UNIVERSITY OF TARTU

Pärnu College

Department of Tourism Studies

Inna Bentsalo

PROMOTING THE QUALITY OF SLEEP ON THE CASE OF THE COMPLEX OF SERVICES PROVIDED BY TERVIS MEDICAL SPA

Master Thesis

Supervisors: Senior Researcher of Sleep Medicine Marlit Veldi, PhD Senior Lecturer Heli Tooman, PhD

TABLE OF CONTENTS

Introduction	4
1. Theoretical Approach of Sleep Therapy	7
1.1 Quality of Health and Sleep	7
1.2 Different Cycles of Sleep	10
1.3 Different Sleep Disorders	13
1.4 The Impact of Sleep Therapy	19
2. Theoretical Approach of Medical Spa	24
2.1 Overview of Spa History	24
2.2 Different Types of Spas	28
2.3 Overview of Global Spa Trends for year 2011	32
2.4 Spa Service Design	37
3. The Development of Spa Services in Tervis Medical Spa	40
3.1 Overview of Tervis Medical Spa	40
3.2 Research Methods and Samples	42
3.3 The Results of the Customers Questionnaires in Tervis Medical Spa	44
3.4 The Results of the Interviews with Experts	51
3.5 Suggestions in Developing the Sleep Package in Tervis Medical Spa	57
Conclusion	61
Reference	64
Appendices	69
Appendix 1. Questionnaire in Estonian for Tervis Medical Spa Customers	69
Appendix 2. Questionnaire in English for Tervis Medical Spa Customers	73
Appendix 3. Questionnaire in Finnish for Tervis Medical Spa Customers	77
Appendix 4. Questionnaire in Russian for Tervis Medical Spa Customers	81
Appendix 5. Interview Questions for the Senior Researcher of Sleep Medic	ine and
her Assistant in Sleep Centre of Tervis Medical Spa	84

	Appendix 6. Interview Questions for the Chief Doctor, Spa Manager, Sales and
	Marketing Director of Tervis Medical Spa
	Appendix 7. Interview Questions for Sleep Therapy Specialist in Kubja Nature Spa
	86
R	Resümee87

INTRODUCTION

Health – related Quality of Life has become an important construct in modern world. Health and well-being are issues of everyday life: for families, for schools, on streets and at workplaces. Health is an indivisible part of general health and well-being. World Health Organization (WHO, 1946) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. It is not just about treating the body when a physical symptom occurs. It is about developing a holistic wellness approach that addresses all aspects of an individual, physical, mental and spiritual.

Stress is a fact of life nowadays. Situations that can cause stress in life are almost endless. Sometimes people do not realize that their lifestyle is not good. In a constant hurry, they often forget to eat healthy food or do not do enough physical activities. Researches have shown that constant strength instruction and cardiovascular workouts support creating human beings bodies' resistance to each physical and emotional stress. Stress is not only a problem to live with, it can cause serious health problems, including sleep disorders.

Sleep is often an overlooked element of a healthy lifestyle. It is a complex process of restoration and renewal for the body and mind. Sleep is affected by a number of symptoms related to stress. In the short term the body can cope with stress and an occasional sleepless night but in longer periods it will affect the body and mind. Alcohol, sleeping pills, limiting sleep and long working hours may all distract from the problem but will only increase the possibility of damage to the body and affect work and relationships.

Sleep disorders, lack of sleep and from that related tiredness are not only frequent traffic or job-related accidents but they also damage the individual's organism balance and cause many health disorders such as overweight, diabetes, heart diseases, high blood

pressure and related health problems. Scientists consider sleep disorders and lack of sleep as a new risk factor in human beings health showing steady growth. Most of people are not enough informed about the problem and therefore many sleep disorders stay without essential attention although a high percentage of patients can be treated. Therefore the author of this work points out that sleep disorders are very actual problems nowadays and should be taken very seriously.

When it comes to sleep disorders many people do not know where to turn for help or assistance for their affliction. There are many centers where people can get help for sleep disorders but usually these places are medical institutions and therefore not so comfortable for the sleep study.

Present master thesis analyses different sleep disorders, the quality of sleep in an individual's health, shows the impact of sleeping therapy and how to use it in the spa service.

Current Master Thesis topic is "Promoting the Quality of Sleep on the Case of the Complex of Services Provided by Tervis Medical Spa". The author of this research will analyse sleep therapy demand and possibilities in a spa. Tervis Medical Spa has the chance to use it as a opportunity to develop and enlarge the number of their spa services. Therefore the author appoints a problem question in relation to Tervis Medical Spa – Do Tervis Medical Spa customers have a demand for sleep therapy as a spa service?

To investigate the topic the author of this master thesis raises a hypothesis – Most of the customers in Tervis Medical Spa have sleep disorders and they also have a demand for sleep therapy or sleep conducive treatments in a spa.

The aim of this research paper is to investigate the interest and demand of sleep conducive treatments including sleep therapy and to give ideas and suggestions in providing sleep therapy, sleep improving treatments and packages in Tervis Medical Spa.

On the assumption of the aim of this master thesis the author sets up following tasks:

• To review and analyse suitable and necessary literature about the topic;

- to compose a quantitative structured questionnaire for visitors in Tervis Medical Spa who come for treatment or procedure reasons and to investigate their interest and demand in sleep improving treatments, procedures including sleep study and sleep therapy;
- to compose and carry through qualitative structured interviews and quantitative structured questionnaires;
- to analyse the results of the questionnaires and interviews;
- to make concrete suggestions and develop sleep conducive packages for Tervis Medical Spa.

The research methods that the author has used are literature analysis, quantitative questionnaire and qualitative interviews. Chozen methods help the author to investigate and analyse the topic according to aims of the master thesis.

The present paper consists of three main chapters, which are divided into smaller subsections. The first chapter covers the theoretical approach of sleep therapy, including subsections are about the quality of health and sleep, different sleep disorders including insomnia and also about the impact of sleep therapy. The second chapter provides a theoretical approach of medical spa, the subsections focus on spa history, different types of spas, overview about the spa trends in 2011 and also on the spa service design. The third chapter is about the author's research – the results of the questionnaires, interviews and suggestions for providing sleep improving treatments and sleep conductive packages.

The current master thesis also has a conclusion, 65 references, 7 appendices and summary (*resümee*) which are given in the end of this paper work. The research parts are illustrating several figures that are made by the author.

The author of this work would like to thank her supervisors – Dr. Heli Tooman and Dr. Marlit Veldi for their proficient guidance believing in and encouraging the author to write this master thesis.

1. THEORETICAL APPROACH OF SLEEP THERAPY

1.1 Quality of Health and Sleep

In recent years there has been a shift towards assessing the overall impact of illness on aspects of quality of life, through the measurement of healt-related quality of life. Quality of life is widely regarded as a complex phenomenon: some argue it encompasses both objective and subjective indices of well-being, whereas others suggest it is a purely subjective impression of "life satisfaction". (Kyle, Morgan, Espie, 2010, p. 70)

Health is one of many components implicitly factored into the quality of life. It is reasonable to assume that individuals suffering from a chronic sleep problem may have a somewhat reduced "down-stream" health-related quality of life. (*Ibid*, p. 71)

Already in 1990s people were focused on the individual's quality of health – it was necessary to keep the organs in a good working order and the muscles from wasting away. Exercise maintained or improved body tone. That helped to look younger, more attractive, more erect. It was known that regular exercise had beneficial effect on metabolism and general well-being that combated stress, insomnia, general malaise and hunger. (Sarnoff, 1989, p. 235)

Good sleep is a irreplaceable reinvigorater and an important factor by human being's to stay healthy and according to National Sleep Foundation (as cited in American Psychological Association 2011) it is essential for a person's health and well-being. Sleep is the elixir of life and the spring of Vitalit pampering human being's body, mind and soul. Sleep creates the feeling of more alert, more energetic, happier, and gives better ability to function following a good night of sleep.

Stevens (2004, p.1) defines sleep behaviourally as a reversible unconscious state with characteristic supine sleep posture, lack of mobility, closed eyes, and increased arousal threshold.

Krystal and Edinger (2008, p. 10) point out the term "sleep quality", which is commonly used in sleep medicine. "Sleep quality" is sometimes used to refer to a collection of sleep measures including total sleep time, sleep onset latency, degree of fragmentation, total wake time, sleep efficiency, and sometimes sleep disruptive events such as spontaneous arousals or apnea.

According to the Better Sleep Council's in USA third annual stress and sleep survey done in year 2005, women identify getting a good night's sleep as their priority for personal wellness. Twenty seven percent of them believe that sleep is more important to wellness than eating balanced diet (24%) and exercising 30 minutes a day (19%). The poll shows that women are failing to get the sleep they need and for them sleep is also a priority to ensure the optimal health and happiness which shows that the quality of sleep and health is related to quality of life. (Better Sleep Council ... 2011)

Also other authors in Sleep and Health Journal (2011) point out a good health means good sleep and high alertness. Universal life energy flows through all living things. People interact with "chain" of energies and in the energy field lies the reason for health or disease, success or failure. The knowledge that energy connected directly to the quality of health has been part of the wisdom of many cultures since ancient times and the existence of this "life force energy" has been verified by recent scientific experiments, and medical doctors are considering the role it plays in the functioning of the immune system and the healing process. If the human energy field is out of balance, the body will be out of balance too.

Sleep consists of distinct cycles, which restore and refresh body and mind. A sleep loss takes a toll on mood, energy, efficiency, and ability to handle stress. Slightly less sleep can affect ability to think properly and respond quickly, also compromise health, energy balance, and ability to fight infections.

In order to be productive, mentally sharp, emotionally balanced, and full of energy all day long the first step would be to improve the quality of rest, finding out how much sleep is needed.

Not only is the quantity of sleep important but also the quality of sleep. Some people sleep 8 or 9 hours a night but do not feel well rested when they wake up because the quality of their sleep is poor. While sleep requirements vary slightly from person to person, most healthy adults need between 7,5 to 9 hours of sleep per night to function at their best. Children and teens need even more (see table 1). And despite the notion that sleep needs decrease with age, older people still need at least 7,5 to 8 hours of sleep. Since older adults often have trouble sleeping this long at night, daytime naps can help fill in the gap. (How Much Sleep... 2011)

Table 1. Average Sleep Needs

Age	Hours
Newborns (0 to 2 months)	12–18
Infants (3 months to 1 year)	14–15
Toddlers (1 to 3 years)	12–14
Preschoolers (3 to 5 years)	11–13
School-aged children (5 to 12 years)	10–11
Teens and preteens (12 to 18 years)	8,5–10
Adults (18+)	7,5–9

(How Much Sleep... 2011)

Most people do not get enough sleep. Nowadays people have lives where they stay up long nights working or having fun. However, going without adequate sleep carries with it both short- and long-term consequences. In the short term, a lack of adequate sleep can affect judgment, mood, ability to learn and retain information, and may increase the risk of serious accidents and injuries. In the long term, chronic sleep deprivation may

lead to a host of health problems including obesity, diabetes, cardiovascular disease, and even early mortality.

Human being bodies regulate sleep in much the same way that they regulate eating, drinking, and breathing. This suggests that sleep serves a similar critical role in people health and well-being. Sleep plays an important role in memory, both before and after learning a new task. First, a sleep-deprived person cannot focus attention optimally and therefore cannot learn efficiently. Second, a sleep itself has a role in the consolidation of memory, which is essential for learning new information. (Healthy Sleep... 2011)

More than half of adults over age of 60 have some sleep-related complaints. The primary sleep characteristics of older people are increases in stage 1 and wake after sleep onset and decreases in slow wave sleep. Napping also increases, such that consolidation of normal sleep – wake cycle breaks down. In extreme, nursing home residents often cannot maintain sleep or wakefulness for more than 1 hour at a time. Many older adults assume that they should be able to sleep as they did when they were young. Others feel entitled to sleep longer after a lifetime of arising early and working hard (Youngstedt, Kripke, 2004, p. 9)

It is clear that quality of sleep in human being's life does have an important impact on health-related quality of life and affects vitality and energy, but also extends to other aspects of mental, social, and physical functioning, which should be taken into consideration.

1.2 Different Cycles of Sleep

In the 1950s, a graduate student named Eugene Aserinsky used the first tool to discover what is known today as REM sleep. The invention of the electroencephalograph allowed scientists to study sleep in ways that were not possible before (Cherry 2011). In this subsection the author of this paper focuses on the different cycles also known as stages of sleep.

Sleep is consists of several distict stages. The stages also called "cycles" are split up in to general categories: REM or Rapid Eye Movement, and NREM, or Non Rapid Eye Movement. One sleep cycle including all stages is about 90 minutes. It usually happens

in the order of NREM1, NREM2, NREM3, NREM2, and REM. (Dream Views, Sleep Stages 2011; Regestein, Rechs, 1982, p. 34; Veldi 2009, p. 24–25)

According to Thorpy and Yager (2011, p. 225) sleep starts are sudden, shocklike sensations that involve most of the body, particularly the lower limbs. Sleep starts bring the individual to wakefulness, and a sensation of falling or a visual flash, dream or even hallucination may be experienced at this time.

During the night, sleep follows a predictable pattern, moving back and forth between deep restorative sleep (deep sleep) and more alert stages and dreaming (How Much... 2011). The cycles of sleep are also shown in the figure 1. NREM1 Sleep is the first cycle of sleep, normally lasting for a few minutes. During this stage a human being experiences strange noises, lights, or sensations, which are known as hypnogagic hallucinations or random twitches in skeletal muscles. Both hypogagic hallucination and hypnic jerks are completely harmless, although they can be startling sometimes. (Dream Views, Sleep Stages 2011; Veldi 2009, pp. 24–25)

NREM1 ends abruptly and the sleeper descends into stage NREM2. NREM2 is the second stage of sleep, and is characterized by a total loss of consciousness. A human being ceases to be aware of any of surroundings as falling into a deep, restorative sleep. (Dream Views, Sleep Stages 2011; O'Hanlon, 2000, p. 15; Stibich, 2009)

NREM3, also known as slow – wave sleep, was previously broken up into NREM3 and NREM4. Recently was discovered that there was no discernible difference between stages NREM3 and NREM4, so they were combined into NREM3. It is the deepest sleep out of all the stages, so it is very difficult to wake someone in the NREM3 stage. Parasomnias like sleepwalking and night terrors typically occur in this stage. Typically people will experience another period of NREM2 before moving on to the REM sleep. (Dream Views, Sleep Stages 2011; Regestein, Rechs, 1982, p. 35)

REM is probably the most important sleep stage, because this is, when a human being experiences dreams. While there have been recordings of dreams during the other sleep stages, generally REM is considered the stage in which are experienced dreams. In the first few sleep cycles of the night, REM is very short and lasts for a few minutes. But as

the night goes on, the longer periods will last in REM up to 30 minutes or more. Infants and children spend most of their sleep it in this stage, but as they grow less time is spended in REM. Adults REM comprises about 20–25% of total sleep time. (Dream Views, Sleep Stages 2011; Carney, Berry, Geyer, 2005, pp. 11–13; Cherry 2011)

During REM sleep, human body causes the atonia, or paralysis, of the skeletal muscles. Sleep paralysis is an episode in which a person is usually transitioning from wake to sleep or sleep to wake and they find that they cannot move. Sleep paralysis is commonly characterized by hallucinations, vibrations, loud ringing or roaring noises in the ears, pressure on the chest or choking sensations, and often fear of impending doom or terror if the person has has no prior knowledge or experience of sleep paralysis. Physiologically the sleep paralysis is caused by atonia of the voluntary muscles due to the REM cycle. An episode of sleep paralysis occurs because of the either entering or exiting REM sleep and people become conscious during this transition. (Dream Views, Sleep Stages 2011; Carney, Berry, Geyer, 2005, p. 13)

Sleep does not progress through these stages in sequence, however. Sleep begins in stage 1 and progresses into stages 2, 3 and 4. After stage 4 sleep, stage 3 and then stage 2 sleep are repeated before entering REM sleep. Once REM sleep is over, the body usually returns to stage 2 sleep. Sleep cycles through these stages approximately 4 or 5 times throughout the night. (Cherry 2011; Veldi, 2009, pp. 24–25)

The most damaging effects of sleep deprivation are from inadequate deep sleep. Deep sleep is a time when the body repairs itself and builds up energy for the day ahead. It plays a major role in maintaining health, stimulating growth and development, repairing muscles and tissues and boosting the immune system in order to wake up energized and refreshed. Factors that can lead to poor or inadequate deep sleep include such fenomena as have being woken up during the night (by outside noise or in order to care for a crying baby), working night shifts or swing shifts (getting quality deep sleep during the day can be difficult, due to light and excess noise) and the third factor is smoking and drinking in the evening. Substances like alcohol and nicotine can disrupt deep sleep. It is best to limit them before bed. (The Importance of ... 2011)

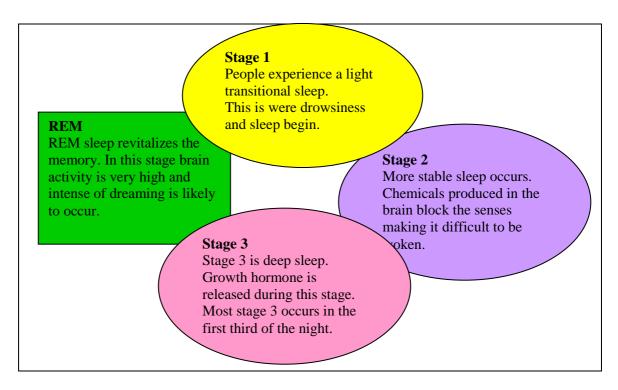


Figure 1. The Cycles of Sleep (The Sleep Remedy ... 2011)

Just as deep sleep renews the body, REM sleep renews the mind. REM sleep plays a key role in learning and memory. During REM sleep, brain consolidates and processes the learned information during the day, forms neural connections that strengthen memory, and replenishes it's supply of neurotransmitters including feel-good chemicals such as serotonin and dopamine that boost the mood during the day.

A good night's sleep has many benefits. By improving the sleep habits it is possible to increase the chance of falling asleep fast, staying asleep and sleeping the cycles of sleep each night. Stibich (2009) points out if a person's REM sleep is disrupted, the next sleep cycle does not follow the normal order, but often goes directly to REM sleep until the previous night's lost REM time is made up. This is the reason why it is important to understand sleep cycles, which help to improve the health and and may even extend an individual's life.

1.3 Different Sleep Disorders

A sleep disorder is a condition or problem that repeatedly disrupts an individual's pattern of sleep. Problems with sleep are very common in modern societies in which the pace of life is fast and demanding. (Valfre, 2001, p. 271)

Insomnia is a very common sleep problem. Insomnia takes a toll on person's energy, mood, and ability to function during the day. Chronic insomnia can even contribute to health problems such as heart disease, high blood pressure, and diabetes. Simple changes in lifestyle and daily habits can put a stop to sleepless nights.

Although insomnia is the most common sleep complaint, it is not a single sleep disorder. It's more accurate to think of insomnia as a symptom of another problem. The problem causing the insomnia differs from person to person. It could be something as simple as drinking too much caffeine during the day or a more complex issue like an underlying medical condition or feeling overloaded with responsibilities. (Insomnia Causes, Cures ...2011)

The diagnosis of sleep disorder is based on a thorough history, physical examination, and the results of several tests. A polysonmogram monitors the client's electrophysical responses during sleep. It includes such measurements as brain wave activity, muscle movement, and extraocular eye movements. (Valfre, 2001, p. 271)

Sleep restriction and insomnia lead to impaired mood, reduced vigilance, deterioration of memory and concentration but also to an increased risk of automobile accidents. Sleep loss also impairs performance on pulmonary function testing both in healthy older humans and in older patients with chronic obstructive pulmonary disease. Further, severe insomnia may be a risk factor for mortality. (Phillips, Ancoli-Israel, 2001, p. 100)

Emotional issues such as stress, anxiety, and depression cause half of all insomnia cases. But daytime habits, sleep routine, and physical health may also play a role. Sometimes, insomnia only lasts a few days and goes away on its own, especially when the insomnia is tied to an obvious temporary cause, such as stress over an upcoming presentation, a painful breakup, or jet lag. Chronic insomnia is usually tied to an underlying mental or physical issue. (Insomnia Causes, Cures ...2011; Regestein, Rechs, 1982, pp. 9–10)

Common mental and physical causes of insomnia (Insomnia Causes, Cures ...2011):

- Psychological problems that can cause insomnia: depression, anxiety, chronic stress, bipolar disorder, post-traumatic stress disorder;
- medications that can cause insomnia: antidepressants; cold and flu medications that contain alcohol; pain relievers that contain caffeine (Midol, Excedrin); diuretics, corticosteroids, thyroid hormone, high blood pressure medications.
- medical problems that can cause insomnia: asthma, allergies, Parkinson's disease, hyperthyroidism, acid reflux, kidney disease, cancer, or chronic pain;
- sleep disorders that can cause insomnia: sleep apnea, narcolepsy, restless legs syndrome.

In year 2008 the University of Glasgow Sleep Centre brought out the sleep disturbance as the most common mental health symptom in the United Kingdom. According to the Office of National Statistics data, it is even more common even than worry or irritability and three times as common as depressive or anxiety symptoms (University of Glasgow Sleep Centre... 2008)

Prescription sleep medications can provide temporary relief, it is important to understand that sleeping pills are not a cure for insomnia. And if not used carefully, they actually make insomnia worse in the long run. Sleeping pills are widely prescribed because they are one anti-insomnia measure that fits reasonably well into physician's regular office routine. Writing a prescribtion takes much less time than helping a patient to find out what really causes sleeplessness. It is best to use medication only as a last resort, and then, only on a very limited, as needed basis. Evidence shows that lifestyle and behavioral changes make the largest and most lasting difference when it comes to insomnia. (Insomnia Causes, Cures ...2011; Regestein, Rechs, 1982, p.13)

Excessive daytime sleepiness (hereinafter EDS) is not unusual for people to have days when they struggle to stay awake. However, suddenly falling asleep on the job or while driving is not normal – and can be extremely dangerous. EDS is a symptom that can be seen in several sleep disorders, including obstructive sleep apnea, narcolepsy, and periodic limb movement disorder. (Healthy Sleep... 2011)

According to Estonian Road Administration's Statistics (Maanteamet 2011) the number of traffic accidents in year 2010 registered in Estonia, 1340 where 78 died, injured got

1712 people. The number of traffic accidents has decreased 11%, but still in Estonia it is a high number and very seriously taken problem in the European Union. There are many reasons for traffic accidents, but according to experts opinion 95% are caused by human being's circumstances. First of all is human being's too risky behaviour, using alcohol or drugs and tired driver. A tired driver can be very dangerous and cause many problems because of it's bad reaction activity, take a nap on the driving wheel or even worse – to fall asleep during driving a vechicle.

According to Katsuhisa Banno and Meir H. Kryger (2007, p. 400) is sleep apnea syndrome (hereinafter SAS) a common disorder, characterized by repetitive cessation of breathing during sleep and daytime consequences, which include subjective daytime sleepiness, impaired cognitive function, including impaired memory. There are two types of SAS based on the pathophysiologic mechanisms causing the apneas – obstructive sleep apnea (hereinafter OSA) and central sleep apnea syndrome (hereinafter CSAS).

OSA is an extreme form of snoring in which an individual's airway becomes partially or completely blocked many times during a night of sleep, leading to repetitive awakenings. During sleep, muscles in the throat relax. In some people, this relaxation causes tissue at the back falling to the throat blocking the airway. In someone with a severe form of OSA, this may occur hundreds of times per night, interrupting breathing for 30 seconds or more during each instance. The result of this interrupted breathing pattern is severely disrupted sleep, as the individual must wake up enough to regain muscle control in the throat and to reopen the airway. (Healthy Sleep... 2011)

OSA is strongly associated with snoring. Most OSA patients snore. Snoring, one of the most common complaints of OSA often precedes the complaint of daytime sleepiness, and the intensity increases with weight gain and alcohol intake. (Banno, Kryger 2007, p. 406)

OSA is a serious condition that can lead to high blood pressure, heart disease, and mood and memory problems. As such, those who suspect they may have OSA should consult their primary care physician, who may in turn refer them to a sleep specialist for an overnight sleep evaluation. Weight loss is one of the most strongly recommended

preventative therapies for weight-related OSA. Also continuous positive airway pressure (CPAP) is the first line of treatment for moderate to severe cases of OSA. During sleep, the CPAP device keeps the airway open by sending a constant, low-pressure stream of air through the nose and into the airway. (Healthy Sleep... 2011)

CSAS, much less common than OSA, is caused by reduction of impulses from the central nervous system to the respiratory muscles. Central sleep apnea syndrome is characterized by recurrent episodes of apnea during sleep in the absence of upper airway obstruction. (Banno, Kryger, 2007, p. 401)

Narcolepsy is best known as an almost uncontrollable need to fall asleep at various times throughout the daytime. Although excessive daytime sleepiness is common among people with narcolepsy, the sudden onset of sleep, or "sleep attacks," are less so. Affecting approximately one in two thousand people, narcolepsy is a central nervous system disorder in which the brain cannot properly regulate cycles of sleep and wakefulness. These results in an inability to stay awake for prolonged periods of time, and sleep itself can also be quite disturbed. (Healthy Sleep... 2011; Veldi, 2009, pp. 120–122)

The diagnosis of narcolepsy sometimes requires daytime sleep testing as well as an overnight sleep study. While there is no cure, narcolepsy can be treated with stimulants to reduce daytime sleepiness, antidepressants and other medications to prevent cataplexy, sleep paralysis, and hypnologic hallucinations. Scheduling daytime naps at convenient times may help to overcome the problems caused by unscheduled "sleep attacks." (Healthy Sleep... 2011)

Periodic Limb Movements of Sleep (hereinafter PLMS) is a condition affecting approximately 34 percent of adults over the age of 60. This condition causes involuntary kicking and jerking movements of the legs and arms, often repeated hundreds of times during the night. Like people with sleep apnea, people with PLMS are usually unaware of their multiple nighttime awakenings unless they are witnessed by a bed partner. In extreme cases, these brief arousals following the leg movements disturb sleep so much that they cause excessive daytime sleepiness. Patients with

restless legs syndrome often have periodic limb movements during sleep. (Healthy Sleep... 2011; Veldi, 2009, p. 128)

Sleep can be a harrowing time for people who experience parasomnias. The symptoms of these disorders range from the mundane to the horrifying, and worrying about what might happen during a night of sleep can cause some people who experience parasomnias to want to avoid sleep.

The three most common types of parasomnia are:

- Sleepwalking Once thought to be acting out of dreams, sleepwalking actually takes place during deep sleep (not REM sleep, when dreams typically occur).
 Sleepwalkers often perform routine activities such as dressing and cleaning.
 Sleepwalking is quite common in children and affects approximately 1 percent of adults. Bouts of sleepwalking can be triggered by stress, anxiety, excessive alcohol, or epilepsy.
- Night terrors These severe attacks cause people, usually children, to appear to
 wake up and scream in fear or panic. However, these individuals are typically
 inconsolable, and tend to have no recollection of the event the following day.
- Sleep-eating disorders These episodes, like sleepwalking, occur during partial awakenings from deep sleep and cause individuals to eat without any knowledge of what they are doing, or any memory of what they have done. (Healthy Sleep... 2011)

If a sleepwalker or sleep-eater poses a threat to himself or herself, the disorder may be treated using relaxation techniques, such as self-hypnosis or sleep medications and antidepressants that prevent the partial awakenings that cause sleepwalking episodes. Night terrors that occur frequently or cause anxiety for individuals or for their family members can be treated with sleep medications, antidepressants, or relaxation techniques. (Healthy Sleep ...2011)

Valfre (2001, p. 271) brings out insomnia is relatively rare in childhood and adolescence. Approximately 30% to 40% of adults have problems with insomnia, and the incidence increases with age. It is also seen more often in women and usually begins

in young adulthood or middle age with an initial period of poor sleep that progressively worsens over a period of months.

According to Barbara Phillips and Sonia Ancoli-Israel article (2001, p. 99) several investigators have defined normal changes that occur with aging and sleep becomes more fragmented, and both arousals and awakenings increase. Traditionally, it has been believed that many older people "phase advance"experience a forward shift of the circadian rhythm. In fact, older adults do often report getting sleepy earlier in the evening and waking up earlier in the morning than they did when they were younger. One of the most common complaints in this age group is, in fact, early morning awakening.

In the National Sleep Foundation (2011) is written that in year 2010 done Sleep in America Poll showed one-fourth of all respondents (26% Hispanics, 25% African-Americans, 23% Asians and 22% Whites) said that their current work schedule does not allow them to get enough sleep. There was also found that sleep disorders continue to be very common among adults, with specific disorders being more prevalent among certain ethnic groups. For example insomnia was diagnosed among Whites (10%) much more often than Asians (4%) or African-Americans (3%). Similarly, Whites (6%) report being diagnosed with restless legs syndrome much more often than African-Americans (1%).

In conclusion a sleep disorder can seriously affect the quality of life, whether the person has sleep apnea, restless leg syndrome, narcolepsy, or insomnia. Sleep apnea is a very common disorder which negatively affects multiple organ systems, and which may play a role in the development of cardiovascular diseases and neurocognitive abnormalities. Therefore the author of this work paper thinks people should be more informed about the previous mentioned problems and spa hotels would suit ideally for promoting the quality of sleep.

1.4 The Impact of Sleep Therapy

Sleep Therapy term is related to a treatment that employs the inducement of sleep in order to treat various medical disorders. In it's simplest form, sleep therapy can be viewed as treatment by rest required by situations that promote fatigue. Sleep therapy

may also involve the inducement of sleep by medications and drugs, the use of hypnosis to induce prolonged sleep, or the application of electrical current, which has been termed electrosleep, electronarcosis or electroanesthesia. (Thorpy, Yager, 2001, p. 228)

There are different treatment options for obstructive sleep apnea (hereinafter OSA). Which option is right for the person depends upon the severity of the sleep apnea (which is determined from a sleep study), the physical structure of upper airway, and other aspects of person's medical history. Only the doctor or sleep specialist can tell the for the which treatment option is best specific sleep disorder. Uvulopalatopharyngoplasty (UPPP) is the most common surgery for OSA in adults. This surgery enlarges the airway by removing redundant tonsillar tissue, trimming tonsillar pillars, and excising the uvula and posterior palate. (Treatment Options for ...2011; Carney et al., 2005)

There are a variety of fixed or adjustable oral appliances invented to treat OSA. These devices alter the oral cavity to increase airway size and improve patency. Oral appliances, sometimes called dental appliances, are intended to treat apnea by keeping the airway open in one of three ways: by pushing the lower jaw forward and preventing the tongue from falling back over the airway. Sleep apnea can also be weight-related. Additional fat around the neck may make the airway narrower, making obstructions more likely to occur. For some overweight people, especially those with mild cases, losing weight can be an effective treatment. (*Ibid.*)

Sleep therapy has been used to treat a variety of disorders, most commonly the mental disorders, but also cardiovascular gastrointestinal, central nervous system and infective disorders. Electrosleep is performed in some European countries and is administered in a variety of different manners. Electrodes may be applied to the forehead and a limb, and then the electrical current gradually increased to the amount of approximately three-quarters of a milliamp, at which time the patient can feel a tingling sensation through his head, which is believed to induce sleep. The usefulness of sleep therapy is believed to be limited at best. (Thorpy, Yager, 2001, p. 228)

Continuous positive airway pressure (hereinafter CPAP) works by gently blowing pressurized room air through the airway at a pressure high enough to keep the throat

open. The pressure is set according to the patient's needs at a level that eliminates the apneas and hypopneas that cause awakenings and sleep fragmentation. CPAP is the most effective method for treating obstructive sleep apnea. (Treatment Options for ... 2011; Veldi 2009, p 75)

According to World Sleep Foundation (2011) there is no cure for narcolepsy, however the symptoms can be controlled with behavioural and medical therapy. The excessive daytime sleepiness may be treated with stimulant drugs or with the drug modafinil (Provigil), which was approved by the FDA for this use in 1999.

Restless legs syndrome in the mild cases can be treated by consuming less caffeine and alcohol, both which aggravate the symptoms. Having a warm bath, massaging the legs or using a heat or cold pack will also help to alleviate the symptoms. (A Hard Night's Sleep...2011)

Snoring can be treated in 99 % of cases. Weight is usually the main cause of snoring so shedding excess fat around the neck will stop extra pressure being put on the airways. Other treatments depend on diagnosis so an examination by a doctor would be useful. A person, who is snoring during sleep should avoid sleeping pills and alcohol before bedtime, avoid heavy meals at least four hours before bedtime, also it is advised to sleep on side rather than on the back and the bedroom's air should be humidified. (*Ibid.*)

Stevens (2004, p. 4) points out two categories of treatment for primary insomnia: cognitive behavioural therapy and pharmacologic treatment. Pharmacologic treatment is used for sleep-disordered breathing. The field encompasses drug composition and properties, interactions, toxicology, therapy, and medical applications and antipathogenic capabilities (Stevens, 2004, p. 4)

Cognitive behavioral therapy (hereinafter CBT) helps to change actions or thoughts that hurt the human's ability to sleep well. It helps to develop habits that promote a healthy pattern of sleep. Cognitive behavioral therapy is most often used for people who suffer from insomnia. Sometimes insomnia is caused by another sleep disorder, a mental-health disorder, or a medical condition. (Sleep Education... 2011; Cognitive Behavioural Therapy ...2011)

CBT is one of the most effective treatments for conditions where anxiety or depression is the main problem. Such course may be from six weeks to six months. It will depend on the type of the problem and how it is working for a person. It is important to keep practising CBT skills, even after the patient feeling better. Unless there are practical constraints, the decision about length of treatment is made cooperatively between therapist and patient. Often the therapist will have a rough idea after a session or two of how long it might take for the patient to reach the goals that have been set at the first session. (Cognitive Behavioural Therapy ...2011; Beck, 2008)

In one of these cases, the root cause needs to be treated first. This should help solve the problem with insomnia. In other cases, the cause of insomnia is very complex and the best treatment for it may involve more than one method. More than one form of CBT may be used. The most common forms of CBT are stimulus control, sleep restriction, relaxation training and biofeedback, cognitive control, psychotherapy and sleep hygiene training. (Sleep Education... 2011)

Cognitive Control and Psychotherapy are the methods to help to identify attitudes and beliefs that hinder the sleep. These negative thoughts involve worries and stress that keep person awake. A therapist helps to process thoughts and feelings about sleep. People learn ways to overcome negative thoughts and promote positive attitudes and beliefs. This might involve setting a "worry time" in the afternoon or early evening. That way it is possible to focus on getting all of the worries out of system. At the end of this time the person feels "free" to relax. This helps the mind to be at rest when he or she is going to bed. (*Ibid.*)

Carney *et al.*, (2005: 163) brings out that sleep hygiene habits are important health knowledge, they include positive and negative sleep management behaviors that are under an individual's control. Sleep hygiene training method is used to correct things that people do on a regular basis that disturb sleep. Sleep hygiene consists of basic habits and tips that help to develop a pattern of healthy sleep. Education about normal sleep and different sleep treatments helps provide a foundation for teaching individuals how to sleep better. This knowledge helps to shape realistic expectations and reduce sleep disorders.

There are also other ways to gain a good sleep for example jogging is a good way to get well-deserved and healthy shuteye, researches have discovered that 20 to 45 minutes of exercise can help to fall asleep faster. Tests on insomnia sufferers found that gentle aerobic exercise cured their condition. They showed that regular aerobic exercise improved the quality of sleep, mood and vitality. (Yalung, 2010)

Another potential solution for the sleep deprived people would be soothing music, which uses natural delta wave frequencies that help people to get much needed respite when they need it the most. (*Ibid.*)

In conclusion there are several ways to treat sleep disorders, it depend how serious they are and how much medical care is needed. In serious sleep disorders such as OSA, narcolepsy, insomnia people should find help from the sleep specialist just to get to know what kind of therapy is necessary. Other sleep disorders that are not so serious and do not disturb person's everyday life are easier to treat – people can find help in the internet, books or they also have the opportunity to visit a special sleep centre or a spahotel that has a sleep specialist on spot. More and more medical spa hotels are providing services that help to reduce sleep disorders and are specialized in promoting the quality of sleep. Current subsection was necessary to give information and different ideas what the spa hotels should take in consideration by offering and developing new services or packages that would be in relation to sleep study or sleep therapy.

2. THEORETICAL APPROACH OF MEDICAL SPA

2.1 Overview of Spa History

In following chapter the author of this work will give a brief overview and analyze of spa history and spa therapy. According to some sources and materials the word "spa" comes from the Belgian town called Spa. Brown (2011b) and Lazarus (2000, p. 3) bring out that the term "spa" is an acronym derived from the Latin "Sanitas per Aquas" ("health through water"), a phrase attributed to Emperor Nero in support of the construction of the Roman baths.

There are also sources that say it is from "Solus per Aqua" ("water in itself"). Whatever the derivation, people have been "taking the waters", retreating to hot springs, and getting away from it all throughout recorded history. (Lazarus, 2000, p. 3)

For centuries Europeans have been "taking the waters" – either through soaking in them or drinking them because of their curative elements. Depending on the mineral content of the springs, European physicians "prescribed *ein Kur* or cure" to their patients to relieve rheumatism, arthritis, infertility, eye soreness, skin irritations and more. In fact these beliefs became a whole science and for centuries were taught in all major medical schools in Europe. (Kelleher, 2004, p. 13; Leavy, Bergel, 2003, p. 11)

According to Jenkins (2011) since the beginning of time, the art of bathing in water has been essential to one's good health and peace of mind. As early as the third century, bathing emporiums quickly became the fashion. The Greeks and Romans were the leaders in erecting many elaborate, expensive bathhouses in which they could conduct business, gossip with friends, eat, drink, or arrange sexual liaisons. Some public baths were so grand that they could easily contain lecture halls, art galleries, meditation

rooms, and prayer stalls. As well there were always numerous separate enclosures for "private" businesses.

In Homeric times, bathing was primarily used for cleansing and hygienic purposes. By the time of Hippocrates (460–370 BC), bathing was considered more than a simple hygienic measure – it was healthy and beneficial for most diseases. Influenced by the Greeks, the Romans built their own thermal baths at mineral and thermal springs. In contrast with the Greeks, who took the waters after intensive physical exercises, the Romans considered the baths more important than the gymnastics alone. (van Tubergen, van der Linden, 2010, p. 273)

Spa treatment consisted of application of water to afflicted parts of the body, immersion of the hole body in the water (especially for rheumatic and urogenital diseases), and drinking excessive quantities of water. In Rome three different types of baths developed: baths at home (*balnea*), private baths (*balnea privata*), and public baths (*balnea publica*) that were run by the state. During the heyday of the Roman bathing culture, the inhabitants of Rome used 1400 litres of water per person per day, mainly for bathing. (*Ibid*, p. 274)

Throughout the years the Roman bathing culture gradually changed towards a place for relaxation and pleasure, rather than for medical treatment, although this was still provided. The Romans preferred to use the baths and very hot waters for renewing their appetites and thirst, and the baths became, rather, centres for various sexual practices. (*Ibid*, p. 274)

Although the Greeks and Romans discovered the perks of bathing around the same time, each had their own unique approach. The Romans bathed to keep themselves healthy, while the Greeks believed only women should immerse their whole body in water. With the fall of the Roman Empire and the rise of Christianity, the bathing culture fell into disrepute and bathing was officially prohibited. Baths were redeveloped as churches, although some remained available for the aristocrats, who were not affected by the church's decrees. From the 13th century onwards, baths came into re-use in southern Europe. Public baths were rebuilt and because of the free entrance it was

often crowded and people bathed for hours, sometimes days in the same bath. (Jenkins 2011)

In the 16th century the image of the public baths again deteriorated in many countries, which led to the closure of many public baths. They were considered to be a source of contagious diseases such as syphilis, plague, and leprosy, and the baths became dangerous meeting places for political and religious dissidents. (van Tubergen, van der Linden 2010: 274)

According to Jenkins (2011) various citizens began to protest against the sins of the bathers. The new Christian trend was to become grubby because cleanliness was considered to be too sensuous and sexual. Dirt was a symbol of one's spiritual purity and indicated that the focus was outside one's self, rather than on personal hygiene. Refusing to bathe was proof one was beyond such things and thus not egotistical or self absorbed. Churches became increasingly more outspoken about the sins and self-indulgence of those who spent more of their time in the various bathhouses rather than in church, working, or looking after their families. The Ministers were particularly disturbed that so many illegitimate children were created from dubious encounters outside of marriage. (*Ibid.*)

For centuries, Japan has been another culture known for its bathing customs and obsession about cleanliness. Spiritual pursuits of purity, hygiene and ritual purification were an important part of Japanese culture and bathing was done communally without regard for division of the sexes. However, as class distinctions became more pronounced, there was as much sexual activity taking place in the public baths as there had been in the Roman. Very quickly a law was passed segregating the sexes. Separate entrances and separate pools were created for the different classes, although sexes were not entirely kept apart. (Jenkins 2011)

The European nobility and the upwardly aspiring bourgeoisie, regardless of whether they were suffering or not, recognised in the medicinal recommendations a welcome reason to initiate a new travel culture. Thus, trips to spas became a status symbol and one of the most popular leisure time pursuits – to the benefit of the spa, which was able

to boast wholehearted medicinal recommendations and for whom wealth and prosperity were assured. (Mielke 2011)

By the turn of the 17th century, many spas were rediscovered in France. Two types of spas existed – hot springs for drinking and bathing, and cold springs for drinking cures. Doctors created centres for treatment, not for leisure anymore. Much attention was paid to purging, drinking cures, eating well balanced diets, and bathing. (van Tubergen, van der Linden, 2010, p. 274)

Medicine was interested in the benefits of water for curing all kinds of different illnesses. Bathing in thermal water became the standard remedy for skin and joint disorders, as well as for gastrointestinal problems and strokes. (Mielke 2011)

Around 1800 interest in the bathing culture grew. Further attempts to analyse the mineral water were made, aiming at improving it's use in medicine, and at preparing mixtures of water identical to those mineral waters famous for their curative properties. Individual treatments were prescribed, based on the composition and temperature of the water. Also, combinations of treatments were developed consisting of hot and cold baths, herbal baths, mud packs, active physical exercises, massages, and diets. (van Tubergen, van der Linden, 2010, p. 274)

The use of mineral waters and the development of hotels and guesthouses at the springs became prevalent throughout Europe and North America. Every spa resort had its own theatre, casino and promenades besides the bathing buildings. In the past decades, a large change in the use of mineral water for the treatment of several diseases has taken place in continental Europe. The medical significance of bathing is nowadays acknowledged, especially by many rheumatologists and dermatologists, and this aspect is considered more important for a number of spa resorts than prestige and leisure. Bathing is usually combined with many other treatments, such as physical exercises, hydrotherapy, and mud packs. The spa resorts are differentiated according to their location for example, seaside or mountain area and the chemical composition of their mineral water for instance sulphurous, bicarbonated, or sulphated. (*Ibid*, p. 274)

Throughout the ages the interest in the use of water in medicine has fluctuated from century to century and from nation to nation. Worldwide, people have adopted the same general attitudes towards water, using it to clean, to socialise and to heal. Water, in all its therapeutic forms has been an important element in spa development. Therefore it was necessary to give an overview about the spa history.

2.2 Different Types of Spas

Today there are more health spas throughout the world, and more people visit them as ever before. International Spa Association (2011) defines spa as place devoted to overall well-being through variety of professional services that encourage the renewal of body, mind and spirit. Spas can be categorized further as small independent practices, franchises, or larger corporate facilities. Spas can also vary in ties, it is not likely to be focused on developing healthier lifestyle habits such as diet and nutrition. (D'Angelo, 2006, p. 30)

The spa industry has recently emerged as a global phenomenon through a convergence of industries, traditions and therapeutic practices. Spa therapies have been around since ancient times in many different forms that reflect the cultural, social and political mileu in which there are embedded. (Cohen, Bodeker, 2008, p. 4)

Along with tracking demographic trends and client needs, one of the biggest questions currently being raised in the spa industry is "what defines a spa?" With everything from destination, resort and day spas to wellness centers to medical-spas. Some spas offer hair and beauty services, while others focus strictly on skin and body care. Some spas are medically-based, while others take an alternative health or fitness approach. (D'Angelo, 2006, p. 30)

According to International Spa Association (2011) there are seven main types of spas to define: a destination spa, a resort spa, a day spa, a club spa, a medical spa, a cruise ship spa and a mineral springs spa.

A destination spa is a residential facility with the primary purpose of providing individual services for spa goers to develop healthy habits. Historically a seven-day stay, this lifestyle transformation can be accomplished by providing a comprehensive

programme that includes spa services, physical fitness activities, wellness education, healthful cuisine and special interest programming (International Spa Association 2011). Brown (2011a) adds a destination spa's purpose is to help a person to lead a healthier lifestyle through spa treatments, exercise, and educational programming.

A resort spa is a hotel or vacation resort that has added a spa. The hospitality industry has seen it's trends, with each hotel and resort hoping to outdo the other (Leavy, Bergel, 2003, p.7). The spa provides professionally administered spa services, fitness and wellness components and spa cuisine menu choices. In addition to the leisure guest, this spa is a great place for business travelers, who wish to take advantage of the spa experience while away from home. In many cases resort spas also act as day spas for local clients and may offer special rates for people living in the community (International Spa Association 2011). Brown (2011a) characterizes a resort spa as a relaxing, pampering experience. Resort spas come in a wide range of sizes and styles, from small privately owned inns with a few treatment rooms and one treadmill to lavish, over-the-top resort spas with 30 treatment rooms, exercise classes, golf, tennis and swimming pools. The resort spa may or may not offer classes like yoga, and the selection is usually more limited than at a destination spa.

A day spa is a spa offering a variety of professionally administered spa services to clients on day-use basis. With the popularity of destination spas growing in the late 1980s and early 1990s, skin care and professionals started to offer massages and wraps, and nutritional programs and lifestyle lectures. Thus the day spa was born, and in its present form it is purely American invention (Leavy, Bergel, 2003, p. 8). Day spas offer many of the same services and procedures as cosmetic salons (International Spa Association 2011). According to Anitra Brown (2011a) many day spas combine both a hair salon and spa. It usually started out as a successful salon and added spa services. This can be a wonderful combination, because the client can get spa services that leave him or her relaxed, then get the hair washed and blow dried. But it's important that the two operations are completely separate because salons are inherently noisy and bustling. Spas have to keep silence helping clients to be completely relaxed. (Brown 2011a)

A club Spa is a facility, whose primary purpose is fitness and which offers a variety of professionally administered spa services on a day-use basis (International Spa

Association 2011). Services offered at these facilities are for both health club members and outside customers coming in for treatments (Leavy, Bergel, 2003, pp. 9–10).

A medical spa is a facility that operates munder the full-time, on-site supervision of a licensed health care professional, whose primary purpose is to provide comprehensive medical and wellness care in an environment that integrates spa services, as well as traditional, complimentary or alternative therapies and treatments. The facility operates within the scope of practice of its staff, which can include both aesthetic or cosmetic and prevention or wellness procedures and services. (International Spa Association 2011). According to Anitra Brown (2011a) a medical spa operates under the supervision of medical doctor and tends to have more clinical atmosphere than other spa types. Some medical spas have a wellness focus and include services like acupuncture, nutritional counseling and naturopathic doctor consultations.

D'Angelo (2006, p. 34) describes medical spa as facility that integrates health and beauty practices. Medical spas, or medi-spas as some call them, are generally incorporated within a physician's private practice, clinic, laser center, or hospital setting. In addition to medical professionals, such as nurses and doctors, these spas are often staffed by adjunct or allied health professionals, including aestheticians, massage therapists, and nutritionists. Some medical spas are directed by cosmetic surgeons and dermatologists, while others are managed by, but not limited to, general practitioners, cosmetic dentists, and vascular surgeons. Patients visiting medical spas can expect to receive a wide range of medical procedures, also in some botox and collagen injections, chemical peels, and laser treatments along with spa face and body treatments.

More and more data becomes available to the medical professions about spa treatments, progressive health care providers are starting to incorporate spa treatments into patient care. Also hospitals turn to spa treatments to ease the discomfort of their sick and terminally ill patients, and pain management practitioners have become firm believers in spa treatments (Leavy, Bergel, 2003, pp. 7–11).

A cruise ship spa is described by International Spa Association (2011) as a spa aboard a cruise ship providing professionally administered spa services, fitness and wellness components and spa cuisine menu choices.

A mineral springs spa such as a health spa is used for therapeutic purposes. In addition to referring to a watering place, the word "spa" may also be applied to a place where the therapeutic agent is mud or mineral water may be in a lake or the sea (Leavy, Bergel, 2003, p. 3). According to International Spa Association (2011) a mineral spring spa uses mineral, thermal or seawater in hydrotherapy treatments. Mineral springs may come out of the earth at a tepid temperature and then be heated for bathing. If there is a lot of geothermal activity, the mineral water is literally heated by the earth and is called a hot spring. Sometimes the water is so hot that it has to be cooled before the treatment. Mineral springs have naturally occurring minerals and trace elements such as calcium, magnesium, potassium, sodium, iron, manganese, sulphur, iodine, and bromine. (Brown 2011a)

The concept of wellness and amenity spa is convenient, and efficient: consumers can find spa and medical services all under one building (Leavy, 2003, pp. 10–11). Wellness and amenity spas usually offer a variety of services in resort hotels. Some resorts have gone beyond the perfunctory salon services and hot tubs and today they are offering elaborate, imaginative and highly professional spa services to their guests (International Spa Association 2011)

International Spa Association (2011) also points out a holistic spa or ayurvedic spa that is also a spa type, but is focused on alternative healing methods and nutrition, mainly vegetarian or macrobiotic. All treatments and used products are natural. Holistic healing seeks a "high level of wellness", integrating body and mind in a higher consciousness. Holistic-oriented spas often teach ancient Eastern systems such as T'ai Chi and yoga, as well as Western systems such as biofeedback.

According to Erfurt-Cooper and Cooper (2009, p. 15) the main difference between European and American spas is that European spas medical cures of specific ailments are more important and therefore have been covered by national health systems, but US spas give more importance to personal exercise, reducing stress, lifting depressioon and losing weight.

Estonian Spa Association (2011) has classified three different categories of spa types namely a medical spa hotel, a spa or wellness spa hotel and the third category is a spa or

medical and spa or wellness spa hotel. The first category – a medical spa hotel is a recognised hotel licensed to provide outpatient medical care that specialises primarily in various rehabilitation, dietary and medical spa services (e.g. massage therapy, exercise therapy, water exercise therapy).

Spa or wellness spa hotel is a recognised hotel that specialises in various care, relaxation and other spa services. Such hotels are not required to hold a license for provision of outpatient medical care. Treatment services are not offered and the spa services have a relaxing and invigorating nature such as sauna, exercise, body care, yoga, use of herbal treatments and other products to improve health, other alternative methods. (Estonian Spa Association 2011)

A medical and spa or wellness spa hotel is a higher ranked hotel that offers both medical and wellness spa services. A combination of different categories of spa hotels is possible if a hotel wants to develop itself as a highely ranked medical and wellness spa. (Estonian Spa Association 2011)

Previous chapter was about spa types, nowadays it is important to understand the difference between certain spa types. In general a spa is a place that provides treatments, procedures – most commonly massages, body treatments or facials and spas are devoted to enhance people health, preventing from illnesses and well-being although medical spas have a stronger focus on cure and treat. But more and more spa hotels renew and increase the number of their spa services, every spahotel wants to offer something unique in which connection it is also important to follow their direction in specialization. Therefore previous subsection was useful to bring out different spa types and point out which spa services are suitable in their specialization fields.

2.3 Overview of Global Spa Trends for year 2011

Understanding current trends and anticipating those of the future can be an invaluable tool in business. It is foundational for strategic planning and can help spa entities find a clear direction to better allocate resources, ensure a competitive edge, and raise the level of benefits and satisfaction for consumers. (Cohen, Bodeker, 2008, p. 67)

With the popularity of spa products and treatments reaching men and women of all ages and backgrounds, the field of spa technicians has become more popular and more intricate. It has become more important for consumers to be knowledgeable of spa facilities and spa treatments. (Kelleher, 2004, p. 14)

In the 21st century spas began to reach out to medical professionals to provide services that customers had started to demand but for which they were not licensed. Consumers liked the synergistic combination of a medical professional's expertise and caring, nurturing atmosphere. (Cohen, Bodeker, 2008, p. 75)

The market research into current industry trends is already demonstrating clearly a strong consumer focus towards a healthier lifestyle based on wellness that is about multiple domains and other these factors, thus giving confidence to further spa and wellness developments. (Erfurt-Cooper, Cooper, 2009, p. 48)

The trend of mixing medicine and spa had a variety of interpretations. To some, medical spas were about prevention and wellness. To others, it was a facility offering complementary, alternative or integral modalities. Still others considered the medical spa a place focused on cosmetic dermatology and aesthetics, where a growing number of substances and tehniques appealed to consumers. (Cohen, Bodeker, 2008, p. 67) Consumers reacted positively to the use of indigenous ingredients, like mud, cocoa, cornmeal, water from the rainforest and even maple syrup.

In the 21st century the spa industry became more professional. Studies showed a large percentage of new spa goers had been introduced to their first spa experience through a gift certificate or voucher. The rise of Internet helped spread the spa gospel internationally. Spas developed websites, online booking became the norm and smallest day spa was able to attract distant customers for nominal marketing fees. As business tacticts advanced, the spa consumer became more knowledgeable and discerning. (Cohen, Bodeker, 2008, pp. 67–75)

Other trends of the 21st century included a rising concern about organic, green or sustainable issues, resulting in the development of the eco-spa. Sleep health became an important wellness pillar, fully integrating into existing spa programming. In many parts

of the developed world, including North America, Australia, Europe and Japan, the population is aging and the birth rate is decreasing. This population will require more medical care, while the middle-aged group will have a strong desire to stay youthful and vibrant for as long as possible. (*Ibid*, pp. 79–80)

In 2010 most spa-goers opted for traditional, authentic and magical spa therapies. The most popular spa therapy of 2010 was hammam from the Middle-East. The concept of medical tourism turned into wellness tourism. The spa owners offered more incentives to retain loyal customers and at the same time earn more revenue. (Nelson 2011)

The year 2011 will have a definite change in spa trends. The emphasis seems to be more on meeting the needs of clients, who want a different sort of experience, whether it is a way to boost fertility, the ability to explore more unusual services or just general wellness.

In year 2011 spas will continue to educate consumers about healthy living, stress management, nutrition and exercise. Another emerging trend in the road to well-being is the issue of lack of sleep. Sleep-enhancement programs are increasingly soothing spa goers. Restorative, natural sleep is like medicine for the soul. "We are seeing more sleep programs at spas every year," according to Susie Ellis, president of Spa Finder. (Ellis, 2011)

The most spa centers have introduced fitness programs to provide a complete beauty and health care package to the customers. Also hospitals are implementing spa elements in their treatments. Doctors and specialists are recommending spa treatments for various diseases. There is a new trend of combining the best of different wellness programs offered by spa, healt-centers, hospitals, wellness centers, fitness and beauty-clinics. The concept of "pure spa" is on a decline and a new concept of a "hybrid spa" is increasingly taking it's place. People over 65 will be the focus group of the most wellness programs. (Nelson 2011)

The latest trend in luxury spas across the globe is sleep health. Though more popular in Europe and Asia, sleep health consultations are becoming an integral part of the relaxing repertoire of spas everywhere. Considering the fact that sleep disorders are

becoming more and more common in today's society, spa owners are taking notice of their customers' need for ambiance and a little sleep therapy. (New Trend in ...2010)

According to Deborah Nelson article "The Spa Trends 2011 – The Changing Spa Industry" a research shows that focusing on the needs for spa therapies for senior citizens will bring further development in spa sector. Spa with physiotherapists, chiropractors, osteopaths, who deal with movement, bone and joint problems, will have success in year 2011.

Physical therapy, rehabilitation, recuperation, and old pain relief will increase on spas' menus. The year 2011 is said to be the year of Asia. Asian treatments have had a profound impact on the spa industry: Thai massage, Ayurvedic medicine and acupuncture are staples on many spa menus, and the "Zen" nature of Asian design can be seen in spas worldwide. But historically, it has been a tale of the mass exportation of Asian spa influences. Now there is to see the explosive hotel or spa development within Asia, especially within the two fastest-growing world economies, China and India. These markets and others are developing at a breakneck pace, unleashing extraordinary new class mobility and massive opportunities. A rediscovery of the therapeutic benefits of inhaling (and being physically immersed in) salt-infused environments is underway, and new salt rooms/caves at spas and dedicated salt therapy ("halotherapy") centers are springing up across the world. (Ellis 2011)

Medical studies reveal that this trend is beneficial for respiratory illnesses like asthma and allergies, skin conditions like acne and psoriasis, and even cystic fibrosis. Healing traditions that involve basking in salt caves or water may be centuries old, but they are truly coming of age in some of the most modern spas. Salt therapy "time" will be integrated with massage, meditation, or yoga to maximize the experience. The benefits are making salt therapy or halotherapy one of the hottest trends to watch in 2011. There is a growing body of medical evidence about the proven benefits of spas' ever-expanding wellness approaches like massage, meditation, acupuncture, healthy sleep, weight loss, hydrotherapy, exercise and others, which are now becoming readily available and visible. (*Ibid.*)

New trends will arise in the very foundations of the spa experience: water, exercise, cuisine, therapies and beauty treatments, rest, education, as well as intangibles such as connection, community, inner growth and spiritual renewal (Cohen, Bodeker, 2005, p. 81). According to Deborah Nelson (2011) article body scrubs will be the most popular spa elements used in most therapies and also providing useful lifestyle help resources which support healthy living in spas will be good opprtunity to provide in spas.

With the increasing scientific benefits of spa, many medical professionals are now using different spa therapies in their treatments. It is expected that the demand for such treatments is going to increase in the near future. Local resources of a particular region, like natural herbs, honey, fruits and vegetables are also becoming popular elements in spa treatments. This will create the bedrock for future development of spa industry. Different spa resorts and destinations should formulate different strategies and new creative activities to attract more customers. (Nelson 2011)

2011 will also expect fresh discoveries in the health care field, which produce new ways of managing chronic diseases such as diabetes, heart disease and other mental problems (Cohen, Bodeker, 2008, p. 81).

Spa experience is going to be multidimensional, enough so that people become comfortable with it's existence even though they are unable to fully explain it. Simpson, Sinatra and Suarez-Menendes (2004, p. 14) believe that medical spas will become the natural delivery sites for wellness-oriented medicine. The spa of the future and the medical clinic of the future will be one and the same. A new approach of medical cure will deal with the person as a whole and illness will be viewed as a disruption of physical and mental well-being.

These spas of the future should be for renewal and relaxational, for change and transformation, where people are touched on many levels, where they connect with their true selves. In conclusion the spa trends for 2011 will have a strong influence on Asian treatments, also sleep health and sleep therapy as a treatment will more and more get popular in spas. Current subsection gave information about spa trends for year 2011. Spa hotels should be hep to spa trends because it can be very informative and helpful in the new spa service development to get new ideas and be competetive in the spa market.

2.4 Spa Service Design

The purpose of this chapter is to introduce what has to be taken into advance in designing a spa service. Spa service design is planning of a spa service or package that involves organizing people, infrastructure, communication and sometimes material components of a service, in order to improve it's quality, the interaction between service provider and the customer's experience.

The word "design" derives from the Latin word *designare*, which is translated both as "to designate" or "to draw". In English, the noun "design" has retained this dual meaning. Depending on the context, the word means: "a plan, project, intention, process;" or, "a sketch, model, motive, decor, visual composition, style." In the sense of intention, "design" implies an objective and a process. (Borja de Mozota, 2003, p. 2)

The difference between products and services is more than it's meaning. Products are tangible objects and services consist of acts or processes. Services cannot be possessed and can only be experienced or participated. Though services and products are different still they are intimately and symbiotically linked. Developing the right services in the right way is probably the best means of keeping ahead of the competition. (Hollins, Shinkins, 2006, p. 52)

Among many activities in service design, the generation of an idea is one of the most critical activities. Ideas for new product or a service can be arised almost anywhere. They can arise inside the company by taking employees as an important source of new product or service ideas, or they can come from outside the company by listening to customer's feedback or copying from competitors. (Chai, *et al.*, 2005, p. 49)

According to Bitner, Ostrom and Morgan (2008, p. 67) a service could take place over a short time frame or it could take place over several years. To function effectively for the client, the entire sequence of consulting activities should be coordinated and managed as a whole, over time, with emphasis on including the resources and steps that produce value for the customer. An analysis of the client's consumption and cocreation process, interactions with the provider firm, and the underlying support systems is essential to managing this chain of service activities.

In service design it is very important to find out what are the researching needs of potential customers. Focus on the benefits that the new service will provide over the competition, and then determine if enough people want these benefits. To find out wants and needs, somebody has to ask potential costomers, it is not quite simple, but still the best way of finding out what people want depends on asking them questions. (Hollins, Shinkins, 2006, p. 86) Good market research will not guarantee the service will be a success, but it will eliminate the most obvious failures and therefore increase the chances of success.

Spa is a comfortable, protected, soothing place, where one can enrich the mind, improve health and fitness, and nourish one's spirit and soul (Lazarus, 2000, p. 5). Therefore the spa treatments are the services that help to maximize the feeling of wellness. The most popular spa treatments in spas according to Brown (2011c), Leavy and Bergel (2003, p. 12) are massage and facials.

Most forms of spa and beauty treatments, medical processes and fitness are derived from ancient traditions that have existed for centuries in some cultures and societies, which sometimes seem new and unfamiliar for the customers. Multi-media communications and mobility in the form of travel and tourism have revolutionized international product development. However, there is also a growing "post modern" flexibility and creativity in the way that products are packaged. (Smith, Puczko, 2009, p. 229)

Smith and Puczko (*Ibid.*) point out for example yoga can be packaged with almost any activity provided – it is attractive to the target market. Consumers seem to be increasingly more open to trying "old" activities in new contexts or buying packages that combine existing interests with new ones.

Customers'requirements for what is needed from the service, package and the performance standards that the service needs to satisfy form the specifications for the design. A perfectly good design that meets all specifications can fail if it is not applied in the right context or if it does not meet the needs of its customers. (Ramaswamy, 1996, pp. 17–18)

In conclusion the difference between products and services is different more than its meaning but still they can be intimately and symbiotically linked. In designing a spa sevice it is very important to find out what are the researching needs of potential customers and after that focus on the benefits that the new service will provide over the competition. To find out wants and needs, somebody has to ask potential costomers. A spa service is usually a complex combination of products and services. Good and lasting service management requires a very good service design that provides the key to market success and to market growth. Previous subsection is also useful for spa hotels in designing sleep promoting spa services or sleep therapy related services or packages it gives them overview and suitable guidelines about what they have to take in consideration by creating a new spa service or package.

3. THE DEVELOPMENT OF SPA SERVICES IN TERVIS MEDICAL SPA

3.1 Overview of Tervis Medical Spa

Tervis Medical Spa has provided professional spa treatments for more than 37 years, and is a 3-star medical spa, the biggest spa in Estonia. The environmentally sustainable activities have been acknowledged by granting the organization to an international environment certificate for accommodation establishments – the Green Key (Tervis Medical Spa, 2011a)

The hotel is renovated for several times and accommodates the total of 508 people – 204 double or twin rooms (including 5 rooms designed especially for people with disabilities), 32 single rooms and 34 suites, some with their own saunas. The hotel is a big complex that offers restaurant and bars, different centres for sports, conferences and cultural events, shops, a library, a beauty salon and rooms for medical cures. The spa complex consists of seven separate buildings connected by glass galleries. (Tervis Medical Spa, 2011b)

The spa focuses on medical services and offers an extensive selection of resort therapy procedures. It's treatment packages take a range of needs into account. Many packages include a private consultation with a doctor upon arrival, during which the guest and doctor can work together to decide upon the most appropriate course of treatment for him or her. (*Ibid.*)

Tervis Medical Spa offers in addition to accommodation and treatments conference and seminar rooms, entertainment and leisure activities for it's customers. In treatment and relaxation service the spa has among 70 different procedures and spa relaxations, therapy procedures like hydrotherapy, kinesitherapy, physiotherapy, thermotherapy, inhalation therapy, salt therapy, cold therapy and acupuncture. The spa provides professional treatments for bone, joint, heart, circulation and peripheral and functional nervous system problems. It's salt chamber is designed to alleviate respiratory, allergic and skin problems. Good use is made of therapeutic mud from nearby Lake Ermistu, which is applied in both general procedures and localised wraps. Dental services are also available at the spa. (Tervis Medical Spa, 2011b)

Tervis Medical Spa has also a Sleep Centre in it's establishment, but it is not owned by the spa hotel, the rooms for Sleep Centre is renting the senior researcher of sleep medicine. Therefore Tervis Medical Spa has no information about the Sleep Centre on the webpage or brochures as well.

The spa takes care of it's customers recreational needs as well. Concerts featuring international headline acts take place in it's cultural centre in the evenings, and there are also dance nights, theme days, exhibitions organized in the hotel. (Tervis Medical Spa 2011c)

The mission of Tervis Medical Spa is to guide people to value their health. In the author's opinion it is very reasonable, nowaydays it is more important to prevent the health rather than to heal or cure them. The vision of Tervis Medical Spa is to be a known and acknowledged carrier and developer of spa traditions in the Baltic Sea region as well as a preferable destination to spend a healthy holiday in Estonia (Tervis Medical Spa, 2011b). In the author's opinion it is also a very good formulation to promote Estonia in a new way – as a healthy holiday destination and year to year getting better in medical and wellness spa service.

Strategic aims of Tervis Medical Spa are following:

 To preserve a leader position among Estonia medical spas and in the spa market, to expand activity to Sweden and Norway market and to assure the position in Finland market;

- to be best known Estonian Spa in Sweden, Norway and Findland, but also in Estonia;
- to enlarge the reputation of Tervis Medical Spa to Latvia and Russia.

The strategic aims are sufficent because these are based on existing markets and target groups of Tervis Medical Spa. These aims are not available on the webpage of Tervis Medical Spa but these are just some ideas that the author heard from Tervis Medical Spa manager. The vision and the mission of Tervis Medical Spa are available on the webpage as well so that all people visiting the website can have an overview.

3.2 Research Methods and Samples

The master thesis research aim is to investigate and analyse the interest, demand and possibility for sleep therapy in Tervis Medical Spa. Tervis Medical Spa has the opportunity to use this research as a way to develop and enlarge the number of their spa services.

There were two research methods utilized by the author of this paper quantitative research by using the questionnaires and qualitative research by using interviews. Quantitative research relies on questionnaires, focus groups, subjective reports and is more statistically based as well as using numerical data. It is used for statistical methods starting with the collection of data and is based on the hypothesis or theory. The author of this paper collected data from questionnaires by dividing the questionnaires to customers in Tervis Medical Spa, who visited the spa for health or cure reasons. The questionnaire results are analysed with Windows XP software Excel. The questionnaires results are illustrated with figures by the author of this master thesis.

Qualitative research relies on interviews and observations. Following qualitative research results are not anonymous and according to agreements are used illustrative comments from the interviewees in the analysis of research results. The author of this paper carried through interviews with the senior sleep therapy doctor and her assistant in the Sleep Centre of Tervis Medical Spa, sleep therapy specialist in Kubija Nature Spa, sales and marketing director, chief doctor and spa manager of Tervis Medical Spa.

The quantitative structured questionnaire was implemented in the period of 15th of March 2011 until 15th of April 2011. The amount of questionnaires was 429 and they were translated into Estonian, English, Russian and Finnish language (see appendixes 1, 2, 3 and 4). The total amount of 429 was derived by the number of made reservations for the month March 2011, in which according to the Tervis Medical Spa was 429 persons.

First part of the questionnaire consisted of information about the sleep quality according to the person, who was filling it out. The second part of the questionnaire was about the sleep study and the Sleep Centre in Tervis Medical Spa where the author wanted to know how much the customers know about the Sleep Centre in the previous mentioned spa. The third part was about sleep promoting spa services and sleep packages, where the author wanted to know what kind of sleep packages they would like to use or try, how many days should it last and what kind of spa services should be included.

After two weeks there were no feedbacks and the author of this study decided to get involved in giving out the questionnaires personally to the customers and interviewing them on the spot. This initiation was carried out from 18th of April to 8th of May 2011. The author ended up having 112 filled questionnaires, which is about 22% of the total amount at the start of the study. Questionnaires were filled 24% by men and 76% by women. According to countries most of the questionnaires were filled by Finns (66%), 10% by Estonians, another 10% by other countries such as Latvia and Russia, 7% of the questionnaires were filled by Swedes and the last 7% by Norwegians. Most of the respondents according to age were between 51 to 61 years old (43%), 32% were in the age among 62 to 72 years, 15% in the age between 40 to 50 years old, 6% were 73 years or older, 3% were between 29 to 39 years old and 1% in the age among 18 to 28 years.

The qualitative structured research was carried through with senior researcher of sleep medicine and her assistant of Sleep Centre in Tervis Medical Spa, sleep therapy specialist of Kubija Nature Spa, sales and marketing director, chief doctor and spa manager of Tervis Medical Spa. Initially the author was planning to interview eight specialists, however due to lack of time or willingness of the remaining two potential interviewees it was not possible.

All together the author interviewed six specialists. The interview questions are also given in appendices (see appendix 5, 6 and 7). The interviews had 14 or 15 structured and open questions. The interviews were carried through on following dates: 16th of March, 17th of March, 5th of April, 15th of April, 21st of April and 25th of April 2011. The shortest interview that was recorded lasted for 30 minutes and the longest for 50 minutes. Three of the interviews were recorded with a Dictaphone and other three were written down and sent by e-mail to the author. The reason why some of the interviews were sent by e-mail was because some of the specialists did not agree to meet for the interview with the author. The author of this paper used content analysis to analyse and draw a conclusion of the questionnaires and interviews results.

3.3 The Results of the Customers Questionnaires in Tervis Medical Spa

The quantitative structured questionnaires consisted of three main topics – the first part consisted of questions regarding the quality of sleep, the second part was about the sleep study and Sleep Centre in Tervis Medical Spa and the third part about the sleep package in Tervis Medical Spa.

The questionnaire was done with customers in Tervis Medical Spa who came to the spa for cure or treatment reasons. All together 112 customers answered the questionnaires, which is in percentage 22 %. According to the results, most of the responses were from Finns in the age range of 51 and 61. The author of this paper can draw a conclusion from this report that most of the customers in Tervis Medical Spa are Finns in between ages of 51 and 61 or older.

In the first part of the questionnaire the enquiry about the quality of sleep showed that most of the responders (28 %) in Tervis Medical Spa, who came to the spa for cure or treatment evaluated their quality of sleep good, which means that usually they have no problems with sleep however sometimes have trouble falling asleep (see Figure 2).

22 % of the respondents evaluated their sleep quality as very good, which means they have no problems with falling asleep and sleeping. 21 % were in the opinion that their sleep quality is sufficient but sometimes they have repeated awakening during sleep. 20

% chose the answer "from time to time I sleep badly" and 9% marked the answer, which was "I have suffered from sleep disorders for a long time".

Suffering from sleep disorders for a long time means that a person has continuous symptoms such as difficulties falling asleep at night or getting back to sleep after waking during the night, waking up frequently during the night, sleep is light, fragmented or unrefreshed, sleepiness and low energy during the day. All in all the author of this paper can say that most of the respondents evaluated their quality of sleep good and sufficient, which means that in the respondent's opinion they have no troubles with falling asleep or staying asleep.

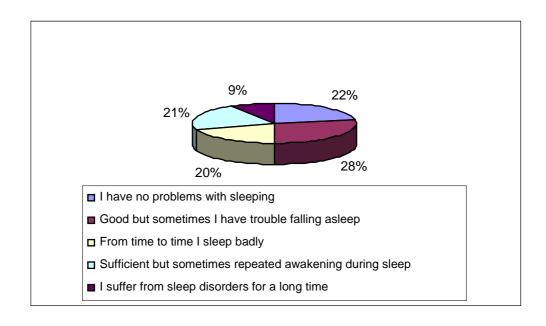


Figure 2. The Evaluation of Customers Quality of Sleep in Tervis Medical Spa

The second question in the questionnaire was about the trouble of restless legs. Restless legs syndrome means strange and unpleasant sensations in legs that keep the person up at night, one is bothered with a feeling of irresistible urge to move the legs by lying down or relaxing. The restless legs syndrome can last for hours and usually gets worse at night, preventing from getting the sleep that a person needs. According to the results of the second question most of the customers (38 %) answered they feel never or once in a month experience that kind of a feeling or have that problem. 20 % chose the answer "less than once in a week", 18 % thought they have the problem 1–2 days a week, 14 % have the problem 3–5 days a week and 10 % answered "every day or almost

every day". In comparing the second question's chosen answers by sex revealed that most of the women had some degree of problem with restless legs syndrome.

The third question in the questionnaire was about snoring during sleep. 31 % of the repliers chose the answer "never or not more often than once a month", 28% were in the opinion they snore less than once in a month, 18 % chose the answer "1–2 days in a week", and 12 % snore during sleep 3–5 days in a week and 11 % snore during sleep every night or almost every night. The tendency to snore was dominated by men.

In the fourth question in the questionnaire the author of this research wanted to know about the use of alternative medicine for sleep disorders. 55 % of the respondents had never used alternative medicine or they had used it less often than once a month, 22 % used it less often than once a week, 10 % 1–2 days a week, 7 % 3–5 days a week and 6 % used it every day or almost every day. Previous answers showed that most of the repliers had never used or they had used alternative medicine not more often than once a month but still there were responds from repliers, who used it once in a week or more often.

The fifth question was about the use of prescribed sleep medicine. Most of the respondents – 66 % chose the answer "I have never used or I use them less than once a month", 15 % use prescribed sleep medicine 1–2 days a week, 11 % use them less than once a month, 7 % use them 3–5 days a week and 1% uses them every day or almost every day. These answers showed that most of the respondents do not use prescribed sleep medicine more often than once a month, in the author's opinion it seems that most of the repliers do not have serious sleep problems, sometimes they have problems with sleep but the majority finds help more in alternative medicine than in using sleep medicine.

In the sixth question the author of this research wanted to know about the sleepiness during the daytime. 27 % answered they feel sleepiness during the daytime less than once a month, 25 % chose "never or not more often once a month", 17 % were in the opinion that they feel daytime sleepiness every day or almost every day, 16 % feel it 1–2 days in a week and 15 % feel sleepiness during the daytime 3–5 days a week. Previous data shows that even if a large number of respondents think that their sleep

quality is good and sufficient, still a calculating number of them feel tired and sleepy during the daytime.

The seventh question is in the second part of the questionnaire where the author was researching how much the customers of Tervis Medical Spa know about the Sleep Centre. The seventh question consists of the question of which part of the sleep study would be more interesting or useful for the customer in Tervis Medical Spa (see Figure 3.). Most of the repliers – 56 % chose the sleep doctor's consultation, 26 % were interested in sleep study, 8 % in car driving simulation study, 6 % in nose breathing functional study and 4 % of 24 hour oxygen screening. In the author's opinion the reason why most of the repliers chose doctor's consultation might be because they do not know what kind of a study would be necessary for them.

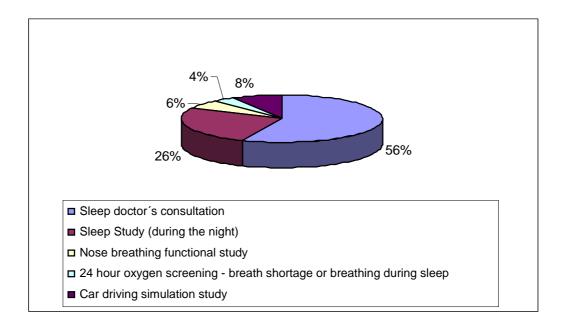


Figure 3. The interest of customers which part of the sleep study would be more interesting or useful for them in Tervis Medical Spa Sleep Centre

The eighth question was about the Sleep Centre in Tervis Medical Spa. The author of this research wanted to know if the customers knew about the existence of Sleep Centre in the spa mentioned above. The results are given in the figure 4. Most of the repliers – 60 % answered "no", 18 % chose the answer "yes, I have heard but I would like to get more information about it", 12 % answered they know about the Sleep Centre in Tervis Medical Spa and they have also done a sleep study there and 10 % know about the

Sleep Centre in this medical spa but they have never been there and also never been interested in that option. This result showed that most of the questionnaire respondents do not know anything about the Sleep Centre in Tervis Medical Spa. In that case the author of this research has the opinion that Sleep Centre should give more information about it's existence in the spa hotel. The research also showed that if there would be more information about the sleep therapy in Sleep Centre, they would be interested.

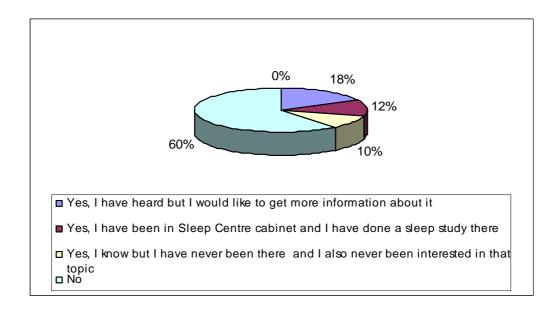


Figure 4. The Awareness of the Sleep Centre existence in Tervis Medical Spa

The ninth question was about the sleep study – the author of this paper wanted to know if the customers have been participating in sleep study. Most of the answerers – 54 % had not participated in sleep studies but they would be interested in doing one, 29 % were in the opinion that they have no reason to do it, 12 % had participated in sleep study in Sleep Centre of Tervis Medical Spa. 5 % had participated in sleep study in other Sleep Clinics or Centers.

In the tenth question the author of this paper wanted to know whether the customers would like to get more information about sleep therapy in Tervis Medical Spa and if yes, than in which way? 71 % of the repliers said "yes" they would like to get more information about sleep therapy in Tervis Medical Spa. Most of the respondents – 56 % chose that they would like to get information about sleep therapy in a brochure or leaflet, 27 % would like to find the information on the website (homepage), and 13 %

thought the best way to get information about sleep therapy would be through an e-mail. And 4 % of the repliers also chose the answer that they would not be interested in getting information about this topic at all. The results are given in the Figure 5.

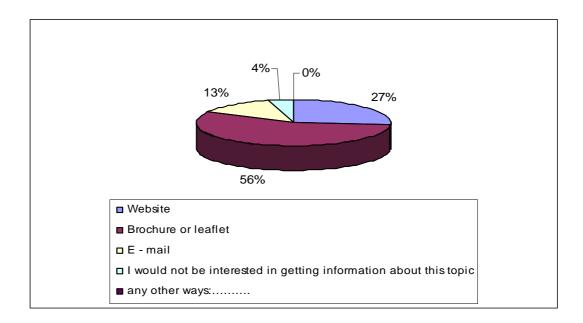


Figure 5. How to get information about the sleep therapy in Tervis Medical Spa

The third part of the questionnaire consisted of three questions, which were related to developing the sleep package in Tervis Medical Spa. According to that with the eleventh question the author wanted to know for how long the customers prefer to stay in a spa (in this question the author of this paper means the whole medical spa hotel). The results showed that most of the customers – 61 % prefer to stay in Tervis Medical Spa for a week, 13 % more than one week, 10 % for 1–3 hours, 8 % for 2 days and another 8 % for 1 day. This means if the author of this research would like to develop a sleep package it should last at least for 4 to 5 days or a week.

The twelfth question was about the spa treatments – the author wanted to know what kind of spa treatments the customers would like to have in a sleep package (see Figure 6). Most of the clients (37 %), who filled the questionnaire, chose Swedish massage, 22 % would like to have a bath (such as a good night's bath by using sleep improving herbs, relaxing bath oils, etc), 15 % thought a head massage would be good in a sleep package, 13 % chose warming ozocerite paraffin and another 13 % would like to have legs massage in a sleep package.

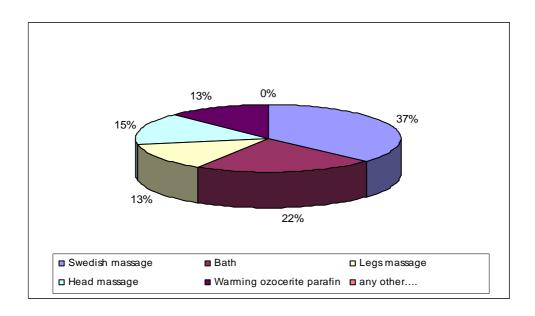


Figure 6. The chozen spa treatments from Tervis Medical Spa customers for the sleep package

The last question – thirteenth, let the customers choose between two different sleep packages, one consisted of sleep study and another without. The author of the research asked the customers which sleep package would be more suitable for them and why?

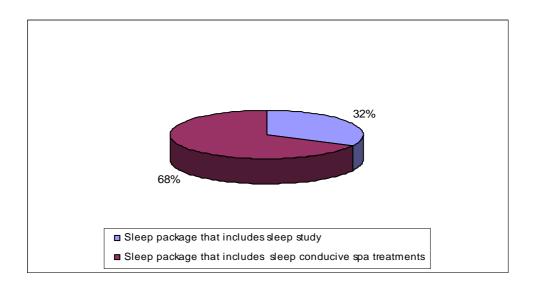


Figure 7. The prefered sleep package chozen from Tervis Medical Spa customers

According to the results (see Figure 7) 68 % of repliers' chose the sleep package that did not include sleep study but it included other facilities such as accommodation, sleep improving spa treatments, and sleep doctor's consultation, healthy breakfast, lunch or

dinner. 32 % of the respondents' chose the sleep package that consisted of accommodation, sleep doctor's consultation, sleep study, healthy breakfast and lunch or dinner, sleep improving spa treatments.

To sum up the results of the questionnaires showed that most of the customers in Tervis Medical Spa are in the age of 51 to 61 or older, which shows how important it is in developing the spa services or packages to consider the target age groups. According to countries the tendency in answering the questionnaires was more done by people who came from Finland. The evaluation of sleep quality was all in all good or sufficient, which means most of the customers do not have any serious problems with sleep. In researching the question about knowing the existence of Sleep Centre in Tervis Medical Spa – most of the customers did not know that there is one existing there, which shows Sleep Centre should give more information about it's presence in the establishment mentioned above.

A lot of customers were convinced that they would like to get more information about sleep therapy, especially on the website (homepage) or in a brochure. In questioning which part of the sleep study would be useful or interesting for the customers, most of them answered that they would like to do a consultation with the sleep doctor or specialist and there were also those who were interested in participating in sleep study.

In investigating the interest of sleep package most of the customers chose the sleep package, which consisted of sleep doctor's consultation with accommodation and sleep improving spa services but there were also quite many who chose the sleep package that consisted of sleep study with accommodation and sleep improving spa services, which showed that there was the interest in both sleep packages even if they first evaluated their sleep quality good or sufficient.

3.4 The Results of the Interviews with Experts

Sleep study has existed in the world for 40 years and in Estonia for the last 10 years. The senior researcher of sleep medicine and sleep therapy specialist pointed out that during the Soviet Union time sleep diagnosis in Estonia was absent and it was only mentioned in medical or physiological fields and subjects. The first sleep study was performed in Tartu University Sleep Clinic in 1998.

According to the results of the interviews with specialists it became clear that sleep quality is very important in human being's everyday life, it does not just affect the person's medical condition, but social as well. The lasting feeling of tiredness can cause many diseases and can be taken as a very serious problem because people are worried about their job and working life if they are not getting enough sleep and feel generally tired all the time and not being sufficient and functional in their tasks. Being sleep derived can also affect one's relationship with their family members and relatives. In the interview with the assistant of senior researcher of sleep medicine doctor, she mentioned an interesting fact, the author excerpts her sentence:

We have asked the patients how much their tiredness and sleepiness affects their family relationship and most of them answered on a 10 point scale 5 or more affecting their family relationships which confirms that healthy sleep is not only a medical problem but also very important part in human being's everyday life functions as well as affecting social interactions.

Sleep study is necessary to find out what is causing sleep problems. It is important for people because they want to evaluate their quality of sleep or they are seeking help and solution to their sleep problems. The cure depends on the results of sleep study. The most common sleep study is polysonmogram, which records several body functions during sleep, including brain activity, eye movement, oxygen and heart rate and rhythm, snoring, body muscle movements, chest and belly movements. The patients, who usually come to sleep centre have symptoms such as tiredness, feel to need sleep during day and cannot get to sleep during night (insomnia), are parasomnics or have breathing problems. Sleep study's aim is to (all night sleep research) investigate the patient's sleep problems. According to International classification (ISCD-II, 2005) there are all together 80 types of different sleeping disorders. Sleep study test results help the person to make a wise health decision and take action to improve one's health.

In the opinion of the sleeping therapy specialist 80% of the people who came to sleep centre in Kubija Nature Spa were suffering from breathing problems during sleep however not so much of insomnia but more restless legs syndrome and hypersomnia (condition marked by excessive daytime sleepiness for example one can fall asleep

anytime) as well as parasomnia (variety of sleep related disorders including nightmares, night terrors and sleepwalking).

Sleep therapy differs in length as it depends on patient's disease, seriousness of the problem and what kind of treatment is needed for example Cognitive Behavioural Therapy or surgical help. The sleep specialist in Kubija Nature Spa comments on sleep therapy, author excerpts her sentence:

Ideally we would treat the cause of the complaint and if it is not possible to dissolve the cause, we try to alleviate the complaints. Sleep apnoe can be treated in days however in complicated insomnia related state of mind or sleep aid dependency the treatment can last weeks or even months.

All in all sleep therapy can be a cure of a short period or even last for months, depending on the seriousness of the sleep disorder and health problems. The feedback of sleep therapy has been positive – all patients have got help with their issues and if treatment has not been achieved to the fullest, then the case will be reviewed for any lifestyle changes to be implemented by the patient or there might be a need to refer the patient on to another specialist.

The sleep study and sleep therapy popularity in Estonia is rising. The senior sleeping therapy doctor finds it becoming more popular in recent years. There was a lot of prejudice against sleeping disorders being a health issue and discarding it as something that needed professional intrusion. In western countries the sleep studies are definitely more developed due to their social security and living standards.

The author of this paper also wanted to know where people get information about sleep therapy and how they get in touch with sleep specialist. According to the senior sleep therapy doctor, most of the patients are sent by their general practitioner (family doctor) or another specialist. Usually the National Health Service covers the treatment but some of the patients are able to self-fund.

It was also investigated whether spa environment can be used as a sleep improving treatment aiding the quality of sleep. The senior sleeping therapy doctor and sleep therapy specialist in Kubija Nature Spa indicated that the whole spa environment can be

beneficial to the patient with it's amenities or facilities such as close to the sea, alternative therapies, relaxing and peaceful environment.

The sleep centre in Tervis Medical Spa has been there now for over one year and one of the interests of the author to know how successful the centre has been until now. In Sleep therapy doctor's opinion the Sleep Centre has been successful because it has been available in health spas and convenience of it being in a spa environment has significantly raised its popularity.

The author also wanted to find out how the sleep package would look alike or what kind of spa treatments should it contain. The feedback revealed the possibility to have a spa package consisting of sleep study with sleep conducive spa services in Tervis Medical Spa. This kind of package can definitely have potential however it also depends on the creation of the package and logistics of it as well as the final price.

The doctors could help sufferers of other conditions by recommending a sleep promoting spa service. Patients benefit from a physiotherapist who has the knowledge regarding the restless legs syndrome and incorporates it in a therapy.

The sleeping therapy specialist in Kubija Nature Spa had an opinion that Estonian spas should use sleep quality in their spa service development because sleep quality is as important as health quality. She suggested the spas to use more physiotherapy in their spa services or packages which are good for the restless legs syndrome or if the patient's diagnose is related to sleep problems, the doctors in medical spas should be recommending special spa services that would promote the quality of sleep (they should have the knowledge of spa services which would be better for the patient to raise his/her quality of sleep). And they should not suggest more than three spa procedures per day.

Also very important is to know what suits the patient or client better as some people need more stimulative baths on the other hand others relaxing baths. Another significant part is to offer quality nourishment and it should consist of special vitamins, juices etc. Music therapy in a spa would be good especially blues music because of it's certain level that helping a person to fall asleep. The rooms of the spa could have special bed

sheets that help the guest sleep better (special material that warms the body and helps to promote falling asleep).

Tervis Medical Spa offers professional spa treatments and relaxation. The reason according to the spa manager and chief doctor why people go to previous mentioned spa is to prevent illnesses, to improve their health, to escape from their everyday stressful life and to relax. Tervis Medical Spa is specialized in joint diseases therefore a lot of clients come to cure them. The author of this paper wanted to know where their customers can find information about Tervis Medical Spa and according to the spa manager and sales and marketing manager the most effective channel is "mouth to mouth" marketing, other channels such as website, newspaper, television are also quite good ways of marketing.

Tervis Medical Spa target groups are more older people in the age of 50 to 60 and older, but according to the sales and marketing director they would like to change their target group to younger such as 30 to 40 or 40 to 50. The most popular packages in Tervis Medical Spa are spa packages therefore in the opinion of the sales and marketing director sleep package would be a good opportunity to develop a new service or a package.

Another interesting point was to find out what kind of information should the sleep therapy booklet have in a spa. Right now Tervis Medical Spa does not have any information about sleep centre or sleep therapy on the webpage or booklet. The specialists had opinion that it should be very clear, compact, consist of necessary information, and should be visually attractive. The information should be about the symptoms for sleep problems, diagnosis, sleep study and information where to get help. It also should include suggestions such as which spa services would be good to promote the quality of sleep.

According to the senior researcher of sleep medicine in Tervis Medical Sleep Centre the providing of sleep consultations, sleep studies or sleep packages have an importance to keep the charge fixed because most of the patients are sent by their family doctors or specialists and their sleep study is paid by their health insurance.

The specialists agreed that the sleep package should consist of spa services such as massage (head, body, legs, and arms), baths, light therapy, salt chamber, music therapy (blues), acupuncture and different water procedures.

If the author of this paper asked what are the requirements for sleep package according to Tervis Medical Spa then the spa manager, chief doctor and sales and marketing director had the same opinion they said following, the author summarizes their opinion:

Sleep therapy and sleep study very much depends on Sleep Centre in Tervis Medical Spa. If the Sleep Centre would be open on other days for example on weekends or during the week, it would be possible to cooperate, but otherwise if they are only taking place once in a month for three days in Tervis Medical Spa then it will never cover the customer demand.

This opinion means that since there has been no opportunity to establish any cooperation with the Sleep Centre as it usually opens only for few days in a month, the sleep doctor is there only once a month. But Tervis Medical Spa has a lot of customers and if it sells a package it should be available any time not only once a week and for limited amount of customers. This is also a reason why the Sleep Centre senior researcher of sleep medicine should consider having the staff present during the month in Tervis Medical Spa if she has the interest in doing cooperation with Tervis Medical Spa.

In the interviews with the chief doctor, spa manager and sales and marketing director the author also asked do they think sleep package would have potential in Tervis Medical Spa. And they all answered definitely "yes" but this would need further discussions with the Sleep Centre because right now they don't have any cooperation with Tervis Medical Spa. At present situation the Sleep Centre is renting the rooms from Tervis Medical Spa. The chief doctor of Tervis Medical Spa said that Sleep Centre is very important because she is interested in that Tervis Medical Spa would not only be a "sanatorium" but also develop research and science as well, and Sleep Centre would adapt successfully with it. The author of this paper was also curious why Tervis Medical Spa has not established cooperation with Sleep Centre before. The sales and marketing director said that there was no demand for sleeping therapy and the chief doctor of

Tervis Medical Spa said they did not have much information about that and there was also lack of interest from customers.

In future Tervis Medical Spa will be a spa specializing in different disorders because in the opinion of the chief doctor the spa cannot be specified in narrow subject field as it is a large building with 492 places and it would be difficult to manage it during the whole year. Therefore it needs to have many different fields and specializations.

In conclusion Tervis Medical Spa specialists are interested in developing new services or packages and sleep therapy would be a good opportunity to look into. On the other hand there are some points they would need to discuss with the Sleep Centre senior researcher of sleep medicine. The sleep specialists are also considering combining sleep study or sleep therapy with spa services to see if it would be interesting, but it is also important to have the right equipment, professional staff and capabilities to ensure the security and quality for the client. Also a booklet about sleep study, sleep therapy and cure in Tervis Medical Spa would be necessary to develop because ther is no information about it at all.

3.5 Suggestions in Developing the Sleep Package in Tervis Medical Spa

Present master thesis research results showed that there is an interest for sleep improving spa package and sleep conducting spa treatments. According to filled questionnaires of Tervis Medical Spa customers the interest in sleep package exists, the customers also pointed out, which sleep packages would they choose and which one would be more suitable for them. The author cannot, of course, draw a conclusion about all customers' opinions in Tervis Medical Spa due to the rate of filled questionnaires being 22 %. She can make a conclusion on a general level looking at the 112 filled questionnaires.

According to the results of the interviews with experts they revealed that Tervis Medical Spa would like to offer something new – a service or package that would be unique compared with other medical spas in Pärnu. Therefore sleep package would suit ideally

with their medical spa concept. The only question is how it would be possible to cover the customer demand if Tervis Medical Spa was to provide a sleep package. The solution would be to open the Sleep Centre more often than once a month or a week in a month. Sleep Centre would need more staff, approximately two to four assistants, who would help with polysonmography and other sleep study tests however this would be only be needed if there are customers, who would like to do the sleep study and go for sleep consultation.

Another possibility would be if a senior researcher of sleep medicine or a sleep doctor (could also be a trainee who is studying sleep medicine in Tartu) could be in Sleep Centre during weekends (in that case the sleep package should be offered for weekends) so that customers who take the sleep package could go to his or her consultation. And if there are customers, who would like to do the sleep study, the assistants in Sleep Centre could help and do the polysonmography. Afterwards the senior researcher of sleep medicine can analyse and summarize the results and suggest a treatment.

The author of this paper suggests developing two different sleep packages that would be among other treatment packages in Tervis Medical Spa. First sleep package would be for 4 nights and would consist of following facilities:

- A consultation and good recommendations from the senior researcher of sleep medicine or sleep specialist
- up to 3 different sleep improving procedures and spa treatments per each night of stay from the following list as recommended by the senior researcher of sleep medicine:
 - Music therapy such as blues or other calming music tones, light therapy, salt chamber;
 - o relaxing or stimulating bath (according to senior researcher of sleep medicine recommendation), underwater shower massage, mud therapy, warming ozocerite paraffin for shoulders, neck or feet;
 - Swedish massage (all body massage, head massage, leg massage or hand massage);
 - Nordic walk, stimulating morning exercise, training activities or workouts in the gym;

- charms of spa and sauna centre (aroma sauna, salt sauna, infrared sauna, steam sauna, japanese bath, swimming pool);
- healthy and delicious breakfast, lunch, dinner and a relaxing good night's tea in the evenings;
- accommodation in an comfortable single room (or double room if preferred).

According to experts opinions the customer should not take more than three spa treatments a day. The second sleep package will also be for 4 nights but it differs from previous package as it consists of sleep study. The author combined the second sleep package as following:

- A consultation, sleep study (polysonmography), after sleep study results and cure or therapy suggestions from the senior researcher of sleep medicine or sleep specialist;
- up to 3 different sleep improving procedures and spa treatments per night of stay from the following list as recommended by the senior researcher of sleep medicine:
 - Music therapy such as blues or other calming music tones, light therapy, salt chamber;
 - relaxing or stimulating bath (according to senior researcher of sleep medicine recommendation), underwater shower massage, mud therapy, warming ozocerite paraffin for shoulders, neck or feet;
 - swedish massage (all body massage, head massage, leg massage or hand massage);
 - o nordic walk, stimulating morning exercise, training activities or workouts in the gym;
- charms of spa and sauna centre (aroma sauna, salt sauna, infrared sauna, steam sauna, japanese bath, swimming pool);
- healthy and delicious breakfast, lunch, dinner and a relaxing good night's tea in the evenings;
- accommodation in comfortable single room (or double room if preferred).

To make the stay in a spa hotel more convenient by promoting the quality of sleep the author also suggests to use special warming bed sheets in the rooms that keep the body

temperature in a normal level and help to fall asleep better. And by combining accommodation and sleep improving spa services, the customers are welcome to set up the sleep package themselves that suits them best. It means that these packages are suggested for 4 days but if they like they can also stay longer.

These are the suggestions for the sleep packages in Tervis Medical Spa. The author did not add the price of the packages. She does know how much the sleep study costs in the Sleep Centre but she did not get any information from the senior researcher of sleep medicine how much the sleep study would cost in a spa package. If Tervis Medical Spa cooperates with Sleep Centre, the price must be worked out for the sleep study in the sleep package. The initiative for that has to come from the senior researcher of sleep medicine (at this point in time the price is too high to put it in a package).

The research also showed that most of the customers did not know about the existence of Sleep Centre in Tervis Medical Spa and most of them also pointed out that they would like to get the information in a brochure therefore the author of this master thesis finds it necessary that the Sleep Centre should have a brochure that would be on offer at the lobby area in Tervis Medical Spa.

The information in the brochure has to be very clear and compact, for example it should consist of information about the quality of sleep, mostly figured sleep disorders, sleep hygiene, opportunity to go to consultation and contacts of Sleep Centre. That way the customers, who are interested in that topic, will have the opportunity to get information about it. Another suggestion would be to have more information about sleep and sleep disorders on the Tervis Medical Spa webpage, because the research showed that people would also like to have information about the Sleep Centre and sleep consultation opportunities on webpage or it should have a link that brings or shows the person where he or she can get the information.

CONCLUSION

Health as a vital part of general condition of human being balances the body, mind and spirit. Health is the general condition of a human being's body, mind and spirit. Health-related quality of life has become an important construct in the modern world. World Health Organization (WHO, 1946) has already in 1946 defined health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. The general health condition can cope with the normal stresses of life, can work effectively and is able to go on with the changes and difficulties in everyday life.

Every person is responsible for it's state of well-being therefore it is very important to take care and keep balanced one's own physical and mental condition. The society has changed – nowadays people are working too much without realizing about their unhealthy lifestyle. In a constant hurry, they often forget to eat healthy foods or do not do enough physical exercises or just take free time to relax the body, mind and spirit.

That kind of unhealthy lifestyle can be dangerous because human being's body needs a rest to cope with stress and if it is not possible, it can cause serious health problems, including sleep disorders. Sleep is often an overlooked element of a healthy lifestyle. Sleep disorders can cause many health issues such as excess body weight, diabetes, heart diseases, high blood pressure and other medical conditions. Most people are not well informed about these problems and therefore many sleep disorders stay without essential attention although a high percentage of patients can be treated. Alcohol, sleeping pills, limiting sleep and working longer may all distract from the problem but will only increase the possibility of damage to the body and affect work and relationships.

Sleep studies are done to measure how much and how well a person sleeps. Sleep study is usually done in a hospital or in a sleep centre cabinet and most sleep facilities are very clinical in appearance, people do not feel relaxed and comfortable sleeping in such an environment.

A spa hotel is a place where people can go to relax and it is associated with words such as silence, peace, rest and wellness. These are exact and perfect conditions for sleep studies. Therefore the author of this master thesis researched the sleep study possibilities in a spa – how it would be possible to provide sleep study and sleep package in a spa. The author analysed among Tervis Medical Spa customers sleep therapy demand, interest and possibilities for the further development. Tervis Medical Spa has the opportunity according to the research results and suggestions to use it as an opportunity to develop and enlarge the number of their spa services.

The problem question of this paper work was – Do Tervis Medical Spa customers have a demand for sleep therapy as a spa service? According to the problem the author raised a hypothesis, which was – most of customers in Tervis Medical Spa have sleep disorders and they also have a demand for sleep therapy as a spa service. The hypothesis got in a part confirmation because the research with customers in Tervis Medical Spa showed that most of them did not have any serious sleep disorders but still were interested in sleep therapy and sleep improving packages. With the regard to these results the author suggests Tervis Medical Spa to have more constructive cooperation with the Sleep Centre and offer sleep packages, have a informational brochure about sleep quality, sleep hygiene, sleep study and sleep therapy related spa services to promote the quality of sleep. Also would be useful to have the previous mentioned information on their homepage.

The aim of this master thesis was to investigate the interest and demand of sleep conducting treatments including sleep therapy and to give ideas and suggestions in providing sleep therapy, sleep improving treatments and packages in Tervis Medical Spa, can be considered as achieved by the author.

The arised tasks of this master thesis were achieved and accomplished. According to the research results the author can see the potential in developing sleep therapy and sleep

study as a spa service. Therefore further discussions will be necessary on both sides – Tervis Medical Spa and from senior researcher of sleep medicine in Sleep Centre. A new service development in Tervis Medical Spa will have a competitive advantage and betterment compared to other spas in Pärnu.

REFERENCE

- A Hard Night's Sleep. Science: Body & Mind
 [http://www.bbc.co.uk/science/humanbody/sleep/articles/sleepdisorders.shtml]

 30.04 2011
- American Psychological Association
 [http://www.apa.org/topics/sleep/why.aspx] 05.05 2011
- 3. Banno, K. Kryger, M. H. (2007). Sleep Apnea: Clinical Investigations in Humans. Sleep Medicine 8, 400–426 p.
- 4. Beck, J. S. (2008) Questions and Answers about Cognitive Therapy. Beck Institute for Cognitive Therapy and Research [http://beckinstitute.org/Library/InfoManage/Zoom.asp?InfoID=220&RedirectP ath=Add1&FolderID=237&SessionID={5F76BE33-0189-41D2-AB45-72EB2FFBC581}&InfoGroup=Main&InfoType=Article&SP=2] 04.04 2011
- 5. Better Sleep Council [http://www.bettersleep.org/] 27.02.2011
- 6. Bitner, M. J. Ostrom, A. L. Morgan, F. N. (2008). Service Blueprinting: A Practical Technique for Service Innovation, pp 67–94.
- Borja de Mozota, B. (2003). Design Managament: Using Design to Build Brand Value and Corporate Innovation. New York: Allworth Press: Design Management Institute, 281 p.
- 8. Brown, A. (2011a). Spa Types. How to Understand the Different Kind of Spas. [http://spas.about.com/cs/spa101/a/typesofspas.htm] 07.01.2011
- 9. Brown, A. (2011b). The History of Spas [http://spas.about.com/cs/spaarticles/l/aa101902.htm] 07.01. 2011
- 10. Brown, A. (2011c). What is a Spa treatment? [http://spas.about.com/cs/spatreatments/a/treatmentchioce.htm] 07.01 2011

- 11. Carney, P. R. Berry, R. B. Geyer, J.D. (2005). Clinical Sleep Disorders.Lippincott Williams & Wilkins. Philadelphia, p 506.
- Chai, K. H. Zhang, J. Tan, K. C. (2005). A TRIZ-Based Method for New Service Design. National University of Singapore. Journal of Service Research, pp 49–66.
- 13. Cherry, K. Stages of Sleep [http://psychology.about.com/od/statesofconsciousness/a/SleepStages.htm] 22.04 2011
- 14. Classification of Sleep Disorders. (2005). ICSD-II system

 [http://www.uptodate.com/contents/classification-of-sleep-disorders] 08.05 2011
- 15. Cognitive Behavioural Therapy. The Royal College of Psychiatrists [http://www.rcpsych.ac.uk/mentalhealthinfoforall/treatments/cbt.aspx] 03.04 2011
- 16. Cohen, M., Bodeker, G. (2008). Understanding the Global Spa Industry: Spa Management. USA: Elsevier, 466 p.
- 17. D'Angelo, J.M. (2006). Spa Business Strategies: a plan for success. Clifton Park [etc.]: Thomson Delmar Learning, 386 p.
- 18. Dream Views, Sleep Stages [http://www.dreamviews.com/section/sleep-stages-9/] 07.04 2011
- 19. Ellis, S. (2011). Spa Finder's 2011 Spa Trend Report. Top 10 Global Spa Trends to Watch in 2011 [http://www.spafinder.com/about/press_release.jsp?relId=205]
- 20. Erfurt-Cooper, P. J. Cooper, M. (2009). Health and Wellness Tourism: Spas and Hot Springs. Bristol [etc.]: Channel View, 362 p.
- 21. Estonian Spa Association [http://www.estonianspas.eu] 07.04.2011
- 22. Healthy Sleep Foundation [http://healthysleep.med.harvard.edu/healthy/getting] 07.04 2011
- 23. Hollins, B. Shinkins, S. (2006). Managing Service Operations: Design and Implementation. London [etc.]: Sage, 299 p.
- 24. How Much Sleep Do You Need? [http://www.helpguide.org/life/sleeping.htm] 09.04 2011
- 25. Insomnia Causes, Cures and Treatments
 [http://www.helpguide.org/life/insomnia_treatment.htm] 07.04 2011

- 26. International Spa Association [http://www.experienceispa.com] 07.04.2011
- 27. Jenkins, L. History of the Bath [http://www.pureinsideout.com/history-of-the-bath.html] 07.04.2011
- 28. Kelleher, R. (2004). Spa Basics: A Consumer's Guide to Day Spa Services. Victoria: Trafford, 138 p.
- 29. Krystal, A. D. Edinger, J. D. (2008). Measuring Sleep Quality. Sleep Medicine 9 Suppl. 1. Elsevier, pp 10–17.
- 30. Kyle, S. D. Morgan, K. Espie, C. A. (2010). Insomnia and Health Related Quality of Life. Sleep Medicine Reviews 14, pp 69–82.
- 31. Lazarus, J. (2000). Spa Source Book. Los Angeles: Roxbury Park/Lowell House, 239 p.
- 32. Leavy, H. R. Bergel, R. R. (2003). The Spa Encyclopedia: A Guide to Treatments & Their Benefiits for Health and Healing. Clifton Park etc.: Thomson/Delmar Learning, 174 p.
- 33. Maanteeamet. Statistika (2010). [http://www.mnt.ee/index.php?id=10798] 27.02.2011
- 34. Mielke, R. History of Bathing [http://www.aachen.de/EN/ts/100_taking_a_cure/100_99/index.html] 07.04.2011
- 35. Narcolepsy. World Sleep Foundation
 [http://worldsleepfoundation.org/narcolepsy] 11.04 2011
- 36. National Sleep Foundation. Sleep and Ethnicity

 [http://www.sleepfoundation.org/article/sleep-america-polls/2010-sleep-and-ethnicity] 05.05 2011
- 37. Nelson, D. Spa Trends 2011 The Changing Spa Industry.

 [http://www.articlepinch.com/spa-trends-2011-the-changing-spa-industry-2/]

 08.03 2011
- 38. New Trend in Spa Treatments: Sleep!

 [http://sleepynews.drinkdreamwater.com/trend-spa-treatments-sleep/] 03.03

 2011
- 39. O'Hanlon, B. (2000), Uni [Tallinn]: Tänapäev, 120 lk

- 40. Phillips, B. Ancoli-Israel, S. (2001). Sleep Disorders in the Elderly. Sleep Medicine Reviews 2, pp 99–114.
- 41. Regestein, Q. R. Rechs, J. R (1982). Sound Sleep. New York: Fireside, 208 p.
- 42. Register, J. Spa Evolution, A Brief History of Spas [http://spas.about.com/cs/spaarticles/l/aa101902.htm] 07.01 2011
- 43. Sarnoff, P. M. (1989). The Ultimate Spa Book. New York: Warner Books, 276 p.
- 44. Service Design. Office of Government Commerce. London: Stationary Office, 2007, p 334.
- 45. Simpson, G. Sinatra, S. T. Suárez-Menéndez, J. (2004). Spa Medizine: Your Gateway to the Ageless Zone. North Bergen (N. J.): Basic Health, 308 p.
- 46. Sleep Education, Cognitive Behavioural Therapy

 [http://www.sleepeducation.com/Treatment.aspx?id=5] 07.04. 2011
- 47. Sleeping Disorders. [http://www.psychologistworld.com/sleep/disorders.php 07.01.2011] 07.01 2011
- 48. Smith, M., Puczkò, L. (2009). Health and Wellness Tourism. UK: Elsevier Ltd., 400 p.
- 49. Stevens, D. S. (2004). Sleep Medicine Secrets. Questions and Answers Reveal the Secrets to the Successful Diagnosis and Treatment of Sleep Disorders. Hanley & Belfus, inc. The Curtis Center. Independence Square West. Philadelphia, Pennsylvania, 260 p.
- 50. Stibich, M. (2009). Stages of Sleep

 [http://longevity.about.com/od/sleep/a/sleep_stages.htm] 23.04 2011
- 51. Tervis Medical Spa (2011a). Estonia Spa Association

 [http://www.estonianspas.eu/en/liikmed/parnu/Tervis-Medical-Spa] 30.04 2011
- 52. Tervis Medical Spa (2011b). [http://www.sanatooriumtervis.com/?q=/en] 02.03 2011
- 53. Tervis Medical Spa (2011c). Visitestonia.com

 [http://www.visitestonia.com/en/tervis-medical-spa-1] 30.04 2011
- 54. The Cycles of Sleep. The Sleep Remedy Headquarters.

 [http://www.sleepremedyhq.com/sleep-science-2/] 08.05 2011

- 55. The Importance of Deep Sleep and REM Sleep. Health Library [http://library2.givemelife.co.nz/general-health/physical-health/sleep/the-importance-of-deep-sleep-rem-sleep/] 03.04 2011
- 56. Thorpy, M. J. Yager, J. (2001). The Encyclopedia of Sleep and Sleep Disorders. 2nd Edition, 314 p.
- 57. Treatments Options for Adults with Obstructive Sleep Apnea. American Sleep Apnea Association [http://www.sleepapnea.org/resources/pubs/treatment.html] 12.04 2011
- 58. Trend, Spa Treatments and Sleep.

 [http://sleepynews.drinkdreamwater.com/trend-spa-treatments-sleep/)]

 07.02.2011
- 59. University of Glasgow Sleep Centre Newsletter, Autumn 2008, Volume 1, Issue 1. pp 1–8 [www.gla.ac.uk/media/media_147042_en.pdf] 03.04.2011
- 60. Valfre, M. M. (2001). Foundations of Mental Health Care. 2nd Ed. St. Louis (Mo.); London: Mosby, 430 p.
- 61. Van Tubergen, A. van der Linden, S. (2010). A Brief History of Spa Therapy, Ann Rheum Dis 2002 61, pp 273–275.
- 62. Veldi, M. (2009). Uneraamat. Tallinn: Lege Artis (Tallinn: Reusner), 223 lk.
- 63. WHO definition of Health. (1946). World Health Organization [http://www.who.int/about/definition/en/print.html] 07.04. 2011
- 64. Yalung, B. (2010) Run to Sleep Better. Sleepzine. The Sleep Online Magazine [http://sleepzine.com/sleep-disorders/sleep-therapy/run-to-sleep-better/] 01.05 2011
- 65. Youngstedt, S. D. Kripkea, D. F. (2004). Long Sleep and Mortality: Rationale for Sleep Restriction. Sleep Medicine Reviews, pp 159–174.

APPENDICES

Appendix 1. Questionnaire in Estonian for Tervis Medical Spa Customers

KLIENDIKÜSITLUS

Lugupeetud vastaja, Tere tulemast ravispaahotelli Tervis!

Tänapäeval on tervisliku elu aluseks mitmekesine toitumine, puhta vee tarbimine ja küllaldane uni. Uni on inimese jaoks elutähtis tegevus, seega üks osa täisväärtuslikust elust. Sügava une puudus põhjustab aju energiapuudujääke, halvendab töö- ja keskendumisvõimet ning uuringute kohaselt on väsimusest tingitud liiklusõnnetusi kõige rohkem.

Seoses sellega soovime ravispaahotellis Tervis läbi viia uuringu, mis annaks teada, kui palju tuntakse huvi uneteraapia vastu ja kas seda võiks kliendile pakkuda uneuuringu paketina ravispaahotellis Tervis. Teie, kui olemasoleva vastaja hinnang on meile väga oluline. Seega palun Teil leida 5-10 minutit aega küsimustikule vastamiseks!

UNEKVALITEETI SOODUSTAVA KOMPLEKSTEENUSE PAKKUMINE RAVISPAAHOTELLIS TERVIS

Küsimused unekvaliteedi kohta:

1. Kuidas hindate oma unekvaliteeti igapäevaselt?
☐ Ei ole unega probleeme
☐ Hea, kuid esineb vahel uinumisraskusi
☐ Aegajalt magan halvasti
☐ Rahuldav, kuid korduvad ärkamised uneajal
☐ Kannatan pikemat aega unehäirete all (esinevad pidevalt järgnevad sümptomid: uinumisraskus, korduvad ärkamised uneajal, uinumisraskus öise ärkamise ajal, spontaanselt liiga varane ärkamine hommikul)
2. Kas Teid on vaevanud rahutud jalad? (rahutute jalgade all mõistetakse ebameeldivat tunnet (kuuma-või külmatunne, kihelemine, pinge-või survetunne kuni valuhaistinguni) säärtes ja või reites. Häire ilmneb tegevuseta olekus või puhkeseisundis, peamiselt õhtul. Seisund halveneb eriti enne magamajäämist ja takistab uinumist.
☐ Mitte kordagi või harvemini kui kord kuus
☐ Harvemini kui kord nädalas
□ 1–2 päeval nädalas

Appendix 1. continued

□ 3–5 päeval
□ Iga päev või peaaegu iga päev
3. Kas Te norskate magamise ajal?
☐ Mitte kunagi või harvemini kui korra kuus
☐ Harvemini kui kord nädalas
□ 1–2 päeva nädalas
□ 3–5 päeva nädalas
☐ Igal öösel või peaaegu igal öösel
4. Kas olete kasutanud alternatiivset ravi uneprobleemide korral?
☐ Ei ole kasutanud või kasutan harvemini kui kord kuus
☐ Kasutan harvemini kui kord nädalas
☐ Kasutan 1–2 päeval nädalas
☐ Kasutan 3–5 päeva nädalas
☐ Kasutan iga päev või peaaegu iga päev
5. Kas olete kasutanud retseptiga määratud unerohtusid?
☐ Ei ole kasutanud või kasutan harvemini kui kord kuus
☐ Kasutan harvemini kui kord nädalas
☐ Kasutan 1–2 päeval nädalas
☐ Kasutan 3–5 päeva nädalas
☐ Kasutan iga päev või peaaegu iga päev
6. Kas olete tundnud, et tahaksite magada päeval?
☐ Mitte kunagi või harvemini kui korra kuus
☐ Harvemini kui kord nädalas
□ 1–2 päeva nädalas
□ 3–5 päeva nädalas
□ Iga päev või peaaegu iga päev
Küsimused uneuuringu ja Unekeskuse kohta ravispaahotellis Tervis:
7. Milline unega seotud uuring huvitaks Teid kõige enam või oleks Teile kõige vajalikum
☐ Unearsti konsultatsioon (väsimust ja unehäireid hindavad testid)
☐ Uneuuring (polüsonmograafiline uuring – PSG – ehk kogu öö une uuring)
☐ Ninahingamise funktsionaalne uuring
□ 24 tunni hapnikuvarustuse skriininguuring (SpO ₂) – õhupuudus või hingamine une ajal
☐ Autojuhtimise simulatsiooni uuring

8. Kas olete teadlik, et ravispaahotellis Tervis asub uneuuringute kabinet?

Appendix 1. continued

☐ Jah, olen kuulnud ja sooviksin rohkem infot selle kohta
☐ Jah, olen seal kabinetis ka uneuuringutel käinud
☐ Jah, olen teadlik, kuid ei ole selle vastu huvi tundnud
□ Ei
9. Kas olete osalenud uneuuringul? (näiteks ravispaahotell Tervis või mujal) (Uneuuringu käigus salvestatakse ja kirjutatakse paberile patsiendi uneaegsed aju biorütmid, hingamise rütm ja norskamisepisoodid, südamerütm ja vere hapnikusisaldus, silmade ja lihaste liikumine)
□ Jah, olen küll –(kus täpsemalt?)
☐ Jah, olen osalenud uneuuringul Sanatooriumis Tervis
☐ Ei, pole vajadust olnud
☐ Ei, kuid olen huvitatud
10. Kas sooviksite rohkem infot saada ravispaahotellis Tervis pakutavast uneteraapiast?
□ Jah
☐ Ei ole huvitatud antud infost
Kui jah, siis mil moel?
□ Kodulehel
□ Brožüürina või infovoldikuna
□ E-kirjana
□ muul moel
Küsimused unepaketi kohta ravispaahotellis Tervis:
11. Kui pikaks ajaks planeerite tavaliselt oma spaakülastust?
□ 1–3 tundi
□ 1 päevaks
□ 2 päevaks
□ 1 nädalaks
□ rohkem kui 1 nädalaks
12. Milliseid spaateenuseid sooviksite lisada uneuuringusse? (võib valida mitu vastusevarianti)
□ Üldmassaaži (vastavalt unearsti soovitusele)
□ Vanni (rahustav ja lõõgastav hea une vann koos aroomi õlidega)
□ Jalamassaaži (rahututele jalgadele)
□ Peamassaaži

Appendix 1. continued

□ Soojendavat parafiini (kaelale, jalgadele, kätele, seljale)
□ Muud:
13. Milline uneuuring paketina oleks Teile kõige sobivam? – kas A või B? Unekliinikutes uneuuringu maksumus on ~ 268 eurot (4200 krooni) ehk hind on kogu une öö uuring.
Pakett A sisaldab majutust 2 ööks, hommikusööki, tervislikku lõuna – või õhtusööki, und soodustavaid protseduure, unearsti konsultatsiooni ja uneuuringut. Paketi hinnaks oleks 350 eurot (~5480 krooni)
□ Valisin paketi A,
sest(põhjendus)
Pakett B sisaldab majutust 2 ööks, hommikusööki, tervislikku lõuna – või õhtusööki, und soodustavaid protseduure, unearsti konsultatsiooni ja nõuandeid. (ei sisaldaks uneuuringut). Paketi hinnaks oleks 160 eurot (~ 2505 krooni)
\square Valisin paketi ${\bf B},$ sest(põhjendus)
ÜLDANDMED
Sugu: □ Mees □ Naine
Päritoluriik: ☐ Eesti ☐ Soome ☐ Rootsi ☐ Norra ☐ Muu
Vanus: □ 18–28 □ 29–39 □ 40–50 □ 51–61 □ 62–72 □ 73 ja enam
Tänan Teid vastamast!
Kliendiküsitluse ankeet on koostatud Tartu Ülikooli Pärnu kolledži magistrant Inna Bentsalo poolt.

Appendix 2. Questionnaire in English for Tervis Medical Spa Customers

QUESTIONNAIRE

Dear respondent, Welcome to Tervis Medical Spa!

Nowadays the consumption of various nutritions, drinking clean water and getting sufficient sleep is considered to be the basis to healthy life. A good night's sleep has an important role in a human being's life – it is irreplaceable in restoring strength and it is an important factor in keeping a person healthy. A sleep disorder or even minimal sleep loss takes a toll on a person's mood, energy, efficiency and ability to handle stress. According to statistics a lot of traffic accidents are especially caused by the driver's tiredness.

In relation to that we would like to do a research in Tervis Medical Spa, which would give us information about how much of our customers would be interested in sleeping therapy, in sleep improving treatments, package that would consist of sleep research in Tervis Medical Spa.

Your opinion as a respondent is very important. That is the reason why we would appreciate if you could find 5-10 minutes to fill this questionnaire.

THE COMPLEX OF SERVICES PROVIDED BY TERVIS MEDICAL SPA FOR PROMOTING THE QUALITY OF SLEEP

Questions about the quality of sleep:

1. How would you evaluate your ordinary quality of sleep?
☐ I have no problems with sleep
☐ Good but sometimes I have trouble in falling asleep
☐ From time to time I sleep badly
☐ Sufficient but sometimes repeated awakening during sleep
□ I suffer under sleep disorders for a long time (constantly following symptoms occur: have difficulty concentrating, difficulty falling asleep at night or getting back to sleep after waking during the night, waking up frequently during the night, sleep is light, fragmented, or unrefreshing, sleepiness and low energy during the day)
2. Do you have trouble with restless legs? (restless legs syndrome means strange and unpleasant sensations in legs that keep you up at night, it is a bothered feeling of irresistible urge to move your legs when you lie down or relax. The tingling, aching, and itching of restless legs syndrome can last for hours and usually gets worse at night, preventing you from getting the sleep you need)
□ Never or not often than once a month
☐ Lesser than once a week
□ 1–2 days a week
□ 3–5 days a week
☐ Everyday or almost every day
3. Do you snore during sleep?
□ Never or not often than once a month

Appendix 2. continued

☐ Lesser than once a week
□ 1–2 days a week
□ 3–5 days a week
☐ Everyday or almost every day
4. Have you used alternative medicine for sleep disorders?
$\ \square$ I have never used or I use them not often than once a month
\square I use them not often than once a week
☐ I use them 1–2 days a week
☐ I use them 3–5 days a week
\square I use them every day or almost every day
5. Have you used prescribed sleep medicine?
$\hfill\Box$ I have never used or I use them not often than once a month
\square I use them not often than once a week
☐ I use them 1–2 days a week
☐ I use them 3–5 days a week
\square I use them every day or almost every day
6. Have you felt sleepiness during day time?
□ Never or not often than once a month
☐ Lesser than once a week
□ 1–2 days a week
□ 3–5 days a week
☐ Everyday or almost every day
Questions about sleep study and Sleep Centre in Tervis Medical Spa:
7. Which part of the sleep study would be more interesting or more useful for you?
☐ Consultation of a sleep doctor (tiredness and sleep disorders evaluating tests, questionnaires)
☐ Sleep research (which means polysonmography test – all night sleep study)
□ Nose breathing functional study
$\ \square$ 24 hour oxygensource screening (SpO ₂) – breath shortage or breathing during sleep
☐ Car driving simulation study
8. Do you know that there is a Sleep Centre in Tervis Medical Spa?
☐ Yes, I have heard but I would like to get more information about it
☐ Yes, I have been in Sleep Centre cabinet and I have done a sleep diagnostic there
☐ Yes, I know but I have never been there and also never been interested in that topic
\square No

9. Have you participated in sleep diagnostics (study) in Sleep Centre in Tervis Medical Spa or anywhere else? (In the course of sleep diagnostics the patient's brain biorhythms, breathing rhythm and snoring episodes, heart beat and oxygen level in blood and movements of eyes and muscles while sleeping are recorded and stored) ☐ Yes, I have –(where exactly?) ☐ Yes, I have participated in sleep diagnostics in Tervis Medical Spa Sleep Centre □ No, I have had no reason to do it □ No, but I would be interested in participating in sleep diagnostics 10. Would you like to get more information about Sleep therapy in Tervis Medical Spa? \square Yes □ No If yes, than in which way? (you can choose more than one answer) □ Website ☐ Brochure or leaflet ☐ E-mail ☐ I would not be interested in getting information about this topic □ any other ways:..... Questions about the sleep package in Tervis Medical Spa: 11. How long would you prefer to stay in a spa? \Box 1–3 hours \Box 1 day □ 2 days □ 1 week \square more than 1 week 12. What kind of spa treatments would you like to have in a sleep improving package? (you can choose more than one answer) ☐ Swedish massage (according to sleep doctor's or expert's advice or consultation) ☐ Bath (for example a good night's bath—using sleep improving herbs, relaxing bath oils) ☐ Legs massage (for example for restless legs) ☐ Head massage

Appendix 2. continued

☐ Warming ozocerite parafin (for neck, feet, hands, back)
☐ Other:.....

Appendix 2. continued

13. Which sleep package would be more suitable for you? Please choose A or B. (In other Sleep centre the charge of a sleep research is ordinary ~ 268 euros) A. Sleep package includes accommodation for 2 nights, breakfast, healthy lunch or dinner, sleep improving procedures, sleep doctor's consultation and sleep research (all night sleep research). The package price is 350 euros. ☐ I choose package A because(why?) **B**. Sleep package includes accommodation for 2 nights, breakfast, healthy lunch or dinner, sleep improving procedures, sleep doctor's consultation (package is without all night sleep research). The package price is 160 euros. ☐ I choose package **B** because(why?) PERSONAL DATA □Female Sex: □Male **Country:** 🗆 Estonia ☐ Finland □Sweden □Norway □Other..... \square 18–28 \square 29–39 \square 40–50 \square 51–61 \square 62–72 \square 73 and older Age: Thank you very much for answering to these questions! This questionnaire is done by University of Tartu Pärnu College student Inna Bentsalo (student of master studies)

Appendix 3. Questionnaire in Finnish for Tervis Medical Spa Customers

ASIAKASKYSELY

Arvoisa vastaaja, tervetuloa kylpylään Tervis!

Kysymykset unen laadusta:

Tänäpäivänä on terveellisen elämän perusta monipuolinen ruokavalio, puhdas juoma- ja käyttövesi sekä ja riittävä uni. Uni on ihmiselle elintärkeä, sehän on osa täysiarvoisesta elämästä. Syvän unen puute aiheuttaa aivojen energiavajauksia, heikentää työ-ja keskittymiskykyä sekä tutkimusten mukaan aiheuttaa unen puute eniten liikenneonnettomuuksia.

Haluaisimme tehdä Tervis-kylpylässä tutkimuksen, josta selvisi, kuinka paljon on uniterapiasta kiinnostuneita ja olisiko tarkoituksen mukaista tarjota sitä hoitoa Tervis-kylpylässä. Teidän mielipide on meille erittäin tärkeä. Pyydän teiltä noin 5–10 minuuttia kyselyn täyttämiseen!

UNEN LAATUA TUKEVAN PALVELUKOKONAISUUS KYLPYLÄSSÄ TERVIS

1. Miten arvioisitte unenne laatua? ☐ Ei ole ongelmia ☐ Hyvä, mutta välillä esiintyy nukahtamisvaikeuksia □ Välillä nukun huonosti ☐ Tyydyttävä, mutta herään unen aikana useasti ☐ Kärsin jo pitkään unihäiriöistä (esintyy jatkuvasti seuraavia oireita: nukahtamisvaikeus, toistuva herääminen, nukahtamisvaikeus yöllä heräämisen jälkeen, liian varhainen herääminen aamulla ilman syytä) 2. Onko teitä vaivannut levottomat jalat? (levottomat jalat tarkoittaa epämiellyttävää tunnetta (kuuman tai kylmän tunne, kutina, jännite tai puristava tunne, kipu) säärissä ja / tai reisissä. Häiriö ilmenee toimettomassa tilassa tai lepotilassa, lähinnä iltaisin. Tilanne pahenee erityisesti ennen nukkumaan jäämistä ja estää nukahtamista.) ☐ Ei koskaan tai harvemmin kuin kerran kuukaudessa ☐ Harvemmin kuin kerran viikossa □ 1–2 päivänä viikossa □ 3–5 päivänä viikossa ☐ Joka päivä tai melkein joka päivä 3. Kuorsaatteko nukkuessa? ☐ Ei koskaan tai harvemmin kuin kerran kuukaudessa ☐ Harvemmin kuin kerran viikossa □ 1–2 päivänä viikossa □ 3–5 päivänä viikossa ☐ Joka yö tai melkein joka yö 4. Oletteko käyttäneet luontaislääketieteen menetelmiä/luontaistuotteita uniongelmiin? ☐ En ole käyttänyt tai käytän harvemmin kuin kerran kuussa

Appendix 3. continued

☐ Käytän harvemmin kuin kerran viikossa
□ Käytän 1–2 päivänä viikossa
□ Käytän 3–5 päivänä viikossa
☐ Käytän päivittäin tai melkein päivittäin
5. Oletteko käyttänyt lääkärin määräämiä unilääkkeitä?
☐ En ole käyttänyt tai käytän harvemmin kuin kerran kuukaudessa
☐ Käytän harvemmin kuin kerran viikossa
□ Käytän 1–2 päivänä viikossa
□ Käytän 3–5 päivänä viikossa
□ Käytän joka päivä tai melkein joka päivä
6. Oletteko tuntenut tarvetta päiväuniin?
☐ En koskaan tai harvemmin kuin kerran kuukaudessa
☐ Harvemmin kuin kerran viikossa
□ 1–2 päivänä viikossa
□ 3–5 päivänä viikossa
□ Joka päivä tai melkein joka päivä
Kysymykset unitutkimuksesta kylpylässä Tervis:
7. Minkälainen uneen liittyvä tutkimus kiinnostaisi teitä eniten tai mikä olisi teille hyödyllisin?
☐ Unilääkärin konsultaatio (väsymystä ja unihäiriöitä arvioivat testit)
☐ Unitutkimus (PSG – eli koko yön unitutkimus)
☐ Nenähengityksen toiminnallinen tutkimus
$\ \ \square\ 24\ tunnin\ hapensaannin\ skriining\ tutkimus\ (SpO_2)-hengenahdistus\ tai\ hengitys\ unen\ aikana$
☐ Ajokyvyn simulointitutkimus
8. Oletteko tietoinen, että kylpylässä Tervis on unitutkimuskeskuksensa?
□ Kyllä, olen kuullut ja haluaisin enemmän tietoa siitä
□ Kyllä, olen käynyt siellä myös unitutkimuksissa
□ Kyllä, olen tietoinen, mutten ole kiinnostunut siitä
□ Ei
9. Oletteko osallistunut unitutkimukseen? (joko kylpylässä Tervis tai muualla)
□ Kyllä –(missä tarkemmin?)
□ Kyllä, olen käynyt unitutkimuksessa kylpylässä Tervis
☐ Ei ole ollut tarvetta

Appendix 3. continued

☐ Ei, mutta olisin halukas osallistumaan
10. Haluaisitteko saada enemmän tietoja kylpylässä Tervis tarjottavasta uniterapiasta?
□ Kyllä
☐ En ole kiinnostunut näistä tiedoista
Jos haluatte niin miten?
□ Kotisivuilta
☐ Esitteistä tai flaiereistä
□ Sähköpostitse
□ Muu
Kysymykset uniterapian tarpeesta ja kysynnästä kylpylässä Tervis:
11. Kuinka pitkää kylpylälomaa yleensä suunnittelette?
□ 1−3 tuntia
□ 1 päivä
□ 2 päivää
□ 1 viikko
□ enemmän kuin 1 viikko
12. Minkälaisia kylpylähoitoja pitäisi uniterapian hoitopaketin sisältää? (voi valita useita vaihtoehtoja)
☐ Hieronta (unilääkärin suosituksen mukaisesti)
□ Kylvyt (esimerkiksi hyvän unen kylpy – unta edistäviä yrttejä, rentouttavia öljyjä)
☐ Jalkahieronta (levottomille jaloille)
□ Päähieronta
☐ Lämmittävä parafiini (kaulalle, jaloille, käsille, selälle)
□ Jotakin muuta
13. Kumpi seuraavista sopisi Teille parhaiten: A vai B? (Muissa uniklinikoissa unitutkimuksen hinta ~ 268 euroa koko yön unitutkimus)
A Hoitopaketti sisältää majoituksen (2 yötä), aamiaiset, terveellisen lounaan tai illallisen, unta edistävät hoidot, unilääkärin konsultoinnin ja unitutkimuksen. Hinta 350 euroa.
□ Valitsisin vaihtoehdon A , koska(perustelu)
B Hoitopaketti sisältää majoituksen (2 yötä), aamiaiset, terveellisen lounaan tai illallisen, unta edistävät hoidot, unilääkärin konsultoinnin, EI UNITUTKIMUSTA. Hinta 160 euroa.
□ Valitsisin vaihtoehdon B , koska(perustelu)

Appendix 3. continued

YLEISTIE	DOT				
Sukupuoli:	\square Mies	\square Nainen			
Kotimaa:	□ Viro	🛚 Suomi	□Ruotsi	□Norja	\square Muu
Ikä:	□ 18–28 □	29–39 □ 40	<u>-50</u> □ 51-6	61 □ 62–72	□ 73 ja yli
Kiitos vasta	uksistanne!				
	ıkkeen on laa	tinut Tarton `	Yliopiston Pa	ärnun college	n maisteritason opiskelija Inna
Bentsalo.					

Appendix 4. Questionnaire in Russian for Tervis Medical Spa Customers

Опрос клиента

Добро пожаловать в санаторий Tervis! Уважаемый клиент,

На сегодняшний день, основой нашей жизни является разнообразное и здоровое питание, употребление чистой воды и достаточный здоровый сон. Сон — это одно из самых важных основ жизни человека.

Отсутствие глубокого и спокойного сна приводит к нарушению энергетики головного мозга, что является причиной усталости, потере трудоспособности и сосредоточения и по данным исследований этим обусловлено большая часть дорожно-транспортных происшествий.

В связи с этим необходимо провести исследование из которого выяснилось бы, существует ли интерес к терапии сна и на сколько будет востребован подобный пакет в санатории Tervis.

Ваше мнение для нас очень важно и в связи с этим просим Вас уделить нам 5–10-минут для заполнения данного вопросника.

Предложение комплексной услуги содействующей улучшению качества сна в санатории Tervis

Вопросы о качестве сна:
1. Как оцениваете свой повседневный сон?
□ нет проблем со сном
□ хорошее, но иногда плохо засыпаю
□ временами сплю плохо
□ удовлетворительно, постоянно просыпаюсь
□ страдаю от долгого расстройства сна (постоянно проявляются следующие
симптомы:тяжесть сна, постоянные пробуждения на протяжении сна, проблема в
засыпании после ночного пробуждения, утреннее спонтанное раннее пробуждение)
2. Беспокоят ли Вас ноги? (под беспокойными ногами следует понимать неприятное ощущение (ощущение холода или жары, зуд, чувствр напряжения или тяжести, боли) в голени и / или бедра. Расстройство проявляется в неподвижном состоянии
или состоянии покоя, в основном вечером. Состояние особенно ухудшается перед
засыпанием и препятствует засыпанию.
□ никогда или реже чем 1 раз в месяц
□ реже, чем 1 раз в неделю
□ 1–2 раза в неделю
□ 3–5 раза в неделю
□ каждый день или почти каждый день
3. Храпите ли Вы во время сна?
□ никогда или реже чем 1 раз в месяц
□ реже, чем 1 раз в неделю
□ 1–2 раза в неделю
□ 3–5 раза в неделю
□ каждую ночь или почти каждую ночь
4. Использовали ли Вы альтернативные методы лечения при проблемах со сном?
□ не употреблял(а) или употреблял(а) не чаще чем 1 раз в месяц

Appendix 4. continued □ употребляю реже чем 1 раз в неделю □ употребляю 1–2 раза в неделю □ употребляю 3–5 раза в неделю □ употребляю каждый день или почти каждый день 5. Употребляли ли Вы рецепторно выписанные лекарства для сна? □ не употреблял(а) или употреблял(а) не чаще чем 1 раз в месяц □ употребляю реже чем 1 раз в неделю □ употребляю 1–2 раза в неделю □ употребляю 3–5 раза в неделю □ употребляю каждый день или почти каждый день 6. Нуждаетесь ли Вы днем во сне? □ никогда или 1 раз в месяц □ реже чем 1 раз в неделю □ 1−2 дня в неделю □ 3–5 дня в неделю □ Почти каждый день Вопросы по исследованию сна в санатории Tervis: 7. Какой этап исследования сна заинтересовал бы Вас больше всего или какой этап исследования сна является самым необходимым? □ консультация врача (усталость и проблемы со сном исследуются тестированием) □ исследование сна (полисонматическое исследование или исследование сна в течении всей ночи) □ функциональное исследование дыхания через нос □ 24 часовое скрининг-исследование (SpO2) недостаток воздуха или дыхание во время сна) □ исследование симуляции автовождения 8. Знаете ли Вы, что в санатории Tervis находится кабинет исследования сна? □ да, слышал(а) и желаю получить об этом больше информации □ да, был(а) в этом кабинете и участвовал(а) в исследование □ да, знаю, но не интересовался этим 9. Принимали ли Вы участие в исследовании сна? (например, в санатории Tervis или в другом месте) □ да, участвовал(а)(уточните) □ да, участвовал(а) в исследовании сна в санатории Tervis □ нет, не было необходимости □ нет, но заинтересован(а) в этом 10. Желаете ли Вы получить больше информации о предлагаемой в санатории Tervis терапии сна? □ ла □ нет Если да, то каким образом? □ на сайте санатория Tervis □ в виде брошюры или информационного листа

□ е-письмом

Appendix 4. continued □ не заинтересован в данной информации □ прочим образом:..... Вопросы о пакета сна в санатории Tervis: 11. На какое время по продолжительности Вы обычно планируете посещение SPA? □ на 1–3 часа □ на 1 день □ на 2 день □ на 1 неделю □ более чем на 1неделю 12. Какие услуги SPA должны входить в пакет сна? (можно выбрать несколько вариантов ответа) □ общий массаж (в соответствии с рекомендациями врача) □ ванны (успокоительные и расслабляющие с ароматическими маслами) □ массаж ног (беспокойным ногам) □ массаж головы □ согревающий парафин для ног, шеи, рук, спины □ Прочее:.... 13. Какой пакет функционального сна Вам подошёл бы больше всего? (А или В) Если в пакет входит: проживание 2 ночи, завтрак, обед или ужин, процедуры способствующие улучшению сна, консультации врача и исследование сна. Стоимость пакета 350 eurot \square Выбрал(а) бы пакет **A**, В. Если в пакет входит: проживание 2 ночи, завтрак, обед или ужин, процедуры способствующие улучшению сна, консультации и рекомендации врача. (В пакет не входит исследование сна) Стоимость пакета 160 eurot \square Выбрал(а) бы пакет **B**, потому что(обоснование) Пол: □ Мужчина □ Женщина Государств проживания: □Эстония □ Финляндия □ Швеция □ Норвегия □ Другое гос-во Возраст: □18–28 □29–39 □ 40–50 □51–61 □ 62–72 □ 73 и более Благодарю Вас за участие в опросе! Составитель данной анкеты: Инна Бенцало, магистрант Пярнуского Колледжа

Тартуского Университета

Appendix 5. Interview Questions for the Senior Researcher of Sleep Medicine and her Assistant in Sleep Centre of Tervis Medical Spa.

- 1. Why is the quality of sleep nowadays becoming one of the important topics in human beings everyday life?
- 2. Why are sleep studies necessary? What are the main concerns among the patients?
- 3. What is the aim of sleep therapy?
- 4. What has been the feedback like for sleep therapy? Did people get help for insomnia or other sleep disorders?
- 5. How were sleep studies done in the Soviet Union times, where were they carried through?
- 6. How popular is sleep study and sleep therapy in Estonia?
- 7. How popular is sleep study and sleep therapy in other countries?
- 8. Where can people find information about sleep studies?
- 9. How can the spa hotel use the spa's outside environment to raise the person's quality of sleep?
- 10. The Sleep Centre has existed now for one year in Tervis Medical Spa, what has been the feedback?
- 11. Do you think a sleep package in Tervis Medical Spa would have potential?
- 12. How could the spas in Estonia promote the quality of sleep in their spa service design?
- 13. What are the main points a spa should take into consideration in developing a sleep package?
- 14. What kind of information should a brochure consist that is about sleep, sleep quality and sleep therapy in Tervis Medical Spa?
- 15. What kind of spa services or treatments should a sleep package consist of?

Appendix 6. Interview Questions for the Chief Doctor, Spa Manager, Sales and Marketing Director of Tervis Medical Spa.

- 1. What are the reasons people come to Tervis Medical Spa?
- 2. What kind of spa services or treatments are most popular in Tervis Medical Spa?
- 3. Where can people find information regarding Tervis Medical Spa?
- 4. How much are people interested in medical service and treatment in Tervis Medical Spa?
- 5. How much attention Tervis Medical Spa pays to human being`s general health condition?
- 6. How important is Sleep Centre's existence in Tervis Medical Spa?
- 7. What was the reason of Sleep Centre's establishing in Tervis Medical Spa?
- 8. Why Tervis Medical Spa hasn't so far put together a sleep package or made cooperation with Sleep Centre?
- 9. What kind of spa services should a sleep package consist in your opinion? How many days it should last?
- 10. What kind of direction in specialization should have Tervis Medical Spa in future?
- 11. How could Tervis Medical Spa increase its spa service selections and would it be necessary?
- 12. The Sleep Centre has existed now for one year in Tervis Medical Spa, how has been the feedback? If you have any information about it.
- 13. What kind of efficiency does Tervis Medical Spa have from Sleep Centre? How it is possible to use it more effectively?
- 14. How can Tervis Medical Spa customers get information about sleep therapy or Sleep Centre in Tervis Medical Spa?

Appendix 7. Interview Questions for Sleep Therapy Specialist in Kubja Nature Spa.

- 1. Why are sleep studies necessary?
- 2. What is the aim of sleep therapy and how long could it last?
- 3. What are the main reasons people coming to see you?
- 4. What has been the feedback of sleep therapy? Have people got help for their sleep disorders?
- 5. How where sleep studies done in the Soviet Union time? Where were they carried through?
- 6. How popular is the quality of sleep nowadays? How popular is sleep therapy in Estonia? How popular is sleep therapy in other countries?
- 7. Where did you get the idea from to create a sleep package in Kubija Nature Spa?
- 8. Who are the main target groups who come for sleep packages?
- 9. In your opinion what kind of sleep improving spa services should there be in a sleep package?
- 10. Where can people get information about sleep therapy or sleep package in Kubija Nature Spa?
- 11. What kind of conditions should a spa have to offer a sleep package?
- 12. Do you think sleep package in Tervis Medical Spa would have potential?
- 13. How popular are the sleep packages in Kubija Nature Spa?
- 14. Do spas in Europe or anywhere else in the world offer sleep studies, sleep packages or sleep improving spa services?

RESÜMEE

UNEKVALITEETI SOODUSTAVA KOMPLEKSTEENUSE PAKKUMINE RAVISPAAHOTELLI TERVIS NÄITEL

Inna Bentsalo

Tervisliku elukvaliteedi aluseks on inimese heaolu ja tema tervislik eluviis. Terve inimese seisundi moodustavad füüsilise-, vaimse -ja sotsiaalse tervise kooslus. Tervislik elukvaliteet on tänapäeval muutunud üheks populaarsemaks teemaks ühiskonnas. Maailma Tervise Organisatsiooni (WHO, 1946) järgi on tervis kui täieliku füüsilise, vaimse ja sotsiaalse heaolu seisund, mitte ainult haiguse või nõtruse puudumine. Kuna tervis on ressurss, mis võimaldab inimesel igapäevaselt toime tulla stressiga ja elada individuaalselt täisväärtuslikku elu, peaks seda hoidma vastutustundlikumalt ja enda eest rohkem hoolitsema, selleks, et tagada igapäevaseks eluks vajalik füüsiline ja vaimne tasakaal.

Tänapäeva elu on muutunud kiire elutempoga ühiskonnaks, kus inimestel pole enam aega põhjalikumaks süvenemiseks enda tervise heaolu heaks, elatise teenimisele pühendatud aeg ei lase enam süveneda antud detailidesse, teadvustamata iseendale, kui ebatervislik selline elustiil võib tegelikult olla. Pidevalt kiirustades, unustavad inimesed ära tervisliku toitumise, vajaliku unekvaliteedi ning vajaduse füüsilisteks tegevusteks selleks, et hetkekski puhata keha, hinge ja vaimu.

Selline ebaterve elustiil võib varem või hiljem muutuda kahjustavaks, kuna inimese keha vajab puhkust selleks, et toime tulla stressiga, kuid kui inimese keha ja vaim ei saa end taastada võib see põhjustada tõsiseid tervise probleeme, sealhulgas unehäireid. Unehäire võib omakorda põhjustada tervisehäireid, nagu ülekaalu, diabeeti, südameriket

ja kõrget vererõhku. Paljud inimesed ei ole antud seostest teadlikud ja seetõttu jäävad unehäireid tihtipeale ilma vajaliku tähelepanuta, kuigi enamik neist on võimalik ravida.

Uneuuringutega mõõdetakse ja hinnatakse kui hästi inimene magab. Tavaliselt viiakse uneuuringud läbi haiglates või unekliinikutes, mis iseenesest võib nii mõnelegi patsiendile olla ebamugav või häiriv, kuna tegu on meditsiinilise asutusega.

Spahotell on koht, kus inimesed saavad lõõgastuda ja mida iseloomustavad kõige paremini sõnad – vaikus, rahu ja puhkus. Kuna ka uneuuringute jaoks on patsiendile vajalik rahulik ja vaikne keskkond, sobiks spahotell uneuuringute läbiviimiseks ideaalselt. Sellest tulenevalt uuris ka antud magistritöö autor teemat, kuidas oleks võimalik pakkuda uneuuringuid ja unepaketti spaahotellis. Autor uuris ravispaahotelli Tervis külastajate seas uneuuringu ja uneteraapia nõudlust, huvi ja võimalusi uneteraapia kui spaateenuse arendamiseks. Ravispaahotellil Tervis on võimalus kasutada antud töö uuringu tulemusi ja ettepanekuid kui võimalust arendamaks ja laiendamaks oma olemasolevat spaa teenuste valikut.

Magistritöö töö probleemküsimusena seati küsimus, kas ravispaahotelli Tervis külastajatel oleks nõudlust uneteraapiaga seonduvate pakettide vastu? Vastavalt probleemile püstitati hüpotees, et enamusel külastajatest on unehäired, samuti on olemas nendepoolne nõudlus uneteraapiaga seonduvate teenuste ja pakettide järele. Hüpotees leidis töö käigus osaliselt kinnitust. Kliendiuuringust selgus, et enamusel külastajatest ei esine tõsiseid uneprobleeme, kuid siiski oli enamus nendest huvitatud uneteraapiast ja unepakettidest ravispaahotellis Tervis. Uuringu tulemustest järeldab autor, et ravispaahotell Tervis ja antud hoones olev Unekeskus võiksid rohkem koostööd teha, pakkudes unekonsultatsiooni, uneuuringut, und soodustavaid spaaprotseduure ning vastavaid unepakette.

Käesoleva magistritöö eesmärgiks oli uurida ravispaahotelli Tervis külastajate huvi ja nõudlust uneteraapia ja und soodustavate spaaprotseduuride vastu ning esitada ettepanekud uneteraapiaga seonduvate teenuste ja pakettide arendamiseks. Seatud eesmärgid said täidetud.

Uuringu tulemustest lähtuvalt näeb magistritöö autor potentsiaali uneteraapiaga seonduvate pakettide arendamisel. Töös esitatakse soovituslikud ettepanekud. Autor loodab, et need on ravispaahotellile Tervis toeks edasistel aruteludel ja arendustegevustes.

This Master thesis has been defended before the defence commission and the grade
issued is
Külli Laanepõld
Director's secretary in charge
(date)