CAT Studieplan van Opleidingsinstituut De Kleine Parel

Voorwoord

De globale structuur van de opleiding ziet er als volgt uit.
De student kan deelnemen aan één van de drie studieprogramma's:

1) MNRI® behandelaar met losse MNRI® bij- en nascholingen

Alle cursussen zijn als losse bij- en nascholingen te volgen. De student dient in dat geval wel rekening te houden met de vereiste cursussen die eerst gevolgd dienen te worden. Sommige cursussen zijn alleen beschikbaar voor studenten die zich hebben ingeschreven voor het MNRI® Core in Training Programma, of een bepaalde modulaire (deel-) opleiding hebben afgerond.

2) Modulaire af te ronden (deel-)opleidingen MNRI® Core in Training Programma

Dit programma bestaat uit 4 los af te ronden levels. Bij elk level horen een vereist aantal cursussen, 1 praktijktoets, 1 theorie examen, 64 uur stage en 1 praktijkexamen. Naast het volgen van de verplichte cursussen heeft de student beperkt keuze om aan het vereiste aantal cursussen te komen.

Elke Core in Training student start in Level 1, daarmee is het level dus nog niet afgerond, maar is de student bezig met het volgen van Level 1. Pas op het moment dat afgesloten is, komt de student in het volgende Level 2, wat betekent dat de student bezig is met het volgen van Level 2. Etc.

Na afronding van een Level behaalt de student een titel:

- MNRI® NeuroTactile Specialist (mogelijk na afronding Level 1)
- MNRI® Archetype Specialist (mogelijk na afronding Level 1)
- MNRI® Repatterning Specialist (mogelijk na afronding Level 2)
- MNRI® NeuroStructural Specialist (mogelijk na afronding Level 3)

3) Opleiding tot MNRI® Core Specialist

De volledige opleiding tot MNRI® Core Specialist bestaat uit het behalen van 4 levels van het Core in Training Programma. Daarna dient de student 4 final praktijkexamens af te ronden en een volgens bepaalde criteria opgestelde case study in te leveren. Deze case study wordt beoordeeld door de examencommissie, en na positieve beoordeling wordt de opleiding afgerond en mag de student zich MNRI® Core Specialist noemen.

MNRI® behandelaar met losse MNRI® bij- en nascholingen

K10409
MNRI® Reflex Integration and Basal Ganglia

Participants of this MNRI® course will participate in both the course discussion and hands-on supervised practice. In the course, participants will be introduced to information about neurophysiological aspects of the reflex integration and its benefits for brain functions and control of behavior. The focus of this class is information about functioning of the basal ganglia region of the brain in individuals with neurodeficits and learning challenges.

The basal ganglia of a human brain is a set of subcortical nuclei situated in the interbrain system concerned with many functions, such as: motor activity, routine behavior, emotional processes, memory and learning, which are discussed within the perspective of reflex integration and its negative affect when the reflex is immature.

The course is based on traditional neurophysiological and recent scientific evidences found in brain research by different authors. This research demonstrates delay or poor development of the basal ganglia functions in children and adults with neurodeficits such as autism, brain injury, and post-traumatic stress disorder and affects their everyday functioning and learning.

Development of the cortex and subcortical areas of the brain is dependent on the neurological maturation of the lower motor neurons forming an extrapyramidal nerve tract in the brain stem, which includes properly functioning physiological circuits, well developed nerve net system, myelination of the axons, neurotransmission at synapses, and proper formation of the extrapyramidal nerve tract. This fact points out the importance of reflex maturation for the basal ganglia system to respond properly. The Program of Reflex Patterns Integration is key for the solution of the developmental challenges in the frame of the basal ganglia work, which affects the whole limbic system.

Undesired habits, limiting routine behavior, repetitive actions, poor or immature decision making, negative emotional anchors, lack of focusing and memorizing, improper excitement, fears, tendency for aggression, poor socialization and social imitation all cause the improper functioning of the basal ganglia and whole limbic system functioning. Dysfunctions in this area of the brain can be rooted and seen in the non-integrated state of infant reflexes and early neural development. In its turn, the stress, distress, post-traumatic experience, brain injury, and being stuck in limiting behavioral-thinking patterns also can be the reason for dysfunctions of the basal ganglia system. Intensive or long-term stress and neuro-deficits activate our defensive responses and protection becomes a “chronic” ground of our activities, and limits our possibilities, motivation and learning. Dealing with cortex functions is not enough or productive in cases when the subcortical areas of the brain are involved and immature.

The strategy of solving these challenges with brain functions through reflex integration procedures on the level of the basal ganglia is essential.

The course will present procedures and techniques for the work with primary reflex patterns that serve to establish the proper physiological circuits, development and maturation of the limbic system and its basal ganglia, as well as other corresponding centers and links. The basal ganglia being a part of limbic system and responsible for coordinating motor activity and other brain functions, it can serve as the basis for integration of reflex patterns and executive functions of the brain for the formation of internal control on the levels of conscious and unconscious functioning (L Vygotsky, 1986) for physical development, emotional life, and cognitive functions.

The participants of the course will be introduced to information about the role of reflex integration affecting the limbic system functioning. The limbic system consisting of basal ganglia, hippocampus, amygdalae and other parts deals with emotional responses and behavior, long term memory and skills, olfactory responses, feelings of comfort and safety, motivation and self-regulation, estimation, focusing, and other cognitive processes. Reflex integration affects different parts of limbic system:

- Basal Ganglia (components: striatum, globus pallidus, substantia nigra, subthalamic nucleus) is a subcortical structure; it controls and directs intentional movements, posture, production of dopamine, a neurotransmitter cognitive and motor activity, inhibitory functions, curiosity and pleasure from solving problems.
- Hippocampus is involved in our learning, internal cognitive mapping; spatial memorizing, emotional arousal, links between working memory, short and long-term memory, and neurogenesis for generating the new adult-born granules (GC) neurons
- Amygdala is involved with motivation, fear, reward, encoding, memory for details and their storage, autobiographical memory, attention (figure-ground differentiation), emotional and social processing, and truth-worthiness and betrayal
- Nucleus accumbens is involved with comfort, eating, drinking, pleasure, sexual arousal, addiction, and exhaustion
- Orbitofrontal cortex is involved with decision making
- Thalamus sends sensory and motor signals to the cerebral cortex, regulates the consciousness, sleep, and alertness

- Hypothalamus links the brain to the endocrine system, responsible for metabolic processes and activities of the autonomic nervous system; synthesizes some neurohormones, stimulates or inhibits the secretion of pituitary hormones, controls body temperature, hunger and thirst, parenting and attachment behaviors, sleep, and cardiac cycles

- Hippocampus deals with inhibition, memory consolidation from short-term to long-term memory, space orientation and navigation, oxygen regulation, impact on brain wave spectrum, regulation of activity in behavior, and olfaction

- Pituitary endocrine gland or hypophysis is involved in growth, maturation, sexual arousal, thyroid gland function, metabolism, fluids regulation in the body, blood pressure, temperature regulation, and pain relief.

The basal ganglia play a central role in "teaching" our brain-body system for inhibition of nonproductive and not-needed motor responses, emotions, and behavioral actions. Damage to the basal ganglia lead to poor development of internal control development, and causes disorder in a number of neurological conditions that can lead to more severe pathologies including:

- Motor disorders: Parkinsonism (degeneration of the substantia nigra cells producing the dopamine), Huntington's disease (a neurodegenerative disorder caused by damage of the striatum, seen in poor muscle tone regulation, uncoordinated and jerky body movements, behavior control and cognitive/mental abilities), Tourette syndrome (neuropsychiatric tic disorders including vocal signs), ballismus (motor disorder of limbs with interrupted, broken motion with wide amplitudes)

- Behavioral: obsessive compulsive disorder (characterized by an obsession with something particularly with food, things, ideas, feelings/moods)

- Health: Wilson's disease (liver disease and neuropsychiatric symptoms)

- Other

According to neurological research, the basal ganglia (the nucleus accumbens, ventral pallidum, and ventral tegmental area) play an important role in rewarding learning through the use of the dopamine neurotransmitter. Improper work of this area can activate the repetitive or addictive patterns in behavior and emotions and cause a tendency for reactivity of routine actions. Basal ganglia also will affect the GABA neurotransmitter and its inhibiting functions effecting internal control and focusing. Psychological explanation of this mechanism was presented by I. Setchenov in 1930s in his concept of overstimulation of certain centers in the brain leading to "dominant over-excitation", and explained by L. Vygotsky in his theory of child cognitive development through the pallidar system in brain development. New objective brain research proves these concepts more clearly: the reasons for poor neurodevelopment are rooted in a lack of integration of the sensory-motor system and their corresponding work of excitatory and inhibitory neurotransmitters. To bring the child or adult to a level of possibility to develop inner control and self-socialization seems possible when sensory-motor integration is applied to reflexes.

Repatterning techniques and exercises for these reflex patterns are necessary to create a sufficient neurophysiological basis for development of inner control for cognitive skills: focusing, decoding, memorizing and thinking. Development and maturation of the group of reflexes concerned with the work of basal ganglia and limbic system helps the development of the links between motor coordination and inner control for behavior, emotional life and cognition. This course will offer examples of techniques, games, and activities to make the integration sessions using MNRI® exercises interesting and motivating for children and adults. One of most important goals of the course is to develop motivation and social skills through activation of so called mirror neurons responsible for the formation of imitation mechanisms.

The Reflex Integration and the Basal Ganglia Program can be used with children and adults with challenging behavior and immature emotional sphere, memory deficits; motor and speech delays; poor social skills and disorientation, problems with decoding and modeling, and "mapping" and imitating problems; and, as a stress/distress release program. Course participants

will also learn about the assessment of primary and natural movements and reflexes, as well as specific exercises to integrate neurodevelopment delays.

K10409
MNRI® Reflex Integration and Basal Ganglia

Learning Objectives
The student will be able to:

1. Explain neurosensorimotor reflex integration as the basis for the successful support of functions of the basal ganglia seen in positive changes in motor, behavioral and emotional responses and cognitive hands-on tasks.
2. Explain the behavioral-cognitive links in individuals with challenges and create the "anchors" based on natural innate mechanisms of neurodevelopment and neuroplasticity for formation of the inner control.
3. Explain the rules and basis for creating these behavioral-cognitive anchors through reflex patterns repatterning.
4. Describe the following reflexes patterns and their specific involvement in the development of imitation and inner control mechanisms and cognitive skills: Core Tendon Guard in Flexion and Extension, Hands Pulling, Robinson Hands Grasp, Hands Supporting, Babkin Palmomental, Abdominal Physiological, Foot Grasp, Babinski, Sequential Rolling and Spinning, Gravity, Balancing, Grounding and Stability, Head Righting Ocular and Labyrinthine, Ocular-Vestibular, Ocular-Kinetic, Swallowing, and others.
5. Explain the following reflexes patterns and their specific involvement in the development of mirror cells determining the work of imitation mechanisms: Breathing (pandiculation), Vestibular reflexes activation, oral-motor patterns; and leveling reflexes: Eye Leveling, Vestibular Leveling, TMJ Leveling, and Auditory System Leveling.
6. Describe how reflexes patterns are involved in motor programming and control, and emotional and behavioral responses.
7. Explain how reflexes patterns are involved in inner control and in the social behavior system.
8. Describe the basis for the development of inner control, cognitive fine motor coordination, speech, self-regulation, and self-management through role-play games.
9. Explain the basis for the formation of primary coordination: kinesthetic memory-emotional response; Moro and Fear Paralysis and protection; positive memory activation and creating anchors; and protection, fear, and amygdala relations as the reason for challenging behavior.
10. Explain how the facilitation of non-cortical (non-classical) auditory perception and processing requires the activation of the developmental potentials of the basal ganglia, thalamus, and amygdala through reflex patterns development.
11. Explain the basis for the formation of motor-cognitive coordination and fine motor skills: cognitive differentiation-memory anchoring, hand-eye, hands-auditory-articulation system, and auditory-vestibular system.

12. Demonstrate examples of games and activities to enhance the MNRI® process of integration exercises in an interesting and motivating manner including the use of metaphors for limbic system and basal ganglia.

13. Explain the correlation of reflex patterns, emotions, behavior and learning skills.

14. Describe appropriate strategies to incorporate the use of the MNRI Reflex Integration and the Basal Ganglia Program in daily practice.

15. Demonstrate and apply supervised hands-on-training to conduct assessments using this MNRI® Program to discover nonintegrated or immature reflex patterns causing protective responses and emotional and behavioral challenges.

16. Create individual programs using this MNRI® Program to repattern, activate, and integrate specific reflex patterns.

17. Describe specific techniques to activate reflex patterns for positive changes in body structure, posture, and movements, emotional and cognitive presence, and behavior.

18. Apply this MNRI® Program to develop individual corrective programs based on assessment techniques and exercises for integration of given reflexes to enhance overall emotional, motivational, behavioral, and motor challenges.

19. Describe the rules for creating the links between reflex circuit functions (automaticity level) and skills (consciously programmed, planned and controlled) to base the learning process on natural sensorimotor patterns to offer productive, easier and reliable learning in stress.

20. Summarize course activities and discuss how to apply MNRI® Reflex Patterns in the daily practice of Speech and Language/Auditory Therapy.

21. Analyze how the information in this program can be adjusted to use with children and adults with challenges, as: Autism, Asperger syndrome, hyperactivity (ADHD, ADD), selective mutism, emotional disorders, post-traumatic stress and PTSD, speech delays and pathologies, sensory processing disorder, learning challenges (dyslexia, dyscalculia and other), intellectual development problems, bipolar, genetic disorders, brain injuries, post-stroke pathologies, Alzheimer's, Parkinson's, cerebral palsy and other.