Four Clinical Pathways to Success in Systems of Care

Shannon Van Deman & Knute Rotto
Choices, Inc.
The Dawn Project
Indianapolis, IN

Dawn Project Eligibility
- No Emotional impairment creates a risk of or already in residential treatment or hospital
- Marion County Resident – 5 to 17 yrs old
- DSM IV diagnosis or special ed. Eligibility
- Duration of impairment of 6 months or more
- Functional impairment in 2 or more areas:
  - Self care, relationships, self direction, emotional adj.
- 1000 kids since May 1997

Motivation
- Fiscal questions – costs were going up, placement numbers getting higher
- Answer the question of “who are we really serving” – too many antidotal stories

Clinical Pathways
- No Residential
  - No Res. Tx during Dawn enrollment
  - CFT creates the SCP and purchases needed community-based services to keep youth in their homes, school, and community
  - Placed After
    - Placed in Res. Tx by CFT
    - After trying a variety of community-based services, the CFT decides to purchase Res. Tx to meet the needs of the youth

Clinical Pathways Cont.
- Transition Out
  - In Res. Tx at Dawn enrollment and out of Res. Tx within 90 days
  - CFT works to transition youth back into their communities
- Placed Prior
  - Placed in Res. Tx by Referring agency at time of Dawn enrollment or within 30 days
  - CFT works to facilitate youth’s release from Res. Tx
**Design 1**
- Independent Variable
  - Clinical pathways
- Dependent Variables
  - Length of stay
    - In Dawn
    - In Res. Tx
  - Cost per client per month (PCPM)
  - Success in meeting referral agency and CFT goals

**Method**
- Data analyzed from The Clinical Manager (TCM)
  - Collects clinical, fiscal, and outcome data
- Examined Probation and OFC Intensive Dawn referrals enrolled between 5/1/97 to 4/30/03 and disenrolled by 7/31/04 (N=452)

**Results**
- What did we find?
  - Not so surprising differences in cost
  - Surprising differences in goal completion

**Discussion**
- Highest levels of success and lowest cost for the no residential group
- If youth come to Dawn out of Res. Tx, over 60% (74% in recent years) are kept out of Res. Tx entirely
- Length of stay does not appear to be clearly related to success

**Outstanding Question**
- Are there any variables that predict clinical pathway membership?
  - Particularly interesting for the no residential and placed after groups
Design 2

Independent Variable
Clinical pathways

Dependent Variables
Demographics (gender, race, age at enrollment)
Initial diagnoses, initial CAFAS, referring agency
Team size, service utilization

Results
Race, age at enrollment and team size did not vary as a function of clinical pathway

Gender, initial diagnoses, initial CAFAS, referring agency, and service utilization all varied as a function of clinical pathway

Null Effects
Average age at enrollment = 13.0
Average team size at 30 days = 4.0
Average team size at 3 months = 5.6

Results
Race, age at enrollment and team size did not vary as a function of clinical pathway
## Diagnoses

<table>
<thead>
<tr>
<th></th>
<th>Affective/ Psychotic</th>
<th>Attention- Deficit</th>
<th>Conduct- Based</th>
<th>MBD/ODD/LD</th>
<th>Reactive Stress</th>
<th>Personality</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Residential</td>
<td>10.5%</td>
<td>41.5%</td>
<td>49.7%</td>
<td>14.9%</td>
<td>16.9%</td>
<td>3.9%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Placed After</td>
<td>8.6%</td>
<td>52.3%</td>
<td>47.8%</td>
<td>22.8%</td>
<td>14.9%</td>
<td>4.3%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Transition Out</td>
<td>32.1%</td>
<td>31.1%</td>
<td>50.6%</td>
<td>19.1%</td>
<td>16.9%</td>
<td>4.3%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Placed Prior</td>
<td>31.3%</td>
<td>38.5%</td>
<td>59.2%</td>
<td>13.2%</td>
<td>17.8%</td>
<td>8.8%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

Across Groups

|                          | 51.5%                | 49.5%             | 55.8%         | 12.9%      | 17.0%          | 5.8%        | 8.7%  |

Chi-Square df(3)

|                          | 7.9                  | 2.9               | 4.9           | 1.3        | 0.96           | 3.1         | 7.4   |

p-value

|                          | 0.05                 | 0.41              | 0.18          | 0.73       | 0.81           | 0.38        | 0.06  |

## Average Initial Total CAFAS Score Across Clinical Pathways

F(1,305)=10.26, p=.00

## Percent of Resource Allocation by Service Category

### Service Category
- Behavioral Health
- Placement
- Respite
- Mentoring
- Discretionary Funds
- Behavioral Support
- Substance Use

### Clinical Pathway
- Placed Prior
- Transition Out
- Placed After
- No Residential

## Discussion

- Effective at keeping youth out of Res. Tx. (74% in last 3 years) if get youth prior to placement
- Most successful with no residential youth (74% met CFT goals)
- Initial total CAFAS score is a good predictor of group membership
- Clinical pathway membership seems to be the result of differences in the youth rather than process differences

## Implications

- Referral process and decision making tool
- New discussions with Referral & Payor sources regarding how to use Dawn’s services in the most effective way
- Method of identifying the clinical pathway that these kids are on and the interventions that will best address the needs of the youth