The need to seriously pursue outcomes

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A policy-practice conversation focusing on children and youth with complex needs and their access to the mental health system
Conflict of interest and disclosures

I have no conflict of interest to declare
Outline

1. Illustrative examples of child mental health service difficulties
2. Cautions with regard to embracing typically recommended service system reform efforts
3. A need to incorporate an outcome monitoring and response system as a central organizing feature of child mental health services
AB clinical example 1

• A young boy with chronic and severe oppositional and defiant symptoms
• Parents took multiple parenting programs from different agencies over time
• These parenting programs…
  – Tended to overlap and repeat the basics
  – Resulted in a repetition of “parenting 101” over and over again
• The “system” appears to lack in its ability to provide interventions that build in intensity and sophistication over time in response to inadequate benefit from entry level interventions
• Good entry level parenting programs (e.g., Triple P) can improve parent and child behaviour a certain degree, for a certain percentage of the treated population.

• What are next steps for those not experience any or inadequate recover from parenting 101? What are the agencies’ or systems’ parenting 201 (or 301 offerings) or combo treatment options?

• Ideally those not receiving sufficient benefit from entry level interventions, should have systematic access to more intensive levels of interventions (not necessarily meaning more restricted sites of care)

• Unfortunately, we currently don’t know the pattern of movement through levels of difference services and associated outcomes at transition points.
AB clinical example 2

• Young boy with significant behavioural difficulties
  – multiple inpatient hospitalizations
  – various outpatient services & 10 different medication trials
  – saw multiple specialists from multiple agencies
• Surprisingly, his behaviour is not so severe and his family is stable and they have been willing to receive supports and services
• If we were tracking service utilization and OUTCOMES (*and someone was responsible for those outcomes*), this lad’s case should have been flagged much earlier in this seemingly inappropriate course of expensive treatment.
AB examples from research

• A study of service utilization patterns of children demonstrating significant aggressive behavior within the school system
• Funded by ACCFRCR; final report on their website: www.research4children.com
• Service Utilization Maps used as one effort to try and get a handle on the patterns of service receipt experienced by children and their families
SERVICE MAP STRUCTURE

Caregivers

Service outside the school

Service Agency (box)
Solid line: realized
Colour coded:
- green: health/mental health
- yellow: social services

Intervention (Oval)
Dotted line: unrealized service

School partnerships

School district

School

School classroom

COPE
Mary’s Service Utilization Map

Caregivers

Mom & Dad and/or grandparents

Grandparents

ADHD parenting group

Community Mental Health Agency

Counseling - friendship issues, aggression & anger control

“Fighting between and over friends – instant blowups, some hitting and pushing”

“Fighting worse – really angry, really quickly”

Pediatrician

Diagnosed with ADHD

Medication:

ADHD

Parenting group

Hospital

Hospice

Grief Counseling

Ongoing counseling

Schools

0-3 yrs.

3 & 4 yr preschool

5 yrs (Kindergarten)

6-7 yrs (Gr 1)

7-8 yrs (Gr 2)

8-9 yrs (Gr 3)

School #1

Principal - School Counselor

School-2 (family move)

School partnerships

School district

School

School classroom

Death in family

Moved into another school district

COPE

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Death in family

Moved into another school district

Hospital

Hospice

Grief Counseling

Ongoing counseling

Death in family

Moved into another school district

Hospital

Hospice

Grief Counseling

Ongoing counseling
“Neglect and domestic violence”

Caregiver death

Parent

“fits if not getting his way”; very possessive of play things

Family Services - Social worker

“aggression a huge issue, school called home 2x/day, scream, hit, fight with other kids

Community Mental Health Service

Psychologist

“sexualized behaviour; aggression no longer the main issue”

Psychologist, child care, education worker

“kicked out of 3-4 daycares due to behaviour”, “did not know how to play with others; gets very angry”

Play therapy

Part-time classroom Aid

Schools

0-2 yrs

No kindergarten

2-6 yrs

6-7 yrs (Gr 1)

School #1 French Immersion

Move to English program

7-8 yrs (Gr 2)

COPE request

Behaviour therapist

Part-time classroom Aid

8 yrs (Gr 3)

Learning assessment

Aid - AM

School partnerships

School district

School

School classroom

Caregivers

mom & dad, grandma and grandpa

Parent

Private Learning Centre

Individual therapy

Tutor

Anger management

Family doctor #1

Less aggression; more stable routine; school calls 2X/month

1j.

2d.
What might be reform responses to these and other system gaps?

1. May focus on organizational level of the system (e.g., integration/continuum of care)
   - E.g., implement a model continuum/coordinated system of care

2. May focus on improving content quality (e.g., evidence-based practice)
   - E.g., increase use of “evidence-based practices”

3. May focus on a particular component of the system (e.g., access/wait times)
   - E.g., shorten wait times

• But one needs to be very cautious with uncritically embracing each of these approaches:
  • Are they likely to actually improve OUTCOMES?
  • Could there be unintended negative outcomes?
Integrating services

• Conceptually would seem to make sense ....but ....
Empirical studies on service system models

• Fort Bragg Demonstration Project
  – Quasi-experimental design (Bickman et al., 1995)

  Model continuum of mental health and substance abuse service for child/adolescent mental health vs. Treatment as usual (TAU) system

  – Results:
    • Service Use: Model > TAU
    • Cost: Model > TAU
    • Clinical and functional outcomes for children: Model = TAU
Empirical studies on service system models (cont’d)

• Stark County Study
  – Experimental design (Bickman et al., 1999)

  **Model** continuum of mental health and substance abuse service for child/adolescent mental health vs. Treatment as usual (TAU) system

  – Results:
    • Service Use: Model > TAU
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    • Clinical and functional outcomes for children: Model = TAU
Empirical studies on service system models (cont’d)

• Wrap Around Study
  – Quasi-experimental design (Bickman et al., 2003)

  **Model** continuum of mental health and substance abuse service for child/adolescent mental health vs. Treatment as usual (TAU) system

  – Results:
    • Service Use: Model > TAU
      – More wrap around services
      – Lower discontinuity of services
    • Cost: Model > TAU
    • Clinical and functional outcomes for children: Model = TAU
Does the service change (e.g., increased integration)… ...

Increase the extent of service effectiveness

Increase the use of services by underserved populations

Improve timing in the delivery of services

Services still have to be effective

Improved Outcomes for Child and Family

(McLennan et al., 2005 with update)
The failure to use evidence based interventions was hypothesized as one of the factors contributing to the failure to obtain improved outcomes within the model service system (e.g., Fort Bragg study).

“…the integration of ineffective services ….”
Using evidence-based interventions
"Evidence-based" interventions

- Increased use of evidence-based interventions is a good thing…but….
  - To what extent are evidence based interventions actually being adopted?
    - Perhaps a greater degree of adoption of the term “evidence-based” vs. adoption of actual evidence based interventions?
    - Little scrutiny of the evidence of interventions that are used in typical child mental health services

(McLennan, 2010)
Evidence-based interventions

- Assuming interventions used are evidence-based, can there still be problems?....
  - Incomplete course (or watered down versions)
  - Lack of fidelity of intervention delivery
  - Application to the wrong need/kid
- Extent of improved outcomes
  - Improvement doesn’t necessarily mean (and usually doesn’t mean) symptom resolution
  - Use does not guarantee outcomes *(but if you don’t assess outcomes you wouldn’t know)*
  - Complicating by contexts (e.g., Hammen et al., 1999)
- And then there is the problem of availability
  - E.g., Multi-systemic therapy (MST) (Henggeler et al., 1998)
Evidence-based interventions

- Summarizing Point:

  the use of evidence-based interventions do not guarantee good outcomes....but they should increase the odds of improving outcomes
Shortening wait times

• Could efforts aimed at shortening wait times actually lead to worse outcomes?
Figure. Theoretical pathways to worse clinical outcomes through shortened wait times

- ↓ wait times
  - ↓ time to contact with an intervention that causes harm
  - ↓ time to contact with an intervention that is ineffective
  - ↓ Resources for delivery of effective services
- ↓ clinical outcomes

McLennan (under review, 2014)
Rather discouraging …...but …
There may be significant potential to improve the system if we start to seriously incorporate outcomes as a central organizing element of our service system.
Yes, yes outcomes, not exactly new, boring...we already do this..
Some problems with current outcome efforts

1. Informal, non-systematic or unsubstantiated outcome claims:
   - “We have good outcomes”
   - Cases (“anecdotes”) of good outcomes

2. Service utilization
   - We saw 20% more patients this year (good? bad?)
   - We reduced out wait times from 6 months to 4 weeks (good? bad?)

3. Collect outcome data…but not sure where it goes

4. Positive change based on pre-post measures…but without benchmarks
Benchmarking Example
(Weersing & Weisz, 2002)

Youth Depression Outcomes

Mean Z scores (CDI)

months

Intake Post Rx 1 to 3 4 to 6 7 to 9 10 to 12

CBT Control TAU
“…mental health services for youth are unlikely to improve without a system of measurement that is administered frequently, is concurrent with treatment, and provides feedback” (Bickman, 2008, p. 1114)

Need for a Measurement Feedback System (MFS)
A cluster RCT study of MFS (Bickman et al 2011)

28 service sites of a US behavioral health organization

- 13 service sites
  - weekly feedback
  - N=173 youth

- 15 service sites
  - cumulative feedback at 90 days
  - N=167 youth

randomized

Youth improved faster
- Stronger effect if clinician view more feedback

The Contextual Feedback System was used
- Youth, caregivers and clinicians completed weekly measures of youth symptoms and function
Local example of MFS

• Child Development-Medication Assessment Service (CD-MAS)
  – Aims to achieve maximal improvements with minimal adverse effects with medication intervention for children diagnosed with ADHD and associated difficulties where there is an agreement that medications should be tried
  – Linked to schools through a school-health partnership program (COPE) allowing weekly feedback on children’s school function
  – School information integrated with parent and child feedback in real-time to make informed decisions at each significant medication treatment change point
# CD-MAS outcomes

<table>
<thead>
<tr>
<th>Group</th>
<th>ADHD symptom resolution*</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA Benchmark**</td>
<td>55%</td>
</tr>
<tr>
<td>CD-MAS Completers</td>
<td>83%</td>
</tr>
<tr>
<td>All CD-MAS***</td>
<td>63%</td>
</tr>
</tbody>
</table>

* - based on combined parent and teacher ratings  
** - estimated comparison as some measurement differences  
*** - assuming the 20% who dropped out experienced no improvement

[Wagner et al, 2013; Jensen et al 2001]
Implications of CD-MAS outcome results

• Let’s say that these results are 50% better than most similar clinics in the province. The impact of these findings might be…
  A. Expansion of this service (e.g., increasing funding/resources)
  B. Decreased funding or greater scrutiny of other poorer performing services
  C. No impact
  D. Decrease resources for this service

• Let’s say that these results are 50% worse than most similar clinics in the province? The impact of these findings would be:
  A. Scrutinize this services to investigate its underperformance
  B. Decrease or eliminate funding
  C. Shift funding to clinic with better outcomes
  D. No impact
What could be responses to clinical outcomes?

- **Good outcomes**
  - Continue funding the service
  - Increase funding and/or expand service
  - ...but keep trying to improve outcomes further (continuous quality improvement enabled from ongoing outcome monitoring)

- **Poor outcomes**
  - Scrutinize content of service (reign in autonomy)
  - Set probation period to demonstrate improved outcomes
  - Decrease or eliminate funding/discontinue service
Overarching recommendation

- Develop a central role for outcome measurement feedback systems at the clinical, agency and service system level.
Specifics about recommendations: Technicalities

- Try to obtain outcome information from multiple sources (avoid clinician or manager only feedback)
- Try to include external evaluators (avoid relying on internal evaluations only, particularly if there are funding stakes involved)
- Don’t interpret service patterns as proxies for clinical outcomes
- Find some balance between common outcome metrics for comparability, but specific metrics to capture meaningful information.
Specifics about recommendations: Considerations

- Think through what you are trying to measure and why
- Think through the implications of potential findings (if there is no potential impact, why are you bothering).
- Consider how benchmarks could be used in a meaningful way
- Consider how to tie outcomes to service pattern information
Specifics about recommendations: Next Steps?

- As a stage 1, fund multiple pilot efforts of Measurement Feedback System (MFS) implementation at clinical and agency levels in Alberta
- Obtain consultation from MFS experts in child mental health for development and implementation (e.g., Leonard Bickman; Bruce Chorpita, John Weisz)
References 1


References 3


