. Gill Sitarenios
- Naomi Vondell
- Multi-Health Systems
Community-Based Approach to Managing Psychosocial Risk Factors for Pain and Disability
"Any Occupation" Disability Determination

Illness/Injury

Physical Impairments

Emotional Impairments

Cognitive Impairments

Physical Abilities/Limitations
- General FAE

Personal & Vocational Characteristics

- Minimal Cognitive Impairment
  - Psychovocational Assessment

- Significant Cognitive Impairment
  - Neurovocational Assessment

Potential Job Alternatives

Competitively Employable?
- Productivity
- Sustained concentration & work pace
- Social interactional, work demeanor
- & Stamina over full work day/week

Work Trial

Situational Work Assessment
Vocational Rehabilitation Process Mirrors “Any Occ” Determination

Illness/Ijury

Physical Impairments

- Physical Abilities/Limitations
  - General FAE

Emotional Impairments

Cognitive Impairments

- Personal & Vocational Characteristics
  - Minimal Cognitive Impairment
    - Psychovocational Assessment
  - Significant Cognitive Impairment
    - Neurovocational Assessment

Potential Job Alternatives

Vocational Counselling Exploration

- Situational Work Assessment
- Volunteer Work/Work Hardening
- Job Placement Assistance
- Work Trial/Placement

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