



Science & Research Symposium – Bulgarian presentation

1. THE EFFECT OF BODY PSYCHOTHERAPY SESSIONS ON THE BODY WATER STRUCTURE AS SEEN BY NIR SPECTROSCOPY AND AQUAPHOTOMICS

Authors: **Prof. Roumiana Tsenkova, Dr. Ilina Iordanova, Kolio Iordanov, Daniel Todorov, Madlen Algafari**

Abstract:

- We had set on very innovative approach to evaluate the effect of psychotherapy sessions on the structure of the body water molecules, measured by recently developed Micro NIR and APS instruments.
- The measurements were done in the settings of a group therapy session where NIR and APS samples were taken before, in the middle and at the end of the group session.

The research was done by Prof. Rumiana Tzenkova - fondator of the faculty of Aquaphotomics - University of Kobe - Japan and Bulgarian Institute of Neoreichian analytical body psychotherapy.

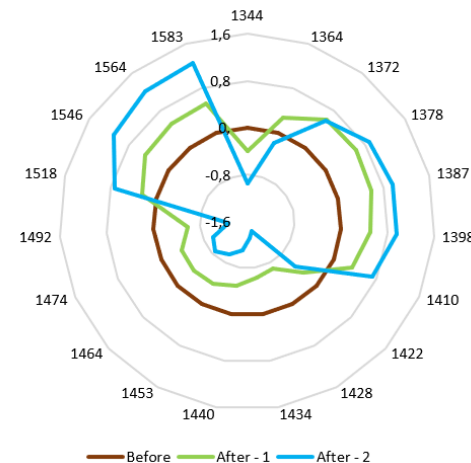
Prof. Tzenkova will be one of the Congress key speakers.

The research shows the water molecular coherence for all participants after different group therapeutic session working with different emotional states. It proves the efficacy of our work on a molecular level, the healing epigenetic power of body psychotherapy.

MicroNIR
1700-ES

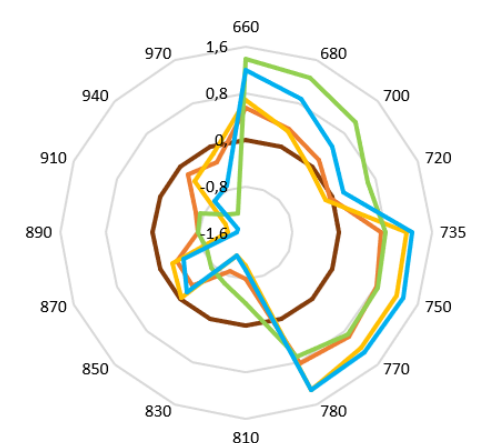


Meditation Phases AVERAGED SPECTRA
at THE FIRST OVERTONE OF WATER
(1300-1600nm)

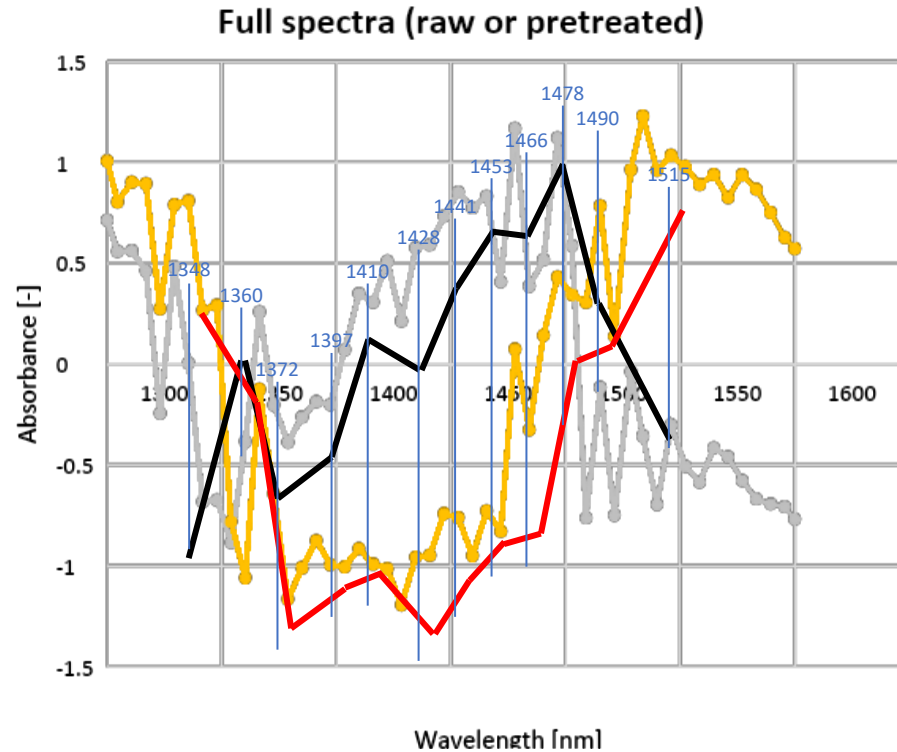


APS
(Aquaphotomics
Spectrometer)

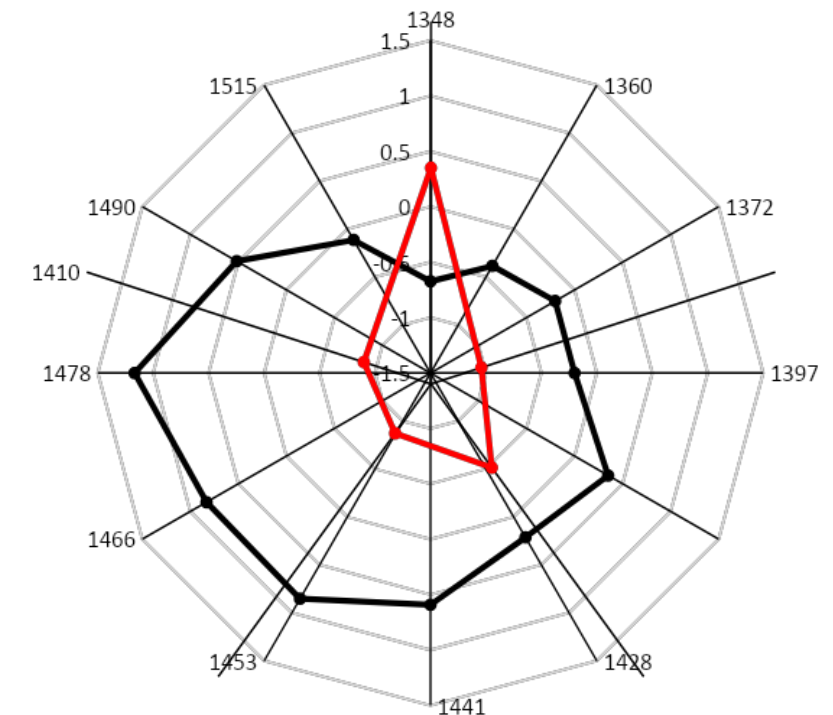
Meditation Phases AVERAGED SPECTRA
at WATER SHORT WAVELENGTHS COORDINATES



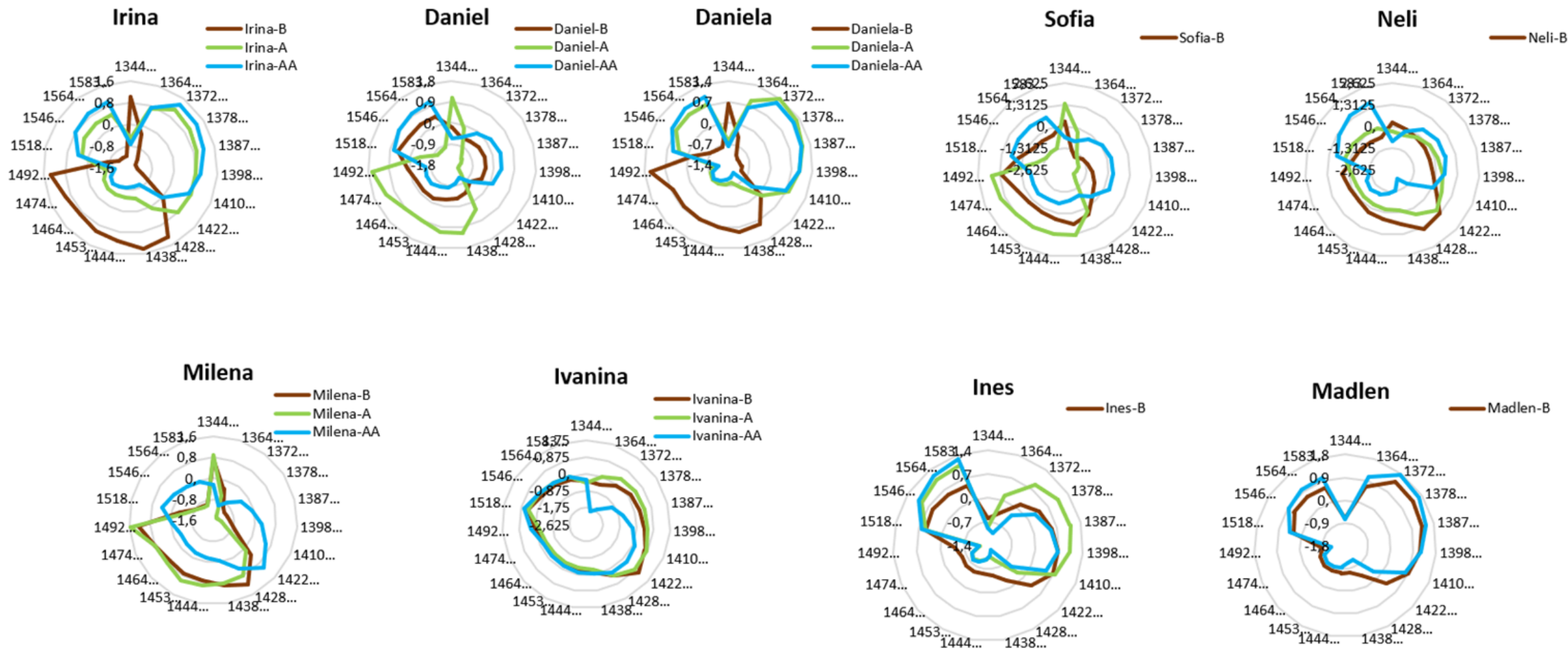
Individual aquagrams are generated from the NIR spectra of each participant



Aquagrams based on chosen water absorbance bands



Individual participants's aquagrams showing similarity in water structure after a 60 minute deep breathing session



2. TRANSLATIONAL VALIDITY OF FIVE CHARACTERS TYPOLOGY SCALE, RESPONDED DURING NEUROIMAGING SESSION (FMRI)

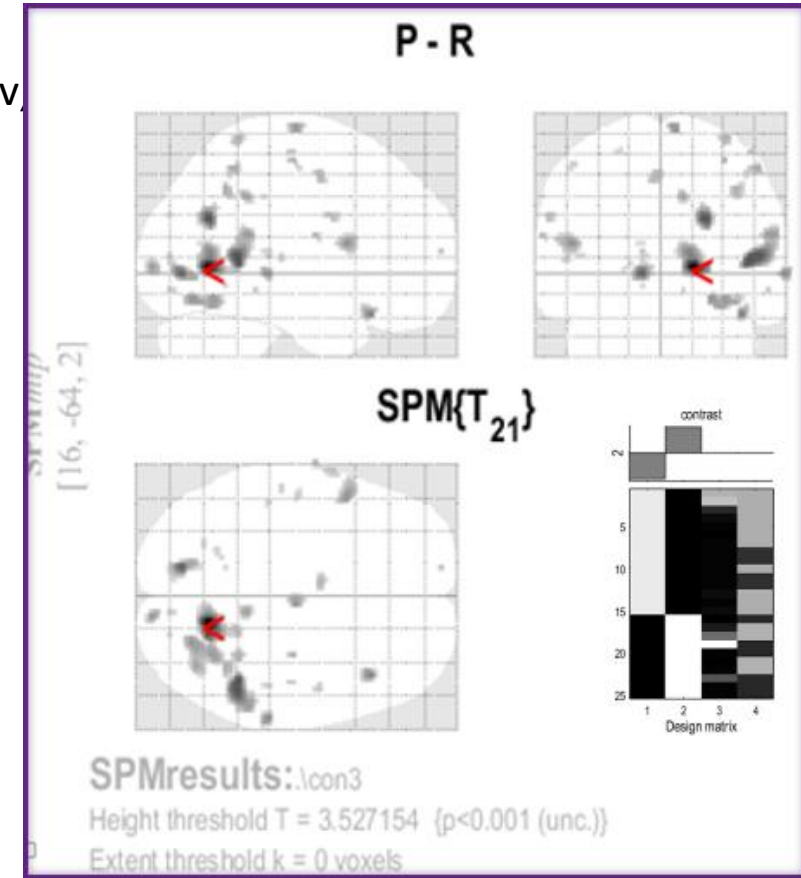
Kristina Stoyanova (student in BINAP), Research Institute at Medical University of Plovdiv,
Division Translational Neuroscience

Abstract:

- Main research goal is to reveal **how character types** (schizoid, oral, masochist, psychopathic, and rigid) **can be distinguish in the functional connectivity** of the brain.
- We examined under FMRI **63 individuals** (23 men, 43 women; aged 20-74 years), observing the active brain regions while they were responding to **modified “Lowen Character Typology”** 60 items self-assessment scale.
- Collected results for differences in brain functional connectivity are clustered according to the test scores for the character type scales (during neuroimaging).

Outcomes (preliminary) :

- Neuroimaging shows differences in functional connectivity explained by different types. We compare people by "self-esteem processes". And in this comparison, we found that people with high self-reports of psychopathic traits had significantly activated lingual gyrus and adjacent regions compared to people with high self-reports of rigidity.
- Gender differences in activations in the frontal lobe and anterior insula – these regions were hyperactivated in men when they self-assess on the psychopathic type scale.



Lowen's Character Typology - Modified Scale : JOHN SMITH @06.06.2022, 57 y.o.									
SCHIZOID	8	average							
ORAL	12	high							
S-MASOCHISTIC	2	low							
PSYCHOPATHIC	11	high							
RIGID	10	high							

PSYCHOMETRIC VALIDITY OF FIVE CHARACTERS TYPOLOGY SCALE - PILOT DATA

In parallel with the fMRI, we conducted an independent psychological study to validate the 60-items Five Characters Typology scale, adding to them the psychological type items according to K. Jung - Myers-Briggs Type Indicator (MBTI) Scale. This was done based on test results by **436** anonymous respondents (**366 women** and **70 men**)

Outcomes (preliminary) :

- Reliability of the LCT Scale is high - Cronbach's Alpha = 0.841
- Further research is needed as the gender balancing is a mandatory prerequisite to typology validation.

Correlation analysis results (construct validity check)

		EXTRAVERSION	INTROVERSION	SENSING	INTUITION	PERCEIVING	JUDGING	THINKING	FEELING
SCHIZOID	Pearson Correlation	-,344**	,327**	,055	-,010	,131**	-,081	,112*	,050
	Sig. (2-tailed)	<,001	<,001	,250	,836	,006	,092	,020	,303
ORAL	Pearson Correlation	-,200**	,203**	,113*	-,074	,182**	-,053	,085	,029
	Sig. (2-tailed)	<,001	<,001	,019	,125	<,001	,271	,076	,549
RIGID	Pearson Correlation	-,241**	,230**	,331**	-,275**	-,100*	,211**	,174**	-,072
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	,036	<,001	<,001	,134
PSYCHOPATIC	Pearson Correlation	,349**	-,348**	-,175**	,168**	,111*	-,068	-,020	,001
	Sig. (2-tailed)	<,001	<,001	<,001	<,001	,021	,154	,671	,979
MASOCHISTIC	Pearson Correlation	-,140**	,164**	,171**	-,102*	,112*	-,027	,027	,128**
	Sig. (2-tailed)	,003	<,001	<,001	,034	,019	,579	,569	,008

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

3. IMPACT OF SELF-CONSCIOUSNESS ON AFFECTIVE WELL-BEING

Author : **Stanislava Yaneva** (student in BINAP)

Supervisor: **Prof. Zaharina Savova, MD, PHD**

Abstract:

One of the goals of psychotherapy is to **increase the capacity for self-analysis**, as it is a basic tool of psychotherapeutic work. On the other hand, self-analysis is one of the aspects of self-consciousness, which in excessively high levels would rather have a negative effect on the person.

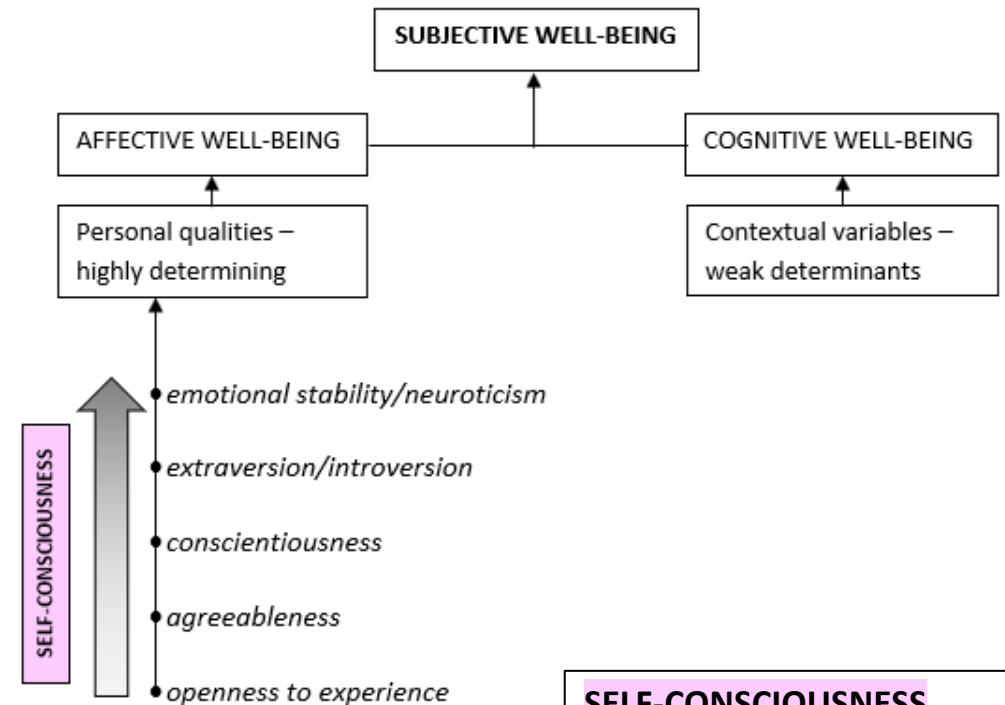
The purpose of the study is to **determine the impact of body psychotherapy work on the levels of self-consciousness**, and it, in turn, **on the affective well-being of people**.

Adaptive aspects of self-consciousness

- self-reflectiveness;
- awareness;
- acceptance;
- social cognition;
- self-regulation;
- empathy;

Maladaptive aspects of self-consciousness

- self-absorption;
- self-rumination;
- self-attentiveness;
- self-criticism;



SELF-CONSCIOUSNESS a stable individual trait

private self-consciousness:

- self-reflectiveness;
- internal state awareness/insight

public self-consciousness:

- behavior;
 - appearance;
- social anxiety**

Empirical research*

Objective – to establish:

- the impact of the body oriented psychotherapy work on levels of self-consciousness;
- the impact of self-consciousness on affective well-being.

Hypothesis:

- individual characteristics impact levels of self-consciousness;
- body oriented psychotherapeutic work affects levels of self-consciousness;
- a connection between self-consciousness and affective well-being is expected;
- personality traits and individual characteristics influence affective well-being;
- correlation between personality traits and self-consciousness is expected.

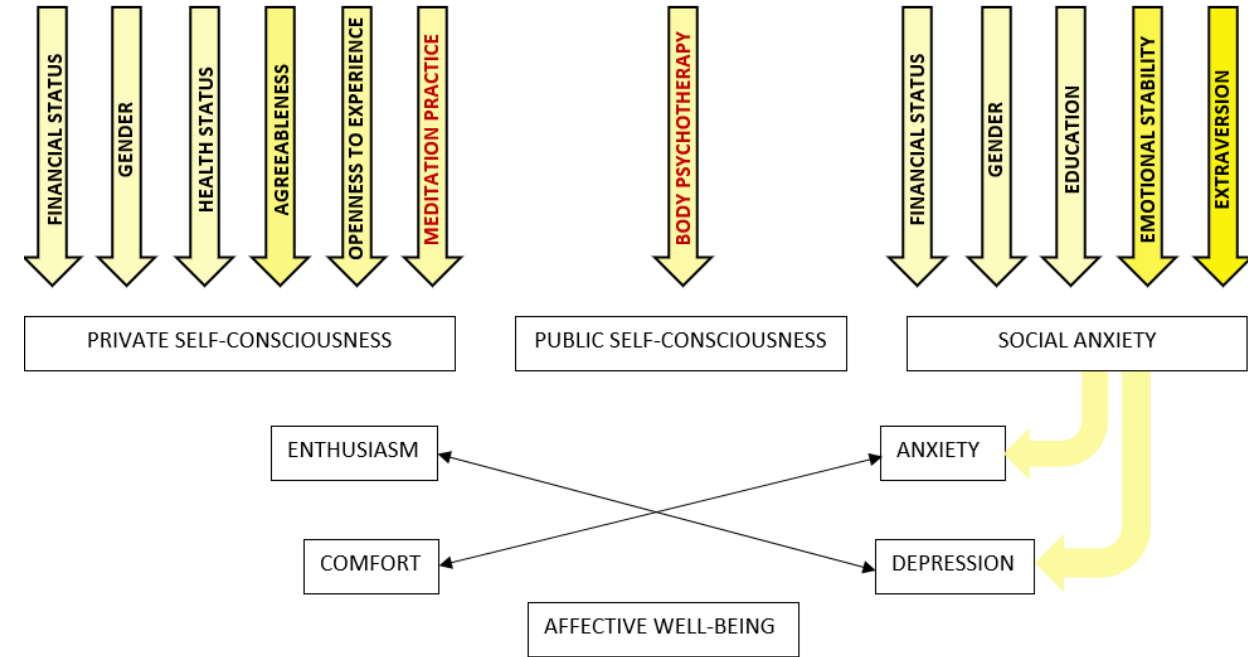
Tools:

- **Self-Consciousness Scale.** Fenigstein, A., Scheier, M. F., & Buss, A. H. (1975);
- **Warr's scale of affective well-being** - modification;
- **Five Factor Personality Traits Test** – short version and Bulgarian adaptation of Eysenck Personality Questionnaire. (Goldberg, 1981), (Costa & McCrae, 1985), (Paspalanov, Shteniski, Eysenck, 1984);
- Questionnaire for personal psychotherapy and/or meditation experience;
- Demographic data – gender, age, education, financial and health status.

Study:

- online data collection in the period 04-11.2021;
- 104 subjects, aged 19-74 years, 40 average;
- 64% women, 34% men, 2% other;
- 90% with good to excellent financial status;
- 70% good or very good health status;
- 90% Bachelor or higher education level;
- 25% without any psychotherapy and/or meditation experience, 58% with 1-50 sessions, 17% with more than 50 sessions. 89% with experience in body oriented psychotherapy.

Outcomes:



The research found that body oriented psychotherapy work positively affects public self-consciousness, while meditations positively impacts private self-consciousness. The tendencies are understandable, given that one of the main tools in psychotherapy is the feedback, that is obtained from the individual's social environment, while meditations are exclusively associated with self-absorption and self-focus, which are facets of personal self-consciousness.

Overall, body oriented psychotherapy can have a positive impact on one's self-consciousness by promoting greater self-awareness, self-reflection, and self-regulation.

The present study did not show the expected strong dependence of affective well-being on the level of self-consciousness. Only the social anxiety component has an impact on the negative directions of the dimensions of affective well-being – depression and anxiety, which may be due to the partial overlap of the content of these aspects.

*provided that other, significant factors impact affective well-being, that are not of research interest in the present work

Целта на изследването е да се установи влиянието на психотерапевтичната работа върху нивата на себеосъзнатост, а тя от своя страна – върху афективното благополучие на хората. Една от целите на психотерапията е да се повиши способността за себеанализ, тъй като той е основно средство на психотерапевтичната работа. В тази връзка индивидуалните различия биха били от съществено значение. Себеанализът е един от аспектите на себеосъзнатостта, който в прекалено високи нива би имал по-скоро негативен ефект върху човека.

Изследвани са 104 лица, на възраст между 19 и 74 години. Преобладават жените – 64% от анкетираните. Над 90% от участниците са заявили средно и над средно материално състояние. Здравословното състояние при над 70% е добро или много добро. Почти 90% от анкетираните са с висша степен на образование. Изследвани бяха множество фактори за евентуалното им въздействие върху нивата на себеосъзнатост. От индивидуалните характеристики най-съществено влияние оказват материалното състояние и полът, като при мъжете се установяват по-ниски стойности на себеосъзнатост. Двете характеристики се свързват с личната себеосъзнатост и социалната тревожност. Здравословното състояние въздейства само върху личната себеосъзнатост, което вероятно се дължи на факта, че влошаването на здравето на индивида, насочва вниманието му към себе си. Образованието има връзка със социалната тревожност, което е обяснимо с това, че то е част от социалния образ, който хората градят. Възрастта не оказва влияние върху нивата на себеосъзнатост.

Личностните черти емоционална стабилност и екстраверсия се свързват със социална тревожност. Имайки предвид, че в другия край на дименсията емоционална стабилност е невротизмът, а той оценява емоционалната лабилност, стеснителност и тревожност, то може да се приеме за логично въздействието им върху точно този аспект на себеосъзнатостта. По подобен начин може да се обясни и влиянието на чертата екстраверсия-интроверсия, измерваща интензивността на взаимоотношенията с околните. От друга страна чертата доброжелателност-антагонизъм е свързана с качеството на тези взаимоотношения. Може да се допусне, че в тази връзка е влиянието ѝ върху личната себеосъзнатост – способността на индивида да се свързва с другите или да остава свързан само със себе си. Съдържанието на отвореност към опита включва интереса към себеразвитие, себеизразяване и придобиване на нов опит, което корелира с личната себеосъзнатост.

Изследването установи, че психотерапевтичната работа повлиява положително публичната себеосъзнатост, докато духовните практики и медитации – личната себеосъзнатост. Тенденциите са обясними, предвид на това, че един от основните инструменти за работа в психотерапията е обратната връзка, която се получава от социалната среда на индивида, докато медитациите се свързват изключително със самовглъбяване и самофокусиране, които са фасети на личната себеосъзнатост. Както беше уточнено в началото, изследването на връзката между себеосъзнатост и афективно благополучие, ще се извърши при условие, че са налице други, съществени фактори, които оказват влияние върху афективния компонент на субективното усещане за благополучие. Например, емоционалната стабилност и отвореността към опита са личностни черти, които според това изследване, оказват влияние върху двете дименсии, във всяка от двете посоки, на афективното благополучие. Екстраверсията има връзка с дименсията депресия-ентузиазъм, като въздейства и в двете посоки, а съзнателността само върху депресията. От индивидуалните характеристики, най-голямо влияние има здравословното състояние, като то се отразява на четирите фактора на афективното благополучие. Полът има отношение към ентузиазма и комфорта, възрастта се свързва с депресията, а материалното състояние – с ентузиазма.

Настоящото изследване не показва очакваната силна зависимост на афективното благополучие от нивото на себеосъзнатост. Единствено компонентата социална тревожност оказва въздействие върху негативните посоки на дименсията на афективното благополучие – депресия и тревожност, което може би се дължи на частичното припокриване на съдържанието на тези аспекти.



4. THE ROLE OF PSYCHO-PHYSICAL TECHNIQUES FOR THE DEVELOPMENT OF EMOTIONAL INTELLIGENCE AND PREVENTION OF AGGRESSION AT SCHOOL

Authors : **Velichka Mineva, Maria Paskova (Students in BINAP)**

Abstract:

The objective of the study is to determine whether psychological approaches and psycho-physical techniques have an impact on students' emotional intelligence, as well as on the prevention of aggression, violence and bullying in school.

Hypothesis: we hypothesized that middle school-aged students who were exposed to psychological approaches and psycho-physical techniques would exhibit less aggression and violence at school in correlation with their higher level of emotional intelligence and improved classroom relationship.

Tools:

1. Questionnaire on classroom relationships - rating scale for students
2. Aggressiveness test - adapted version of the B. Buss and R. Durkee.
3. Emotional intelligence test by Christophe Andre.

Research approach:

To accomplish our goal, we set tasks related to the study of classroom relationships among middle school-aged students, level of aggressiveness and emotional intelligence.

A total of 58 students from grades 6 to 8 (12-15 y.o.), divided by grade into three groups, participated in the study.

- **1st study group:** Different psycho-physical techniques and psychological approaches were applied with them in class for one school year.
- **2nd study group:** Different psycho-physical techniques and psychological approaches were also applied with them in the period of two school years.
- **3rd study (control) group:** No psycho-physical techniques and psychological approaches were applied with this group of students.

Studied	Grade	Girls	Boys	Age	Total
1 st group	6 th grade	8	12	12-13 y. o.	20
2 nd group	7 th grade	5	13	13-14 y. o.	18
3 rd group	8 th grade	13	7	14-15 y. o.	20

Outcomes:

1. It was found that 1st and 2nd groups students showed less aggressiveness and bullying, and that the application of psychological approaches to adolescents at the class and individual levels had an (какъв точно??) impact on students' emotional intelligence.
2. Students with whom group work was conducted to overcome aggressiveness and increase emotional intelligence showed improved class relationships.
3. The levels of aggressiveness in the 1st and 2nd groups were in the average values, which indicates the norm.
4. The levels of aggression in students in the control group were elevated and well above the norm.
5. Emotional intelligence results of the students the 1st and 2nd groups are in the upper limit of the average values, some of them having a high level of emotional intelligence.
6. Emotional intelligence in the students in the control group was in the lower range of the mean, with low levels of emotional intelligence in some of them.

5. EMOTIONAL INTELLIGENCE DEVELOPMENT DURING BINAP STUDY

Author: **Inna Stankova**

Supervisor: **Madlen Algafari**

Abstract: Within the last 7 years, we have been conducting a **longitudinal study focusing on emotional intelligence (EQ)** with over 300 participants – students in BINAP. The aim of the study is to compare scores in the beginning and end of a 4-year psychotherapeutic training program, as well as to compare with the scores of participants who didn't receive such training by means of the **Emotional Intelligence Questionnaire**.

Hypothesis:

- The first hypothesis suggests that students in the last years of their training will show an overall higher emotional intelligence than those in the first years.
- The second hypothesis is that participants, who underwent the psychotherapeutic training, will achieve higher results compared to the control group – people with similar education who did not receive such training.

Tools: Emotional Intelligence Questionnaire by Christoph André

Outcome: The results of the statistical analysis will be presented at the conference. The EQ (general emotional intelligence) is increasing. And the subscales IEQ (intimate emotional intelligence), SEQ (social emotional intelligence) and EEQ (existential-spiritual emotional intelligence) are going up to.

6. TEST-BASED ASSESSMENT FOR PSYCHO-BODY THERAPY EFFECTIVENESS

Author: **Madlen Algafari, Daniel Vladinov**

Abstract:

Usually, clients begin their therapy with high level of stress and/or with exhausted resources to cope and adapt to the changes in their environment. The objective of the study is to determine the effectiveness of the psychotherapy process by **measuring client's distress and their general spontaneity & well-being.**

Hypothesis:

Our hypothesis is that therapeutic process will help clients measurably reduce their stress levels and increase their capacity to react more spontaneously and authentic.

Tools:

The longitudinal study steps on regular administration of the two standardized tests :

- **Clinical Outcomes in Routine Evaluation (CORE-OM)** for measuring distress.
- **Spontaneity Assessment Inventory - Revised (SAI-R)** for measuring everyday spontaneity, well-being and stress.
- Both tests are short and suitable for regular application, and we had involved our certified neoreichian therapists to apply both tests on every 5th session with their clients.

CORE-OM test measures the *general level* of psychological distress detailed with the 4 separate scales:

- Subjective well-being
- Problems / symptoms
- Life & Social functioning
- Risk to harm oneself / others

Clients are asked to respond to **34 questions** about how they have been feeling **over the last week**, using a 5-point Likert scale

SAI-R test provides psychometrically valid measure of spontaneity

Clients are asked to respond to **18 statements** about the intensity of their feelings and emotional reactions **during the day.**

Results and Outcome:

- 190 tests are collected since 2020. Representing the work of 7 therapists with 27 clients
- Empirically observed correlation between reduced distress levels and increase spontaneity is yet to be statistically evaluated

