Common Elements and Modularized Approaches to the Treatment of Youth Psychopathology

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Leading Initiatives: School Mental Health Assessment, Research, and Training (SMART) Center

Acknowledgments

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- Seattle Public Schools

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Overview

1. Intro to Common Elements / Modular Psychotherapy
   - Distillation and Matching Model
   - Applications
2. Pilot Study of MAP in Schools
3. Current & Future Directions for Common Elements Psychotherapy in Schools
Evidence-Based Practice

- Evidence-Based Practice
  - "The integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (APA, 2006)
  - Integration of contextual knowledge (e.g., experiential/tacit knowledge, collective wisdom) with empirical knowledge

What is Evidence?

- Sources of Evidence: The Four "Evidence Bases" (Daleiden & Chorpita, 2005)
  1. General services research evidence: info systematically mined from the existing empirical literature
  2. Case history evidence: drawn from individualized, case-specific data derived from clinical interactions with clients.
  3. Local aggregate evidence: uses case history evidence aggregated into larger meaningful units
  4. Causal mechanism evidence: a general and comprehensive understanding of etiological and treatment processes (e.g., tacit knowledge, collective wisdom)

Services Research Evidence

435 Trials
>750 Protocols
44 Years Research

Parent-Child Interaction Therapy • Incredible Years • Interpersonal Therapy • Triple P Positive Parenting Program • Coping Cat • Trauma-focused Cognitive Behavioral Therapy • Helping the Non-Compliant Child • Multidimensional Treatment Foster Care • Coping Power • Cognitive Behavioral Therapy for Trauma in Schools • Coping Koala • Biobehavioral Catch Up • Primary and Secondary Enhancement Control Training • Brief Strategic Family Therapy • Functional Family Therapy
Failures of Psychotherapy Research

- Clinical science has failed to reach the goal of reducing the prevalence and burden of mental illness in society (Baker et al., 2008)

- Impossible for individual psychotherapy to meet society’s needs (Kazdin & Blase, 2011; Kazdin & Rabbitt, 2013). Requires investment in…
  - Technology-based methods of service delivery
  - Public health approaches/Population-level interventions
  - Use of nontraditional service providers

- Psychotherapy research has over-emphasized knowledge PRODUCTION to the exclusion of knowledge MANAGEMENT (Chorpita et al., 2011)

Failures of Psychotherapy Research

- Studies of “usual care” have found…
  - Community therapists use elements of EBP, but at a lower level of frequency and intensity than is believed to be effective (Garland et al., 2010)
  - Community therapists demonstrate particularly low use of many essential elements of care (e.g., exposure, homework review, role play)
  - Practitioners are often inconsistent reporters of their practice
    - Over-report using EBP/practice elements
    - May become better reporters with consultant support (Ward et al., 2012)
    - 90% of therapists rate themselves at the 75th percentile or higher, none rate themselves below average (Walfish et al.)

Evidence-Based Practice

Concerns with the “traditional” evidence base and structured Tx protocols…

- Fixed content
- Fixed intensity
- Fixed length
- Single Tx target
- Research evidence only at the level of the full manual

Deviations = low fidelity = ineffective?
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Assumptions about Research Evidence Generalizability

1. **Interventions do not generalize to new contexts unless there is specific evidence to support it.** Results in…
   - Development of culturally/contextually-specific ESTs
   - Pure reliance on locally-grown interventions

2. **Interventions generalize to all groups/contexts, unless there is specific evidence to the contrary.** Results in…
   - Policies mandating specific EST use

3. **Some aspects of interventions will generalize to most groups, but local adaptation may be needed.** Results in…
   - Attempts at systematic evidence integration (e.g., common elements approaches)

Common Elements & Modularity

- **Common elements** are predicated on the notion that most evidence-based treatment protocols can be subdivided into meaningful practice components (Chorpita et al. 2005a).
  - Harnesses the general services evidence base

- **Recent common elements approaches make explicit use of modularized design** (e.g., Weisz et al. 2012).
  - Modules = Self-containedFx1 units that connect with other units, but do not rely on those other units for their own stable operations (Chorpita et al., 2005a).
  - Components can be implemented independently or in complement with one another to bring about specific treatment outcomes.
Common Elements ≠ Not Common Factors

- **Common elements**
  - Generic components/procedures of treatment (e.g., exposure, psychoeducation) cut across distinct treatment protocols

- **Common factors**
  - Personal and interpersonal components (e.g., alliance, therapist effects) common to all interventions are responsible for treatment outcomes

  Barth et al. (2012)

Multiple “Common Elements” Approaches/Applications

- Common elements of **YOUTH PSYCHOTHERAPY** (Chorpita et al., 2005)
- “Kernels” of **ADULT AND YOUTH INTERVENTIONS** (Embry & Biglan, 2008)
- Common elements of **THERAPY ENGAGEMENT** (Becker et al., 2015; Lindsey et al., 2014)
- Common elements of **PREVENTION PROGRAMS FOR ADOLESCENTS** (Boustani et al., in press)
- Common elements of **PARENTING IN CHILD WELFARE** (Barth & Liggett-Creel, 2014)

Questions so far?

- **Summary**
  - Definitions of “evidence”
  - Need for new ways of thinking about evidence and its incorporation into practice
  - Definitions of common elements and modular design
  - Common elements vs. Common factors
“By stripping some of our best treatments down to the essence, we can allow them to be fleshed out again at the point of service by practitioners with local expertise who are embedded in the local context. Let therapists add their own jokes, games, or metaphors, and let researchers outline the core change strategies that should be preserved…”

(Chorpita et al., 2011, p. 495)

**IDing Common Elements: The Distillation and Matching Model (DMM)**

(Chorpita, Daleiden, & Weisz, 2005b)

- ESTs can be distilled into practice elements/modules and matched to client characteristics
  - Compatible with, but independent from, the modular approach
1. **Distillation** (interventions as composites of strategies)
   - Technique identification
   - Evidence accumulation
2. **Matching** (summarizing relevant considerations for intervention selection)
   - Gauge association between content and study characteristics (e.g., client age, gender, ethnicity)
   - Determine which characteristics matter most

Distillation

(Chorpita & Daleiden, 2007)
Matching
(Chorpita & Daleiden, 2007)

The DMM / Common Element Identification Need
Not Lead to Modular Intervention Design

• Other uses:
  • Pool research evidence to drive new intervention development (e.g., with novel populations)
  • Identify the most appropriate evidence-based treatment manuals for a given application (i.e., those that have the highest concentration of appropriate elements)
  • DMM simply allows for a more precise review of the mental health services research evidence base.

Modularity: Key Properties/Principles
(Chorpita, Daleiden, & Weisz, 2005a)

1. Partial decomposability – A complex system may be divided into meaningful units with similar form (e.g., sessions, practices, etc.)
2. Proper functioning – The operation of each module is expected to produce an intended result (e.g., relaxation to reduce arousal)
3. Standardized interface – Modules communicate with one another and the user in a structured fashion
4. Information hiding – Specific details of operation kept within modules and not required by others (allows for easy reordering)
**Modular Psychotherapy: Applications & Findings**

- Shifting the primary goal of implementation from "using evidence-based practices" to "getting positive outcomes" (Chorpita et al., 2008)
  - Relies on continuous progress monitoring to collect case history evidence to inform clinical decisions

- Modular therapies more acceptable to providers (Borntrager et al., 2009)

- More flexible than traditional manuals with regard to the timing of Tx delivery (McHugh et al., 2009)

**Applications & Findings**

- Growing within adult mental health, esp. within anxiety treatment…
  - Coordinated Anxiety Learning and Management (CALM; Roy-Byrne et al., 2010)
  - Unified/Transdiagnostic Protocol for anxiety and related disorders (Barlow et al., 2010)
  - Common Elements Treatment Approach (CETA) for adults in low- & mid-income countries (Murray et al., 2014)

- *Spectrum of modular applications:*
  - Intervention co-design $\leftrightarrow$ Quality improvement

**MATCH-ADTC** (Chorpita & Weisz, 2005)
Applications & Findings

MATCH-ADTC

- Recent RCT demonstrated MATCH (ADC – w/o trauma component) to be superior to usual care and standard manual treatment (Weisz et al., 2012).
- Many differences persisted at 2 year follow-up (Chorpita et al., 2014)
- MATCH therapists used more non-manual techniques

Managing and Adapting Practice (MAP) (Chorpita et al., 2009)

- Simplified, accessible approach to guide clinical decision-making
  - Emphasizes a collaborative decision process
- Less intervention structure (more QI than co-design)
- Accompanied by a structured professional development approach
Managing and Adapting Practice (MAP) (Chorpita et al., 2009)

• Three primary elements of the MAP system:
  - PracticeWise Website
    - Up-to-date research information database
    - Matches youth problems and characteristics to practice elements
  - Practice Elements
  - Clinical Dashboard
    - Track implementation and client progress

Applications & Findings

• Three primary elements of the MAP system:

Not Just Materials: MAP Professional Development Program

* Clear acknowledgement that materials alone are LIKELY INSUFFICIENT to enhance service quality

Southam-Gerow et al. (2014)
The MAP Framework

Is Outcome Centered

Clinical progress and therapeutic practices are measured and systematically monitored at the client case level.

Is Information Oriented

Emphasizes the common roles that information serves in decision-making, rather than requiring a specific set of instruments.

Supports a Common Language

By identifying common elements of interventions with scientific evidence of effectiveness across the behavioral health service domain, the MAP system provides an integrated lexicon to which the terminology of specific programs and disciplines is readily translated.

Integrates Multiple Evidence Bases

The MAP system highlights four sources of evidence that are referenced and prioritized during healthcare decision-making.

Coordinates Observed and Expected Values

By identifying common elements across evidence bases and obtaining indicators of client progress, clinical practice, and research findings, the MAP system integrates both the observed outcomes of clients and practitioners with the expected outcomes from the research and service systems.

Is Self-Correcting

The MAP tools, such as the PWEBS database and Practitioner Guides, are routinely updated based upon ongoing review of the scientific literature. Similarly, the MAP system’s use of individual client monitoring and visualization through the Clinical Dashboards provides a strong mechanism for self-correction of clinical care during health service provision.

Promotes Public Visibility

The MAP system provides a central visualization tool with the Clinical Dashboard, but also promotes transparency and public scrutiny of the underlying evidence used to inform decisions and the underlying logic used to reach a final decision and course of action.

Process Management

The MAP system adopts a continuous quality improvement strategy for managing the process of change. Common steps of this strategy include goal setting, assembling supports and applying procedures, testing results, and review and adaptation.

MAP System – Large-Scale Roll-Out in LA County

- Compared two training models within the MAP professional development program for scale-up:
  - National training model
  - Train the trainer
- Both successful in helping providers reach competence
- Pre-post youth outcomes effect sizes were strong (ranging from .59 to .80) and generally consistent with the literature on many evidence-based treatments

Lyon, Lau, McCuskey, Vander Stoap & Chorpita (2014)
Questions so far?

- Summary
  - Distillation and Matching Model (DMM)
  - Principles of modularity
  - MATCH and MAP applications of DMM

Assessment and Routine Outcome Monitoring: The “Glue” that Holds the Modular Approach Together

Data-Driven Decision-Making is Contextually Appropriate in SMH

- Assessment and progress monitoring align with increasingly-popular Response to Intervention (RtI) / Multi-Tiered Systems of Supports (MTSS) models of data-driven decision making
What is Evidence-Based Assessment?

- **Evidence-Based Assessment (EBA):** Assessment methods and processes that are based on empirical evidence in terms of both their reliability and validity as well as their clinical usefulness for prescribed populations and purposes (Mash & Hunsley, 2005)

- **Standardized assessment (SA):** The use of measurement tools with empirical support for their reliability, validity, etc., (Jensen-Doss & Hawley, 2005)

- **Idiographic assessment (IA):** Measurement of variables that have been individually selected or tailored to maximize their relevance for a particular individual (Haynes et al., 2009)

Value of EBA

**Initial Assessment**

- Rating scales can increase the ease and accuracy of clinical diagnosis (e.g., Jenkins et al., 2011; Youngstrom et al., 2005)

- Psychological assessment carries positive, clinically meaningful effects (Posten & Hanson, 2010)

**Outcomes / Progress Monitoring**

- Clinicians are often not able to detect client deterioration (Hannan et al., 2005)

- Providing assessment results to clinicians can result in improved outcomes (Bickman et al., 2011; Lambert et al., 2003)

Idiographic Monitoring

- Value of idiographic targets (Weisz et al., 2011)
  - Add specificity to ID’d problems
  - Give clients a voice
  - Enhance rapport / alliance
  - Provide foci for ongoing assessment

- Combination of SA and idiographic may be optimal (Weisz et al., 2011)
**EBA “Landscape”**

**Evidence-Based Assessment**

- **Methods**
  - Standardized Tools
  - Quantitative, Idiographic Targets
- **Processes**
  - Initial Assessment
  - Routine Outcomes Monitoring
  - Feedback to Clinicians
  - Measurement-Based Care
  - Shared Decision-Making

Borntrager & Lyon (2015)

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**Potential Assessment / Monitoring Targets**

- **Mental Health**
  - Depression symptoms
  - Disruptive behavior
  - Self-injurious behavior

- **Social Functioning**
  - Interpersonal conflicts
  - Positive social experiences
  - Disciplinary events

- **School Engagement**
  - Attendance
  - Homework completion
  - Class participation
  - School connectedness

- **Physical Health**
  - Sleep
  - Diet & Exercise

- **Academic Outcomes**
  - Grades
  - Credits earned
  - Standardized test scores

- **Services**
  - Satisfaction with treatment
  - Engagement in intervention
  - Therapeutic alliance

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**EBA in the Modular Approach**

![Individual Case Supervision Form](image)
CBT+ Overview (Dorsey et al., in press)

- Common-elements based, modularized intervention
- Grew out of existing statewide Trauma-Focused CBT (TF-CBT) initiative
- Includes TRAINING AND CONSULTATION MODEL for individual provider certification / “rostering”
  - Consultation call attendance
  - Documentation of 2+ cases in web-based system (i.e., Toolkit)
- ORGANIZATIONAL SUPPORTS
  - Supervisor training
  - Supervisor consultation calls
  - Organizational support guides
CBT+ Toolkit

Harborview Center for Sexual Assault & Traumatic Stress

CBT+ Toolkit

CBT+ Findings
(Dorsey et al., in press; Lyon et al. 2015)

- Evaluation of 2009-2011 CBT+ training cohorts
- n = 180 clinicians with self-report data at multiple time points

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<td>0.9</td>
<td>3.7</td>
<td>0.05</td>
</tr>
</tbody>
</table>
CBT+ Findings
(Dorsey et al., in press; Lyon et al. 2015)

• Evaluation of standardized assessment use after CBT+

![Graph showing evaluation results](image)

Questions so far?

• Summary
  • Evidence-based assessment
  • Applications of common elements/modularity in CBT+

Common Elements Psychotherapy: School-Based Applications
School Mental Health (SMH)

- Most youth who require mental health services do not receive them (Kataoka et al., 2002)
- SBMH accounts for >70% of all MH services (Burns et al., 1995; Farmer et al., 2003)
  - About 20% of all students receive SBMH services annually (Foster et al. 2005)
- Schools improve service access for underserved youth (Kataoka et al., 2007)

Service Access: Youth with Depression Sx

- Little is known about usual care school mental health services (Langley et al. 2010)
  - Services are unlikely to be evidence-based (Evans & Weist, 2004; Rones & Haugen, 2000)
- Meta-analysis of SMH programs for low-income, urban youth revealed low levels of effectiveness, some iatrogenic effects (Farahmand et al., 2011)
- Simultaneously…
  - EBP developers have paid insufficient attention to the school context and how it might influence effective service delivery (Ringesen et al., 2003)
Common Elements Psychotherapy in Schools

• Application in school-based primary care (Stephen et al., 2010)
  • Resulted in provider behavior change
• Implementation with school-based providers yielded (Weist et al., 2009)
  • Higher use of EBP, but no impact on practitioner attitudes or youth outcomes
• Additional large-scale work ongoing (Weist et al., 2014)

Local Setting: School-Based Health Centers (SBHCs)

• Operate in nearly 2,000 schools in the US (NASBH, 2008)
• Typically provide primary care and mental health services (Brown & Bolen, 2003)
• Confidential: Parents sign a blanket consent form for services at beginning of year.
• Well-substantiated as a mechanism to increase service accessibility to underserved and under/uninsured (Gance-Cleveland & Yousey, 2005; Kaplan et al., 1999; Wade et al., 2008)

Modularized, Common Elements Psychotherapy Pilot (Lyon et al., 2011)

Project Goals:
1. Provide training/support in relevant practice modules in the context of an existing consultation structure
2. Train school-based health center (SBHC) providers to implement outcome and practice monitoring with youth experiencing depression and/or anxiety
EBP Implementation

Consolidated Framework for Implementation Research (Damschroder et al., 2009). Five domains:

1. Intervention characteristics
2. Outer setting – broader context in which an organization exists (e.g., patient needs, barriers to meeting needs, org policies/incentives)
3. Inner setting – immediate organizational context in which implementation occurs (e.g., structural characteristics, implementation climate, readiness for implementation)
4. Characteristics of individual practitioners
5. Implementation process

Outer Setting

Two primary organizations…

- **Org #1**: Staffs all middle school SBHCs
  - Emphasis on provision of safety-net services, less explicit focus on EBP
  - Org. provides few child MH services in community
  - Supervisor not a SBHC clinician

- **Org #2**: Staffs majority of high school SBHCs
  - Existing research arm, “EBP culture,” and focus on cost-containment
  - Supervisor was a SBHC clinician
  - Staff also receive psychiatric consultation

Inner Setting

“It’s not like other practice settings where you see them every week at five o’clock”

- Multiple barriers to EBP implementation in schools
  - e.g., competing responsibilities, lack of parent engagement, logistical barriers (Langley et al., 2010)
  - SBHC practice characterized by uncertain Tx length
  - Sessions are frequently interrupted by student or school crises
  - Avg. number of MH therapy sessions = 4.6
- The school setting necessitates a flexible practice, but many available EBPs not so flexible
**Intervention**

- Informed by DMM and tools available from PracticeWise website ([Chorpita et al., 2009](#)).
- Caveat: We received workshop training, but not intensive training from sys. originators.
- Modules trained corresponded to the most common presenting problems in SBHCs (depression and anxiety):

<table>
<thead>
<tr>
<th>Activity Selection</th>
<th>Cognitive Restructuring for Depression</th>
<th>Cognitive Restructuring for Anxiety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure</td>
<td>Maintenance/Termination</td>
<td>Problem Solving</td>
</tr>
<tr>
<td>Psychoeducation for Anxiety</td>
<td>Psychoeducation for Depression</td>
<td>Relaxation</td>
</tr>
<tr>
<td>Self-Monitoring</td>
<td>Skill Building</td>
<td>Social Skills</td>
</tr>
</tbody>
</table>

- Tracked module implementation and outcome monitoring using Excel “dashboard”

---

**Practitioner Characteristics**

- n = 7 providers participating in ongoing consultation
- Avg. years in current position = 4.9 (SD = 4.3)
- 94% female, 82% Caucasian
- Primary theoretical orientation (TO): Integrative/Eclectic (65%)

<table>
<thead>
<tr>
<th></th>
<th>Participants (n = 7)</th>
<th>Non-Participants (n = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>41.4</td>
<td>39.3</td>
</tr>
<tr>
<td>Years in Practice</td>
<td>9.0</td>
<td>12.5</td>
</tr>
<tr>
<td>TO: % Bx’l or Cx’l</td>
<td>29%</td>
<td>20%</td>
</tr>
<tr>
<td>EBP Attitudes Scale (Aarons, 2005)</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Knowledge of EB Services Ques. (Stumpf et al., 2009)</td>
<td>101.4</td>
<td>99.6</td>
</tr>
</tbody>
</table>
### Implementation Process

**Training & consultation: Sept – May**

- Not mandated
- 4 half days in Sept and Oct – introduced monitoring system (Excel dashboard) and initial set of modules
  - Training activities: didactic presentations, distribution of written materials, modeling, role-plays, ongoing consultation
- Biweekly consultation meetings
  - Case review based on dashboard data trajectory
  - Introduction of additional modules
- Practitioners given freedom to implement the modules as they saw fit following introduction

### Implementation Process

**Identification & assessment**

- Providers selected youth based on the following criteria:
  1. Primary presenting problem (PPP) = depression or anxiety
  2. Student is committed to participate in three or more sessions
- Asked to administer standardized measures corresponding to PPP at each session
- Email reminders and data QA from research assistants
  - Some providers struggled to use the Excel technology

### Results: Implementation

**Training participation**

- 11 of 17 providers began participating in training
- 7 participated fully in the training and used the tools with youth
  - All from high school SBHCs
  - Most from Org #2, none from Org #1.
- **16 in-person consultation meetings** between Sept and May
  - Participants attended an average of 79% of consultations
Results: Implementation

Practice changes: Identification & assessment

66 students selected for tracking
- Avg. age: 16.1; 63% Female
- Ethnicity: 39% Cau, 26% Asian/PI, 17% AA, 8% Latino/a, 9% Multiethnic

Primary presenting problem (PPP):
- Depression – 75%
- Anxiety – 14%
- Mixed Dep. & Anx. – 11%

Administration of standardized assessment (SA) measures:
- In 94% of sessions, students received at least one SA measure
  - Most common measure: Short Mood & Feelings Questionnaire (SMFQ; Angold et al., 1995)
  - Other measures included: CDI, brief YSR, GAD-7

Results: Implementation

Practice changes: Treatment Sessions

- 487 Total sessions
- Mean # sessions per student = 7.4 (range: 1-24, median: 6, mode: 3)
- Average number of elements reported used per session = 2.8

Elements most commonly reported used (% of sessions):
- Cognitive restructuring (depression) 47.4%
- Self-monitoring 46.0%
- Problem solving 37.6%
- Psychoeducation (depression) 33.3%

Average number of unique elements used per student = 5.3

Results: Implementation

Barriers to participation (Lyon et al., 2013)
- Time available – number 1 concern
  - Difficult for lone practitioner to make time for training and consultation
  - No release from clinical responsibilities
- Skepticism about new “flavor of the month”
- Applicability of EBP (in general) to the culturally-diverse, multi-problem youth seen in SBHCs
Results: Service Recipients

Youth symptoms

- SMFQ for depression (administered to \( n = 50 \) students)
  - Avg. baseline SMFQ: 13.1 (SD = 4.3)
  - Change in SMFQ for students receiving >1 session (\( n = 45 \)):

<table>
<thead>
<tr>
<th>SMFQ first</th>
<th>SMFQ last</th>
<th>SMFQ Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.53</td>
<td>9.44</td>
<td>-4.09</td>
</tr>
</tbody>
</table>

SMFQ change *not* associated with the elements that are most common in depression treatment

- i.e., cognitive restructuring, activity selection, psychoeducation, self-monitoring (PracticeWise, 2009)

SMFQ change *was* associated with…

- Problem Solving (\( r = .34, p < .05 \))
- Relaxation (\( r = .34, p < .05 \))
- Skill Building (\( r = .45, p < .01 \))

Number of unique elements received unrelated to SMFQ change

Results: Provider Views on Intervention-Setting Fit

- Practitioners generally described a good fit between the modular approach and school-based service delivery across multiple levels (Lyon et al., 2014)
Discussion

Summary

- School context presents a number of important \textbf{practice limitations} and \textbf{barriers to participation} in training/consultation
- \textbf{Organizational factors} may have substantially influenced participation
  - Despite similarities in individual-level variables, no practitioners from Org #1 completed the consultation
- Motivated clinicians able to administer SA measures, track results, and report on their use of modules

Discussion

Summary

- \textbf{Simple, concrete practice elements} were most associated with outcome for depression treatment
  - Problem solving previously found to be associated with depression outcome (Kennard et al., 2009)
  - Easier to implement? More familiar?
- Consultation to SBHCs can result in provider behavior change and may be a useful method of increasing delivery of EBP to underserved youth.
  - “…the practical skills we got and the way we were actually held to using them really makes me feel like I get lots of concrete gains for my clients these days! Especially with those pesky depressed stuck ones!”

Discussion

Implications

- Importance of provider motivation to participate in training/consultation
  - More competent practitioners tend to seek out trainings and experience greater benefit (Purz, 1980; Siqueland et al., 2000)
  - “Time” cited as the most common barrier (Lyon et al., 2013)
  - Develop short-term SBHC interventions using a \textbf{small number of effective modules}
  - Modal # of sessions = 3!
  - Consider SA implementation as a starting point for EBP implementation
Questions so far?

- Summary
  - Justification for school-based service delivery
  - Quality improvement goals in school mental health
  - Applications of common elements approaches in schools

Brief Intervention for School Clinicians (BRISC)
A Modularized, Evidence-Informed Mental Health Treatment for Use by School Clinicians Working with High School Students

Funded by the Institute of Education Sciences (R305A120128 — McCauley & Bruns, Co-PIs; Lyon, Co-I)

BRISC: Overarching Goal

Develop and pilot test an evidenced-informed and feasible mental health intervention designed to address the unique characteristics and needs of the school context
BRISC: Evolving Goal

Enhanced integration of mental health service/care models with education based approaches supporting student academic and social/emotional development

Context for BRISC

<table>
<thead>
<tr>
<th>School-Based Usual Care</th>
<th>BRISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention is often crisis-driven (Langley et al., 2010)</td>
<td>Structured / systematic identification of treatment targets</td>
</tr>
<tr>
<td>Focused on providing nondirective emotional support (Lyon et al., 2011)</td>
<td>Focused on skill building / problem solving</td>
</tr>
<tr>
<td>Interventions do not systematically use research evidence (Evans &amp; Weist, 2004; Rones &amp; Hoagwood, 2000)</td>
<td>All intervention elements are evidence-based</td>
</tr>
<tr>
<td>Standardized assessments are used infrequently (West, 1998; Lyon et al., in press)</td>
<td>Utilizes standardized assessment tools for progress monitoring</td>
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</tbody>
</table>

Context for BRISC

• Currently developing a brief intervention model (3-4 sessions) to maximize intervention-setting fit
  • During 2009 pilot (Lyon et al., 2011), modal number of sessions was 3
    • Large caseloads, sole practitioner
    • Frequent disruptions
    • Engagement difficulties
  • Some clinicians struggled to determine which modules to select/prioritize
  • Many students (60%+) with subclinical presentations
Context for BRISC

- Even low levels of symptoms can be accompanied by functional impairment
- PHQ-9 (depression) and MASC-10 (anxiety) scores across >180 youth receiving school-based services in September 2011 (Lyon et al., in press):

![Graphs showing data distribution]

BRISC

- *a priori* intervention model requirements necessary for a “good fit” with the school context:
  - Systematic intervention approach
  - Adaptable/flexible intervention delivery
  - Efficiency (short-term for those who don’t need more)
  - Engagement enhancement
  - Specific identification and tracking intervention targets

![SMART and Seattle Children's logos]

Original BRISC Components

<table>
<thead>
<tr>
<th>Model Requirements</th>
<th>Intervention Elements</th>
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<tbody>
<tr>
<td>Systematic / structured intervention</td>
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</tr>
<tr>
<td>Adaptable/flexible (but evidence-based) intervention delivery</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td></td>
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<tr>
<td>Specific treatment target identification</td>
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<tr>
<td>Modularized, Common Elements Approach</td>
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<td>Problem Solving Orientation</td>
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<td>Stepped Care / Brief Treatment Structure</td>
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<td>Motivation Enhancement Strategies</td>
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<tr>
<td>Assessment and Monitoring</td>
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</table>
BRISC Integration with Educational Approaches

- TIER 1: Core instruction, behavioral expectations, positive support and consequences
- TIER 2: Targeted interventions, additional support, behavior change strategies
- TIER 3: Intensive interventions, individualized behavior support plans

BRISC Intervention and Rationale

- Use **COMMON ELEMENTS** of evidence-based MH treatments for children and youth
- Be responsive to **TYPICAL PRESENTING PROBLEMS** of high school students seeking/need help
- Tailored to **WORKFLOW, CASELOADS, AND CLIENT ENGAGEMENT & FOLLOW-UP** of SBMH clinicians
- Integrated with school structures & connected to school social and behavioral supports

BRISC Protocol Development & Refinement

3 Year, IES Funded Goal 2

- Step 1: Expert Interviews & Summit
- Step 2: Feasibility Testing
- Step 3: Pre-Pilot
- Step 4: Pilot
- Step 5: Randomized Trial

Year 1 Year 2 Year 3
BRISC Protocol Development & Refinement
3 Year, IES Funded Goal 2

Step 1: Expert Interviews & Summit
Step 2: Feasibility Testing
Step 3: Pre-Pilot
Step 4: Pilot
Step 5: Randomized Trial

Year 1 Year 2 Year 3

BRISC Study 1 (Year 1) (Lyon et al., 2014)

- Two qualitative research studies: (1) **KEY INFORMANT INTERVIEWS** with SMH experts and (2) **NOMINAL GROUP DECISION-MAKING PROCESS** with Summit attendees
- 3 crosscutting themes:
  1. Alignment with the school context (e.g., RtI framework; dev of readiness assessment)
  2. Flexible/responsive service delivery
  3. Effective data utilization (esp integration of school/educational data)

Revised BRISC Protocol

Revised BRISC protocol following Study 1 to reflect stakeholder input:

- BRISC as a targeted intervention within existing tiered system
- Incorporate academic interventions/focus on monitoring academic success
  - Make use of existing school data systems
- Student voice in development/target
- ID academic and socio-emotional outcomes to focus on, (e.g. Top Problems Checklist)
- Establish “readiness” criteria for schools as a way to measure school’s ability to integrate the program
Revised BRISC Core Factors

1. Agenda Setting
   - Collaborative
   - Focus/structure session
   - Manage the time

2. Problem Solving Framework
   - Clinician helps student identify specific problems
   - Empowers student to address/change
   - Brainstorming solution – anything goes
   - Important to prepare for/address internal and external barriers
   - No failure – any attempt provides useful information in implementing other solutions

Revised BRISC Core Factors

3. Progress Monitoring and Feedback
   - Weekly stress rating - generally and then related to identified problem (0=low to 10=high)
   - Useful in identifying targets to address/monitoring progress (i.e., it’s like a ruler to measure change)

4. Practice Exercises
   - Tracking targets—moves from therapy to real life application
   - Helps identify barriers to change
   - Doing something that is slightly out of their comfort zone and different from what they would ordinarily do (not something too hard or drastic)

BRISC Protocol

Session 1: Engagement & Problem Identification
Session 2: Stress Psychoed & Problem Solving
Session 3: Skill/Module Implementation
   - Practical difficulties; Getting along with other people; Just don’t feel like it, Handling hard feelings; Dealing with a hard situation I can’t change
Session 4: Review Skill Implementation & Plan for Next Steps
BRISC Session 3 Module Selection Framework

BRISC Protocol Development & Refinement
3 Year, IES Funded Goal 2

BRISC Study 2 (Year 1): Goal
Evaluate 3 implementation outcomes (Proctor et al., 2011)...

• **Feasibility** – Extent to which a Tx can be successfully used or carried out within a given setting
• **Acceptability** – Perception that a Tx is agreeable, palatable, or satisfactory
• **Appropriateness** – Perceived fit of the Tx for a given practice setting, provider, consumer, or problem.
**BRISC Study 2 (Year 1): Method**

- Mixed-methods study (quantitative and qualitative)
- Participants:
  - n = 11 high school students
  - 91% female
  - 56% self-referred
- BRISC delivered by study therapists
- Therapists completed fidelity rating checklists after each of the four BRISC sessions
- Post-test (symptoms, functioning, etc) and semi-structured “exit interviews” at 8-weeks following the first BRISC session

**BRISC Study 2 (Year 1): Results**

**Feasibility**

- Average of 27 days to deliver 4 sessions
- Individual sessions lasted 21-60 mins
- Median delivery of components (adherence checklist) ranged from 73 to 91% across sessions

**BRISC Study 2 (Year 1): Results**

- Interventionists demonstrated high levels of adherence to the BRISC protocol including:
  - identifying and monitoring problems
  - introducing and conducting stress/mood rating
  - planning problem monitoring
  - introducing problem-solving,
  - assessing barriers,
  - assigning practice exercises.
BRISC Study 2 (Year 1): Results

Acceptability
Multidimensional Adolescent Satisfaction Scale (MASS)
- Satisfaction with counseling scores sig higher than published scores for adolescent counseling as usual (Garland et al., 2000)

Acceptability
- Motivation to attend treatment ratings ranged from 8.3 for the second session to 8.9 for the fourth session (out of 10)
- Participants reported that their motivation to attend sessions INCREASED INCREMENTALLY for each successive session
- Mean ratings of helpfulness of homework/practice was 7.5 out of a possible positive rating of 10

Appropriateness
- 7 of 11 participants (63.6%) had 1+ clinically significant elevation in a problem area
  - Internalizing problems most common
- BRISC Tx focused on 1 problem area for 9 participants and on 2 areas for 2 students.
  - Problem areas included academic difficulties (5 participants), depression (3 participants), peer problems (3 participants), anxiety (1 participant), truancy (1 participant), and sexual trauma (1 participant).
BRISC Study 2 (Year 1): Results

Appropriateness – qualitative results

<table>
<thead>
<tr>
<th>Code</th>
<th>Brief Description</th>
<th># Mentioning (of 11)</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Problem/Outcome</td>
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<tr>
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<td>Eating</td>
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<td></td>
<td>Skill</td>
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</tbody>
</table>

Participant Responses to Intervention

Preliminary Client Outcomes:
- Promising pre-post improvements in student assessments of depression (PHQ-9) and functional impairment (CIS)
- No improvement in anxiety (GAD-7)
- Significant improvement in positive coping mechanisms as a percentage of total coping (Revised Ways of Coping Scale)

BRISC Study 2 (Year 1): Conclusions

- Able to recruit and engage youth
- Youth indicated overall satisfaction
- Therapists able to deliver protocol with fidelity
- BRISC worked well as a way to engage youth, assess needs, and improve coping skills

"Amazing how much movement we got in moods when we worked on grades and communication with parents. Four sessions got buy in that therapy works..."
“Post-BRISC Pathways” Identified

1. *Come back if you need it*
   16 yr. AA anger/relationship issues, teaching-stress cycle, PS re other ways to respond, communication strategies—listening and “I” statements

2. *Supportive monitoring*
   15 yr old, referred by parent/school counselor re academic performance, PS focused on managing academic demands (cell phone use, etc), ongoing check ins with school counselor to reinforce progress

Post-BRISC Pathways Identified

3. *Continue BRISC or other TAU*
   15 yo Hispanic female, depression/dysthymia and academic difficulties. Attempted some initial school interventions and identified significant barriers related to mood. Addressed handling hard feelings (including a referral for psychiatry), then client was able to more effectively engage in problem solving around academic issues.

Post-BRISC Pathways Identified

4. *More intensive services* – (referral to other services (i.e. special education, psychiatry, trauma treatment, family therapy, DBT, eating disorder treatment, etc.)
   19 yo African female, referred by nurse practitioner for trauma and some initial SI, worked on problem solving and handling hard feelings - reducing harmful/problematic coping behaviors (i.e. eating chalk and excessively taking pain meds) and problematic school/peer concerns, and connecting to more intensive outside services making a “warm hand-off” with an outside agency
What’s next? IES BRISC Project

Year 2 (completed last year): Protocol validation w/school based mental health providers in 8 SPS High Schools. *Currently analyzing data.*

Year 3 (current): Randomized pilot study in Seattle and other area high schools

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