Evaluation of Wraparound Services in Erie County: Translating Data into Quality Improvement

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Agenda

- Brief description of what we do
- Evaluation details (method, sample, findings)
- Translating findings into system quality improvement (QI)

Who we are, what we do

- Family Voices Network of Erie County, NY
- Community Connections of New York
- Program Evaluation Center at the University at Buffalo, the State University of New York

About the abstract...

- The abstract submitted was from data as of April, 2008
  - A lot has happened in the system since then and we want you to have the most recent and relevant information
  - We will reflect on the QI points made in the abstract (disparity in outcomes by race, selection of specific services and time spent in home/residential settings)
  - We also wanted to give you the most “bang for your buck”

Method

- Realist “real-time” evaluation (Kazi, 2003)
  - Relating patterns in context to outcomes
  - Where the intervention is more or less likely to be effective
- Utilization-Focused Evaluation (Patton, 2004)
  - Incorporating stakeholders, tailoring dissemination to meet audience
  - Working iteratively with program staff to develop and implement QI strategies

Primary variables explored

- Dependent (outcomes):
  - Change in level of impairment measured by the Child and Adolescent Functionality Assessment Scale (CAFAS)
  - Length of stay
  - Objectives met or not at discharge
Primary variables explored...

- Independent (contextual)
- Receipt of services (amount and type by case)
- Demographics (race, gender, age at referral)

- Spearman correlations between outcome achievement and contextual variables with significant relationships entered into...
- Binary logistic regression model, in which odds ratios are calculated. Gives us an odds ratio or probability that an outcome was achieved given certain circumstances
- Comparison of frequencies from 2007 to 2008 in CAFAS improvement by agency

Sample Description

- Cases that had a discharge date between 1/1/08 and 11/1/08
- Had at least two CAFAS measures
- Resulted in 307 youth
  - 61% were male
  - 97.4% had a preferred language of English

Distribution of LOS Categories

- The largest proportion of youth were living in one parent families at time of referral (42%), followed by two parent families (19%)

Average age was 13.41 yrs. (SD = 3.07)
Findings

We explored the outcomes in two ways:

- Single system designs to discover where an outcome was more or less likely to occur
- Change in each subscale by case (difference between first and last)
- Comparing the rates of improvement in a CAFAS subscale for an agency in 2007 and 2008
- General program ‘barometer’
- Used aggregate results of single system designs

On a programmatic level, we are able to see, compared to last year, if agencies have higher, lower, or similar improvement rates. We can also target agencies for more intense QI efforts.

Patterns and Relationships

- The percent of time a youth was placed in a home setting was related to improvement in a handful of subscales
  - Total CAFAS \( r = .194, n = 297, p < .001 \); \( B = .847, p < .01 \)
  - School Subscale \( r = .195, n = 284, p < .01 \); \( B = .017, p < .01 \)
  - Community Subscale \( r = .194, n = 214, p < .01 \); \( B = .019, p < .01 \)
  - Home Subscale \( r = .165, n = 288, p < .01 \); \( B = -.013, p < .05 \)
  - Mood Subscale \( r = .167, n = 273, p < .05 \); \( B = .013, p < .05 \)
  - Thinking Subscale \( r = .244, n = 120, p < .01 \); \( B = .026, p < .01 \)
  - Self-Harm Subscale \( r = .311, n = 116, p < .01 \); \( B = .026, p < .01 \)
- In summary, the greater the percent of time a youth spent at home, the greater the odds of improving in that subscale

- Receipt of in-home treatment
  - Youth who did not receive this service were 2.3 times more likely to not improve in the behavior subscale compared to youth who received the service \( r = .194, n = 297, p < .001 \); \( B = .847, p < .01 \)
  - Youth who did not receive in-home treatment were 2 times more likely to not improve in the support subscale than those who received the service \( r = .168, n = 228, p < .05 \); \( B = .727, p < .05 \)
- Receipt of mentoring
  - Youth who did not receive mentoring services were almost 2 times more likely to not improve in the home subscale than those who received the service \( r = .139, n = 301, p < .05 \); \( B = .675, p < .01 \)
Three services were related to objectives being met at discharge:

- **Receipt of in-home treatment**
  - Youth who did not receive this service were 2.2 times more likely to be discharged with objectives not met compared to youth that received the service (r = .168, n = 307, p < .01; B = .782, p < .01).

- **Receipt of mentoring**
  - Youth who did not receive this service were 1.8 times more likely to be discharged with objectives not met compared to youth that received the service (r = .149, n = 307, p < .05; B = .615, p < .05).

- **Receipt of outings/socialization activities**
  - For this sample, youth who did not receive this service were 2 times more likely to be discharged with objectives not met compared to youth that received the service (r = .152, n = 307, p < .01; B = .728, p < .01).

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**Nice data, but now what?**

- **Findings are more than numbers:** Age, length of stay, living situation at start, baseline CAFAS impairment

- **System level**
  - Low improvement rates in:
    - Substance Use Subscale: led to identification and development of resources for assessment and treatment
    - Material and Support (caregiver scales): led to development of a shared learning group within a team of supervisors (assessment and delivery)
    - In home treatment and mentoring service development
    - Baseline CAFAS ratings found at SPOA and case opening

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**Care Coordination QI**

- **Program level**
  - Those that had lower improvement rates in 2008 compared to 2007 participated in process mapping and fishbone diagrams (cause and effect) that focus on key practice elements and fidelity
  - With CCNY, all agencies developed QI plans based on individual agency reports and system level findings
  - Monthly QI check-ins in between the quarterly reports

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**Care Coordinator QI**

- Quarterly QI supervision document based on CAFAS subscales and improvement for each case

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**Summary**

- Consistent evaluation with integrated quality improvement efforts
- Participation in these efforts from every level in the system
- Ongoing monitoring of practice using data

Thank You!
Questions?