

## Neuropsychotherapy as an integrated part of neuropsychological rehabilitation

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## THE AIM OF THIS WORKSHOP IS:

- 1) To conceptualize what neuropsychotherapy is and can be
- 2) To feature the elements affecting the treatment process: etiology, neuropsychological deficits, premorbid personality dispositions and family background as well as the other psychosocial factors
- 3) To give conceptualization in negotiating the therapeutic alliance, its ruptures, and resistance in the interpersonal process
- 4) To give an overview to the types of techniques used in the interpersonal process from a psychotherapeutic point of view when collaborating with neurological, or neuropsychiatric patients or trainees

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## Brain Puzzles and Creativity



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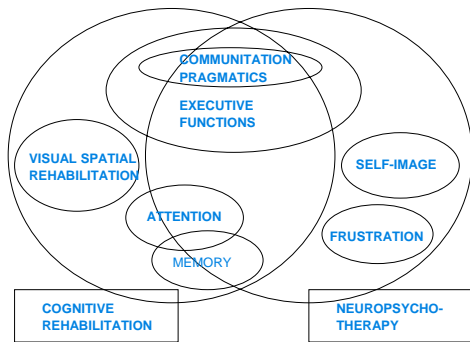
## Sohlberg & Mateer (2001)

"The term cognitive rehabilitation was perhaps always too narrow, and focused too heavily on remediating or compensation for decreased cognitive abilities"

...the last 25 years have allowed a richer appreciation for the influence of contextual variables; the personal, emotional, and social impacts of brain injury; and their interactions with cognitive function. All these factors have been incorporated to an even greater degree into treatment plans and goals"

Cognitive Rehabilitation. An Interactive Neuropsychological Approach.  
New York: The Guilford Press, (2001)

## NEUROPSYCHOTHERAPY VS COGNITIVE REMEDIATION

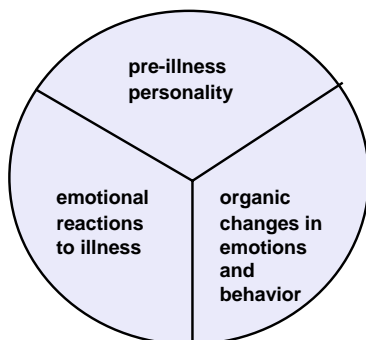


Judd (1999)

**NEUROPSYCHOTHERAPY IS A NAME FOR INTERVENTIONS, WHICH WE NEED FOR PEOPLE WHO SUFFER FROM EMOTIONAL, BEHAVIORAL OR PERSONALITY PROBLEMS AFTER BRAIN INJURY. ALSO REMEDIATION OF COGNITIVE DISORDERS IS AN ESSENTIAL PART OF NEUROPSYCHOTHERAPY.**

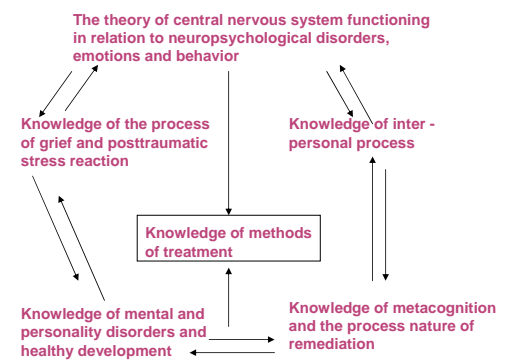
Modified from Judd, Tedd (1999)  
Neuropsychotherapy and Community Integration Brain Illness, Emotions and Behavior.  
USA: Kluwer Academic, Plenum Publishers.

## Central Factors to consider



Judd (1999)

## The Metatheory



- o Ability to assess the symptoms, mechanisms of disturbed functions and the handicaps they cause
- o Ability to realize the treatment

## Causes of Brain Dysfunction

Traumatic injury  
Vascular injury  
Degenerative disorders (Alzheimer's disease, Parkinson's disease, Huntington's disease, MS, etc.)  
Toxities  
Tumors of the brain  
Infections (encephalitis, malaria, AIDS, etc)  
Anoxia (from birth trauma, cardiac arrest, etc)  
Epilepsy  
Hydrocephalus  
Nutritional deficiencies (B vitamin deficiencies etc.)  
Metabolic disorders  
Autoimmune disorders affecting the brain  
Developmental disorders (mental retardation, cerebral palsy, Turner's syndrome, etc)  
Probable brain disorders: (learning disabilities, attention deficit disorder ADD, other neuropsychiatric disorders, the Asperger, etc.

Modified from Judd (1999)

## What is neuropsychotherapy?

Neuropsychotherapy is the use of neuropsychological knowledge in the psychotherapy of persons with brain disorders

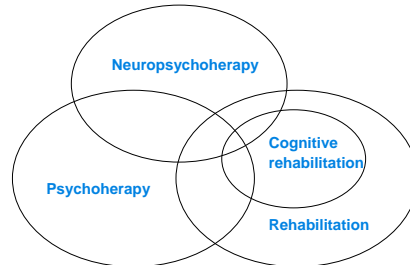


FIGURE 1.2. Relationship among psychotherapy, rehabilitation, cognitive rehabilitation and neuropsychotherapy Judd, (1999)

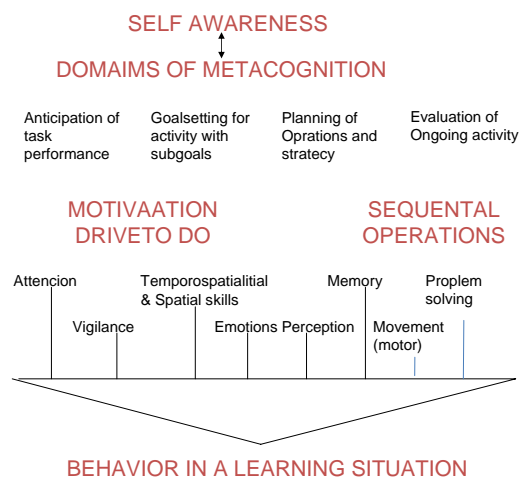
## When is Neuropsychotherapy needed?

Neuropsychotherapy is needed when:

1. The person with a brain illness has significant behavioral or emotional problems resulting from that illness.
2. The problems cannot be managed or improved adequately or efficiently in and by the person's setting, and
3. Intervention is likely to reduce those problems.

Judd (1999)

## THE HIERARCHY OF COGNITIVE PROCESSING



Developed from Stuss & Benson (1986)  
The Frontal Lobes. New York: Raven Press

## FORMS OF AWARENESS

- **SELF AWARENESS : Who am I?**
- **AWARENESS OF CHANGE : What has happened to me?**
- **META-AWARENESS (METACOGNITIVE SELF KNOWLEDGE): How do I understand myself?**

## KNOWLEDGE OF THE SPECIFIC CONSEQUENCES OF DIFFERENT CNS- DISORDERS IS NECESSARY IN DIFFRENTIATING BETWEEN FACTORS DUE TO DIRECT REGULATIONS OF THE BRAIN, AND FACTORS INVOLVED WITH PRIMARY PERSONALITY AND PSYCHOSOCIAL PHENOMENA .

The Sequelee after TBI and cerebrovascular insults for instance do have different effects on the trainee`s cognitive- emotional and behavioural properties

Also the neuropsychiatric diagnosis groups of trainees must be qualified as to the basic problems hidden behind the multiple ,overt psychiatric symptoms (in ADHD, ASPERGER etc)

## KNOWLEDGE OF THE SPECIFIC ASPECTS OF LOCALIZATION :COGNITIVE-EMOTIONAL AND BEHAVIOURAL PROBLEMS IN FRONTAL LOBE LESIONS.

### 1) ORBITO-FRONTAL FEATURES

- Problems in inhibition and mental control systems  
Appearing in impulsivity, lack of discreteness, and awareness together with lack of metacognitive processing

### 2) DORSOLATERAL-FRONTAL DYSFUNCTIONS AFTER

#### RECIPROCAL NETWORK DISCONNECTIONS

- Problems in executive functions ,and associated cognitive processes i.e. attention, working memory, problem solving etc.

Appearing in underachievement and incoherent ,passive and distractable behaviour

### 3) MEDIAL-FRONTAL NETWORK DYSRUPTIONS

- Problems intentional, active behaviour, and emotional engagement  
Appearing in passive superficial processing, apathy ,and  
akinetik behaviour

(Cummings & Mega ,2003)

## PREMORBID PERSONALITY CHARACTERISTICS CONCEPTUELIZED BY ADULT ATTACHEMENT THEORIES

"Attachment is the foundation for distress regulation. In clinical practice our task is one of pattern recognition, identifying recurring themes in interactions." (Allen, Jon G., 2001, Traumatic Relationships and Serious Mental Disorders. New York: John Wiley & Sons Inc.)

Relationship patterns that are recurring in adulthood:

- 1) Secure attachment
  - easy to engage, comfortable, with intimacy and autonomy
- 2) Avoidant attachment
  - avoiding, matter-of-fact, polite, good performing/achieving behavior
- 3) Resistant attachment
  - protest and denial are easily provoked
- 4) Disorganized attachment
  - approach-avoidance pattern " the safe heaven is alarming

## COMPLICATING FACTORS IN THE REHABILITATION PROCESS

Trauma (PTSD)

Stress of Illness / difficulties and conflicts in personal life and family

The Grief Process from initial shock through resistance and bewilderment to adaptation

## ELEMENTS OF THE INTERPERSONAL PROCESS IN NEUROPSYCHOTHERAPY

- Emotional bond in the therapeutic alliance
- Warmth and empathy
- Sensitivity in the course of working alliance
- Validation of the trainee's ideas, emotions and behaviour, to work not in contradiction with the goals of change
- Support of self-worth in the context of new insight
- Identification of ruptures and resistance with understanding and flexibility

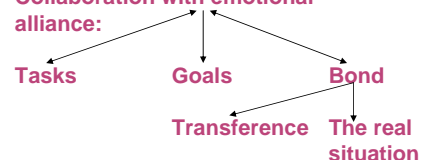
## CREATION OF RUPTURES – can enhance the process , or break the bond

- Differing goals
- Misunderstanding the meaning of tasks
- Resistance
- Moral attitude
- Misunderstanding hope and hopelessness
- Provoked affects
- Transference
- Dependence- attachment distortions
- Overcontrol
- Guilt feelings
- Experiences of invalidation
- Contradicting hopes and responsibilities
- Overcompliance

## Therapeutic Alliance

Mutual engagement and alliance is a dynamic process in which emotional contact with the patient is essential

A good alliance is a prerequisite in all treatment situations. Interpersonal Collaboration with emotional alliance:



### **Correcting ruptures in the interpersonal process:**

- Correcting misunderstandings
- Collaborative examination of core themes
- Understanding resistance, and validating constructively the ongoing ideas and emotions
- Creating new experiences in the working relationship

### **Correcting ruptures in the tasks**

- Clear therapeutic goals and microprocessing what is to be done
- Understanding core themes
- Re-formulating goals and changing goals

(Safran, JD & Muran, JC, Negotiating the Therapeutic Alliance. A Relational Treatment Guide. New York: the Guilford Press,2000)

### **RESISTANCE**

Resistance can be understood in many conceptualizations. Despite of differing terminology the same issues are important: " Resistance can be understood by terms of motivation and treatment non-compliance, compensation for a schema and developmental factors by the influence of early maladaptive schemas".

(Leahy,RL,Overcoming Resistance in Cognitive Therapy, New York: The Guilford Press, 2001) )

### **BACKGROUND FOR INDIVIDUAL CONCEPTUALIZATION IN THE THERAPEUTIC SETTING**

- 1) Life history (autobiography)
- 2) Values and ways of behaviour
- 3) Core beliefs and rules in life
- 4) Self concept and personality
- 5) Life conditions: family, work life, school, or education
- 6) Important social contacts/networks
- 7) Interpersonal traumatic experiences in life history
- 8) Recognition of attachment model ,or interactions styles in childhood environment

## **FACTORS INFLUENCING THE AGENDA OF THE SESSION**

The phase of illness or aggravation of certain problems acute or post acute Grief, or adaptation process:  
shock, resistance, bewilderment, adaptation for the future  
oThe “must-be-focus”: cognitive tasks or therapeutic methods  
o Family situation: support / no support and conflict  
oGoing back to work: clear plans and possibilities, or conflicts at work life

## **THE AGENDA**

Dialogue for relaxation  
Psycho-education  
Context plans  
Process with agreed working methods  
Inquiry and summary of the session  
Plans for the next session and possible home work

Plans also for possible meeting with family members ,or other people in the social network.

## **WORKING TECHNIQUES**

Theory and Practice  
“Anything that works is not enough”.  
(Teasdale, JD & Barnard,PJ, Affect , Cognition and Change. Essays in Cognitive Psychology, USA: Lawrence Erlbaum Associate Publishers,1993)

## **Psychotherapy techniques**

- < **Psycho-education (neurological/psychological)**
- < **Methods of dialogue and therapy techniques**
- < **Interpersonal process: alliance, correction of process ruptures, validation etc**
- < **Creative methods:**  
**Narratives**  
**Poems and music**  
**Drawing/painting**  
**Role playing,**  
**Empty chair,**  
**Imagery etc**

Why to use creative methods?

**METAPHORS AND POEMS ARE CLOSER INTEGRATED WITH EMOTIONS THAN COMMON DIALOGUE .**

EXPLANATION .

- a) Implicational knowledge differs from fact-based knowledge as to the level of abstraction
- b) Encoding includes more experiential schemas
- c) Also sensory information is closer integrated to higher levels of symbolic meanings
- d) The meaning is not mediated by individual sentences
- e) Implicational schematic model includes implicit knowledge and value processing. These schematic models can change rapidly and dynamically, when information arrives to the subsystems.
- j) Between reciprocal propositional knowledge and implicational knowledge there is an engine , which is challenged by the tasks to act to enhance change

(Teasdale & Barnard, 1993)

**WHAT HAVE WE LEARNT FROM THE PAST AND WHAT LIES AHEAD IN THE FUTURE?**

1) Long term follow up studies have shown that in the long run, it is the cognitive-emotional and behavioural problems that diminish the quality of life and cause often psychiatric problems (Cummings & Mega, 2003 ; Lishman 1987; Niemi, Laaksonen, Kotila & Waltimo,1987).

2) Neuropsychological treatment methods have been shown to be evidence based tools for cognitive disorders (Cicerone et al., 2005)

3)The term neuropsychotherapy has emerged in two meanings : how can we take use of the modern scientific knowledge in psychotherapy and psychoanalysis ( Grawe, 2007; Kaplan-Solms & Solms, 2000) and like in the presented approach, how can we use in addition to neuroscience knowledge psychotherapeutic models and methods in neuropsychological rehabilitation (Judd,1999)

4)The holistic approaches in neuropsychological rehabilitation have show the way to today's work models ( Ben Yishay,1985 ; Christensen & Uzzell, 1994; Prigatano, 1984 ,1991))

**SOMETHING NEW !**

The working alliance in holistic neuropsychological rehabilitation has also been studied recently by Schönberger and collaborators in Denmark. The study indicates that a good working alliance is the basis of successful rehabilitative work. (Schönberger et al. Brain injury, April 2006; 20 (4):445-454. The development of therapeutic working alliance, patients' awareness and their compliance during the process of brain injury rehabilitation.

**THANK YOU.**