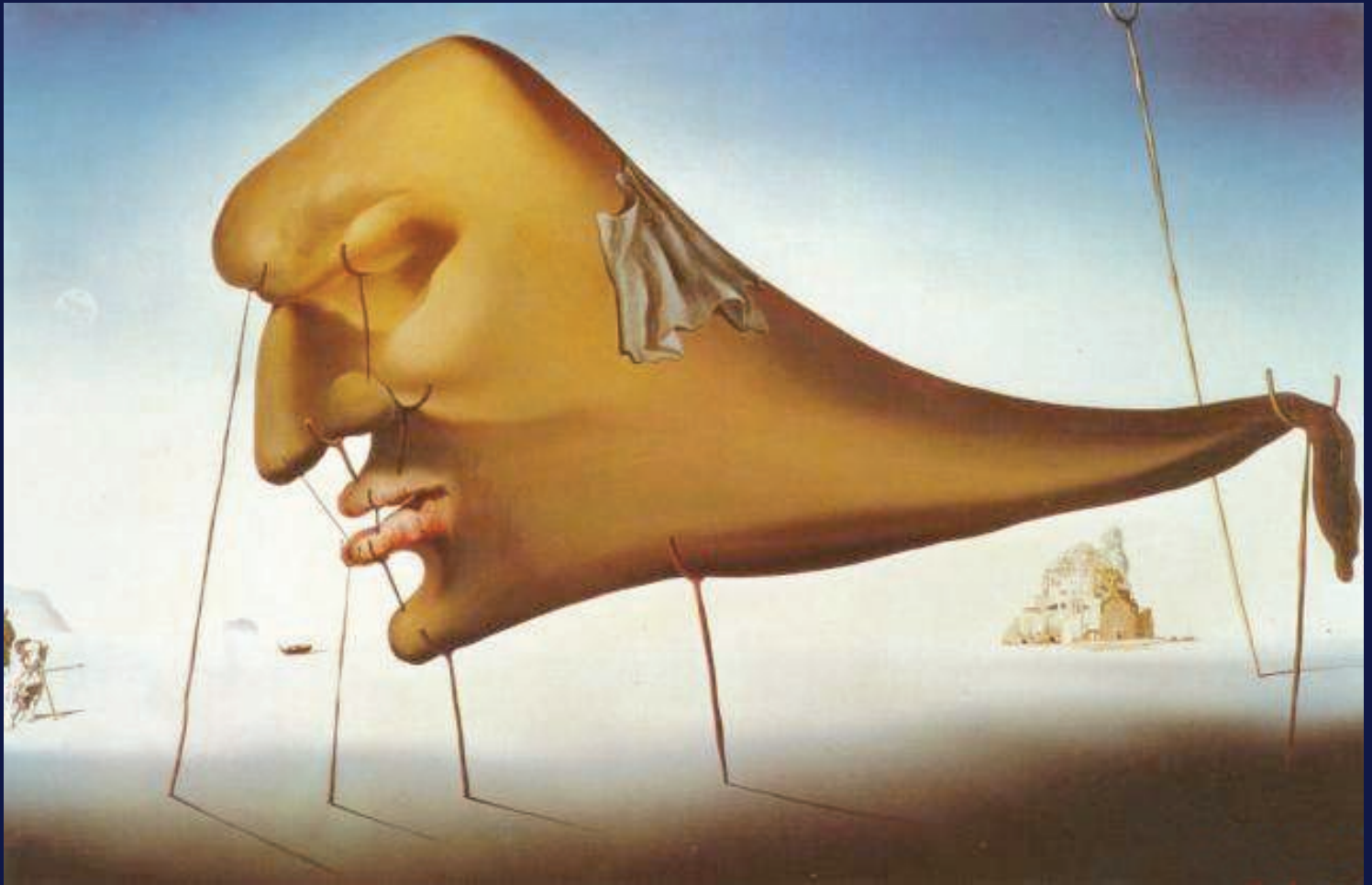




A Silva Method Research Paper

Sleep Disorder Insomnia and the Mental Exercise Sleep Control

By Aretoula Fullam, Ph.D.



Sleep - Salvador Dalí

Sleep Disorder Insomnia

and the Mental Exercise Sleep Control

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A healthy amount of sleep is paramount to living a healthy life. Good quality sleep is an important part not only for living healthy but also for leading a productive life, physically and mentally. Chronic sleep restriction in today's demanding lifestyle, however, is very common (1).

Insomnia is the second most common complaint, after pain, in the primary care settings (1). Thirty-five per cent of the general population according to the 1984 report of the National Institutes of Mental Health suffers from insomnia (2), whereas persistent insomnia affects roughly more than one-third of the population.

The first references in the Western culture to insomnia go back to ancient Greeks. For the first time insomnia was mentioned in the pre-Hippocratic Epidaurian tables listing seventy cases, one case of which was a patient with insomnia. Following this, Aristotle offered the first scientific approach in his writings around 350 BC; the first records of treatment of insomnia come from the first century BC Greek physician Heraclides of Taras, who lived in Alexandria and recommended opium as the treatment of choice (5).

Insomnia, is defined as the experience of inadequate/poor quality sleep, difficulty in initiating sleep and/or maintaining sleep, and sleep that is not restorative and/or refreshing (1,3,4). It is the most common of sleep disorders. Research in insomnia suggests significant quality of life impairments, impairments in performance and mood, fatigue, irritability, lack of energy, and



poor concentration including impaired memory (1,3,4,5). These impairments are taxing to the person suffering from insomnia, to relationships and work performance. Psychophysiological insomnia, a subcategory of insomnia, is the most extensively researched sleep disorder (2). Some factors contributing to its chronicity include conditioning, anxiety, and heightened physiological arousal such as increased sympathetic nervous system activity (1,2,4,5). There is particularly strong evidence for activation of the hypothalamic-pituitary-adrenal axis (HPA), the most important mediator of stress, in individuals with insomnia (4). Some basic research studies have found increased release of cortisol in individuals with chronically impaired sleep during daytime and nighttime. The persistence of elevated arousal has led to the development of the hyperarousal hypothesis of chronic insomnia (1-5).

Other indicators of heightened sympathetic nervous activation and arousal include increased levels of catecholamines (epinephrine and norepinephrine) (6-16). Other measures of arousal, such as the number of vasoconstrictions, respiration and metabolism, were found to be higher

in insomniacs when compared with normal control subjects (5-14). A growing body of research is also demonstrating the existence of cortical arousal in chronic insomnia as determined from spectral analysis of the EEG (14-17).

Patients with insomnia often have symptoms that include tension, anxiety, depression, fatigue and irritability (5,6,8). Frequently, insomnia begins in conjunction with significant stress

(11,17). As a result, many investigators hypothesized that insomnia is the result of internalization of emotions producing emotional arousal. More recently, it has been hypothesized that insomnia can develop entirely from physiological activation. Study results showed increased rectal temperature, heart rate, basal skin resistance, and phasic vasoconstrictions 30 minutes before sleep and during sleep in patients with insomnia as compared to normal sleepers (7). Other studies have shown that patients with problems falling asleep had increased frontalis (8-10,18) and mentalis electromyogram (EMG) (8-10,15), increased heart rate (12), increased finger temperature and more β (beta) and less α (alpha) frequencies in the electroencephalogram (EEG) (10,18). However, not all studies have reported significantly increased body temperature in poor sleepers (12,13). Interestingly, poor sleepers have

increased secretion of corticosteroids and adrenaline (12,14) compared with good sleepers in most studies.

The primary treatment of insomnia is medications and pharmacological agents (19-21) associated though with disadvantages (22,23), side effects (24-27), tolerance (22-27) and rebound effects at withdrawal (27-31). However, it is acknowledged that drug therapy “does not address the underlying etiological and perpetuating factors. Behavioral and educational interventions that directly target these factors seem essential to resolve chronic sleep difficulties” (21, 32-35).

Patients with insomnia are undertreated and hypnotics are the primary avenues for its treatment (19-22,24,25). Unfortunately, alcohol remains the most commonly preferred method of self-treatment for insomnia (4). Insomnia leads to over-utilization of over the counter drugs in addition to the prescribed drugs for its temporary “cure” and also over-utilization of health care services. In the workplace insomnia is related to more absenteeism and leads to decreased productivity, with costs to the American public of about \$100 billion annually in medical expenses, ramifications of accidents, and reduced work efficiency (3,23,24). On the personal level it leads to more accidents either due to drowsiness or decreased ability to concentrate and focus. One can say that persistent insomnia is a personal and public health risk (1, 3). People with insomnia frequently become their own physicians by administering self-treatments such as alcohol or over the counter medications. However, these might work in the beginning temporarily but after a while they are not effective, plus the creation of a dependency habit to treat, namely alcoholism. The people who are involved in self-medicating may additionally experience impaired daytime functioning, lack of concentration, attention, focus, as well as impaired memory (1-5).

A subcategory of insomnia known as psychophysiological insomnia is described as the disorder of “inappropriate arousal” rather than a disorder of sleep(18-20), and “treatment strategies should be directed toward normalizing the level of arousal” (22).

Any time an event is perceived as a threat the fight and flight response is activated to help the organism overcome the threat (17). But when this is chronic, the organism is experiencing “hyper arousal.” The response to a stressor is a complex cascade of neuro-endocrinological hormones. The hypothalamus synthesizes corticotrophin-releasing hormone (CRH), which in turn prompts the release of adrenocorticotrophic hormone (ACTH) from the anterior pituitary. ACTH, which in turn stimulates the adrenal cortex to produce, and release glucocorticoids (e.g., cortisol), which have a broad range metabolic effect (48). This chemical factory, known as the *hypothalamic-pituitary-adrenal axis* (HPA), is orchestrating the stress response (49). Proper concentration of glucocorticoids is normally maintained by negative feedback and it is necessary to get the organism out of encountered danger or threat, but prolonged experience of stress can impair this feedback mechanism and lead to an excessively high amount of circulating glucocorticoids (48-53). The excessive presence of glucocorticoids never dissolves unless the person knows how to relax and turn it off at will. Prolonged experience of stress results in dysregulation and suppression of the immune system; the response of the Natural Killer (NK) cells and T-cells weakens under stress and also the circulating number of NK and T-cells is suppressed (49). The weakening of the immune cells contributes to the weakening of the immune system, known as immunosuppression (49,51,52). In addition, weakening of the immune system is related with

decreased synthesis of inflammatory cytokines which in turn is related with prolonged and delayed wound healing (49). High concentration of stress hormones has been found to cause shrinkage of the hippocampus. Finally, current research studies provide strong evidence that stress is a causal factor in the suppression of neurogenesis (51,52).

Experience of stress has an equally detrimental effect on psychological health (50). Studies have revealed that extended exposure to stress hormones contributes to memory impairment and decreased cognitive performance such as impairments in working memory, and concentration (50).

Different behavioral treatments for insomnia such as sleep hygiene, sleep restriction, stimulus control, cognitive therapy, and relaxation therapy have been evaluated (31-47).

Relaxation techniques aim at reducing insomnia’s underlying hyperarousal. The most widely used technique is progressive muscle relaxation, a sequential and systematic tensing and releasing of major muscle groups (31, 34-38). Cognitive relaxation involves training in meditation (39-41), guided imagery (39-42), autogenic/hypnotic relaxation (42-44), and biofeedback (45-46). Interestingly, insomniacs seem to rate non-pharmacological treatments more favorably (47,48) compared to pharmacological treatments.



It is clear that psychophysiological insomnia can be treated successfully with applying stress management techniques. The Silva Method teaches not only physical relaxation but also mental relaxation. This is very important; because it involves control of the objective physical dimension, e.g., physiological arousal (sympathetic nervous system activation), bodily processes (secretion of hormones), and control of the subjective mental dimension, e.g., cognitive control or mind control, as we know it in the Silva Method terminology. If the mind is not directed/oriented it will continue to create without discipline. Undisciplined creation is not different from creative

creation
except for
the



outcome
or the
obtained
end results.

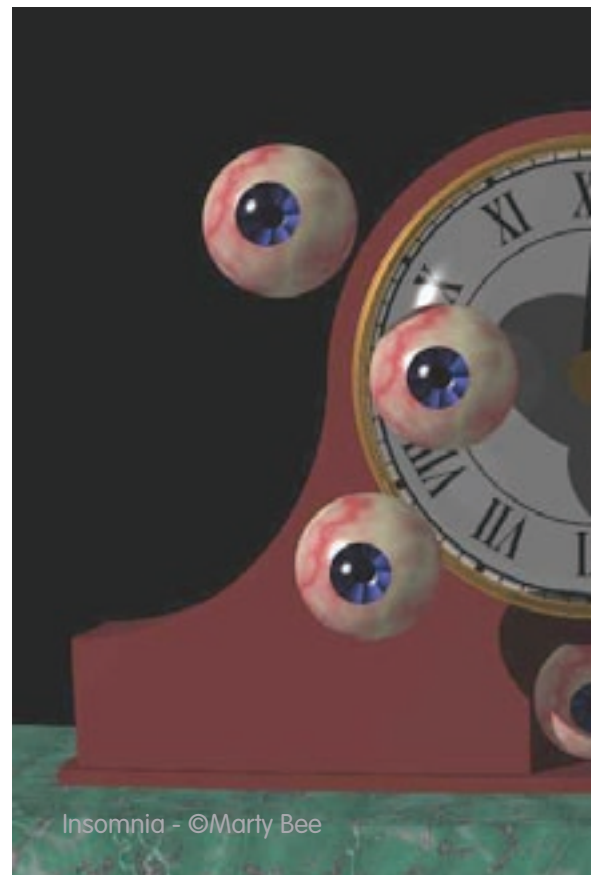
The first creates chaos, problems, struggles, physical effort and illness. The second creates harmony, wholeness, progress, abundance, attracting of outcome, healing and health. The first one is done with ignorance; the second is done with controlled awareness and guidance from the intuition of the "superior human being with greater understanding, compassion and patience." Secondly, the Silva Method is a form of Dynamic Meditation, not passive. What do we really mean by that? Well, there are many roads that lead to Rome as the saying goes. There are many methods that teach meditation and relaxation. The goal, however, is not just to arrive in Rome and stay passive, but to go around and experience Rome in its

most brilliant form; for example, enjoy the antiquities, its history, the arts, the museums, the modern city, the sunsets and sun rising, entertainment, shopping, etc. In other words you arrive in Rome and do things that you want to do to experience what Rome is. Well, that is exactly what dynamic meditation is; you reach the relaxed level and at this relaxed level, being consciously awake and alert at the Alpha frequency of the brain, do things that you want to do and start experiencing life in its fullest potential by tapping into the immense storehouse of energy that is within you and everywhere in the Cosmos. For example, in the present case you can use this boundless level of energy to improve the quality of sleep and eliminate insomnia, or even more, to eliminate the cause of insomnia. Thus, Dynamic Meditation refers to the new gained ability to reach first a profound level of physical and mental relaxation, and second to use this creative level of boundless energy and potentiality, to create new things, to change things you do not like and replace them with other more constructive and creative ones, to even tap into the creative/divine essence of your being and connect with the One who created you to correct the cause of an ailment, whatever this ailment might be. Simply, you can solve problems by finding solutions, answers and possibilities that are not available to your five physical senses due to the limits they are bound with. Therefore, at the "Basic Level" you are tapping into, in the creative Alpha level of consciousness, you create according to your desire, belief and expectancy (faith). All these can be simply done by devoting, only 15 minutes of meditation every day. Five minutes a day is good. Ten minutes is very good. Fifteen minutes is excellent. Once a day is good. Twice a day is very



good. Three times a day is excellent. This way you are sure you are in touch with the divine spark in you, a level of harmony and bliss.

If a person follows a disciplined routine to experience the boundless energy of this level which is likened to the "Kingdom of Heaven" using the Silva Method of dynamic meditation exercises consistently, abundant evidence from all over the world in a wide variety of settings (clinical, medical or everyday life), suggests

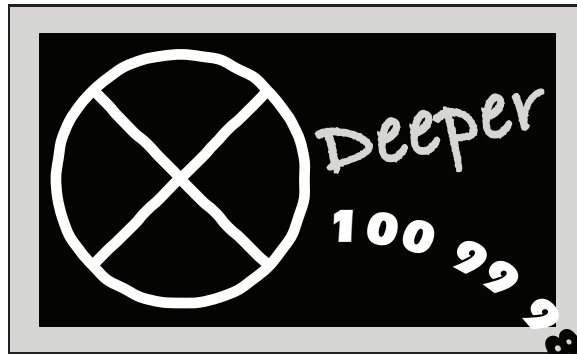


Insomnia - ©Marty Bee

that whatever is malfunctioning in the physical dimension is returning to the level of homeostasis and balance because mental energy penetrates and directs physical energy; physiology follows the guidance of the mind in this unique make-up of spirit/mind/body that we, human beings have. Human beings are spiritual beings clothed in flesh, in order to be able to function in the physical world. But the guidance on which road to take in this physical world is not coming from physical means, but from spiritual means. In other words, the guidance is coming from one's ability to shift his/her awareness in the alpha level of the mind, and listen to his/her intuition. From all created things in this world, the human being amongst all other beings is the one with the greatest gift, consciousness, reflective awareness and the ability to live in both worlds simultaneously, the world of the mind/spirit and the world of the body/physics. The human being is the only being who knows that he/she knows that he/she knows. The successful being is the one who is living harmoniously in both worlds

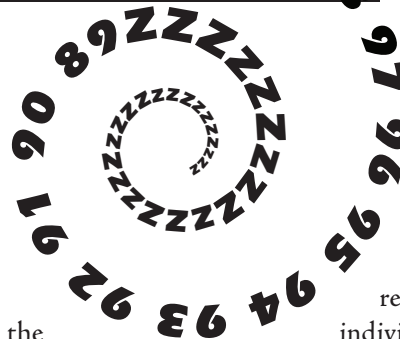
with balance. This balance is coming from learning to do the thinking in the dimension of Thought, the Alpha level of consciousness, and the acting in the dimension of action and behavior, the Beta level of consciousness. The benefits of taking the Silva Method Training are immense, as every graduate already

of symptoms is rising up and being experienced. Medications interfere with the normal sleep cycle because they bind with the receptors to cause the chemical changes at the biological level. This means that for the amount of time that the drug is active, the person is locked in the Theta level of intelligence,



the biological level of intelligence, and the individual is not able to follow the sleep cycle of passing through the Alpha, Theta and Delta frequencies of the brain. This results in waking up in the morning feeling exhausted, fatigued and with the feeling of not getting quality sleep during the night even though the

knows from experiencing harmony, balance and homeostasis after disciplining this wonderful mind everybody has.



Polysomnogram results suggest that the individual has spent time in the different sleep stages.

Let us now review the brilliant mental exercise of Sleep Control. For someone who does not have any problems falling and staying asleep, or is not insomniac, probably this technique goes unnoticed. But for a person who is not able to get a good night's sleep, this mental exercise is invaluable. Did you ever find yourself in a foreign environment in a hotel room or somewhere else where you could not sleep? In my clinical training, I am witnessing the devastating effects of sleep deprivation. As mentioned above, staying at the Beta level of consciousness and not knowing how to go to the Alpha level of consciousness to eliminate the heightened sympathetic nervous activity has deleterious effects on sleep and health. Furthermore (as we mentioned above), the use of sleeping drugs and other pharmaceutical agents are detrimental and accompanied with a packet of undesirable side effects; together with the deleterious effects of sleep deprivation a vicious cycle

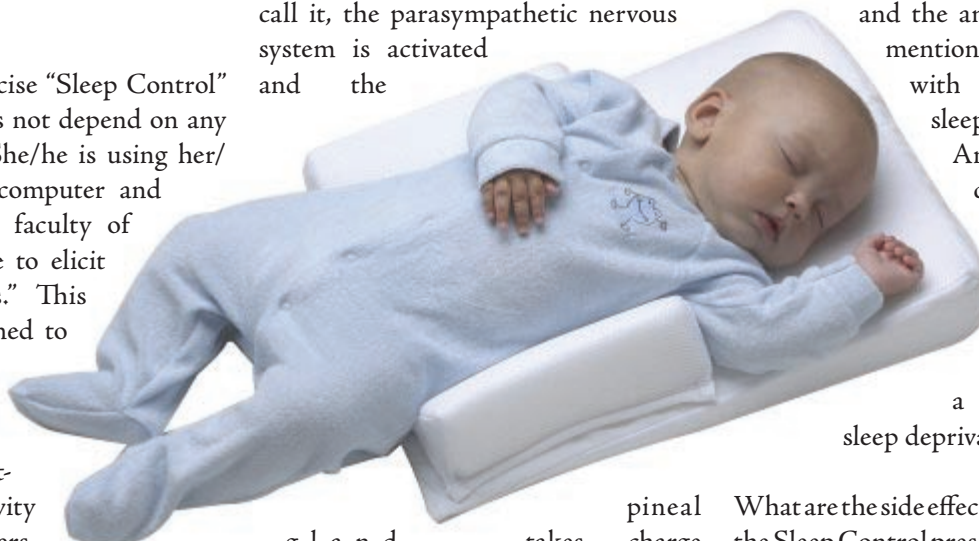
Polysomnograms (which cost \$2,500.00 each), [like electrocardiograms (ECG) monitoring one's cardiac activity], are recordings of the sleep cycles and other vital processes. They include measurement of brain wave activity recordings (EEG), muscle movements (EMG), electrocardiac (ECG) monitoring, breathing etc., and in most cases they show that insomniacs spent very little time at Alpha and REM. The combination of drugs and sleep problems is a vicious circle that can cause serious health problems, such as irritability, moodiness, fatigue, inattention, lack of concentration, impaired memory, etc. However, the greatest cause of psychophysiological insomnia (the inability to fall asleep and maintain good quality of sleep during the night) is related with psychological challenges rather than biological causes. Largely, insomnia is accompanied by the inability to turn off the mental switch of thinking.



Jose Silva 40 years ago offered a well-researched package of mental exercises, one of which is to overcome insomnia without the use of drugs. He also said that drugs deprive people of Alpha functioning because drugs keep the individual who is using them locked at the Theta level frequency. Interestingly research studies demonstrate that people with insomnia have very little REM stage.

In the mental exercise "Sleep Control" the insomniac does not depend on any external agents. She/he is using her/his wonderful biocomputer and her/his mind, the faculty of human intelligence to elicit the sweet "Hypnos." This technique is designed to keep both brain hemispheres involved. There is much left-hemisphere activity (counting numbers, writing the word, paying attention to details) and much more right-hemisphere activity (visualizing, remembering, drawing, erasing, desire, belief and expectancy, etc.) to keep the individual's mind busy. In this manner, the individual not only is able to switch off the mental chatting, but is also able to fall asleep without using any drugs. How long do you think one is going to keep on counting? Interestingly, Mind does not like to deal with boring events, and counting numbers backwards is very boring; therefore, the mind is going to give up counting numbers and allow the Sleep-God to fall upon the eye lids and become free from the boredom of drawing circles, Xs, numbers, deeper, erasing and starting all over again. There is no magic in it, or maybe the only magic associated with it is the fact that the individual will experience the visit of the sweet "Hypnos" or Sleep-God as the ancient Greeks called him. Continuing to use the prescribed dose of "Self-Mind Control" through the mental exercise, the insomniac brings the two hemispheres into

harmony, the physiological arousal is minimized, cortisol and catecholamines (epinephrine and norepinephrine) return to normal levels, and endorphins are now secreted and start circulating in the body. Did you ever wonder why it is called sweet "Hypnos" or sweet "Sleep?" As a Silva Graduate, you know that every time you go to the Alpha meditative state or at your level as we call it, the parasympathetic nervous system is activated and the



pineal gland takes charge orchestrating the secretion of melatonin, the "night hormone" and also all the endorphins and opioids which calm the human system and which have analgesic effects.

Jose Silva over 40 years ago discovered and talked about what science has just started discovering, that meditation and relaxation have healing properties, minimize sympathetic nervous system activation, increase alpha wave activity, reduce the stress hormones and increase secretion of endorphins (endogenous morphines). The pituitary gland, which is the maestro for preparing you for the Fight or Flight response, is now obeying your mind's command to "Relax" allowing the Pineal gland to do its work at the relaxed level. The body's wisdom to heal itself is now activated and the immune system regains its ability to fight imbalances, allow the tissues to recover and mend themselves and health to be restored. There is no magic in it. There is only a whole new inner reality that is coming to the surface to become as clear as the physical outer reality.

Yet, what is more interesting is that the use of the Sleep Control is free. There is no cost involved, except the fee one pays to receive the mental training of the Silva Method. You pay once for your subjective education, and then you use it for free for the rest of your life. You only need to desire it and be determined to apply it. Compare it with the medication expenses, and the amounts of money mentioned earlier related with the effects of sleep deprivation. And what price can be put on the emotional and psychological challenges that one can experience as a consequence of sleep deprivation?

What are the side effects that accompany the Sleep Control prescription? Anxiety (if present) is being eliminated because one cannot think of the things that are causing anxiety and keep counting backwards correctly. Heightened β activation slows down as the increased α frequency is now predominant allowing for the "sweet hypnos" to come. Fatigue, which is another "20th century illness" with no known cause, gives way to relaxation, vitality and enthusiasm. When one is producing α at will as the graduates of the Silva Method learn to do, they become more inspired. Inspired, means in spirit and when one is in spirit there is no fatigue. Fatigue is felt when one is dispirited or functioning predominantly at the β level of the mind with the first signs of excessive β activity manifest as insomnia, followed by headaches, tension headaches and pain, allergies, etc. All the symptoms that I mentioned in the beginning of this article, including insomnia are related with increased sympathetic nervous activation. Research has already established reduced α activity in insomniacs. So, if we teach insomniacs to function at the alpha brain wave

frequency at will and with conscious awareness, what is going to happen to the stress? What is going to happen to insomnia? What is going to happen to all the symptoms that are related with excessive beta functioning? The Silva Method is offering techniques and mental exercises involving the “whole” you. The Silva Method is bringing congruency in all of the integral parts of your being, not just the physical. In simple terms, when one is using dynamic meditation, not only is one helping himself/herself to fight stress and to improve insomnia, the individual is able to find the solution to the problem, to heal the problem and the cause of the problem, and to create something beautiful for humanity. Simply put, this is called healing at all levels of existence. Healing is not getting rid of a problem. Healing is experiencing harmony at all levels of one’s being, the spiritual, mental, emotional and physical dimensions. The human being who is a Silva Method graduate has learned to live his/her life in both worlds, the world of the mind and the world of the body in harmony. When one is able to get rid of the cause of the problem (whatever this problem might be), whatever term you can use to describe it, the bottom line is that healing occurs. Dr. Silva recommended, “Every time you go to level have the belief and the intention that the problem is corrected (healed) at its cause.” And there is abundance of cases of “miracles” that Silva Method graduates report on a daily basis. In the Silva Method lexicon, these are not “miracles” they are real reality, because when one knows to use with conscious awareness one’s unlimited and boundless potentiality, the superpower of the Inner Consciousness, everything that is desired will be the new real reality. ■

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