

H A N D O U T



MUSIC INTEGRATIVE NEURO THERAPY™

In

Mood, Personality and Sleep Disorders

A presentation by

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NOTE:

Previous presentations of the fundamentals of this method (in English):

2005 (April): MAR-AMTA Conference (Long Island, NY)

2005 (November): AMTA National Conference (Orlando, FL)

*2006 (November) : Korean Music Therapy Association International Conference
(Seoul, South Korea)*

Mood Disorders (Affective Disorders)

Moods are sustained emotions, where affects are more short-lived expressions.

M D are psychopathologic conditions in which a pervasive disturbance of mood constitutes the core manifestation. Dominant are the depression and elation. These conditions and especially the depressive forms are heterogeneous and common in both general medicine and psychiatry.

In this lecture we will consider two types of MD: the unipolar and the bipolar II Mood Disorder. Both implies syndromes like depression or manic syndrome which are common, in various aspects, to other medical or/and psychotic conditions.

1. Disturb: Major Depressive Disorder (Unipolar mood disorder)

1.1. Definition

It is a syndromal depression, with several episodes over a lifetime. The most known form it is called melancholia and includes a full-blown expression of a major depressive disorder. Manifestations are: marked psychomotor changes (agitation or slowing), weight imbalance, pathologic guilt, early morning insomnia, loss of capacity to experience pleasure.

1.2. Manifestations (for all the MD)

Regard: mood, somatic manifestations, psychotic manifestations and other associated psychologic manifestations.

Mood- Depressive Syndrome

Irritable, depressed or anxious, deceptive (complains of stress instead of depression, f.e.)

Mood- Manic Syndrome

Irritable, elated or hostile; when in a mixed state: tearfulness.

Somatic- Depressive Syndrome

Fatigue, psychomotor retardation; agitation, anorexia; weight gain or loss; menstrual irregularities, amenorrhea; loss of sexual desire.

Somatic- Manic Syndrome

Psychomotor acceleration, eutonia; decrease need for sleep, increased sexual desire.

Psychotic- Depressive Syndrome

Delusions of: worthlessness, sinfulness, persecution, ill health; poverty. Depressive hallucinations in the auditory, visual and olfactory domains.

Psychotic- Manic Syndrome

Delusions of: a great talent, assistance, persecution; exceptional eutonia, wealth, aristocratic origin, grandiose identity; fleeting auditory and/or visual hallucinations.

Somatic- Depressive Syndrome- Psychological manifestations associated

Self-reproach, poor concentration; loss of interest in usual activities, attachments, social withdrawal; negative expectations, thoughts of death and suicide.

Psychotic- Manic Syndrome- Psychological manifestations associated

Inflated self-esteem, grandiosity; clang associations (thoughts triggered by word sounds rather than meaning); sexual indiscretion, buying sprees; insane business investments.

1.3. Drug treatment (main)

Thymoleptic agents, that are three: HCAs (heterocyclic antidepressants); MAOIs (monoamine oxidase inhibitors); Lithium salts.

HCAs is the largest class: include TCAs (tricyclic antidepressants), the tertiary amines amitriptyline and imipramine, the secondary amine metabolites nortriptyline and desipramine.

MAOIs inhibit the oxidative deamination of the biogenic amines: noradrenergic, dopaminergic, 5HT and phenylethamines.

Lithium salts stabilize the mood swings and behavior in bipolar disorder; acts in various directions, the most evident being the slowing of biologic rhythms.

1.4. Side effects

HCAs: common to all is the lowering of the seizure threshold, tachycardia, postural hypotension, and cardio-toxicity. Also: blurred vision, constipation and urinary hesitancy. Provokes sedation and weight gain; in some cases can have extrapyramidal effects.

MAOIs: postural hypotension; erectile difficulties; anxiety; nausea, dizziness, insomnia and weight gain. Interact with some food (“cheese reaction” because of the tyramine contained in mature cheese, f.e.)

Lithium salts: tremor, nausea, diarrhea, polyuria, polydipsia, weight gain. Some toxic effects, especially in elderly patients, regarding the renal functions.

MUSIC INTEGRATIVE NEURO THERAPY™ in Mood Disorders

1.5. Target

Thalamus / Thymus / Pituitary gland
Cardio-pulmonary plexus / Solar plexus
Lumbosacral plexus

1.6. Material: musical

Audio frequency range: 36.708 Hz to 4698.00 Hz (D...D). Favorite registry: 2nd and 7th

Amplitude range: -12 dB to -3 dB

Musical form (order of importance): 1. Binary composed; 2. String Heterophony;
3. Ternary simple; 4. Ternary composed; 5. Field Heterophony

Orchestration (order of importance): Strings; Woodwinds; Harp; Percussion (pitched);
Piano; Percussion (unpitched); Voices (single/ mixed choir)

Sound panorama: always starting from Center to Front, to Rear then to Center, and repeat.

In some cases, alternating L/R to R/L (starting with the weakest ear)

Delay time: between 0.04 to 0.10 seconds

1.7. Material: visual

Color frequency range: Red (0.65 - 0.60 μ) to Violet (0.43 - 0.40 μ)

Imagine: Abstract (order of importance): Helix; Sphere (rotating); Concentrating particles.

1.8. Number of sessions

Initial: 10 to 16

Maintenance: 3 to 5 after 3 month

1.9. Results (based on 100 patients)

Positive: 67

Neuter/Mixed: 20

Negative (no results): 13

Sample 1 (Depression) ([ex.1](#))

Structure

Title: Depression Wide Range 1

Duration: 3.01' of 6.58'

Disease: Depression NOS
Stress Wide Range

Use : Breathing normalizer
Relaxing the abdominal muscles
Second Part of the Session

Target : Thalamus
Solar Plexus
Lumbosacral Plexus

Audio Frequency Range : \pm A0(27.5...28.8Hz) to
 \pm E8(5160.0...5380Hz)

Amplitude Range : -8.4 to -3.6dB

Musical Form : AB AB AB C
8 voices polyphony
String heterophony [(x1y1)+(x2y2)]

Orchestration : Mixed Choir/ Didjeridoo/Wind Quintet/String Quintet/ Synt.

Sound's Panoramic : Center: Rear -25
Front: L -60/R +60
Rear: L+100/R +100

Color Frequency Range : Red (0.65 - 0.60 μ) to Violet (0.43 - 0.40 μ)

Imagery : Abstract. Movement: helix / sphere

EXAMPLE 1 ([ex.2](#))

Patient: L.C.

Sex F Age 59 Retired Art teacher

Personalized material: 1/session, alternate. In private practice.

Title: L.C.1

Duration: 3 '04" out of 8'

Disease: Depression / Unipolar MD

Use : Obsession- Delusions
Second Part of the Session

Target : Thalamus
Thymus
Solar Plexus
Lumbosacral Plexus

Audio Frequency Range : $\pm A0(27.5\dots28.8\text{Hz})$ to
 $\pm E8(5160.0\dots5380\text{Hz})$

Amplitude Range : -8.4 to -3.6dB

Musical Form : AB AB AB C

Orchestration : Pan Flute/organ/Wind Quintet/String Quintet/ Synt.

Sound's Panoramic : Center: Rear -25
Front: L -60/R +60
Rear: L+100/R +100

Color Frequency Range : Red (0.65 - 0.60 μ) to Violet (0.43 - 0.40 μ)

Imagery : Figurative: landscape + Abstract: helix evolution in-out
Iterations: enquiring eye

Number of sessions: 1/week, 4 month

Results

Improvement: mood/ social functionality/ family relations/ diminished delusion of worthlessness

Not improved: increased dependency to M.I.N.T./weight gain

2. Disturb: Bipolar Disorders

2.1. Definition

Patients show depressive and elated (excited) periods in cycles (a cycle is the time from onset of one episode to that of the next). The duration of the episodes are shorter than in the unipolar MD (3 to 6 month versus 6 to 9 month)

The disorder begins with depression episodes and it is characterized by at least one elated period during the course of the illness.

In bipolar I the episodes of full-blown manic and major depressive alternate.

In bipolar II the depressive episodes alternate with hypomanias of relatively short duration.

2.2. Symptoms (main)

In the depressive syndrome the mood is depressed, irritable, anxious or a combination thereof.

Also fears of becoming insane, fears of calamity, various aches and pains.

During the depressive phase: insomnia, poor appetite; atypically and on a seasonal basis hypersomnia and overeating may occur.

During the hypomanic periods: cyclothimic disorder (elevated and depressive episodes that occur on a lower severity, last a few days and pursue an intermittently irregular course).

2.3. Drug treatment (main)

The usual classes for MD (see above); mainly Lithium, with a preference for TCAs in severe cases.

2.4. Side effects

See above (MD)

Sample 2 (Bipolar II) (ex.3)

Structure

Title: Bip II 010

Duration : 4.07 min of 5.58 min

Disease : Bipolar II- Manic Depressive

Use : Normalizing pulse rate+ respiratory rhythm
Beginning of the session

Target : Cardio-Pulmonary Plexus
Thalamus

Audio Frequency Range : $\pm A0$ (27.5...28.8Hz) to
 $\pm D7$ (4600.0...4698.0Hz)

Amplitude Range : -6.3 to -3.1 dB

Musical Form : Fugato

Orchestration : Percussions

Sound's Panoramic : Center : 0

Front: L +10 / R + 15

Rear: L =15 / R +10

Movement: Immobile

Color Frequency Range : Blue (0.49 - 0.45 μ) Red (0.70 - 0.65 μ) Green

Imagery : Abstract-transformations according to: rhythm
Movement: transition L to R

EXAMPLE 2

Patient: B.R. (ex.4)

Sex M Age 63 Former realtor

Personalized material

Title: B.R 02

Duration: 3.00 min of 7.42 min

Disease: Bipolar II- Manic Depressive

Use : Normalizing pulse rate+ respiratory rhythm
End of the session

Target : SolarPlexus / Thalamus

Audio Frequency Range : $\pm G0$ (47.8...49.5Hz) to
 $\pm D7$ (4600.0...4698.0Hz)

Amplitude Range : -6.3 to -4.5dB

Musical Form : A B A C A D A

Field heterophony:[x1=1...5,000] [x2= -1...-5,000]
[y1=(x2-2,000)][y2=(x1+2,000)]
[x1+x2][y1-y2][(x1y2)+(x2y1)]

Orchestration : Pan Flute/ Full Orchestra

Sound's Panoramic : Center: Front +35

Front: L-25 R+25

Rear : L+25 R-25

Movement: slow L to R alternate with faster R to L
average changing rate= 0.10"/0.05"

Color Frequency Range : Red (0.65 - 0.60 μ) /
Blue (0.49 - 0.45 μ)/
Black (0.77 μ)

Imagery : Abstract. Movement (main): rotating colors

Number of sessions: 2/week, 6 month. In psychiatric clinic.

Results:

The time between the cycles increased from 12 /16 hours to 24 / 36 hours.

A relatively stabilization of the general mood at a more balanced level with consequently enhanced socialization occurs.

These improvements last up to 9 weeks after the end of the treatment.

3. Disturb: Schizophrenic Disorders

SD are mental disorders with a tendency toward chronicity, which impair functioning and are characterized by psychotic symptoms involving disturbances of thought, perception, feeling and behavior. (DSM IV-TM)

3.1. Classifications (according to DSM-IV)

Paranoid Type

Disorganized Type

Catatonic Type

Undifferentiated Type

Residual Type

NOS

3.2. Symptoms

Phobias; Anxiety; Depersonalization; Motor abnormalities. Associate (comorbidity) to: OCD, Panic Disorder, Anxiety Disorder.

3.3. Drug treatment (main)

The treatment hinges around the phase of the disturb.

ECT in catatonic patients, severe depression, elation or excitement.

Chemotherapy: Neuroleptics (antipsychotic drugs). Chlorpromazine- blocks the dopamine receptor.

The olanzapine (Zyprexa), the most used, it is useful also in BPD and Depression.

3.4. Side effects

ECT : can produce auditory hallucinations (see article)

EPS (extrapyramidal syndromes), as a result from the blockade of dopamine receptors: dystonias, parkinsonism, akathisia.

Sedation.

Orthostatic hypotension (mainly in the elderly) = risk of syncope and falls.

Tardive dyskinesia due to the prolonged dopamine blockade.

Tachycardia.

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3.5. Target

Thalamus / Hypothalamus/ Pituitary gland/Thymus
Cardio-pulmonary plexus
Solar plexus
Lumbosacral plexus

3.6. Material: musical

Audio frequency range: 36.708 Hz to 4698.00 Hz (D...D).Favorite registry: 2nd and 7th

Amplitude range: -12 dB to -3 dB

Musical form (order of importance): 1. Binary composed; 2. Ternary simple;
3.; Ternary composed 4.Sonata; 5. Field Heterophony; 6. String Heterophony

Orchestration (order of importance): Organ; Keyboards; Harp; Full orchestra, Percussion

Sound panorama: Alternating L/R to R/L (starting with the weakest ear)

Delay time: between 0.10 to 0.15 seconds

3.7. Material: visual

Color frequency range: Red (0.65 - 0.60 μ) to Violet (0.43 - 0.40 μ)

Imagine: Abstract (order of importance): Fractal structures; Concentrating particles.

3.8. Number of sessions

Initial: 15 to 20

Maintenance: 4 to 5 after 2 month

3.9. Results (based on 100 patients)

Positive: 72

Neuter/Mixed: 18

Negative (no results): 10

Sample 3 (Schizophrenia) [\(ex.5\)](#)

Structure

Title: Schizophrenia 1

Duration: 3.00' of 8.45'

Disease: Schizophreniform disorder

Use : Second Part of the Session

Target : Thalamus/ Thymus/ Pituitary gland/ Kidneys/ Cardio-pulmonary plexus.

Audio Frequency Range : \pm A0(27.5...28.8Hz) to
 \pm E8(5160.0...5380Hz)

Amplitude Range : -8.4 to -3.6dB

Musical Form : ABA

Orchestration : Organ solo

Sound's Panoramic : Center: Rear -25
Front: L -60/R +60
Rear: L+100/R +100

Color Frequency Range : Red (0.65 - 0.60 μ) to Violet (0.43 - 0.40 μ)

Imagery : Abstract
Movement: static

EXAMPLE 3 (ex.6)**Patient: G. F.****Sex M Age 65 Former handyman****Personalized material****Title:** G.F. 10**Duration:** 3.00 min of 11.00 min**Disease:** Schizophrenia NOS**Use :** Second phase of the session**Target :** Thalamus/ Pituitary gland/ Thymus**Audio Frequency Range :** $\pm G0$ (47.8...49.5Hz) to
 $\pm D7$ (4600.0...4698.0Hz)**Amplitude Range :** -6.3 to -4.5dB**Musical Form :** Sonata**Orchestration :** Organ solo**Sound's Panoramic :** Center: Front +35

Front: L-25 R+25

Rear : L+25 R-25

Movement: static

Color Frequency Range : Red (0.65 - 0.60 μ) / Blue (0.49 - 0.45 μ) / Black (0.77 μ)**Imagery :** Abstract: fractal structure A. Figurative: related to the patient's history**Number of sessions: 2/week, 6 months. In private practice.****Results**

Akathisia (restlessness + anxiety) highly diminished. Increased social functioning. Communication visibly improved. Self awareness improved. The drug treatment (Zyprexa) diminished -see statement

June 18th, 2002

Dear Dr Grawe,

I'm writing to you this note, to express my gratitude towards all the help you have given to my friend [REDACTED]

Through your music therapy, I have noticed that, NOT ONLY [REDACTED] quality of life has improved tremendously, but he was to now take less medication!!!

All your efforts, and good will, will never be forgotten!

A BIG BRAVO AND THANK YOU!!

Vasilica E. Butsi's

VASILICA E. BUTSI'S
N. JERSEY.

4. Disturb: Multiple Personality Disorder (Dissociative Identity Disorder)

4.1. Definition

The essential feature of DID is the presence of two or more distinct identities or personality states, that recurrently take control of behavior. (DSM IV-TM)

4.2. Symptoms

Same as in schizophrenic disorders mixed with the associate disorders for each given personality (Mood disorders- Depression; Anxiety, Phobias, a.s.o.)

4.3. Drug treatment (main)

Same as for schizophrenic disorders, mixed with the one for the concurrent disturbs.

4.4. Side effects

Same as for schizophrenic disorders. Sedation is more present, due to the increased neuroleptic and associate drug treatment.

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4.5. Target

Same as in schizophrenic disorders; an emphasis on the personal history of the patient, aimed to mirror to the patient the artificial build-up of her/his added personalities.

4.6. Material: musical

Organized and complex forms (f.e. Sonata, ABA, etc) Included always: a heterophony episode as the first (introductory) section and a highly organized polyphonic episode (ricercare, fugato) as a development.

4.7. Material: visual

None.

4.8. Number of sessions

Depending of the patient state; in any case not less than six month at a twice /week session rate.

4.9. Results (statistical)

I treated three patients with this very rare disturb. In all the three cases the results were positive, in terms of a more accented self-consciousness and awareness and a less present histrionic aspect. At least during my sessions none of them continued to show the acting-on of their added personalities; the social relations improved, in two cases impressively. All the patients developed an addiction to the treatment. (I don't know how to consider this, because the results were well considered by the patients, the relatives and the other current psycho therapists; in the same time the deontology suggests to stop the treatment at this point; my opinion about this it is still in making). The results lasted in time for about three month (minimum two to a maximum of five month).

EXAMPLE 4 ([ex.7a/bws](#))

Patient: M.T.

Sex M Age 53 Never employed

Personalized material

Based on the patient's personal history (he presented seven different personalities; five of them being women, of whom three lesbians). After recording the patient reading by himself a poem he wrote about his experience (with "I was victimized" as a recurrent locution), I processed via PC the audio file. The voices became eight, in a field heterophony development with a different human timber for each of them. I added in the background a heart-like beat at 90 BPM and a sound structure composed of a string heterophony orchestrated with string instruments, based on the rhythm and melody design of the poem read by the patient. The refrain "I was victimized" were still recognizable in determined moments, even at a softer audible level.

The patient reacted after 12 seconds saying "That's ME and THEM! You're smart, shrink!" Started with that session he stopped to show/play his personalities. I continued to treat him for sleep disorders; he never talked about his MPD with me again.

Number of sessions: 2/week, 10 month/year, from September 2001 to October 2004. In private practice.

Results: see statement (wrote by patient's nurse by dictation and signed by the patient)

July 11 2003

To whom it may concern,

I started Dr. Graur's music integrative therapy in May 2001. Before therapy I was very depressed, violent, and I slept most of the time. After some time with Dr Graur's therapy I became calmer, more motivated, and more able to control my seven personalities. Thanks to Dr Graur's music integrative therapy I'm able to keep my sanity.

Yours Truly



5. Disturb: Sleep Disorder- Insomnia

5.1. Definition

Insomnia implies difficulty in sleeping or disturbed sleep patterns leaving the perception of insufficient sleep. Main types: initial insomnia (difficulty in falling asleep); early morning awakening (common of aging, but also a symptom of depression); reversals of the sleep rhythm.

5.2. Drug treatment (main)

Sedative and hypnotics:

Benzodiazepines: Triazolam; Temazepan; Flurazepan

Antidepressants: Amitriptyline

Various: Chloral hydrate; Meprobamate; Pyrilamine; Diphenhydramine

Barbiturates

Glutethimide; methyprylon.

5.3. Side effects

Benzodiazepines: anterograde amnesia, hangover, drowsiness, lethargy.

Meprobamate: hangover, exaggerates the effects of alcohol and antidepressants.

Sedative-hypnotics are additive in effect with the CNS depressants (alcohol, antianxiety agents, antihistamines, phenothiazines, antidepressants, opiates).

High risk of habituation and addiction.

Alterations of metabolism.

MUSIC INTEGRATIVE NEURO THERAPY™ in Sleep Disorders- Insomnia

5.4. Target

Thalamus / Pituitary gland/ Cardio-pulmonary plexus / Solar plexus/ Thymus

5.5. Material: musical

Audio frequency range: 47.8...49.5 Hz to 4698.00 Hz (G...D). Favorite registry: 1st and 6th

Amplitude range: -20 dB to -5dB

Musical form (order of importance): 1. Field Heterophony; 2. String Heterophony;
3. Ternary simple; 4. Ternary composed; 5. Binary composed

Orchestration (order of importance): Strings; Piano; Harp; Woodwinds; Brass; Percussion (pitched); Voices (single/ mixed choir); Percussion (unpitched);

Sound panorama: center- back- right-left

5.6. Material: visual

Color frequency range: Blu (0.49 - 0.45 μ) to Ultraviolet (0.40 μ ...)

Imagine: Abstract (order of importance): Concentrating particles; Helix; Sphere (rotating);

5.7. Number of sessions

Initial: 15 to 20

Maintenance: 5 to 7 after 4 month

5.8. Results (based on 100 patients)

Positive: 62

Neuter/Mixed: 20

Negative (no results): 18

Sample 4 (Insomnia) ([ex.8](#))

Structure

Title: S D Insomnia 11

Duration: 2.10 of 10.25 min.

Disease: Insomnia GMD

Use : Insomnia

Second part of the session

Target : Hypothalamus/ Solar Plexus

Audio Frequency Range : ± C00 (31.0...32.703Hz) to
± G7 (6,130...6,272 Hz)

Amplitude Range : 0 to - 6.5 dB

Musical Form : Field Heterophony

$f_{x,y}\{(x_1y_1x_2)(y_2x_2y_1)\}[(x_2y_2x_1)(y_1x_1y_2)]\}$

Orchestration : Synthesizer/ Strings/ Flutes

Sound's Panoramic : Center: Rear L -75

Front: L +100/ R -50

Rear : L +50/ R -100

Movement: helix out/in

Front R- Rear L- Front L- Rear R- Center

Color Frequency Range : Violet (0.43 - 0.40μ)

Green (0.56 - 0.49μ)

Imagery : Abstract

Movement: helix out/in

Sample: original score of the above piece (front page)

A. orchestration

Sleep Disorders
Insomnia - Example

A musical score for orchestration, titled "Sleep Disorders" by Alexander Grant. The score is for "Insomnia - Example" and is marked "Moderato 72". It consists of multiple staves, including a piano part and several string parts. The notation is complex, featuring many sixteenth and thirty-second notes, and rests.

B. piano reduction

Sleep Disorders
Insomnia - example

Alexander Grant

A piano reduction of the musical score for "Sleep Disorders" by Alexander Grant. The score is for "Insomnia - example" and is marked "Moderato 72". It consists of three staves: a piano part and two other parts. The notation is complex, featuring many sixteenth and thirty-second notes, and rests.

EXAMPLE 5 (ex.9)

Patient: S.R. Insomnia due to a medical condition (tinnitus)

Sex F Age 48 Housewife

Personalized material

The patient suffered from a persistent form of tinnitus with consequently persistent insomnia, installed after radiation therapy for a skin tumor in the parietal zone of her skull, with a significantly reduced functionality of the correspondent ear. After checking with her a variety of sounds at different frequencies and amplitudes, and consulted her physician about the possible physical reasons of the rumor she heard, I took in consideration the hypothesis of permanent and selective damages of Corti's organ due to the radiation therapy's side effects. (at the normal ORL tests all seemed to be OK).

I let her listen to some samples of the Earth (planet) radio waves. (recorded by NASA and JPL at different altitudes and distances in the deep space), in the eventuality that the damages of the Corti's organ could had destroyed in some way her natural barrier against the perception of these sounds.

(Note: we are permanently immersed in these natural and other man-made radio waves frequencies; it seems to me that the Corti's organ and/or some other parts of the auditory system act additionally as audio-filters, muting the background sound. If these filters are damaged, the probability of an increased vulnerability to the action of the radiowaves also increases. My hypothesis was that the tinnitus was in some way produced by something else different than the blood circulation, the frequencies at which usually the latter is perceived being way higher than the ones the patient heard permanently as tinnitus).

To my excitement she recognized FIVE of this sounds as being very similar to her tinnitus. Establishing that, I composed various pieces addressing both separate ears and the bi-aural perception, using each wave as a melody line itself; I organized this waves in a string heterophony first and in a field heterophony further, building a general AB AB AB C musical form and processing the sound in layers of different amplitudes. I calculated to obtain a binaural sound at determined intervals in time, aiming to muting the background sounds. Each piece lasts for about six minutes.

Number of sessions: 1/week, 2 month. In private practice.

Results

Improved: lesser persistent tinnitus; during the session she sleep for about 20 minutes.

At home: sleep when the Therapy CD is running.

Not improved: tinnitus it is still present, even at a softly level. Insomnia it is not diminished by itself in time, except when she is listening to the personalized CD I made for her.

6. Disturb: Sleep Disorder- Hypersomnia

6.1. Definition

H. it is a pathologic increase in absolute sleep hours by 25% or more, to a degree that interferes with the individual's socioeconomic adjustment. Can occur mostly in association with the excessive use of hypnotic drugs, as a symptom of depression or in association with space occupying lesions affecting the upper brainstem region or hypothalamus.

6.2. Drug treatment (main)

Related to the associate disorder (s)

6.3. Side effects

Related to the associate disorder's drug treatment

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6.4. Target

Thalamus / Hypothalamus / Pituitary gland
Cardio-pulmonary plexus / Solar plexus

6.5. Material: musical

Audio frequency range: 31.0...32.703 Hz to 4600.0...4698.0Hz (C...D).Favorite registry: 5th and 7th

Amplitude range: -12 dB to -2 dB

Musical form (order of importance): 1. Binary composed;2. Ternary simple; 3.Ternary composed; 4. Field Heterophony

Orchestration (order of importance): Woodwinds; Harp; Brass; Percussion (pitched);
Strings; Piano; Percussion (unpitched); Voices (single/ mixed choir)

Sound panorama: Rear- Left- Center- Right

6.6. Material: visual

Color frequency range: Infrared (0.75μ) to Violet (0.43 – 0.40μ)

Imagine: Abstract (order of importance): Dispersing particles;Sphere (rotating);.

6.7. Number of sessions

Initial: 12 to 16

Maintenance: 3 to 5 after 3 month

6.8. Results (based on 100 patients)

Positive: 52

Neuter/Mixed: 27

Negative (no results): 21

Sample 5 (Hypersomnia) ([ex.10](#))

Structure

Title: S D Hypersomnia 2

Duration: 1.50 of 8.35 min

Disease: Hypersomnia GMD

Use : Hypersomnia
Second Part of the session

Target : Thalamus
Cardio-Pulmonic Plexus

Audio Frequency Range : ± A0 (53.0...56.0Hz) to
± D7 (4600.0...4698.0Hz)

Amplitude Range : -5.5 to +2.5dB

Musical Form : String Heterophony
(x1y1)(x1y2)(x2y1)(x2y2)

Orchestration : Synthesizer

Sound's Panoramic : Center: Front R +75
Front : L -50/ R -50
Rear : L+100/ R +100

Movement: helix Center-Rear R-Rear L-Front R- Front L- Center

Color Frequency Range : Violet (0.43 - 0.40μ)
Indigo (0.45 - 0.43μ)

Imagery : Abstract
Movement: circle in/out

EXAMPLE 6 (ex.11)**Patient: S. C.****Sex M Age 63 M.D.****Personalized material**

The patient suffer (as a primary condition) from a sleep apnea, hypotension and depression.

The material address (in order): the depression, the hypotension and the breathing cycle.

The target are: thalamus, hypothalamus, cardio-pulmonary plexus and the solar plexus. Based on patient's history the image combined a fixed figurative one (a tree branch) and an abstract moving circle, positioned at various degrees in space.

The music it is based on a fixed cell played by a Panflute accompanied by strings, and a heterophonic cell based on the transformations of the first cell. The whole musical form is a Ternary simple (ABA) with the B developing the main theme in a field heterophony.

Number of sessions: 1/week, 3 month. In private practice.

Results: after 6 sessions the patient state that he is more able to control the impulse to sleep overtime- with consequently improvement of his social and professional life.

As a secondary effect, he mentioned an increase capacity to focus on the current tasks.

ADDENDUM**MUSIC INTEGRATIVE NEURO THERAPY™****Chemical Elements M.I.N.T. series**

(therapeutical M.I.N.T. material used in the treatment of the above mentioned classes of disturbs)

Sample 6 (ex.12)**Title:** Phosphorum**Duration:** 1.53 of 6.48 min

Disease: Trace/ Chemical Elements production enhancer-
Mood Disorders, Headaches, ADD,ADD-HD, Alzheimer,
Developmental Disorders

Use : Enhancing the production of the element
Second part of the session

Target : Hypothalamus Pituitary Gland**Audio Frequency Range :** C1+ (33.28 Hz) to B8 (3951.0 Hz)**Amplitude Range :** -6.5 to +2.5dB**Musical Form :** Field Heterophony

[x1=1...10,100] [x2= -1...+5,000]

[y1= 1...10,100] [y2=1...5,000]

[(x1+y1)(x2+y2)][(x2+y2)(x1+y1)][(x1+y2)(y1+x2)][(x2+y1)(y2+x1)]

Orchestration : String Orchestra/ Percussion/ Sound Generator**Sound's Panoramic :** Center: front + 65

Front: L -50/ R +50

Rear: L +50/ R -50

Movement: R to L (rate 0.005/sec) L to R (rate 1/sec)

Color Frequency Range : 0.253μ Ultraviolet / Violet/ Mauve/ Indigo**Imagery :** Abstract

Movement: helix in/out; spreading lines.

Sample 7 (ex.13)

Title: Kalium

Duration: 1.55 of 4.58 min

Disease: Trace/ Chemical Elements production enhancer-
Depression, Dysomnias:Insomnia and Hypersomnia,
Perinatal cure, Post-Menopausa, ADD

Use : Enhancing the production of the element
Second part of the session

Target : Lumbosacral Plexus,
Pituitary Gland

Audio Frequency Range : ± B00 (29.840...30.868Hz) to
± E8 (5160.0...5380Hz)

Amplitude Range : -1.5 to +2.4dB

Musical Form : ABA CAD CAD ABA
8 voices polyphony (imitatio)

Orchestration : Mixed choir/full orchestra/sound generator

Sound's Panoramic : Center: +75
Front: L+50 R+50
Rear: L+25 R+25

Movement: helix (Center-Front R-Front L- Rear L- Rear R - Center)

Color Frequency Range : Yellow (0.55μ) to Green (0.56 - 0.49μ)

Imagery : Mixed (Figurative + Abstract)
Movement: helix out/in; sphere

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