Understanding modifications to CBT in community settings:
A comparison of providers in adult and child mental health service settings

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Fidelity and Modification

- In implementing and sustaining programs and interventions, balancing between fidelity and modification is critical
  - Fidelity-the skilled/appropriate delivery of key components of the intervention—some evidence that fidelity is necessary for good outcomes
  - Modification-changes (proactive or reactive) made to the intervention/program when implemented in routine care
    - Adaptation-proactive, planned changes to the intervention or program to address contextual factors

Not all modifications are equal?

- Little research on impact of modifications
- Relatively few distinctions between types of modifications
  - Literature on cultural adaptation
  - Some studies on lengthening/shortening protocols
  - Some studies on different formats/settings personnel

Implications of modification

- Largely unknown—findings have been mixed
  - Adaptations to PTSD treatments do not appear to negatively impact results (Levitt, 2007; Galovski, 2012)
    - BUT-highly specified parameters
  - Similar or improved outcomes when some programs were adapted to fit the needs of the community (Kalichman, 1993; Kennedy, 2000)
  - Others found worse recipient-level outcomes (Stanton, 2005) despite increased retention (Kumpfer, 2002)

Framework to classify modifications

- Identified 32 articles that described 258 modifications

- Used a coding process rooted in Grounded Theory to characterize modifications

- Developed a framework describing contextual and content-related modifications and adaptations

WHAT is modified?

Content
(Modifications made to content itself, or that impact how aspects of the treatment are delivered)

Context
(Modifications made to the way the *overall* treatment is delivered)

TRAINING AND EVALUATION
(Modifications made to the way that staff are trained in or how the EBP is evaluated)

At what LEVEL OF DELIVERY (for whom/what) are modifications made?

- Individual patient level
- Group level
- Individual practitioner level
- Clinic/unit level
- Hospital level
- Network level

What is the NATURE of the Content modification?

- Tailoring/tweaking/refining
- Adding elements
- Removing/skipping elements
- Shortening/condensing (pacing/timing)
- Lengthening/extending (pacing/timing)
- Substituting
- Reordering of EBP modules or segments
- Integrating EBP into another framework (e.g. selecting elements)
- Integrating another treatment into EBP (not using the whole protocol and integrating other techniques into a general EBP approach)
- Repeating elements or modules
- Loosening structure
- Departing from the EBP ("drift")

Context modifications are made to which of the following?

- Format
- Setting
- Personnel
- Population

BY WHOM are modifications made?

- Individual practitioner/facilitator
- Team
- Non-program staff
- Administration
- Program Developer/Purveyor
- Researcher
- Coalition of Stakeholders
- Unknown/Unspecified

Modifications to Cognitive Therapy in a mental health system

- Adult Sample
  - Interviews with 27 clinicians in a variety of settings in the City of Philadelphia's mental health system
  - Descriptions of modifications were segmented and coded using the framework
  - 175 modifications identified
  - All endorsed at least 1 modification

Modifications to Cognitive Therapy in a mental health system

- Child Sample
  - Interviews with 50 clinicians in a variety of settings in the City of Philadelphia's mental health system
  - Descriptions of modifications were segmented and coded using the framework
  - 165 modifications identified
  - 38/50 clinicians endorsed at least 1 modification

Examples

- *I wouldn't just translate it from English to Chinese, 'What does that mean for you?' directly, because he might feel insulted. He might have felt that I didn't respect him. So I needed to explain it to him in a much more roundabout way. (tailoring)*

- *I find it to be more effective to just have a general conversation and integrate CT during the conversation. I think it's a more naturalistic approach to things and the participants I think feel more relaxed that way. (loosen structure)*

- *If I feel like there's a need for [a CT intervention] or someone is really going to benefit from it I insert it to what I'm already doing sort of or borrow bits and pieces of it here and there but never the full thing (Integrating)*

Contextual Modifications

Context Modifications	Adult		Child	
	Frequency	% of total modifications	Frequency	% of total modifications
Format	1	<1	9	<1
Setting	3	2	12	<1
Personnel	0	0	0	0
Population	0	0	0	0
Training and Evaluation Processes	1	<1	0	0
Content Modifications				
Level				
Individual Recipient	99	57	37	22
Cohort	0	0	44	27
Population	15	9	85	51
Provider/Facilitator	57	33	0	0
Unit	2	1	0	0
Organization	1	<1	0	0
Network/Community	0	0	0	0

Content-level modification-Adult

Type of Modification	Frequency	% of total modifications	Number of Clinicians Endorsing
Tailoring	31	18	16
Loosening Structure	30	17	12
Integrating the intervention into another approach/framework	28	18	12
Drift or depart from the intervention	25	14	15
Integrating another approach into the intervention	11	6	6
Lengthen/extend session or protocol	9	5	5
Removing elements	5	3	4
Adding components	4	2	2
Shortening/condensing session or protocol	3	2	2
Substituting Elements	0	0	0
Re-ordering components	0	0	0
Repeating elements	0	0	0

Content-level modification-Child

Type of Modification	Frequency	% of total modifications	Number of Clinicians Endorsing
Tailoring	24	14	18
Loosening Structure	6	4	6
Integrating the intervention into another approach/framework	52	31	26
Drift or depart from the intervention	39	23	24
Integrating another approach into the intervention	14	8	11
Lengthen/extend session or protocol	1	.6	1
Removing elements	24	14	19
Adding components	0	0	0
Shortening/condensing session or protocol	8	5	7
Substituting Elements	--	--	--
Re-ordering components	1	.6	1
Repeating elements	0	0	0

Summary

- Modifications made by clinicians serving adults and children differed

- Child clinicians made more modifications at the population and cohort level, adult clinicians at individual client or clinician level

- Clinicians serving adults loosened structure more

- Clinicians serving children integrated, removed components, and drifted more

Implications for implementation

- Modifying and adapting may increase stakeholder buy-in and improve perceptions of fit
- Endorsement of drift, integration of other approaches, loosening structure suggests that CT is not being sustained as presented in training
- Impact on implementation and client-level outcomes is not yet known

Implications for implementation research

- This framework provides researchers with a way of identifying different types of modifications

- Codes can be used in analyses to understand the impact of specific types of modifications

- Further research is needed to understand its reliability and utility for different interventions and data sources