The impact of mindfulness meditation on the level of happiness in its broad sense.

1. Topic of the study

The impact of mindfulness meditation on the level of happiness in its broad sense.

2. Purpose of the study

In the times of fast-paced living, where "to have" is more important than "to be", it seems to be very interesting to examine the elements that can have direct influence on the comfort of experienced life, in order to fully discover one's humanity. It is possible that we currently have tools available that can help many people in developing complete, purposeful and sensible lives. Shamata mindfulness meditation, originating in Tibetan Buddhism and focusing on a 24-minute concentration on breathing, can be an interesting tool. Based on it, a fast growing movement called "mindfulness" appeared, used as an antidote mainly in case of stress. There is a number of Western studies regarding the effect of long-lasting meditation on Tibetan monks and the processes and changes appearing in their brains.

We are interested in finding out about the effects of regular mindfulness meditation over a 12-month period on: - happiness level, - quality of life, - emotional condition, - quality of interpersonal relationships, - concentration/attention level, - relaxation level, - involvement, - motivation, - stress, - anxiety, - depression, - level of caring about others, - empathy, - goodness.

If the results of the study turn out to be positive, it might be a key turning point in the way we look at humans and the characteristics of their brains. We know already that the powers of our brains are not fully known and that the brain itself does not fully use its potential. But perhaps thanks to these studies we can discover something that sheds a new light on how to use the brain in such a way that it works for us, not vice versa – ourselves trying to satisfy its ever insatiable wild desires.

Increasing percentages of people with depression, neurotic conditions, anxiety or constant irritation and lack of sense of life are a serious concern, and that is why in our times we need effective and scientifically proven methods leading humans to some new vision of oneself. It seems that mindfulness meditation may lead to such comprehensive transformation on multiple levels. It can lead to insight, to broader awareness, to a different perception of reality, and thus to being a subjectively "better" human being. The assumption of the project is that this feeling of being a "better" human will not be yet another contributor to increased narcissism, but a balanced feeling of one's self-esteem with consideration for other people and their needs. Perhaps we have a chance to build a completely new society based on completely new principles. Where good, friendliness, empathy and discipline are not just archaic words, but are associated with the most important values worth aiming for. In contrast to showing off, superficiality, haste, narcissism, and insatiable needs distorting the picture of what is human and leading us nowhere.

3. Scope of the study

The study will cover a group of 7 people who never meditated before or meditated sporadically. The main study group will be women and men aged 30-40. The assumption of the project is that the participants of the study will meditate every day for at least 24 minutes over a period of 12 months.

4. Research hypothesis

We assume that after 12 months of regular meditation there will be visible changes in the bioelectrical functioning of the brain (reduced level of stress, anger, increased level of engagement, motivation, relaxation and focused attention, reduced depression and anxiety). As meditation broadens the field of perception and awareness, we also expect improved quality of life, and therefore improved level of happiness, and improvement of general emotional condition, which we expect to be more adequate to the situation and more harmonious.

5. Research methods

The study method will be mindfulness meditation. The person teaching meditation and then taking care of the participants will be Dorota Kościukiewicz-Markowska, the founder of the School of Happiness, who has been practicing this method for more than ten years. She learned meditation from teachers such as: Alan Wallace – Mexico and Spain, Tony Karam – Mexico, James Low, Sakjong Mipham Rinpoche, Barbara Martens. Dorota graduated from positive psychology at SWPS University and post-graduate course in Cognitive Neuroscience at the Pomeranian Medical University in Szczecin. She is the founder of the School of Happiness, where she combines positive psychology tools with mindfulness meditation.

She carried out a year-long study on her own brain with Anna Okupińska using EEG Biofeedback. The outcomes of the study were so inspiring that it seems very fascinating to examine a larger number of people and to verify the positive effects of mindfulness meditation.

6. Research tools

6.1. EEG Biofeedback

EEG Biofeedback examination will be carried out by Sylwester Okupiński - 2nd degree EEG Biofeedback coach, graduate of Adult Age Cognitive Neuroscience, and Anna Okupińska - 2nd degree Biofeedback coach. A specialist in brain functioning. In her practice she uses training and therapy of brain wave stimulation to improve the effectiveness of brain functions. She graduated from Cognitive Neuroscience and courses related to Pedagogy.

EEG Biofeedback – a diagnosis of brain wave activity, to be carried out before the year-long meditation period and after 2, 6 and 12 months of regular meditation.

The project will be carried out using specialized EEG Biofeedback equipment: a 5-channel EEG DigiTrack BF biological amplifier headbox with blood oxygen saturation measurement and heart rate monitor (4 channels EEG + Sp02 + HR).

Biofeedback EEG (electroencephalography) or neurofeedback – uses the fact that the human brain generates various ranges of electromagnetic waves, depending on the type of activity. For example: alpha waves during relaxation, medium range of beta waves during intense intellectual effort, delta waves during deep, regenerating sleep.

6.2 EEG - Electroencephalography

Person responsible: Dariusz Jeżewski, M.D., neurosurgeon

The examination will be carried out at the hospital at Unii Lubelskiej St. in Szczecin, before the year-long meditation period and after 12 months of meditation.

EEG – a non-invasive diagnostic method used to examine electrical brain activity using an electroencephalograph. The examination uses electrodes located on the scalp, recording the changes in electrical potential on the skin surface, coming from cortical activity. After amplification an electroencephalogram is generated.

6.3 P300 event-related potentials

Person responsible: Dariusz Jeżewski, M.D. Neurosurgeon – Chairman of the Pomeranian Neurocognivistic Association.

The examination will be carried out at the hospital at Unii Lubelskiej St. in Szczecin, before the year-long meditation period and after 12 months of meditation.

P300 event-related potential – is one of the methods to examine brain function. It allows for visualization of changes in brain's electrical activity due to a certain stimulus.

6.4 Psychological examinations and questionnaires.

To be carried out by Ms Sylwia Olszewska, Ph.D. – business psychologist, trainer, coach, therapist, UG doctoral student. Gratuated from Adam Mickiewicz University in Poznań – M.Sc. in psychology, and Stefan Wyszyński University in Warsaw – M.Sc. in family studies. Completed courses in: coaching, human resources management, assertive behaviour, successful negotiations in business, and many others. Author of numerous publications. Trainer in business psychology and NLP techniques. Since 2009 she cooperates with High School of Banking in Poznań, Faculty of Economics in Szczecin.

Psychological tests and a 1.5-hour interview with each participant to be carried out before the year-long meditation period and after 12 months of meditation. Psychological tests will include:

D2 – Rolf Brickencamp – Attention Test, Polish adaptation by Dajek.

CISS Questionnaire - Coping in Stress Situations - N.S. Endler, J.D.A. Parker

KPS Questionnaire - Feeling of Stress - Polopa

STAI – State-Trait Anxiety Inventory – C.D. Spielberger, R.L. Gorsuch,

Beck's Depression Inventory

OHQ – Oxford Happiness Questionnaire – Peter Hills, Michael Argyle, Polish adaptation by R. Poprawa

SWLS - Satisfaction With Life Scale - Diener

Life Satisfation Questionnaire - Chodkiewicz

INTE – Emotional Intelligence Questionnaire – N. Schutte, J.M. Malouff, L.E. Hall, D.J. Haggerty,

J.T. Cooper, Ch.J. Gloden, L. Dornheim, Polish adaptation by Matczak

7. Scope of analysis of results

The phenomenon will be explained by persons participating in the project: Dariusz Jeżewski M.D., Sylwia Olszewska Ph.D., Anna Okupińska and Dorota Kościukiewicz-Markowska.

Project under the patronage of the Pomeranian Cognitive Neuroscience Association. The initiator and co-ordinator of the project is Dorota Kościukiewicz-Markowska.

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