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CBT for Voice Hearing

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Why we may need this workshop?

- ▶ Some patients continue to experience **chronic psychotic symptoms** in spite of repeated trials of different drug options
- ▶ This may be an impasse for biological psychiatry but a **starting point for psychotherapy for psychotic people**
- ▶ **Drugs are powerless in giving meaning to experience**

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Overview of the workshop

- ▶ CBT Model for Severe Mental Illnesses
- ▶ Treatment Methods in CBTp
- ▶ Hallucinations and the brain
- ▶ CBT Approach to Voice Hearing
- ▶ CBT for Command Hallucinations

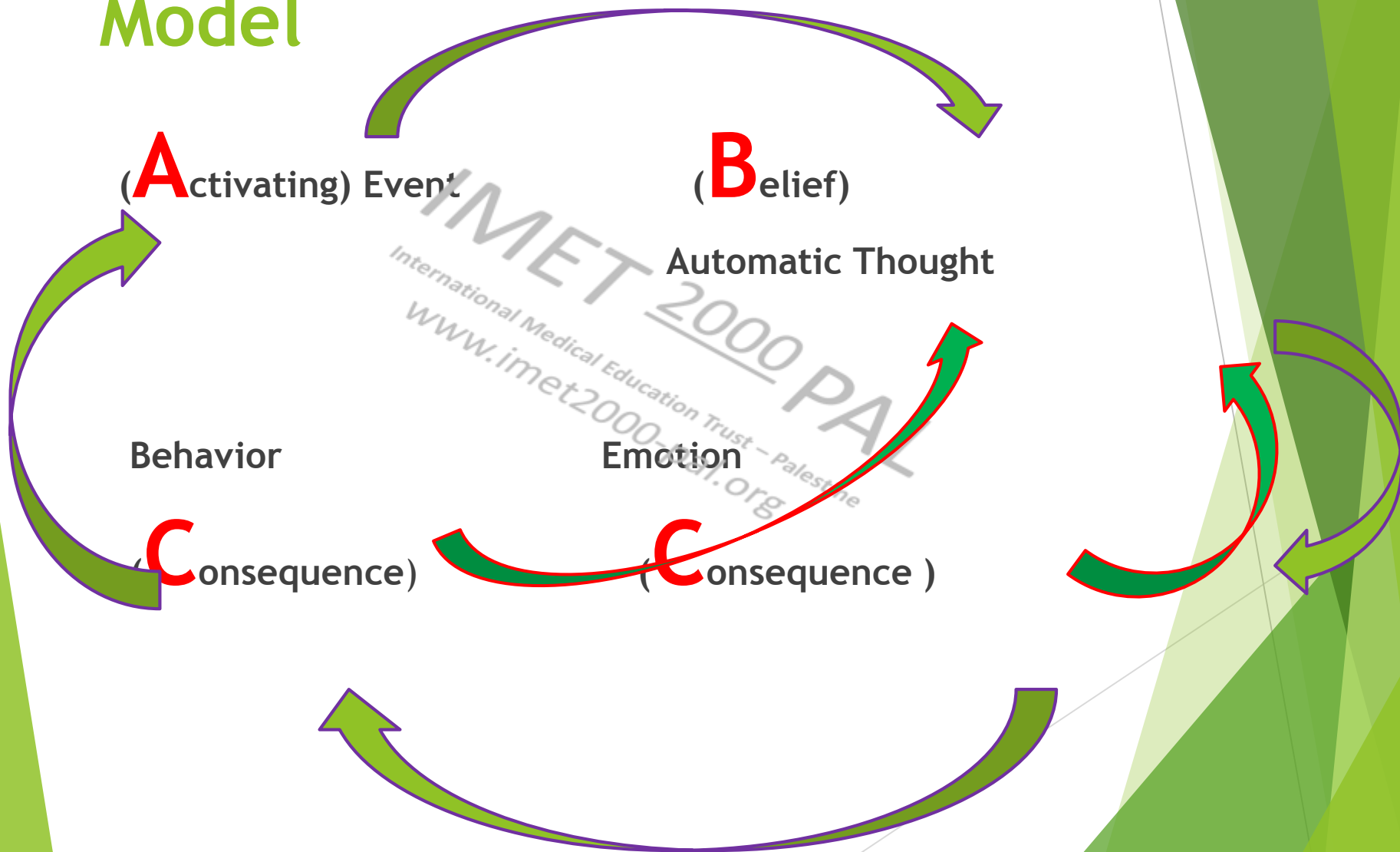
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Psychotherapy for Psychosis

- ▶ Psycho-analytical approaches are not convenient for psychotic conditions
- ▶ Since the Nineties CBT has been making marked advances in the field
- ▶ **“A course of CBT should be offered to all patients with schizophrenia.”**

(NICE Guidelines, 2002, 2009)

ABC - Basic Working CBT Model



Basic CBT Formulation

Core Beliefs / Schemas (myself/others/world)

Unhelpful Rules (If..., I should, I must)

Activating Event (or memory, voice...)

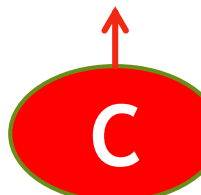


Automatic Thoughts

Physiological Sy

Emotions

Behavior



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CBT for Psychosis

- ▶ **CBT help patients to:**
 - understand and manage their illnesses
 - reduce symptoms / improve well-being
 - solve problems that do not fully respond to medication
- ▶ **A complementary treatment**

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Possible Targets of CBT for Psychosis

Symptoms resistant to medication

- ▶ Anhedonia
- ▶ Anxiety
- ▶ Delusions
- ▶ Depression
- ▶ Hallucinations
- ▶ Mania and hypomania
- ▶ Negative symptoms
- ▶ Sleep difficulties
- ▶ Suicidality and hopelessness

Other targets

- ▶ Adherence to medication
- ▶ Empowerment
- ▶ Interpersonal problems
- ▶ Isolation
- ▶ Motivational problems
- ▶ Relapse prevention
- ▶ Social skills deficits
- ▶ Self-esteem
- ▶ Substance abuse

CBT Model for Severe Mental Disorders

Biological influences

Genetics

Medical illnesses

Drugs

Toxins

Endocrine

Cognitive-behavioral influences

Core beliefs

Automatic thoughts

Cognitive errors

Information processing style

Main behavioral strategies

Coping skills

Socio-cultural influences

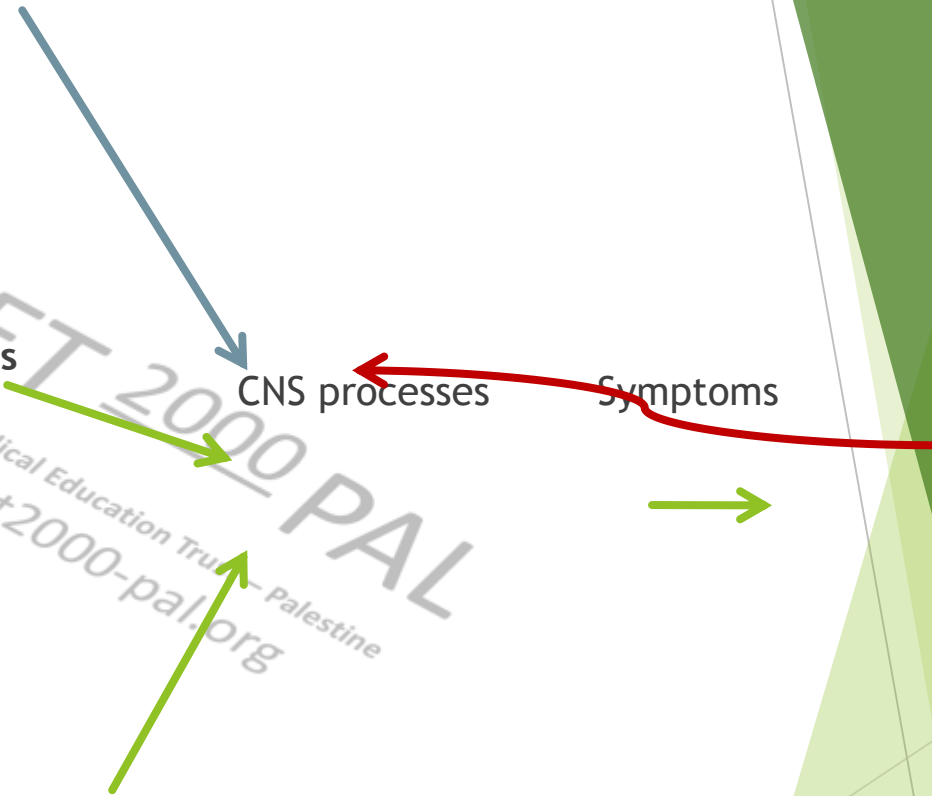
Stress

Cultural beliefs

Religious beliefs

Interpersonal relationships

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CBT Assessment

- ▶ **In the MSE** to evaluate dimensions of delusions, hallucinations and negative symptoms (degree of conviction, frequency, distress, identity of voice...), including measuring scales
- ▶ Presence of adaptive coping strategies, if any
- ▶ The patient's strengths and assets
- ▶ Support systems
- ▶ Evaluate capacity for participating in CBT

Treatment Methods in CBTp

- ▶ 1. Engagement into the therapeutic relationship
- ▶ 2. Normalizing and psycho-education
- ▶ 3. Modifying automatic thoughts and cognitive errors
- ▶ 4. Implementation of behavioral strategies
- ▶ 5. Modifying core beliefs
- ▶ 6. Addressing problems with concentration and thought disorder
- ▶ 7. Enhancing adherence and relapse prevention

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1. Engagement

- ▶ Kind, slowly paced, non-threatening questioning
- ▶ ‘Befriending’ for people with severe problems
- ▶ Demonstrating genuine interest in the details of the patient’s daily struggles
- ▶ Establish common goals
- ▶ Neither overt confrontation nor collusion
- ▶ If distressed by our question, say sorry, change the threatening topic
- ▶ Create a collaborative atmosphere
- ▶ Relaxed competence is the best stance

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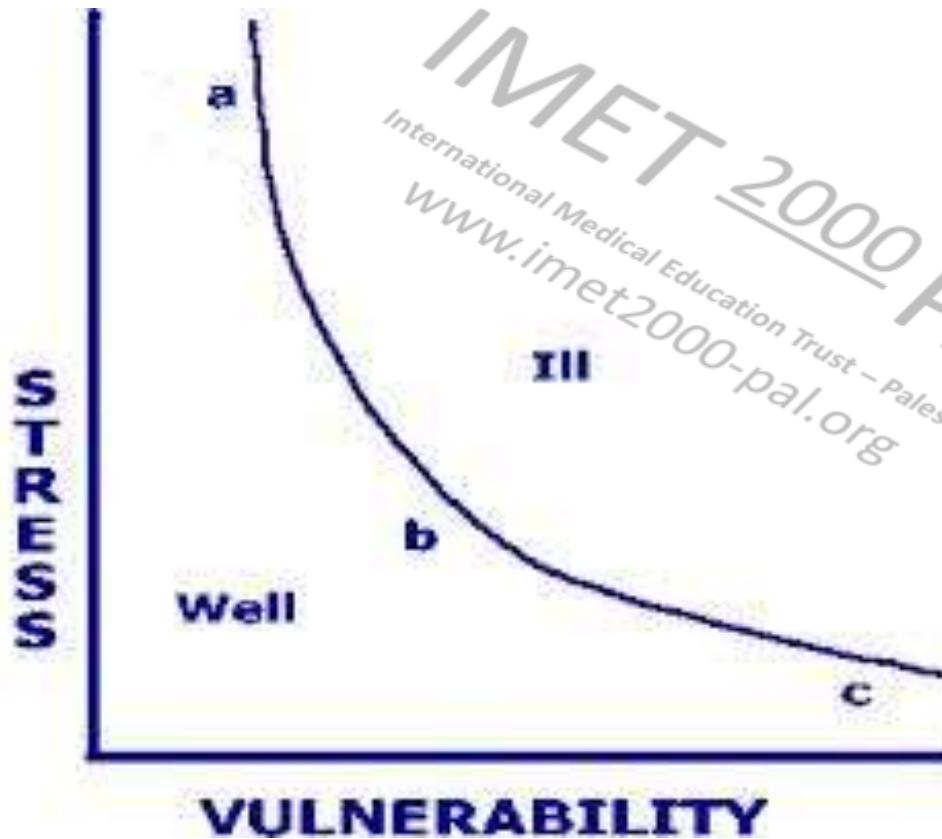
Engagement



2. Normalizing and Psycho-education

- ▶ To tell them that their symptoms are shared by many others and that stresses are known to trigger them
- ▶ To explain the stress-vulnerability concept
- ▶ To minimize self-blame, anxiety, shame
- ▶ To adopt problem-solving attitude
- ▶ To use a conversational and not a didactic manner, encourage the patient to ask questions
- ▶ Provide written information

Normalizing and Psycho-education



3. Modifying Automatic Thoughts

- ▶ Through thought recording, examining the evidence, searching for alternative explanations
- ▶ To pin-point cognitive distortions:
 - **Personalization** (“taking things personally”)
 - **Selective abstraction** (“getting things out of context”)
 - Arbitrary inference (“**jumping to conclusion**”)
 - **Minimizing, maximizing** and **catastrophizing**
 - **Dichotomous thinking** (“all-or-nothing thinking”)
 - **Overgeneralization**

Modifying Automatic Thoughts

Automatic thoughts about dg. of Sch.

- “I am mad”
- “I will never be better”
- “I must be possessed by a demon”
- “People will be scared of me”

Cognitive errors:

- labeling, magnifying
- jumping to conclusion, all-or-nothing thinking
- lack of evidence
- jumping to conclusion, magnifying

4. Behavioral Strategies

- ▶ Working collaboratively as well as predicting and solving difficulties
- ▶ Empower existing and teaching new coping strategies (e.g. slowing down breathing, coping cards, coping with voices...)
- ▶ Activity scheduling and graded task assignments
- ▶ Graded exposure instead of safety behaviors
- ▶ Sleep hygiene, problem solving, task completion...

5. Modifying Core Beliefs

- ▶ Only for patients with preserved cognitive skills
- ▶ Modifying deeply seeded schemas about badness, worthlessness, weakness, being a failure or unlovable, mistrust, inefficiency...
- ▶ Using examining the evidence, working with the continuum, homework assignments (positive logging)

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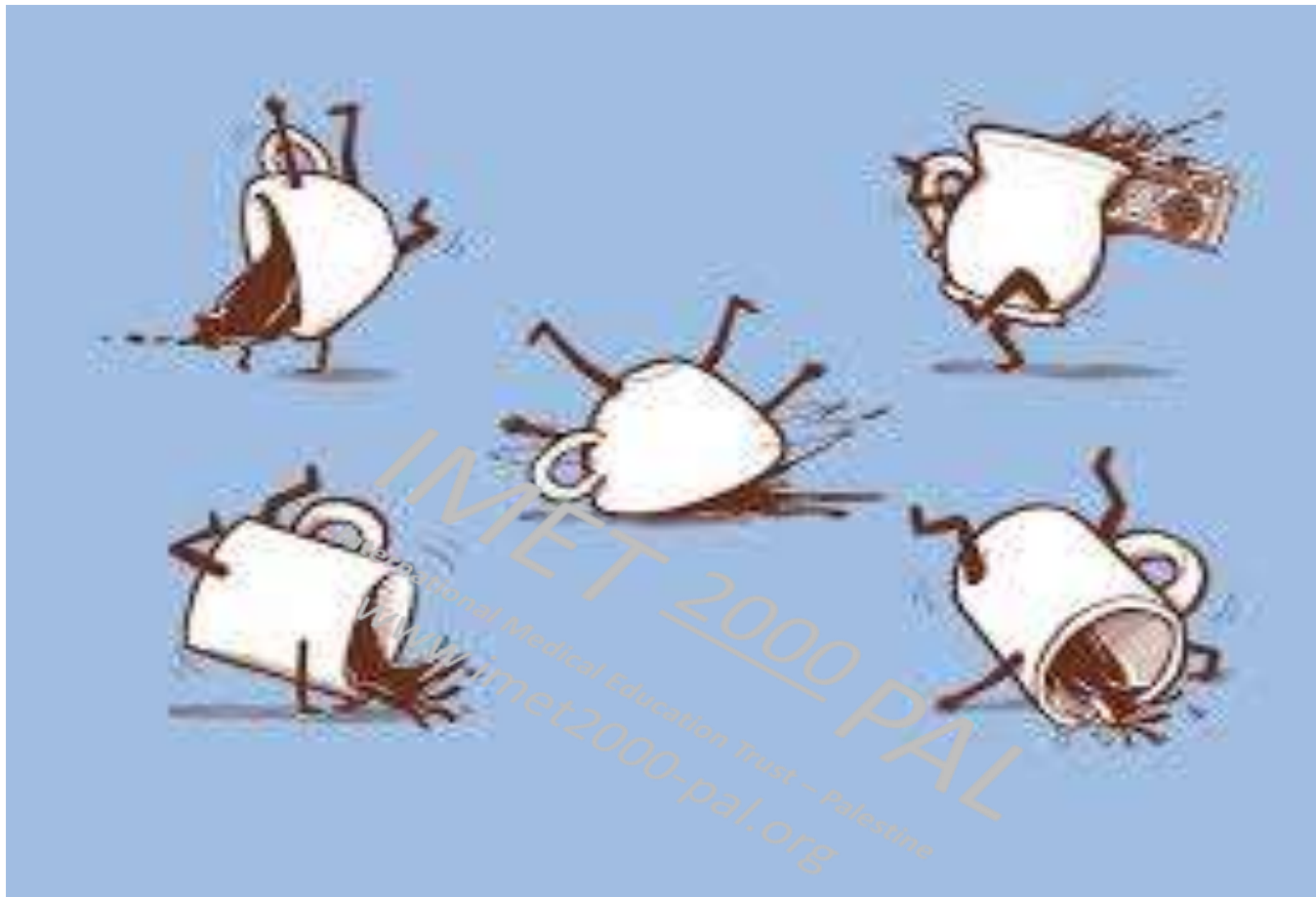
6. Concentration Problems and Thought Disorder

- ▶ Focusing on goal and **agenda setting**, but not in a controlling manner
- ▶ Behavioral plans for a **limited number of activities**
- ▶ Frequently giving **well-paced feed-back**

7. Enhancing Adherence and Relapse Prevention

- ▶ To identify barriers for adherence (e.g. forgetfulness, negative attitudes of family members, side effects...)
- ▶ To explore automatic thoughts or core beliefs that interfere with adherence
- ▶ To identify possible triggers for relapse and coach patients on methods to manage those stressors

Coffee Break!



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Hallucinations and the Brain

Definition and Mechanisms

Neurotransmitters

Functional Neuroanatomical Findings

Metacognitive models

Definition of Hallucinations

‘A perception which occurs in the absence of an appropriate sensory stimulus but which has all of the characteristics of a real perception.’ (Sims, 2003)

- ▶ Usually **experienced as externally caused, personally significant/meaningful** and **threatening**
- ▶ **Different than mental imagery:** mental re-creation of a sensory experience (less vivid, do not feel real, less contextual details)

Mechanisms of hallucinating

▶ “Top-down”:

A cognitive route : the shift from imagery to perception

(involves emotion, motivation and self-monitoring components)

▶ “Bottom-up”:

Hyper-activation of the perceptual attention or impairment of the sensory input component (pharmacological and neurological hallucinations)

Neurotransmitters

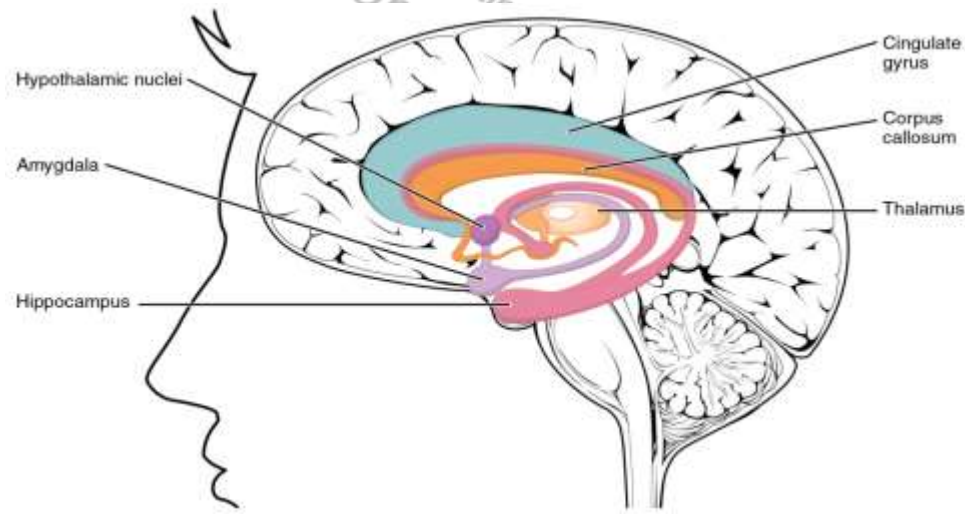
- ▶ Dopamine
- ▶ Acetylcholine (deficit of it in cortex, but activation of it in the thalamus during REM)
- ▶ Serotonin (LSD, Ecstasy, mescaline, psilocybin)
- ▶ Glutamate (PCP, ketamine)

(Acetylcholine and serotonin concentrated in the visual thalamic nuclei and visual cortex rather than in the other sensory regions)

Functional Neuroanatomical Findings

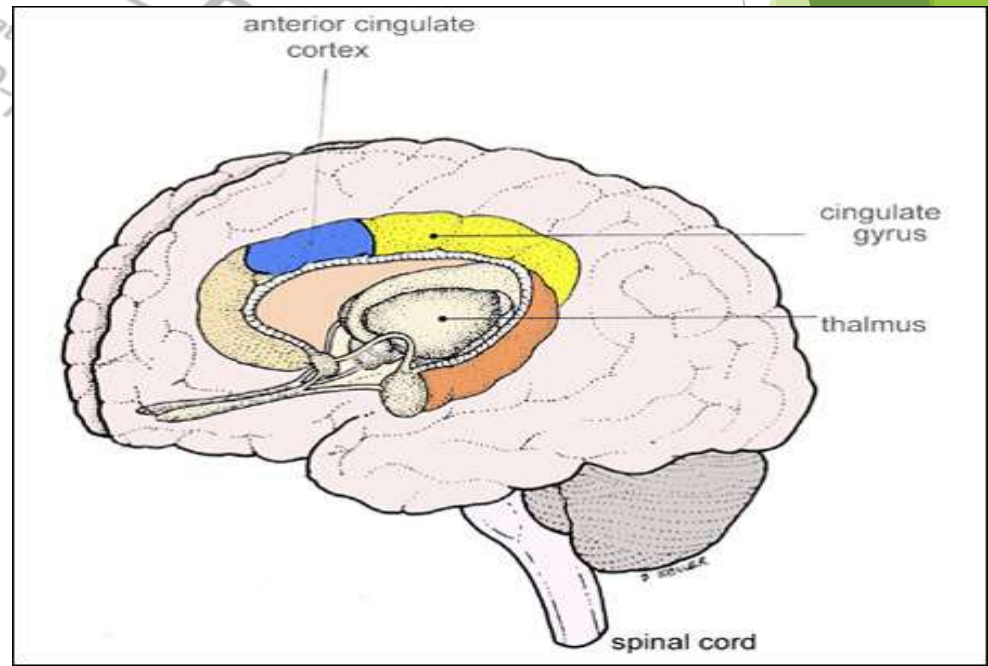
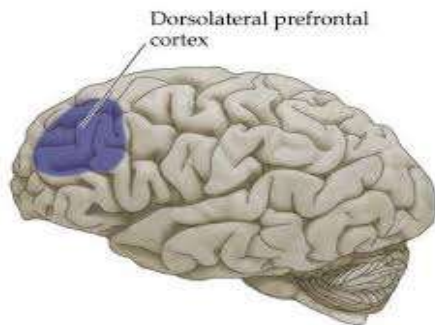
A network of areas involved in hallucinations:

- ▶ Stronger input from subcortical centers (thalamus)
- ▶ Aberrant activation from emotional attention centers (amygdala, ventral anterior cingulate)



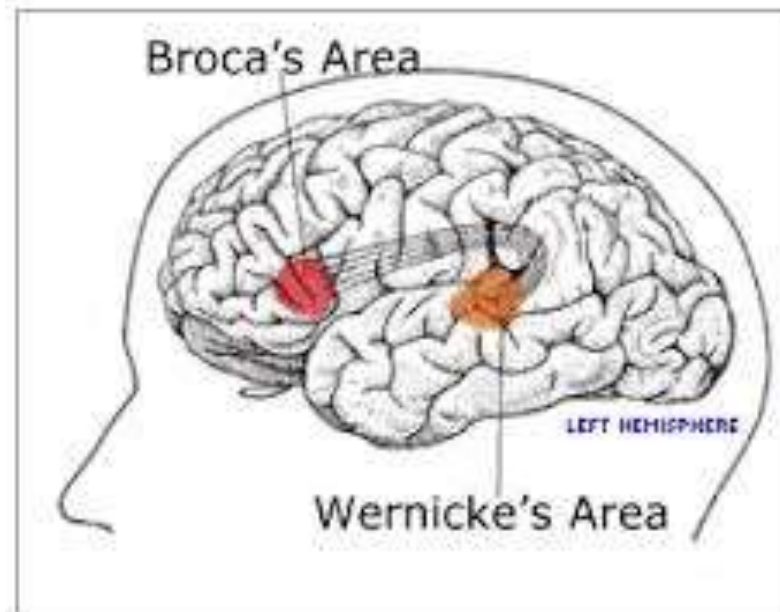
Functional Neuroanatomical Findings

- ▶ Reduced control by the dorsolateral prefrontal cortex
- ▶ Reduced activation of the dorsal anterior cingulate (involved in source and error monitoring)



Functional Neuroanatomical Findings

- ▶ Abnormal hyper-connectivity between speech production and speech perception regions may contribute to the genesis of auditory verbal hallucinations in schizophrenia



Metacognitive Models

- ▶ Most recent models of hallucinations in psychiatric conditions assume that hallucinations are related to the **MISATTRIBUTION OF INTERNAL EVENTS** (**inner speech**, inner images, memorized voices, intrusive thoughts, vivid daydreams, bodily sensations) **TO THE SOURCES THAT ARE EXTERNAL OR ALIEN TO THE SELF**

Metacognitive Models

- ▶ Misattribution - mistaken judgment caused by:
 1. **COGNITIVE BIASES**: processing some kinds of information preferentially or differently according to content (**emotions and personality traits very much involved**)
 2. **Neurobiological COGNITIVE DEFICITS**: problems with working memory, inhibition, attention

Metacognitive Models I

- ▶ **Source Monitoring Deficit**, Richard Bentall (1990)
- ▶ This model of mistaking internal events as external integrates the influence of culture, external stimulation, the impact of stress and emotional arousal
- ▶ Hallucinating people have less sense of internality and control of their words >>> misattribution
- ▶ Externalizing bias seems to be related to
 - inadequate use of cognitive effort
 - emotional charge of the stimuli

Metacognitive Models II

▶ Hallucinations like intrusive thoughts,

Anthony Morrison (1995)

- ▶ Ego-dystonic, uncontrollable, cause emotional distress and tension
- ▶ To reduce tension, the person externalizes them, this results in hallucinations
- ▶ Metacognitive beliefs, e.g. thoughts are harmful, may potentiate externalization

Metacognitive models III

- ▶ Auditory hallucinations derive from the **unintentional activation of memories** and other irrelevant mental associations - F.A.Waters et al. (2006)
- ▶ Cognitive deficit in intentional inhibition as well as a deficit in contextual memory

Psycho-education

- ▶ Use the explanation that is the most comfortable for the client
- ▶ ‘The brain makes mistakes’, like visual illusions and color-blindness
- ▶ ‘Special connections between the region that creates the speech and the region that recognizes the speech’ / ‘Inner speech’
- ▶ ‘Unprocessed traumatic memories’

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Voice Hearing Exercise



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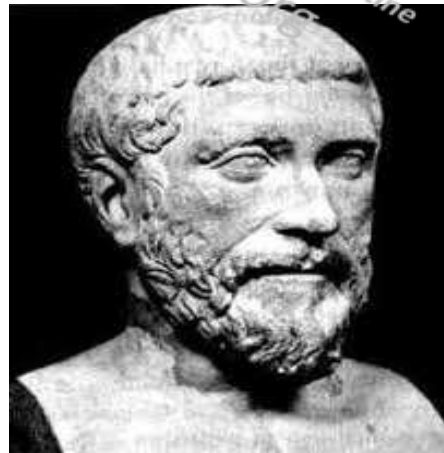
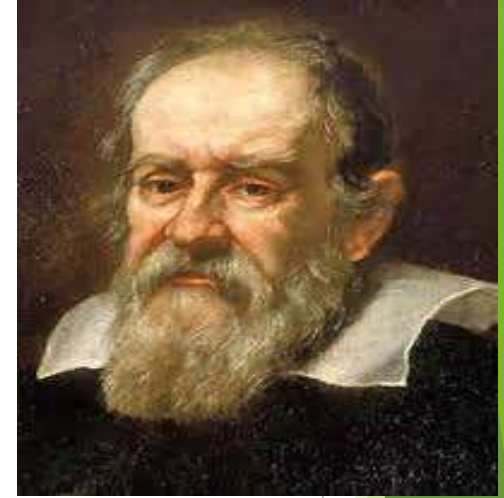
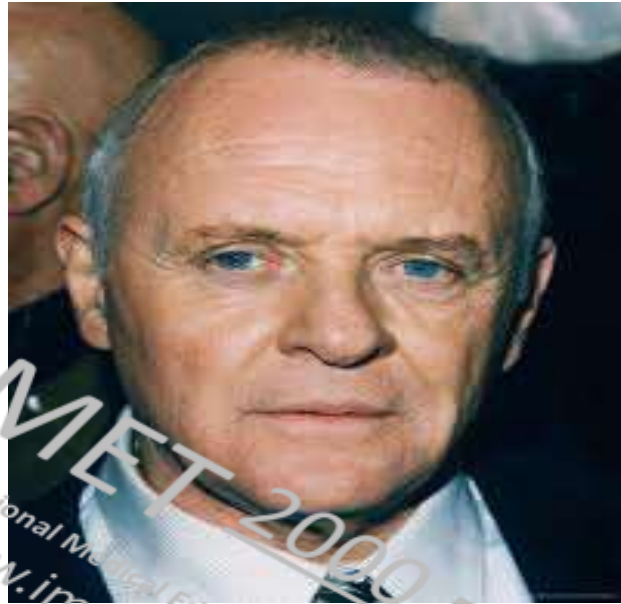
CBT for Voice Hearing

Engagement

Assessment

Cognitive-Behavioral Interventions

Famous Voice Hearers



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Engagement



- ▶ The presence of a symptom does not always indicate that intervention is necessary
- ▶ Engagement with assessment may last for 5-6 sessions
- ▶ **Flexibility, shorter sessions, slower pace, having 'non-voice talk', changing place**
- ▶ **Voices may interfere with therapy process**
- ▶ Use of symbolic 'panic button'

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Engagement

- ▶ **Do not set yourself as being in opposition to the voices** (“I wonder if it would be helpful to pass a message to the voices that our aim is not to get rid of them but to help with your distress...”)
- ▶ **Empathize** with the situation the person is in, the confusion of hearing voices while trying to maintain a conversation
- ▶ **Ask permission** to ask difficult questions
- ▶ **Voices may become worse before becoming better**

Assessing Voices: Characteristics

- ▶ **Content** - *One word or sentence? Abusive, critical or funny? Talking to you, about you or telling you to do things?*
- ▶ *How often? How long do they last?*
- ▶ *How loud? How clear?*
- ▶ *How many of them are there? Their language, gender, age?*
- ▶ *Where do they come from?*
- ▶ *Do you recognize the voice?*

Assessing Voices: Beliefs

▶ 1. Omnipotence & Omniscience

How powerful and all-knowing are they?

▶ 2. Identity

▶ 3. Controllability and Danger

How much control (if any) do they believe they have over the voices?

▶ 4. Compliance

Does the person resist the voices? What would happen if they disobey?

Assessing Voices: Beliefs

► 5. Meaning & Purpose (malevolence or benevolence)

What sense do they make of the content of the voice and its presence?

What does it mean about the client, other people and the world?

What is their belief about the cause and the process by which they are able to hear voices?

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Assessing Voices: Triggers

- ▶ Negative emotion: anxiety, depression, anger
- ▶ Isolation / Silence / Loneliness
- ▶ 'White noise' / Ambiguous stimuli (radio)
- ▶ Overcrowded places
- ▶ Lack of activity
- ▶ Social anxiety
- ▶ Paranoid thoughts / Worry/ Hyper-vigilance
- ▶ Lack of sleep / Tiredness
- ▶ Drugs and alcohol use

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Assessing Voices: Consequences

- ▶ **Emotional:**

fear, anger, guilt, shame, despair, joy, calmness

- ▶ **Behavioral:**

Does a person **engage** with his/her voices or **resist** them?

Is there: - **full or partial compliance**

- **appeasement**

What type of **copng strategies** or **safety behaviors** does a person use?

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ABC - Basic Working CBT Model

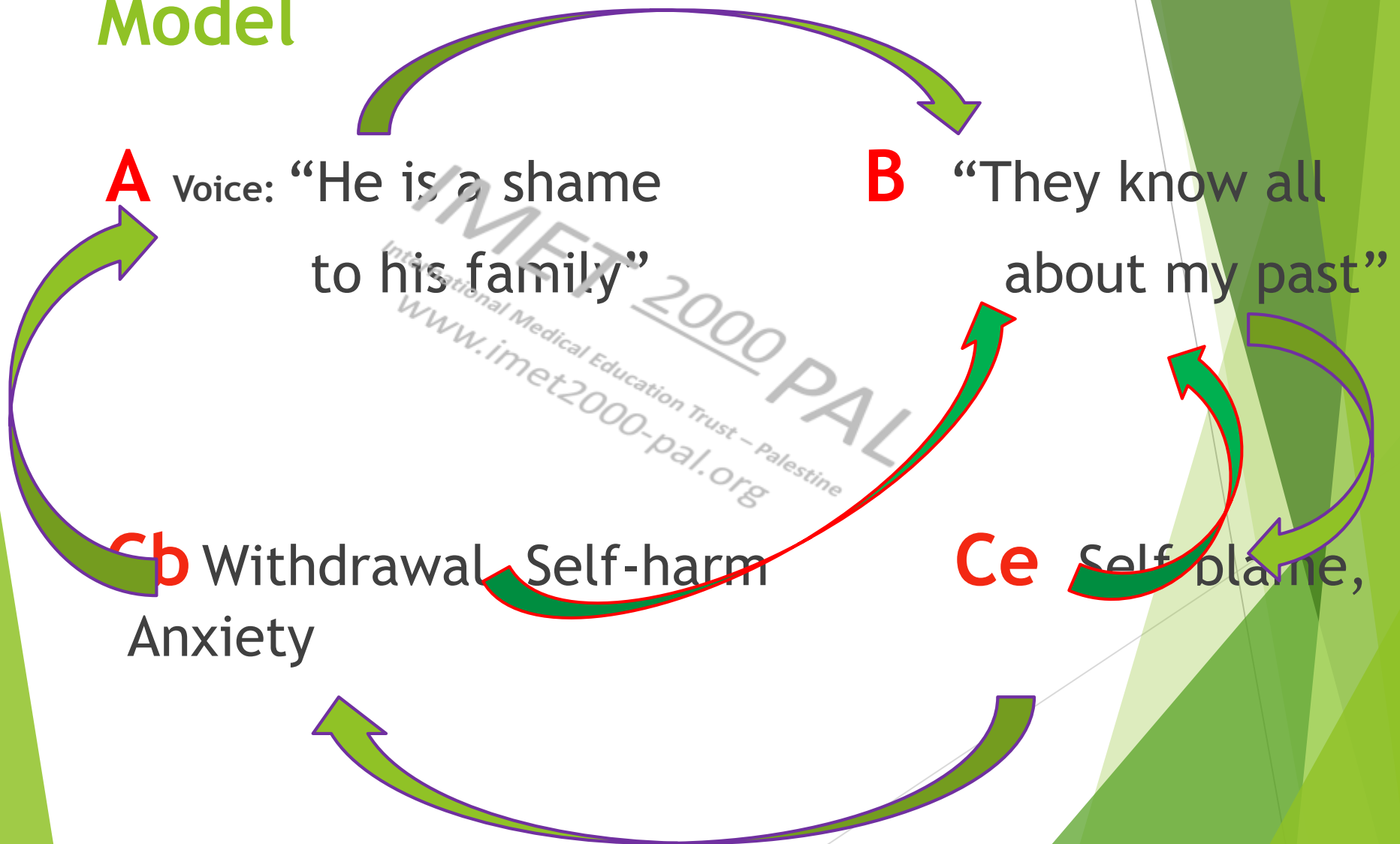
A Voice: “He is a shame to his family”

B “They know all about my past”

Cb Withdrawal, Self-harm, Anxiety

Ce Self-blame,

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Assessment Measures

- ▶ Severity of dimensions of symptoms
PSYRAT-AH - Psychotic Symptoms Rating Scale
(Haddock et al. 1999)
- ▶ Beliefs About Voices Questionnaire
BAVQ-R (Chadwick et al. 2000)
- ▶ Monitoring / Diaries

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CBT Interventions

- ▶ **Reduction and management of triggers**
- ▶ **Coping strategy enhancement**
- ▶ Evaluation and **modification of beliefs about voices** (power, controllability, danger, positive beliefs...)
- ▶ Evaluation of the **content of the voices** (similar to challenging negative thoughts in CBT)
- ▶ Making **links with the past experiences**
- ▶ Evaluation of **the meaning of the voice content** (core beliefs, self-esteem issues)

Reducing Triggers

- ▶ Activity scheduling to combat inactivity, isolation and low mood
- ▶ Sleep hygiene
- ▶ Relaxation / Stress management
- ▶ Reducing negative thinking
- ▶ Reducing specific identified triggers

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Coping Strategies

Enhance current coping strategies & teach new ones:

- ▶ Reading (aloud)
- ▶ Talking to someone else
- ▶ Singing or humming
- ▶ Physical exercise
- ▶ Listening to music / iPod
- ▶ Setting boundaries / allocating time to the voices

Reframing coping as the evidence of control!!!

Another Coffee Break!



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CBT for Command Hallucinations

What is a command hallucination?

“Kill yourself!”
“Jump!”
“Hit him!”
“Make a cup of tea!”

Can be obvious
from content...



What is a command hallucination?

“You deserve to die...”

“You are useless...”

“You are not the father of these children...”

...but sometimes is not obvious - the meaning that the person attaches to it is the key.



Research on Command Hallucination

- ▶ Very common: 53% of all voices in Sch. pts.
- ▶ High levels of distress
- ▶ 48% of CHs demand harmful or dangerous actions
- ▶ 31% comply with CHs
- ▶ 33% appease or show minor compliance, but remain at risk of later compliance

Commands and harmful compliance

Most severe commands (out of 38 people):

- ▶ To kill yourself (n=25)
- ▶ To harm yourself (n=12)
- ▶ To kill others (n=13)
- ▶ To harm others (n=14)

Less severe commands:

- ▶ Day to day behaviors
- ▶ Minor social transgressions (break windows, swear in public etc.)

Trower et al. 2004, BJP

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Predictors of Acting on Command

- ▶ The perceived **power** of the voice
- ▶ Belief about the voice's **identity & social rank**
- ▶ Belief about the **purpose** of the voice
- ▶ Belief about **consequences of resisting**
- ▶ **The relationship** with the voice(s)

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The Relationship with the Voice(s)

- ▶ Voice hearers construct the link between themselves and their voice as having the nature of an **intimate personal relationship** - often one that is inescapable (Benjamin, 1989)
- ▶ Subordination to voices closely linked to **subordination and marginalization** in other current and previous social relationships

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Key beliefs about voices to address

- ▶ **Power (Omnipotence & Omniscience)**

How powerful do you believe the voices are?

- ▶ **Identity**

Do you have any idea who the voices might be?

- ▶ **Control**

How much control do you have over your voices?

- ▶ **Compliance**

What will happen if you don't do what the voices tell you to do?

- ▶ **Meaning & Purpose**

Do you have any idea why the voices are saying this to you?

Get % of conviction and evidence for this!

Overview of Intervention with CH

- ▶ **Engagement & Assessment**
- ▶ **Promoting Control / Coping / Power shift**
- ▶ **Socializing the client into the CBT model and developing the formulation for CH**
- ▶ **Reframing Power and Compliance Beliefs**
- ▶ **Reducing safety behavior and compliance**
- ▶ **Raising self-esteem and assertiveness of the individual**
- ▶ **Addressing beliefs about Identity & Meaning**
- ▶ **Addressing the psychological origins of CH / working with core schemas**

ABC - Basic Working CBT Model

A Voice: "Kill him or I will kill you!"

B "I am lost"

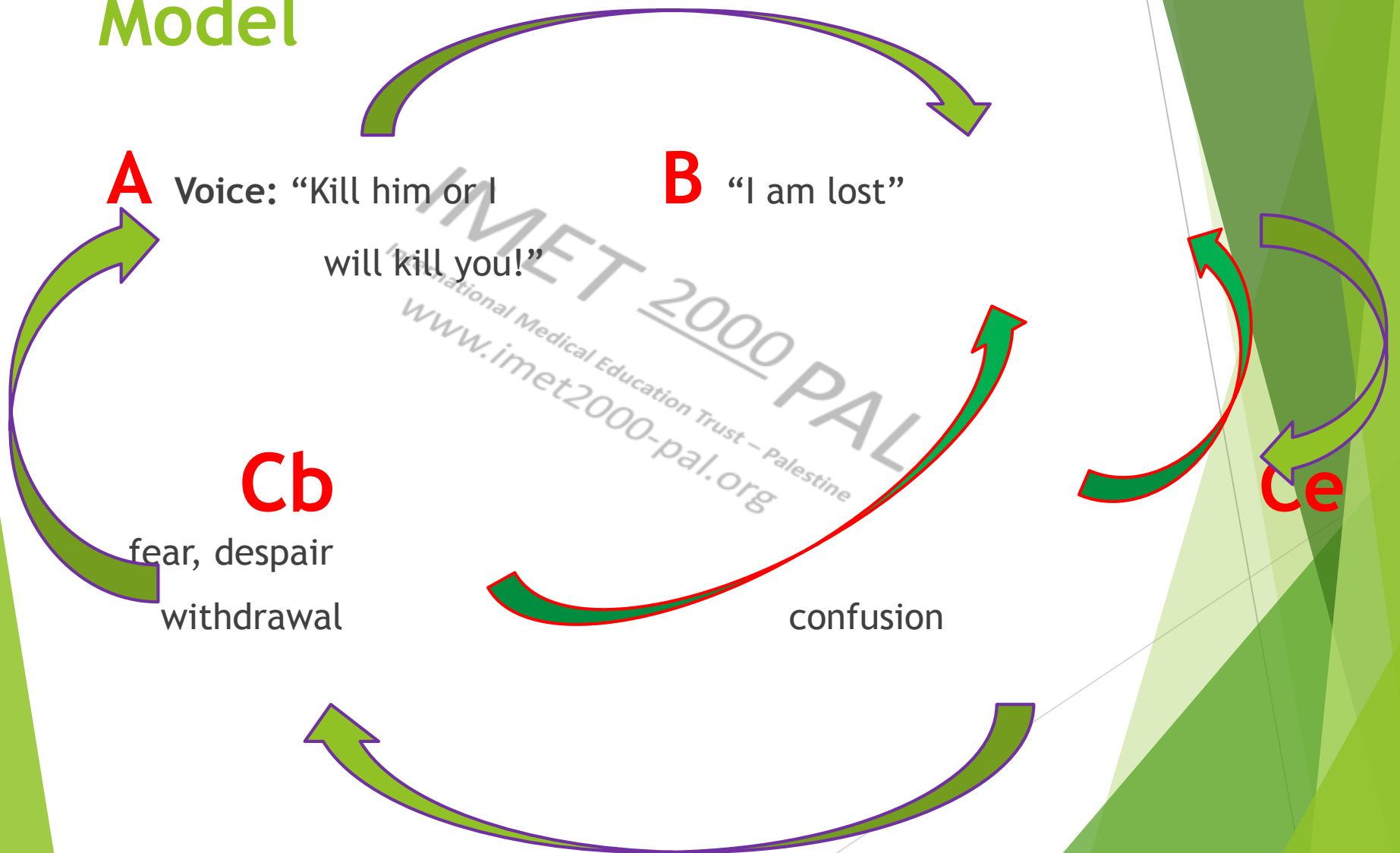
Cb

fear, despair
withdrawal

confusion

Ce

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Socializing to the Model

- ▶ BELIEFS ARE NOT FACTS!
 - beliefs can change (using lower conviction beliefs e.g. fairy tales)
 - beliefs can differ (e.g. the table in the room)
- ▶ Training the inner detective / observer
- ▶ Reframing difficulties in ABC terms and relocating the problem at B

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Cognitive Therapy for CH: Formulation

**A - Voice activity and
content**

**B - Power Beliefs and % of Conviction
(Omnipotence & Omniscience)**

Identity
Control
Compliance
Meaning and Purpose

**Dominant-
Subordinate
Schema**

Core Beliefs

Cb - Behaviors

Full Compliance
Partial Compl. &
Appeasement
Threat mitigation
Resistance

**Ce - Emotional
Consequences**

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Reframing Power Beliefs

- ▶ Highlighting logical inconsistencies in the belief system and encouraging client to consider alternative explanations by working on the:
 - client's doubts that beliefs might be wrong
 - client's own contradictory evidence and behavior
 - using metaphors
- ▶ Are the voices really as powerful and knowledgeable as they claim to be?

Reframing Compliance Beliefs

- ▶ *Do you always need to do what my voice says?*
- ▶ *Can you resist without punishment?*
- ▶ *Has the voice carried out its threats?*
- **The person can learn to resist**
- There may be a need to work on discomfort resulting from resistance to the voice, e.g. 'If I don't do what the voices say, I won't be able to cope.'

Reducing Safety Behaviors & Compliance

- ▶ Emphasizing the benefits of resistance
 - Pros & cons of resisting/complying
 - Graded approach to reduce safety behaviors and appeasement

(Rather than ‘I’ll do it later’ >>> ‘No, I won’t do that!’)

- ▶ Devising behavioral experiments (in-sessions initially then practise as homework)
- ▶ Building discomfort tolerance
- ▶ Using the resistance diary

Raising Self-esteem and Assertiveness

- ▶ Raising awareness of the **power shift** - helping the person to **recognize their control** over the voices
- ▶ Helping them to **become more assertive** in other relationships
- ▶ In session **role-plays** to practice being assertive
- ▶ Linking clients in with the community

Addressing Beliefs About Identity, Meaning and Purpose

Is the voice who it claims to be?

What does the voice want?

- ▶ To help the person to find an alternative meaning for their experience, that would be less distressing and less likely to drive the need to comply
- ▶ Not all will reach this level
- ▶ Work at this level may be crucial to provide lasting change

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Working with Schemas

- ▶ Clarifying and reframing core beliefs:
 - subordination schemas
 - evaluations about self, others and the world
- ▶ Rating behavior vs. rating the self
- ▶ Exploring the changing nature of self

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Effectiveness

▶ CBT for CH vs. TAU (treatment as usual)

Trower et al., 2004

- Reduction in compliance and appeasement
- Large reduction in power beliefs
- Reduction in belief in voices' omniscience
- Improvement in perceived control over voices

▶ The pilot COMMAND Multicenter Trial - CBT for CH

Birchwood et al., 2011

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The End

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