Problems Encountered and Insights Gained: The importance of recovery in designing an evidence-based program for intensive mental health treatment

Carol Hawthorne Rumpler, MS, PMHCNS-BC
William D. Burmeister, MSA, RN
Cincinnati VA Medical Center
Cincinnati, Ohio 45220
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Objectives

1. Define therapeutic effectiveness and identify theoretical frameworks that are integral to an intensive mental health treatment program.

2. Understand the process of program development: defining groups, writing outcomes objectives, selecting measurement tools, and establishing a protocol for systematic program evaluation.

3. Discuss lessons learned: the importance of a Veteran-created mental health recovery plan, staffing guidelines, interdisciplinary staff roles and responsibilities for implementation of an evidence-based, recovery-oriented inpatient mental health treatment program.
History of Program Development

In 1999, interdisciplinary staff retreats resulted in the development of a group program schedule for inpatient mental health treatment. However, **two questions** remained:

1. How did we know if what we were providing in the treatment program was working?
   - a systematic program evaluation protocol was missing.
2. How were we measuring “success” in treatment?
   - discharge occurred when “returned to baseline”

Problem: How do we measure the therapeutic effectiveness of treatment on an Inpatient Mental Health Unit?

Therapeutic Effectiveness Has Been Measured By the Following Variables

- Diagnosis (and prognosis)
- Previous Hospitalizations
  - Length of stay showed no significance
- Demographic Variables
  - Marital Status
  - Employment
  - Education
  - Living Situation
- Symptomatology
- Level of Functioning
- Quality of life changes (patient - reported)
- Patient satisfaction with treatment
- Medication adherence
- Access to resources and opportunities

“Best” Evidence Includes:
- Symptom/illness management
- Components of Mental Health Recovery *
- Dimensions of Wellness *
- Medication adherence
- Satisfaction with treatment

* (SAMHSA, 2012, 2006)

Identified Theoretical Frameworks
- Recovery Model of Mental Health
- Dimensions of Wellness (Bio-Psycho-Social)
- Therapeutic Effectiveness (Evidence-based)
- Illness and Symptom Management
- Cognitive Behavioral Theory
- Motivational Interviewing (SNAP plan)
- Adult Learning Theory
- Relationship-Based Model of Care
  (Nurse Care Management Teams)

History of Program Development

Tool Development
Individualized (patient) treatment outcomes were identified as a measurement tool.
- Documentation of these outcomes informally occurred.
- A simple Mental Health Booklet for patient use was created in 2001.

This booklet became the Veteran’s Resource Book.
The Veteran’s Resource Book is an innovative educational document.

- It is individualized to our Veteran population.
- It is recovery-oriented in approach.
- It fosters the Veteran’s ownership of his or her mental health.
- It serves as an evidence-based measurement tool.
- It is monitored and refined in response to Veteran feedback.
- It is used across outpatient programs as a resource for recovery and follow-up care.

Inpatient Mental Health Treatment is NOT the Veteran’s Resource Book. The book provides documentation of a unique recovery plan that the Veteran creates during his inpatient stay.

Program Framework

Program Development Retreats
- All staff attended. Ongoing annual staff retreats for program revision and refinement.
- Overall program framework established.
  - Program Goal and Objectives
  - Program Schedule
  - Group Content and Objectives
  - Treatment Outcomes in Veteran’s Resource Book
Program Goal and Objective:

GOAL
The mental health of Veterans admitted to the Acute Inpatient Psychiatry Unit will be improved at the time of discharge.

OBJECTIVE
The Veteran will identify individualized treatment outcomes to be incorporated into a plan of mental health recovery initiated during the inpatient hospital stay and continued throughout transition to the Veteran's community.

Programming Schedules

Overall Considerations About Developing A Program Schedule

The schedule is the hardest thing the staff does.

Length of groups and breaks were a significant source of concern for both the staff and patients.

Personal Writing Time is necessary to the program schedule.

The program needs to be individualized to your population and dynamic in nature.
Overall Considerations About Developing Program Schedule

“Pulling patients” out of a group for MD or other appointments is problematic.

Weekend programming is essential.

The program culture is one of patient “ownership” and empowerment.

For acutely psychotic or demented patients, the program is individualized to their strengths and needs.
  - Treatment Agreements or Behavioral Plans.

Overall Considerations About Developing a Program Schedule

Those with educational barriers are also individually mentored and assisted.

“Group Nurse” assignment facilitates the coordination of group attendance and is a continuous presence.

Several groups are run concurrently to provide more manageable group numbers.

The Community Meeting is chaired by a peer stakeholder representative.

Framework for Development of Group: Writing for Mental Health Recovery

- Each group template is used by all staff members
- Provides uniformity and consistency for all groups
- Interdisciplinary in focus
- Accompanied by a workbook assignment that speaks to the Veteran’s treatment objectives
**STAFFING PATTERNS**

<table>
<thead>
<tr>
<th>Staff Position</th>
<th>2000</th>
<th>Present</th>
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</thead>
<tbody>
<tr>
<td>RN</td>
<td>12.3</td>
<td>15.3</td>
</tr>
<tr>
<td>LPN</td>
<td>4.0</td>
<td>5.0</td>
</tr>
<tr>
<td>NA</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>NP</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>CNS</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>NM</td>
<td>0</td>
<td>1.0</td>
</tr>
<tr>
<td>MD</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>PhD</td>
<td>.5</td>
<td>.5</td>
</tr>
<tr>
<td>SW</td>
<td>1.0</td>
<td>2.0</td>
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<tr>
<td>OT</td>
<td>.5</td>
<td>.5</td>
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<tr>
<td>RT</td>
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<tr>
<td>LRC</td>
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<td>.2</td>
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<tr>
<td>PharmD</td>
<td>0</td>
<td>.5</td>
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<tr>
<td><strong>Total</strong></td>
<td>24.1</td>
<td>30.0</td>
</tr>
</tbody>
</table>

**Nursing Staffing Patterns**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DAYS</th>
<th>EVENINGS</th>
<th>NIGHTS</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Present</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>IDEAL</td>
<td>6.8</td>
<td>5</td>
<td>3.2</td>
</tr>
</tbody>
</table>

**PARTIAL HOSPITAL PROGRAM**

(CENSUS OF 8 OUTPATIENTS)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>RN</th>
<th>PhD</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Present</td>
<td>1.0</td>
<td>.5</td>
</tr>
</tbody>
</table>
Program Staffing: Roles and Responsibilities

Interdisciplinary Focus
- All group leaders are responsible for their groups
- Provide coverage via "shared" calendar

"Group Nurse" Assignment
Nursing presence as a group leader or co-leader in all groups

Team Approach to Programming
- Daily Staff Planning Meeting (15 minutes)
- Daily Staff Processing Meeting (15 minutes)
- Daily Staff Interdisciplinary Treatment Team Meetings

Staff is hired with the expectation that the potential candidate will be involved in our evidence-based program.
- Traditional Psychiatric Nurses are not always a "FIT."

Nurse Care Management Teams (Primary Nursing)

- Each Nursing staff member is linked with one of the three Attending Physician Teams.
- On the Nurse Care Management Teams, the Primary Nurse can be either day or evening tours.
- Nurse Care Management Teams are important: the additional nurses assigned to the team cover when the Primary Nurse is not scheduled.
- Treatment Teams occur daily. Nurses assigned to that team attend the team meeting and provide collaboration.

Program Evaluation: Current Program Measures

<table>
<thead>
<tr>
<th>Program Evaluation</th>
<th>Current Program Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betemps Discomfort Scale/Admission</td>
<td>BDS1</td>
</tr>
<tr>
<td>Betemps Discomfort Scale/Discharge</td>
<td>BDS2</td>
</tr>
<tr>
<td>Medication Education Questionnaire (Post – Test)</td>
<td>MEQ</td>
</tr>
<tr>
<td>Veteran's Resource Book</td>
<td>VRB</td>
</tr>
<tr>
<td>Program Evaluation Survey</td>
<td>PES</td>
</tr>
</tbody>
</table>
Specifics of Data Collection

Patient Evaluation Folders (contents)
- Demographic Data sheet
- Symptom Discomfort Measure (Pre and Post)
- Patient Evaluation Survey
- Completion of Treatment Outcomes (Review of the Resource Book)
- Medication Education Questionnaire (Post-Test)

Documentation
- "Group Notes" Program (Completed by Group Leader)

Data Entry
- Data Dictionary
- Excel Spreadsheet
- Data Entry Completed by Night Staff

Lessons Learned

Keeping Veterans Involved
- Recovery is a concept and its components must be taught in a meaningful, understandable way.
- Mentoring/coaching role of the Primary Nurse
- Individualization of a personal recovery plan through work in the Resource Book
- Weekly Community Meetings are peer-led by Stakeholder
- Personal Writing Times
- Extending the model into the Partial Hospital Program
- Veterans and Family Support Groups (outpatient)
- Emphasis is placed on the Treatment Program as part of the culture and is an expectation of Treatment
- Recognition items denotes involvement in recovery

Keeping Staff Involved
- Frequent all staff programming retreats
- Celebrating program accomplishments
- Night staff responsible for data entry
- Daily Staff Planning and Process Groups
- Staff monitoring the Veteran’s treatment progress and mental health recovery
- Utilizing a PACT Treatment Team model
- Monitoring narrative comments regarding patient satisfaction.
- Nursing student presence.
- Sharing the program and the book with others (site visits)
- Hiring new staff members for "fit".
Conclusions

- The heart of the program is the treatment team staff.
- The Veteran's Resource Book serves as a tool and a guide used by the patient throughout the process of mental health recovery.
- The program is recovery oriented and based on individualized treatment outcomes.
- Program evaluation is systematic and evidenced-based.
- Therapeutic effectiveness is defined and measured by a variety of tools.
- This results in an interface between clinical practice and outcome research.

Summary

Patient Outcomes Determine Clinical Practice

and

Clinical Practice Drives Patient Outcomes.

RESULTS
### Demographic Characteristics

#### Demographic Data

<table>
<thead>
<tr>
<th></th>
<th>2002 (N=514)</th>
<th>2011-2013 (N=1235)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age</td>
<td>49.6 (years)</td>
<td>51.3 (years)</td>
</tr>
<tr>
<td>Mean Education</td>
<td>12.65 (years)</td>
<td>12.7 (years)</td>
</tr>
<tr>
<td>High school (and higher) graduates</td>
<td>84%</td>
<td>95%</td>
</tr>
<tr>
<td>Non high school graduate</td>
<td>16%</td>
<td>05%</td>
</tr>
<tr>
<td>Length of Stay</td>
<td>12.89 (days)</td>
<td>8.20 (days)</td>
</tr>
<tr>
<td>African American Background</td>
<td>156 (30%)</td>
<td>309 (25%)</td>
</tr>
<tr>
<td>Caucasian Background</td>
<td>358 (70%)</td>
<td>907 (75%)</td>
</tr>
<tr>
<td>Rehospitalization</td>
<td>60 (15%)</td>
<td>133 (11%)</td>
</tr>
</tbody>
</table>

### Residence upon Discharge

<table>
<thead>
<tr>
<th>Residence</th>
<th>2007</th>
<th>FY 2011-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Living</td>
<td>65%</td>
<td>34%</td>
</tr>
<tr>
<td>Group Home/Halfway House</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>With Spouse (Partner)</td>
<td>8%</td>
<td>21%</td>
</tr>
<tr>
<td>With Parents</td>
<td>2%</td>
<td>8%</td>
</tr>
<tr>
<td>Other Family Members</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Homeless</td>
<td>12%</td>
<td>18%</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>N/A</td>
<td>3%</td>
</tr>
<tr>
<td>Other (Domiciliary etc.)</td>
<td>N/A</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Nursing Home</td>
<td>N/A</td>
<td>3%</td>
</tr>
<tr>
<td>Other (Domiciliary etc.)</td>
<td>N/A</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

### Diagnoses

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>2002 (N=514)</th>
<th>2011-2013 (N=1235)</th>
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</thead>
<tbody>
<tr>
<td>Depression</td>
<td>112 (22%)</td>
<td>358 (29%)</td>
</tr>
<tr>
<td>Bipolar Affective Disorder</td>
<td>99 (19%)</td>
<td>154 (13%)</td>
</tr>
<tr>
<td>Schizoaffective Disorder</td>
<td>71 (14%)</td>
<td>62 (5%)</td>
</tr>
<tr>
<td>PTSD</td>
<td>56 (11%)</td>
<td>131 (11%)</td>
</tr>
<tr>
<td>Substance Abuse/ Substance Induced Mood Disorder</td>
<td>50 (10%)</td>
<td>185 (15%)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>49 (10%)</td>
<td>68 (6%)</td>
</tr>
<tr>
<td>Mood Disorder</td>
<td>24 (5%)</td>
<td>86 (7%)</td>
</tr>
<tr>
<td>Psychosis NOS</td>
<td>18 (4%)</td>
<td>37 (3%)</td>
</tr>
<tr>
<td>Dementia / Delirium</td>
<td>15 (3%)</td>
<td>82 (7%)</td>
</tr>
</tbody>
</table>
**Symptom Discomfort Scale**

Directions: The statements below are possible feelings or reactions you might have. For each statement, show how much you are bothered by the feeling or reaction by rating it:

1 (Not at all) – 5 (Extremely).

1. Nervousness or shakiness inside
2. My thoughts are moving too fast
3. Feeling tense and keyed up
4. Trembling
5. Feeling that most people cannot be trusted


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**Results FY 2011-2013 (N=934)**

**Symptom Discomfort (BDS)**

Mean scores showed a significant decrease in patient’s discomfort from the time of admission (BDS 1) to the time of discharge (BDS 2)

Paired Student’s t-test (p-value <0.0001)

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**Symptom Discomfort Ratings Results FY 2011-2013**

<table>
<thead>
<tr>
<th>BDS1 (Admission), BDS2 (Discharge)</th>
<th>BDS2-BDS1 (Difference)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

(Paired t-test p-value < .0001)
Satisfaction Survey

“Are you satisfied with the Treatment Program on 7 North?”

<table>
<thead>
<tr>
<th>Patient Rating</th>
<th>2002 (N=484)</th>
<th>2011 - 2013 (N=1235)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent (5)</td>
<td>322 (67%)</td>
<td>611 (66%)</td>
</tr>
<tr>
<td>Good (4)</td>
<td>102 (21%)</td>
<td>181 (20%)</td>
</tr>
<tr>
<td>Satisfactory (3)</td>
<td>43 (09%)</td>
<td>93 (10%)</td>
</tr>
<tr>
<td>Poor (2)</td>
<td>7 (01%)</td>
<td>22 (02%)</td>
</tr>
<tr>
<td>Fail (1)</td>
<td>10 (02%)</td>
<td>13 (01%)</td>
</tr>
<tr>
<td>Mean Rating</td>
<td>4.44</td>
<td>4.47</td>
</tr>
</tbody>
</table>

Results FY 2011-2013

- Satisfaction (PES 11) and Quality (PES 12) are highly positively correlated ($r = 0.80$, $p < .0001$, $N=914$)
- BDS Improvement (BDS 1 - BDS 2) is positively correlated with Satisfaction ($r = 0.15$, $p < .0001$, $N=867$)
- BDS Improvement is positively correlated with Quality ($r = 0.15$, $p < .0001$, $N=870$)
- Education and Satisfaction are not correlated. ($p<0.32$, $N=831$)
- Satisfaction and Length of Stay are slightly negatively correlated. ($r = -0.08$, $p = 0.02$, $N=920$)

*Spearman Correlation Coefficients

Results

- This comprehensive treatment approach results in patients feeling successful and well able to return to recovery in the community.
- This has been reflected in a decreased length of stay.
- Overall satisfaction with quality of care during the hospital stay, as measured by Quikcards, has increased from 74% to 97%.
Veteran’s Resource Book

<table>
<thead>
<tr>
<th>Survey Items</th>
<th>2009-2011</th>
<th>2011-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Helpfulness” of Book</td>
<td>4.31</td>
<td>4.43</td>
</tr>
<tr>
<td>Use as a “Resource”</td>
<td>4.30</td>
<td>4.40</td>
</tr>
</tbody>
</table>

* Rating scale is 1 (fail) – 5 (excellent)

Veteran’s Resource Book


“Helpfulness” of Book 4.31 4.43
Use as a “Resource” 4.30 4.40

Narrative comments about the Veteran’s Resource Book

80% of Narrative Comments evaluating the Veteran’s Resource Book were positive.

Some Comments I Included:

- “Book is excellent” “Helpful” “Good resource”
- “Good for review at home”
- “A reminder of where I’ve been”
- “Daily reference”
- “Great journal”
- “Able to be applied to my life”
- “Will use in the future”
- “Avoids boredom in the hospital”
- “Good start to long term recovery”

References

References