CBT for Psychosis

Laura M. Tully, Ph.D.
Assistant Professor in Psychiatry, UC Davis
Director of Clinical Training, UC Davis Early Psychosis Program

September 30th 2020
I have no conflicts of interest
What I hope you learn today...

1. Refresher of CBT basics
2. Applying the CBT model in Psychosis
3. How to use CBT to address positive symptoms
4. How to use CBT to address negative symptoms
5. Using CBT in the context of Coordinated Specialty Care
Quick Review of CBT

Basic Principles and Structure
The Cognitive Model

How we think about a situation affects how we feel and how we behave.
<table>
<thead>
<tr>
<th>Situation</th>
<th>Thoughts</th>
<th>Feelings</th>
<th>Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Distancing and self-isolating at home during coronavirus outbreak</td>
<td>I miss my family in the UK</td>
<td>Sad 😞</td>
<td>Reach out to family via FaceTime</td>
</tr>
<tr>
<td></td>
<td>I don’t know what will happen next</td>
<td>Worried 😞</td>
<td>Repeatedly check the news/social media</td>
</tr>
<tr>
<td></td>
<td>I get to read more books at home</td>
<td>Neutral</td>
<td>Read the latest YA sci-fi books</td>
</tr>
</tbody>
</table>
CBT Core Characteristics

• Collaborative project between client and therapist
• Structured & active engagement
• Empirical in approach
• Problem-oriented
• Guided Discovery/Socratic Questioning
• Behavioral Methods
• Summaries and Feedback

Westbrook et al. 2011
Structure of CBT Session(s)

• Agenda Setting (~2 min)
• Homework review (5-10 min)
• Clinician Item & homework setting (15 min)
• Client Item (15 min)
• Feedback (~2 min)
What are you doing in the room/in CBT?

- Eliciting key/hot cognitions/beliefs
- Setting up intervention to test beliefs (e.g., BE)
- Processing results of intervention & promote cognitive shift
AKA “The Three Cs”

- Catch it
- Change it (or Choose it)
- Check it

Granholm et al. 2016
The 3 C’s

CATCH IT, CHECK IT, CHANGE IT

Work to identify, evaluate, and reframe distorted interpretations & attributions related to identified problems.

Use both cognitive and behavioral techniques

Based on CBT case formulation generated together

Granholm et al. 2016
What is a CBT Case Formulation?

• Uses the CBT model to develop:
  • Description of the **current** problem(s)
  • Account of **why** and **how** these problems developed
  • Analysis of processes that **maintain** the problems

• Identification of maintenance processes informs intervention choices

• Focus on maintenance processes because:
  • Causal processes are not always the same as maintenance processes
  • Easier to obtain clear info on maintenance than original events
  • Easier to change current processes than change the past!

Westbrook et al. 2011
If you want to put out a fire, you need to tackle the elements keeping the fire going (e.g., heat, fuel, oxygen) rather than look for the spark that started the fire.

Westbrook et al. 2011
Common Maintenance Processes

- Safety Behaviors & Avoidance
- Reduction of Activity
- Catastrophic Misinterpretations
- Self-fulfilling prophecies
- Perfectionism
- Short-Term Rewards

Westbrook et al. 2011
CBT for Psychosis

Applying the cognitive model to psychotic symptoms
What is the defining characteristic of psychosis?

Psychosis is traditionally described as difficulty distinguishing what is real from what is not real, e.g., Delusions are fixed false beliefs in the face of contrary evidence.
BUT ... Many psychological difficulties are defined by distorted beliefs

**Depression**
“I am worthless”
“I am a failure”
Held with strong conviction during an episode

**Panic Attacks**
“I’m going to die”
“I cannot survive this”
Held with strong conviction in the moment

**Anorexia**
Convinced body is larger than it is
Held with very high conviction

**OCD**
“If I don’t do this ritual, something bad will happen to my family”
Held with high conviction
Applying the cognitive model to Psychosis

• Psychosis is characterized by **culturally unacceptable** interpretations of experiences
  → Stigmatizing & distressing => maintains psychosis?
• Implications:
  → Normalizing may reduce stigma & distress
  → CBT techniques that are successful at addressing distorted beliefs in depression, anorexia, panic disorder, and OCD may be successful in psychosis too!

Morrison et al. 2004; Morrison 2017
What is ‘Normal’ anyway?

• All people have the potential to hallucinate or have delusional thinking under the right circumstances

• In the general population...
  • 30-40% have weekly paranoid thoughts
  • 10-20% have brief paranoid beliefs that they firmly believed and caused significant distress (e.g., I can detect coded messages about myself)
  • 8% of the general population hear voices on a regular basis
  • 60-80% the general population have heard a voice

• So what is the difference between this and psychosis?
  • Causes distress; stigmatized; it’s getting in the way
  • *Culturally unacceptable* interpretations of experiences
  • Interacts with cognitive symptoms...

Van Os, 2009; Freeman, 2006
S-REF Model – AKA “the filter model”

- **Self-Regulatory Executive Functioning Model**
  - Conceptualize psychotic symptoms as “intrusions”
  - Cognitive impairments, especially executive functioning, contribute to salience of intrusive experiences
  - Metacognitive Beliefs about intrusions e.g. “Thinking about this could make me go mad/means I’m a bad person” causes distress
  - Interpretation of intrusions is what distinguishes individuals with psychosis from other diagnoses

Morrison et al. 2004; Morrison 2017
Symptoms as a Failure of Source Monitoring

• Voices are misattributed internal mental events (e.g. verbal thoughts, inner speech)
• Difficulty identifying where stimulus/thought came from
  ⇒ Assume it came from outside the self (thought)
  ⇒ Triggers NATs about state of mind (thoughts)
  ⇒ Triggers anxiety/fear (feelings)
  ⇒ Efforts to reduce anxiety (behavior)
• Maintained by anxiety reduction/avoidance behaviors
  • Use CBT model & intervention techniques to get at the thoughts and break the maintenance cycle

Bentall et al. 1991; Johns & McGuire, 1999; Morrison et al. 2004
Symptoms as a Conflict with Metacognitive Beliefs

- Often intrusive/distressing/violent thoughts that don’t match beliefs about the self
  - Triggers negative thoughts about what the voices are saying (thoughts)
  - Triggers negative emotional states/distress (feelings)
  - Generate alternate explanation for intrusions (thoughts/behavior)
  - Avoidance of triggers/suppression of thoughts (behavior)
- Maintained by reduction in conflict/cognitive dissonance

Morrison et al. 2004
Symptoms as Unusual Interpretations of Experiences

• Delusions may be rational attempts to explain anomalous perceptual experiences or culturally unacceptable explanations of life events

• How we interpret anomalous experiences influences our response

• Example: Experience intrusive/unusual thought that people are talking about them
  • Interpretation #1: “It’s my imagination; I’m just tired/stressed”
    ⇒ Get some sleep, reduce stress.
  • Interpretation #2: “They are trying to hurt me”
    ⇒ Hypervigilance for other instances, adopt safety behaviors

Morrison et al. 2004; Morrison 2017
The 3 key ingredients of CBTp

1. Psychoeducation to normalize psychotic experiences, reduce the stigma and, consequently, reduce distress.

2. Collaborative development of a case formulation to inform understanding of psychotic symptoms & make sense of the experiences.

3. Acceptance of psychotic experiences & working to reduce associated distress/conviction is better than attempting to change symptom occurrence.
Phases of CBT for Psychosis

1. Engagement & Befriending
2. Assessment of Experiences
3. Collaborative Formulation Development
4. Interventions & Skill Building
5. Consolidation of Skills

Hardy “CBTp Fact Sheet”; Morrison 2017
General Tips:

• Psychoeducation & normalization of experience is key

• Always place in the context of case formulation

• Use Guided Discovery: Simply telling client that they are wrong will not change the belief

• Process causing distress may not be the psychotic symptom itself

• Always work within a **recovery-oriented framework**

Hardy “CBTp Fact Sheet”; Morrison 2017; Brabban et al. 2016
Positive Symptoms

Applying CBT techniques to positive symptoms
How to conceptualize positive symptoms (1)

• Conceptualize symptom as *situation* (causing distress)
  • Situation = hearing voices
  • Thoughts = interpretation of voices and/or their content
  • Feelings = emotional reaction to NATs about voices
  • Behaviors = safety behaviors/response to voices

• Conceptualize *content* of symptom as thoughts:
  • Situation = hanging out with friends
  • Thoughts = voices saying “everyone hates you”
  • Feelings = emotional reaction to content of voices (e.g., sad, anxious)
  • Behaviors = safety behavior (social withdrawal/avoidance)
How to conceptualize positive symptoms (2)

• Unwanted perceptual experiences treated just as you might treat unwanted mental experiences (e.g., thoughts) that you have

• Delusions often have a kernel of truth & play a function
  • Find the kernel & the function then work to alter or replace; reduce saliency of more ‘trunk-level’ beliefs (inside out)
  • Understand maintenance factors and precipitants (how beliefs are formed - outside in)
  • Metacognitive techniques – thinking about thinking.

• Behavioral activation and scheduling for negative symptoms

• Conceptualize cognitive symptoms as vulnerabilities, maintenance factors, sometimes precipitants
Example: Male individual in his late teens reports hearing voices and seeing movement out of the corner of his eyes. He believes they are somebody attempting to break into his room while he is sleeping.

**Situation:** Lying in Bed

- Hear a voice/noise
- "It is the voice of a Spectre who will break in and harm me"
- Fear
- No sleep (alcohol)
- Sets up cameras
- Study about spirits
- Go out in the dark to check

*Slide Credit: Dr. Daniel Shapiro*
Common negative beliefs associated with symptoms of psychosis

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Cognition/Belief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amotivation</td>
<td>“I’ll fail, why try”</td>
</tr>
<tr>
<td>Asociality</td>
<td>“Others won’t like me”</td>
</tr>
<tr>
<td>Anhedonia</td>
<td>“I won’t enjoy, I can’t…”</td>
</tr>
<tr>
<td>Alogia</td>
<td>“I won’t make sense, my brain is broken”</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>“I/My thoughts are out of my control, dangerous, powerful, correct”</td>
</tr>
<tr>
<td>Delusions</td>
<td>“I/ my thoughts are out of control”</td>
</tr>
<tr>
<td>Suspiciousness</td>
<td>“I will be rejected, others will criticize me, I’m not as good as others”</td>
</tr>
</tbody>
</table>

Grant et al. 2011; Baker & Morrison, 1998; Freeman & Garety, 1999; Morrison et al. 2002

Slide Credit: Dr. Daniel Shapiro
Practical Tip #1: Reduce Distress

• Provide psychoeducation (see part 1 of this seminar series!) to normalize experiences and reduce stigma
• Work to identify what the source of distress is – it might not be the psychotic symptom itself
• Use recovery-oriented framework and validation / acceptance skills

Morrison, 2017; Brabban et al. 2016
Practical Tip #2: Reduce Conviction

- Goal may not be to remove distorted belief entirely; reduction of conviction can be very helpful.

- Examine alternate explanations for the intrusion/experience and see how each explanation affects conviction level.

- Pie chart technique is a useful tool for acknowledging multiple explanations for an experience.
Pie Technique (referential thinking example)

Screenshot image from Morrison et al. 2004
Examine evidence for & against different interpretations (voices example)

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>Evidence For</th>
<th>Evidence Against</th>
</tr>
</thead>
<tbody>
<tr>
<td>A higher power (e.g. God talking to me)</td>
<td>The voice can predict unlikely things happening</td>
<td>Prediction could be coincidence</td>
</tr>
<tr>
<td></td>
<td>Imagery of higher power</td>
<td>A lot of what they predict doesn’t occur</td>
</tr>
<tr>
<td></td>
<td>Physical feeling - it feels very powerful</td>
<td></td>
</tr>
<tr>
<td>A sign of illness</td>
<td>It can be associated with elevated mood</td>
<td>It doesn’t seem to happen at work</td>
</tr>
<tr>
<td></td>
<td>It can be triggered by paranoia</td>
<td>It is different to elevated mood</td>
</tr>
<tr>
<td>An unusual thought process</td>
<td>It could be a stress response</td>
<td>It feels real</td>
</tr>
<tr>
<td></td>
<td>It can be triggered by cannabis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What they talk about is similar to things I think about</td>
<td></td>
</tr>
</tbody>
</table>

Practical Tip #3: Pros & Cons of Holding Belief

• Some cognitions are less amenable to “CHECK IT” phase
  • Hard to evaluate accuracy of some beliefs
  • Evaluation could cause more distress
• Examine pros & cons of holding the belief, regardless of accuracy
• Can do this for both past and present - some beliefs may have been useful at some point!
• Always review Pros first
• Can also do “helpful/not helpful” vs. “true/not true” exercise
Pros & Cons of Belief: Danai Gurira (whom I have never met) is in love with me

Pros of holding / acting on this belief
• Makes me feel special
• Consistent with my belief that I have a soulmate
• Makes my life feel like an adventure

Cons of holding/acting on this belief
• Frustration when Danai and I do not meet
• Causes difficulties with my partner
• Makes me angry with my partner for not being Danai
• Upsets my family
• My therapist says this is a problem
• It costs a lot of money to keep visiting LA in an effort to meet Danai

→ More adaptive belief: “It is irrelevant that Danai loves me, because my partner loves me and I love them and we can build a rich life together”
Use helpful/unhelpful & accurate/inaccurate matrix

Situation: Hearing Voices

<table>
<thead>
<tr>
<th>HELPFUL/ACCURATE</th>
<th>HELPFUL/INACCURATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is an unusual thought process that happens when I am stressed</td>
<td>This is the voices of a higher power talking directly to me and no one else</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNHELPFUL/ACCURATE</th>
<th>UNHELPFUL/INACCURATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is a sign of psychotic illness</td>
<td>This is a sign that I am going crazy and will never succeed in life</td>
</tr>
</tbody>
</table>
Practical Tip #3: Promote internally generated explanations

- Encourage internal attributions and explanations for experiences
- Provide psychoeducation about psychosis & the filter model
- Conduct behavioral experiments to promote internally generated explanations
Negative Symptoms

Applying CBT techniques to negative symptoms
How to address negative symptoms?

• Negative symptoms not necessarily unchangeable

• Build case conceptualization to determine factors that might be contributing/maintaining observed symptoms

• Behavioral interventions are typically more successful than cognitive

• Behavioral Activation/Activity Scheduling is a key intervention!

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
Environmental Influences on Negative Symptoms

• Social Isolation -> Absence of stimulation
  → Generate solutions to increasing social supports/interactions

• Trauma & PTSD -> emotional numbing & avoidance
  → Trauma informed CBT/TF-CBT to address trauma symptoms

• Social Anxiety -> social withdrawal
  → Identify and address anxiety symptoms
  → Behavioral activation

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
Depression & Negative Symptoms

• Possible relationship between negative self beliefs (“I will fail”) and negative symptoms

  → Treat with activity scheduling, mastery & pleasure ratings.
  → Use The Three C’s to address cognitive distortions and ore beliefs

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
Self-Efficacy & Negative Symptoms

• Belief that actions will not lead to successful outcomes:

  “There’s no point; my choices/behaviors won’t make a difference”

→ Use behavioral experiments to challenge negative self-efficacy beliefs
→ Use The Three C’s to identify, evaluate, and reframe cognitive distortions

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
Anxiety & Negative Symptoms

• Anxiety could lead to avoidance and numbing, which can look like negative symptoms

→ Use case conceptualization to identify triggers/modifiers & maintenance factors

→ Choose appropriate cognitive & behavioral interventions for maintenance factors

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
Negative Symptoms as Safety Behaviors

• Associated with unusual/delusional thinking -> flat affect prevents mind reading
• Avoidance of traumatic treatment interventions -> flat affect prevents feared outcome

→ Examine pros & cons of behavior
→ Behavioral Experiments to test predictions

Aleman et al. 2017; Ellis et al. 2013; Morrison et al. 2004
CBTp as part of CSC

CBT in the context of the Coordinated Specialty Care Model
Figure from Folk et al. 2019: *Unchartered Waters: treating trauma symptoms in the context of early psychosis*
QUESTIONS?

Thank you!
Useful Resources

• UC Davis Free Educational Video Series: https://www.youtube.com/playlist?list=PLber-ifp8mw4srs-Pr_qzXlandf3nPbWE

• North American CBTp Network: https://www.nacbtp.org

• UK CBTp Training Resource: https://www.psychosisresearch.com/cbt/

• PEPPNET: https://med.stanford.edu/peppnet.html
Books that clients might find helpful

• Overcoming Distressing Voices: https://books.google.com/books/about/Overcoming_Distressing_Voices_2nd_Edition.html?id=yq9fDwAQBAJ
• Overcoming Paranoid & Suspicious thoughts: https://books.google.com/books/about/Overcoming_Paranoid_and_Suspicious_Thoughts.html?id=9JowjwEACAAJ
References Cited


