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WELLNESS OF PROFESSIONAL SPORTSMEN AFTER TRAINING SESSION: DESIGNING RECOVERY PLAN FOR ESTONIAN FOOTBALL PLAYERS

Master Thesis

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INTRODUCTION

Since the ancient times, people have acknowledged the importance of sport. Nowadays the interest towards sports is even increasing. This tendency leads to the rapid growth of sports industry. It is important to notice that professional sport can be characterized as more tough and severe due to the high risk of injuries, constant physical and emotional stress. Moreover, professional sportmen constantly face the strong competition as every sportmen or sports team have their own fans, who expect them to show the best results. However, it should be emphasized that a victory always represents the result of the continuous hard work of a whole big team, including both, players and such specialists as coaches, physiotherapists, psychologists, and sports managers.

The author of the thesis assumes that the key factor that should be considered in order to maintain the highest level of a sportmen’s performance is to pay special attention to the sportmen’s wellness. Wellness is “the integration of many different components (mental, social, emotional, spiritual, and physical) that expand one’s potential to live (quality of life) and work effectively and to make a significant contribution to society” (C. B. Corbin, W. R. Corbin, G. J. Welk, & K. Welk, 2013, p. 4). Moreover, wellness reflects how one feels about life as well as one’s ability to function effectively. The specialists working with the sportmen should not underestimate any of the wellness dimensions in order to offer an efficient recovery program. Bishop, Jones and Woods (2008) define recovery as the ability to meet or exceed performance in a particular activity. Several scholars associate efficient recovery plan with such recovery plan which allows restoration and enhancement of all the dimensions of one’s wellness (Calder, 2003; Venter, Potgieter, & Barnard, 2010; Halson, 2013). It is important to notice that the significance of balance between all wellness dimensions for each person has been advocated by many scholars (Erickson, 2012; Adams, Bezner, Drabbs, Zambarano, & Steinhardt, 2010; Cardinal, 2014). However, in professional sports context this balance becomes critical due to the fact that sportmen constantly face competition pressures. Indeed, in the context of designing efficient recovery plan the holistic approach should be definitely considered. Therefore, if all the aspects of
wellness will be considered while designing recovery strategy for the sportsmen, it will result in their better satisfaction and higher performance.

During the preliminary research on the topic of existing recovery plans, the author faced problems due to the fact that there is a limited amount of up to date sources. Moreover, in general, major attention is paid to the improvement of physical wellness through the recovery, which is beyond the scope of this study while emotional, spiritual and social aspects tend to be under-researched. In addition, during the recent years no studies have been conducted on territory of Estonia concerning the benefits of recovery plans of Estonian professional sportsmen. Taking all these aspects into consideration, the author of the paper decided to explore this issue in more detail. Thus, the author has stated the following research question: what type of recovery plan could be efficient for the enhancement of sportsmen’s wellness?

The aim of the current research is to analyse general principles of efficient recovery plan, enhancing various wellness dimensions of professional sportsmen and try to implement gained knowledge on practice by offering own multidimensional recovery plan. Based on the set aim, the author came up with the following objectives:

- Based on gained theoretical knowledge distinguish affordable recovery modalities that could efficiently enhance sportsmen’s wellness.
- To conduct experiment in order to examine the efficiency of proposed recovery modalities.
- Propose a possible plan for efficient recovery which will imply not only physical but also emotional wellness of an athlete.

Based on the literature review, the author proposed the following hypothesis: there is a need for better recovery planning in order to enhance sportsmen’s sense of wellness. In order to test the hypothesis a sample of 20 professional football players of the club X was chosen. In addition, in order to get the information from different perspective, the coach’s opinion was also questioned. For the purpose of the current research the mixed method was implemented by the author. This method was selected due to the fact that simultaneous use of qualitative and quantitative approaches provides a better understanding of the current research problems than either approach alone. In order to
get quantitative data, the author conducted pre- and post-experimental questionnaires, while pre- and post-experimental interview were conducted in order to collect qualitative data. As a research strategy the author decided to choose the experiment. This strategy was preferred as it allowed investigating how team members would react to a given stimulus. In addition, the aim of the experiment was to monitor the effects of changing conditions, namely, incorporating new recovery modalities. The aim of the pre- experimental interview was to find out the coach’s opinion on the atmosphere in the team, the efficiency of existing recovery plan and to understand overall process of trainings and recoveries, while the aim of this questionnaire was to understand the emotional state of the players, opinion on the atmosphere in the team and satisfaction of players with the existing recovery plan. In addition, the questionnaire helped to identify problems related to wellness of each separate player. Finally, some of the questions were aimed at understanding players’ preferences towards possible recovery modalities. The aim of the post-experimental interview as well as post-experimental questionnaire to reveal the changes related to implementation of new recovery modalities proposed by the author.

The current paper is based on the six service design tasks. The Master thesis consists of introduction, three main chapters, conclusion and ends with short summary in Russian language. The first chapter is divided into three subchapters providing theoretical background on service design in the context of professional sport, wellness concept and its dimensions and recovery modalities. The second chapter implies research method, sampling and data collection practicalities. To add, it contains the analysis of data gathered through pre- and post-experimental interviews as well as pre- and post-experimental questionnaires. The third chapter brings together theoretical background and the results analysis and provides author's suggestions concerning the improvement of the existing recovery plan of club X. Finally, the conclusion will give a brief overview of the results, limitations of the current study and suggestions for future research.
1. LITERATURE REVIEW

1.1. Wellness Concept and its Dimensions

In order to explore the effect of various recovery modalities on one’s wellness, it is definitely vital to determine what the notion of wellness comprises. The term wellness was first used by a physician Halbert L. Dunn (1959), who saw wellness as a lifestyle approach for pursuing elevated states of physical and psychological well-being. Another definition of wellness claims that it is “the integration of many different components (mental, social, emotional, spiritual, and physical) that expand one’s potential to live (quality of life) and work effectively and to make a significant contribution to society” (Corbin et al., 2013, p. 4). Moreover, wellness reflects how one feels about life as well as one’s ability to function effectively. Although the concept of wellness was already formally defined in 1961, there were still attempts to treat it differently by modifying the term by the means of suggesting new wellness models. However, the main concept of wellness still lies in reaching harmony between body, spirit and mind and has a number of aspects underneath this notion. In the current sub-chapter the author will examine several wellness models proposed by different scholars.

Adams et al. (2010) describe a research dedicated to conceptualization and measurement of the spiritual and psychological dimensions of wellness in a college population. Although the authors concentrated on two separate dimensions of wellness, namely, spiritual and psychological, they mention all the other dimensions and also provide their definitions. The research by Adams et al. (2010) supports the idea of the author of the current thesis about the necessity of defining the concept before trying to implement it. The authors claim that “validation of wellness conceptual models should be an important prelude to integrating wellness principles into practice” (Adams et al., 2010, p. 165). Indeed, it is necessary to investigate which models have already been offered in order to choose the one that suits the particular research topic the best or even
possibly propose the new one. Besides, being focused on perceptions, the model proposed by the authors, reflects the basic principles of all the other wellness models. These principles are multidimensionality and balance among dimensions. The current model comprises of physical, social, emotional, intellectual, spiritual and psychological dimensions. The model is presented in a cone shape, where the expanded top represents wellness, while the tapered bottom represents illness (Figure 1).

![Wellness Model](image)

**Figure 1.** Wellness Model (adapted from Adams et al., 2010)

The top part is divided into sectors, each representing separate wellness dimensions: physical, social, psychological, intellectual, emotional, and spiritual. Adams et al. (2010) explain that “between the wellness and illness poles of the model are innumerable fluctuations in each of the dimensions, with various states of balance among them” (p. 166). Thus, movements in any dimensions influence all the elements of the model. Therefore the importance of harmony among all the dimensions of wellness should be kept in mind. Indeed, if a person is satisfied with his work, is spiritually fulfilled, enjoys his leisure time, is physically fit and socially involved, and has a positive emotional-mental outlook, then this person is happy and content (Corbin et al., 2013).

Due to the fact that the current topic is under-researched in the context of football, the author approached this issue more widely in the context of professional sport in general,
drawing connections with other kinds of professional sports. Cardinal (2014) also discusses each of the abovementioned dimensions with the respect to specificity of dancer’s profession, and provides pays special attention to the possibilities how dance teachers can foster wellness in dance education programs. Dance also represents a kind of professional sport which also implies injuries, health problems and needs recovery as any other kind of professional sport, for instance football. The author did not propose her own wellness model, while based her research on the existing one. The acronym of this model is SPICES, standing for social, physical, intellectual, career, emotional, environmental, and spiritual dimensions of wellness depicted in the model. As the author of the current thesis is only interested in some of the wellness dimensions, major attention will be paid to social, emotional, and spiritual wellness. “Social wellness for dancers includes their social context and network of social support as well as their perspective of themselves as people (not just dancers) within a much larger social context” (Cardinal, 2014, p. 3). To add, “social wellness is a person’s ability to successfully interact with others and to establish meaningful relationships that enhance the quality of life for all people involved in the interaction, including self” (Corbin & Welk, 2013, p. 5). Such understanding of the notion social wellness could be easily applied to any sportsmen either professional or amateur, as the sense of belonging, usefulness and belief in own power is significant to every person.

According to Corbin et al., (2013) “emotional wellness is a person’s ability to cope with daily circumstances and to deal with personal feelings in a positive, optimistic, and constructive manner” (p. 5). Taking this idea further and applying it to the context of sports, Cardinal (2014) claims that “emotional wellness for dancers involves psychological issues common among dancers, such as self-esteem, perfectionism, body image, disordered eating behaviours, stress, and performance anxiety” (p. 5). Interestingly, these kinds of problems often arise in case of football players. Moreover, the sportsmen need recognition. If the sportsman is treated appropriately, he realizes his own significance for the team and, consequently, strives for the achievement of better result. Indeed, the whole team performance, as well as the results of an individual player is directly related to how they feel about themselves. Therefore, qualified coach should find his own smart techniques and methods to encourage the athlete in order to improve his confidence and increase self-esteem (Byler, 2004). Returning to the dancing context,
“dancers commonly experience competition and other social pressures; constant evaluation and judgment; mostly constructive criticism and “corrections” (versus positive reinforcement) from teachers; high expectations from parents, teachers and especially from themselves; rejection from dance auditions; and dance forms where perfection and ideal aesthetics, techniques, and body types (often unattainable) are the norm” (Cardinal, 2014, p. 5). Similarly, football players often experience the same kind of problems, namely, competition among teams, pressures from fans and judgments from coaches as well as rejections from sports agencies. Being the closest people to the team, the coaches should definitely consider their attitude towards players, as sometimes encouragement could be more useful than criticism. Therefore, from the coach’s perspective, it is highly important to recognize more good things about the sportsmen’s performance than bad ones (Byler, 2004).

Cardinal (2014) suggests that “spiritual wellness for dancers refers to understanding and embodiment of their beliefs, values and for connections to the universe and to something larger than themselves” (p. 6). Thus, it could be assumed that spiritual wellness implies finding meaning and purpose in one’s life and developing a philosophy for own life. In order to maintain spiritual wellness, it could be efficient and quite easy to find some time for meditation. In the sports context, meditation training could become a good opportunity for improvement of spiritual wellness. In the Perceived Wellness Survey model (Adams et al., 2010) the spiritual dimension is defined as a “positive sense of meaning and purpose of life” (p. 167) while the psychological dimension is referred to as the “perception that one will experience positive outcomes to the events and circumstances of life” (p.167). However, the authors notice that since both dimensions are multifaceted, none of them should be accepted as the ultimate one. The authors specify that they selected for their study the measure of life purpose to represent the spiritual dimension of wellness, and optimism and sense of coherence to represent the psychological dimension of wellness. Adams et al. (2010) specify that optimism means “the perception that one will experience positive outcomes to the events and circumstances of life” (p. 167), while sense of coherence is defined as a “global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that once internal and external environments are predictable and that there is a high probability that things will work out as well as can
reasonably be expected” (2010, p. 167). From the authors’ point of view, “a person who possesses a strong sense of coherence would be described as resilient and optimistic” (Adams et al., 2010, p. 167). Moreover, the scholars claim that “a sense of coherence is positively related to hardiness, multidimensional health locus of control, and indices of social support, and is negatively associated with perceived stress and depression, anxiety, and attendance toward alcoholism” (Adams et al., 2010, p. 167). Indeed, without any aims people stop developing and even begin to degrade. Wishes, desires, and dreams make people act and make some effort. In other words, they keep them alive. Thus, it became evident that life purpose, optimism, and sense of coherence are related to the perceived wellness.

Erickson (2012) also considers the importance of wellness concept claiming that “a state of wellness is achieved when the many dimensions of a person's life are in balance – when a person is whole” (p. 90). Thus, the author supports the multifacetedness of the notion wellness and confirms the importance of a balance between its dimensions. Erickson (2012) refers to the so-called Wellness Wheel; a model which “portrays a balance between six dimensions of life and health – physical, social, environmental, emotional, spiritual and intellectual” (p. 90). The wheel portrays each area in balance with the others, calling attention to the importance of nurturing all dimensions of life in order to achieve wellness. Considering the proposed model, the author of the current thesis came to a conclusion that when one (or more) of dimensions become out of balance, there is a high risk that the wellness will be compromised. Therefore, it is vital, especially for sportsmen, to keep all the wellness dimensions in balance in order to produce better results. The author of the paper suggests that multifaceted recovery plan, which includes recoveries aimed at different wellness dimensions, could help sportsmen to be in the harmony with their body and mind.

1.2. Integrating Service Design Concept into the Context of Professional Sport

As any other rapidly developing industry, sports industry needs to implement special techniques in order to stay successful. Such techniques are represented in the area of
Service Design. Moritz (2010) claims that Service Design is “… a new holistic, multi-disciplinary, integrative field, which helps to either innovate or improve services to make them more useful, usable, desirable for clients, as well as more efficient and effective for organizations” (p. 3). Mager and Sung (2011) define this notion slightly differently, saying that “service design aims at designing services that are useful, usable and desirable from the user perspective, and efficient, effective and different from the provider perspective” (p. 1). For the purpose of the current thesis, service will be represented by recovery plan, the clients will be represented by professional football players, while organizations – by working staff of the football club. It is important to notice that the success of the team does not only depend on the players themselves but also on the people organizing the functioning of the whole football club. This idea is supported by Moritz (2010) who states that “professionals in the service sector need to realize that they are involved in design and use service design to improve it” (p. 166). Thus, designing services requires extra attention and special consideration.

Service design includes several phases. Each phase has its own tasks and objectives. Miettinen (2009) distinguishes the following phases: understanding the service context, users and business environment; observing and creating empathy for the users; creating ideas and improving by customer involvement; implementing ideas; operating with business realities. At the same time Moritz (2010) says that due to the complexity of the Service design concept, it involves the use of various special processes, different tools and methods in order to improve the design being offered. He also distinguishes separate phases corresponding to particular tasks. These are: understanding clients’ needs; thinking on strategic direction; generating innovative ideas; filtering ideas and concepts; explaining of ideas, processes and potential scenarios; realizing the implementation of possible solutions (Moritz, 2010).

While one part of service design, namely the conduction of trainings and competitions is relatively well-developed in Estonia, the other part, namely recovery plan, seems to be underestimated. Based on the ideas of several scholars (Mager & Sung, 2011; Moritz, 2010; Miettinen, 2009), the author of the current thesis came to a conclusion that every design process should implement background studies in order to understand preferences and needs of the participants, identification of the problem, finding
solutions and delivering them to the clients. For the purpose of the current research the author assumes Moritz’s (2010) distinction of service design tasks to be the most relevant. For the first task, namely understanding, the author will collect theoretical data on two major topics: wellness and recovery modalities. In addition, pre-experimental interview and questionnaire will be conducted to reveal needs and preferences of football players. For the second task, namely thinking, the author will analyze data gathered and try to make connections between scholarly sources and opinions of the respondents and set overall direction of the experiment. For the third task, namely generating, the author will try to propose possible innovations for the improvement of the recovery plan while on the fourth stage, namely filtering, the most efficient, easy to implement and affordable recovery modalities will be selected for the experiment. For the generating task the Feature tree (Moritz, 2010) will be used. On the filtering task Sticker vote (Moritz, 2010) method will be used. These two tools are illustrated in the Appendix 6 and 7 respectively. During the explaining task the experiment will be conducted in order to test the ideas chosen on the previous stage. Finally, post-experimental interview and questionnaire will be conducted in order to realize the efficiency of the proposed recovery plan and provide suggestions for further development.

It is important to notice that “through Service Design organizations can create competitive advantages, loyal satisfied clients and higher profit margins” (Moritz, 2010, p. 3). As the success of the whole team is directly related to the performance of each separate player, it is extremely important to provide good conditions for sportsmen and satisfy their needs. One of such needs is sufficient recovery. Achieving an appropriate balance between trainings, competition stresses and recovery is important in maximizing the performance of athletes, which, in turn, will lead to higher profits.

1.3 Classification of Recovery Modalities

Nowadays a number of philosophies exist, concerning the question, whether recovery between high intensity training sessions should be passive or active. Several authors advocate the superiority of active type of recovery over the passive one (Rey, Lago-
Peñas, Casáis, & Lago-Ballesteros, 2012; Reilly & Ekblom, 2007; Calder, 2003). According to Medical Dictionary (2015), “active recovery is exercising with gradually diminishing intensity immediately after a bout of vigorous exercise...” On the contrary, passive recovery does not imply any specific activities and involves the athlete lying or sitting down after an exercise bout (Calder, 2003). Reilly and Ekblom (2007) suggest that active recovery is more beneficial for the sportsmen than the passive one. This idea is proved by the fact that one of the techniques of active recovery, namely, warm down not only provides beneficial effects to one’s physical health, for example, by increasing the speed of lactate removal from the blood, but also for psychological health, for example, through the improvement of the sleep quality. Taking into consideration the positive effect of active recovery, the author of the current thesis will concentrate on creating recovery plan based on active recovery methods.

Venter et al. (2010) highlight the importance of the optimal balance of trainings and adequate recovery. The authors separate different kinds of recovery modalities according to different wellness dimensions. These are the following: “natural strategies (e.g., active recovery, nutrition, sleep), physical strategies (e.g., cryotherapy, thermotherapy, contrast-temperature therapy, massage), psychological strategies (e.g., imagery, progressive muscle relaxation, music, prayer), as well as complementary/alternative medicine strategies (CAM) (e.g., reflexology, acupuncture, herbal therapy)” (Venter et al., 2010, p. 134). This idea supports the statements of previous other scholars who state that, in order to stay healthy, all aspects of wellness should be in harmony with each other (Erickson, 2012; Adams et al., 2010; Cardinal, 2014). Therefore, Venter et al. (2010) stress the importance of coping not only with the physical strain but also with the “emotional, social, and behavioural stressors” (p. 133). Indeed, in order to have a good recovery, an athlete should implement a variety of recovery modalities as a part of an effective active regeneration strategy. This statement is supported by the Peterson’s idea (as cited in Venter et al., 2010) that “the concept of effective, regular, and varied recovery activities has become part of the language of today’s smart, professional athlete” (p. 135).

Interestingly, Calder (2003) views classification of recovery types from a different angle, stating that there are four important critical markers that should be monitored
regularly by athletes, namely, quality of sleep, morning rest rate, the daily rating of fatigue and morning body weight in order to understand whether an athlete is not adapting well to the training and other stresses. Alongside with Calder (2003), Jeffreys (2005) claims that in order to “effectively plan recovery strategies, it is vital to comprehend the nature of fatigue” (p. 79). A general definition of fatigue is “any exercise induced reduction in the maximal capacity to generate force or muscle output” (Jeffreys, 2005, p. 79). In addition, Calder (2003) identifies four types of fatigue, which are “metabolic fatigue (energy stores); neural fatigue of either or both the peripheral nervous system (localized force production) and central nervous system (drive/motivation) psychological fatigue (emotional and social stress factors); and environmental fatigue (climate and travel)” (n.p). Thus, the relative importance of each of these types of fatigue will determine the most suitable type of recovery. Indeed, it is necessary to distinguish different types of fatigue in order to find solutions for their relief. Moreover, none of these types of fatigue should be underestimated while conducting wellness service design for sportsmen. What is more, in the sports context, a good coach should understand not only the advantages of training sessions, but also their negative consequences. Careful coach is able to distinguish the reasons of fatigue and offer appropriate methods of recovery. Calder (2003) suggests three major specialty areas for designing appropriate recovery strategies for athlete's training program: nutrition, physical therapies and psychological skills.

Venter et al. (2010) claim that “athletic performance is a result of a synergistic interaction of a complex of physical, emotional, mental and social factors that interact with an external environment” (p. 133). Therefore, it is of a high importance to ensure that recovery plan involves active processes in order to re-establish psychological, physiological, emotional, social, and behavioural components. Moreover, in their work authors raise an important question which is also actual for Estonian sport development. The authors claim that large amounts of money are invested in elite sport, however, not enough money and time is dedicated to enhance the recovery process. “Attempts are made to improve performance through the development of shoes, clothes, and equipment; advanced technology is implemented to conduct biomechanical and match analyses; innovative training systems and techniques are also implemented with state of the art equipment” (Venter et al., 2010, p. 134). However, not enough time and money
is invested for the improvement of recovery process. One possible explanation for this fact is that “many ignore or forget the performance benefits gained through including recovery strategies within their daily training programs” (Calder, 2003, n.p.). Another possible reason is the fact that “although coaches recognize that recovery is crucial, they often have limited knowledge of what recovery modalities are available” (Kellmann, 2010, p. 95). What is more, the lack of application of recovery modalities could also be limited by the monetary resources, as money has to be paid for specific services, for example massage, and players might not want to pay for services themselves. Finally, the time could also be found as a barrier for the implementation of recovery strategy.

Halson (2013), alongside with Venter et al. (2010), suggests that a good and balanced recovery plan could help athletes to produce a better result. The author states that “adequate recovery has been shown to result in the restoration of physiological and psychological processes, so that the athlete can compete or train again at an appropriate level” (Halson, 2013, p. 1). Moreover, alongside with Cochrane (2004), Halson (2013) proposes the implementation of the holistic approach, while conducting a recovery plan, due to the fact that “recovery from training and competition is complex and typically dependent on the nature of the exercise performed and any other outside stressors” (p. 1). Indeed, it is crucial to keep in mind that during the training sessions the sportsman experiences not only physical but also mental fatigue (Calder 2003). To add, “holistic approach for recovery training may give better responses rather than using isolated recovery techniques” (Cochrane, 2004, p. 30). Indeed, due to the multifacetedness of the wellness concept, it is necessary to view all the elements simultaneously in order to keep them in balance. Therefore, it is advisable to implement holistic approach while conducting a recovery plan.

What is more, Halson (2013) clarifies the main factors that should be considered, while implementing recovery, these are: training intensity and duration, nutrition, stress and anxiety from competition, lifestyle (quality of sleep, leisure activities, relationship with team members), health (illness, injury, muscle soreness and damage), and environment (temperature, humidity, altitude). These aspects are components of different wellness dimensions and they should be kept in mind while producing wellness service, namely
recovery plan, as Erickson (2012) suggested that, in order to stay healthy, all the dimensions should be appropriately balanced.

Generally, while designing recovery plan for sportsmen, special attention is paid to physical wellness dimension of a sportsman. However, there are various kinds of physical recoveries for sportsmen that influence not only physical but also emotional wellness dimension. One of such recoveries is hydrotherapy. Several scholars advocate the positive effect of such recovery type on athletes, particularly those, who perform on a high-intensity level, for example, football players (Calder, 2003; Halson, 2013; Cochrane, 2004; Delextrat, Calleja-Gonzalez, Hippocrate, & Clarke, 2013). Cochrane (2004) investigated, whether alternating hot and cold water treatment could be a legitimate recovery tool for enhancing athlete's recovery. The author claims that hot and cold water treatments are one of the most popular post-exercise recovery methods. However, Halson (2013) emphasizes that, in particular, cold water immersion and cold water therapy tend to provide more beneficial effect than hot water immersion for recovery from endurance exercise. “Ice packs, whirlpools, baths, heat packs, infra-red lamps, paraffin wax and ice massage are various techniques of cryotherapy and thermotherapy that have been used in the sports medicine and rehabilitation fields for the treatment of acute injuries; contrast baths, warm and cold packs have also played a major role in injury management but increasingly these modalities are now used for post-exercise recovery; warm spas with cold plunge pools or contrast hot–cold baths and showers are common practices used by athletes after training or exercise” (Cochrane, 2004, p. 27). Indeed, these recovery methods are beneficial for improving athlete’s not only physical but also emotional wellness. Moreover, it is a common knowledge that alternating hot and cold water for the purpose of recovery helps to revitalize and balance one’s psychological state. To add, it became evident that “athletes who perform hot-cold hydrotherapy after training or competition have reported lighter and less tight muscles with a feeling of mental freshness” (Cochrane, 2004, p. 29).

Delextrat et al. (2013) also support the idea of previous scholars (Cochrane, 2004; Venter et al., 2010; Adams et al., 2010; Cardinal, 2014) that “after each match or training session, emphasis on regeneration strategies is also required so that players recover their capabilities sufficiently to perform at their best in the next training session.
or match” (p. 11). Alongside with Halson (2013), Cochrane (2004), Achauer (2013), Quinn (2014), Delextrat et al. (2013) suggest that cold water immersion is an effective recovery strategy which can be implied in order to improve the overall state of wellness. To add, scholars bring out another commonly used strategy, namely, massage. “Both recovery procedures improved perceptions of overall fatigue and leg soreness” (Delextrat et al., p. 17). It is important to mention that both recoveries have similar effect on a sportsman. However, cold water immersion does not require much time to be completed and does not require a physiotherapist. Thus, it could be suggested that cold water immersion is easier to implement than massage. Therefore, this recovery technique could be easily applied to any sports club, as it does not require much investment and, as a result, is more affordable. Cold showers, contrast showers, and ice baths could be a good example of cold water immersion recoveries. Still, the massage recovery technique should not be underestimated. Hemmings, Smith, Graydon, and Dyson (2010) found evidence that sport massage, while not improving physiological regeneration, is beneficial in regenerating the psychological aspects of recovery. Moreover, Best, Hunter, Wilcox, and Haq (2008) suggest that post-exercise sports massage promotes a sense of calm and well-being, reduces anxiety, and significantly improves mood. In addition, scholars (Calder, 2003; Bishop, Jones, & Woods, 2008) claim that a number of athletes use sports massage in order to relax both physically and psychologically. Moreover, in order to increase the effect of massage, essential oils could be added during this session. Dollemore, Giuliucci, Haigh, Kirchheimer and Callahan (1995), Mihina and Anderson (2010) share the same idea that when essential oils are added to traditional massage oils such as almond, olive and sesame, essential oils enhance the benefits of massage, relieving stress, improving circulation and creating a feeling of well-being. This oils could also be just spread in the room by the means of, for example candles, in order to be inhaled by sportsmen.

Robey et al. (2014) studied the effect of early evening high intensity training on the sleep of young soccer players. In addition, Calder (2003) suggested that sleep could be one of the efficient types of passive rest, as it provides invaluable adaptation time for the sportsman to adjust to the physical, neurological, immunological and emotional stressors that he experiences during the day. This idea is also advocated by Jeffreys (2005) claiming that sleep is a crucial element of optimum wellness. Robey et al. (2014)
highlight the fact that professional sportsmen tend to experience sleep disorders more often than other people. The authors state that “in contrast to non-athletes, athletes are often exposed to conditions that can interfere with sleep, such as jet lag, unfamiliar sleeping environments, evening training and/or competition and underlying fatigue” (Robey et al., 2014, p. 410). Indeed, these factors tend to influence sportsmen’s sleep quality quite often. As a result, athletes do not only feel tired or even exhausted but also experience psychological problems, starting from bad mood and apathy, and ending with depression.

Nowadays professional sportsmen have a rather busy schedule, with a competitive season entailing cycles of training and competing from one week to the next. To add, players from more successful clubs tend to have additional competitions, such as cup matches, tournaments, or international competitions. Such an intensive schedule can cause exhaustion of athletes both physically and psychologically. Botteril and Wilson (as cited in Venter, 2014) also notice that “modern athletes are facing more mental, emotional and social demands daily than ever before, with amongst others, pressure on personal relationships, media demands, sponsor needs, more public interest and information overload” (p. S69). As it was previously mentioned, in order to guarantee efficient restoration, recovery plan should be multifaceted, aiming at different dimensions of wellness. The following authors concentrate their particular attention on recoveries aiming at improvement of social, emotional and spiritual wellness dimensions. Calder (2005) suggested simple formulation of the best performance. She proposed the following formula for success:

\[
\text{Work hard + recover well = best performance}
\]

Calder (2005) states that: “all athletes can benefit from learning to use a few simple psychological skills to control emotions and mood states, in particular, improving self-awareness and motivation and decreasing reactions to stress are essential life skills” (p. 29). Indeed, it is crucial to understand the strong connection between physical and mental states for the successful recovery. This idea can be traced in the principles of holistic approach. Calder (2005) provides a comprehensive list of relaxation strategies aimed at developing mental toughness and emotional control: meditation, autogenic training, breathing exercises, music, relaxation massage and other techniques. The main
advantage of these strategies is that they are affordable and easy to implement. However, these simple techniques are often underestimated in the Estonian sports clubs.

Jiang (2005) also advocates on the importance of meditation as an emotional and spiritual recovery technique. Interestingly, being popular in Europe, this type of recovery is not widely practiced in Estonia. Jiang (2005) suggests that “meditation would lower the POMS (perceived overall muscle soreness) global mood score, decrease cognitive and somatic anxiety, and facilitate acute and long-term heart rate recovery” (p. 53). Moreover, Calder (2003) claims that this technique is useful for controlling stresses from training or competition particularly if the athlete is over aroused (p. 30). In addition, Johnson (2015) claims that “athletes who practice meditation can expect better performance, endurance and concentration”. Indeed, meditation creates inner balance and promotes better energy flow throughout the body and mind. Ireland (2013) offers a number of simple to implement meditation techniques that do not need special equipment and knowledge: transcendental meditation, positive visualization, repeating mantras and breathing practice. Another similar type of recovery is stretching. Venter (2014) and Dreifke (2013) claim that flexibility exercises, namely stretching, have powerful stress-busting abilities. However, it should be noticed that stretching is not efficient enough in case it is performed separately from other recovery modalities (Halson, 2013). Therefore, this type of recovery should be combined with other recovery modalities, for example, sauna sessions or it should be practiced immediately after the training.

Venter (2014) brings out the importance of socializing with the coach and the team as the means of recovery aimed at improvement of social wellness advocating the importance of “discussions with their teammates and coaches… socialize with family…after...matches” (p. 1). This type of recovery method refers to the quality of time spent away from competition and training. Coutts and Sirotic (2015) state that social activities, or other activities that often do not involve sport (for example, movies, comedy, reading, socializing with friends, etc.) can be useful for lifting the moods of athletes and enhance team cohesion. Beneficial effects of socializing with coach after the trainings, family and friends outside the field are also mentioned by Eklund and Tenenbaum (2014) who claim that players should regularly communicate to the coach
in order to prevent and overcome mental blocks. To add, the author of the paper suggests that social interactions could become a pleasant diversion from the training, especially if they are done in settings outside the training environment. What is more, Guenzi and Ruta (2013) advocate the importance of socializing with the coach, claiming that individual approach towards a sportsman demonstrate recognition and appreciation of each player.

Calder (2005) also takes into account the importance of recovery of psychological skills. Indeed, not much scholars dedicate their attention to such important aspects as emotional and psychological recoveries. Therefore, Calder (2005) offers debriefing, contingency planning, mental toughness and relaxation techniques to cope with the emotional fatigue. The author provides the following list alternatives, namely, meditation, visualization, progressive muscle relaxation, breathing exercises, music, and floatation. Interestingly, Barber (n.d.) proposes an efficient method of coping with the emotional fatigue, offering sportsmen using imagery to mentally rehearse a variety of aspects, like focusing on overcoming a technical weakness or mentally preparing for a match.

One more technique facilitating relaxation and, thus, positively influencing spiritual and emotional wellness, is listening to music. In addition, “music narrows the performer's attention and, as a consequence, diverts attention away from sensations of fatigue” (Terry & Karageorghis, 2006, p. 3). Dollemore et.al. (1995) also emphasized the beneficial effect of music claiming that when the sound is applied the right way, it can help release energy and help one’s body heal itself. Indeed, a well-chosen music can produce a relaxing and calming effect. Another benefit of this recovery technique is the ability of music to inspire and improve one’s mood (Terry & Karageorghis, 2006). The music could be played in the changing rooms before and after the trainings and games in order to create the mood and encourage sportsmen. Undoubtedly, “the dressing room jukebox is a perfect setting where high tempo tunes can match a player’s anticipated heart rate and inspire them to on-field success” (Busch, 2015). For instance, Sorenson, Czech, Gonzalez, Klein, and Lachowetz (2008) suggest that fast tempo music could significantly increase sportsmen arousal level before a competition, while slow tempo music could promote relaxation after the training or a game. What is more, in mild to
moderate exercise, music may improve the exercise performance and reduce the perceived exertion, while in severe exercise; music may maximize motivational and affective components (Bhavsar, Abhange & Afroz, 2014).

Probably, one of the most powerful and inspirational music genres is hip-hop (Potter, 1995). Bringing this idea further, music could be combined, for instance, with massage. “The combination of sports massage and functional music makes the process of the recovery …more effective” (Petruk, 2013, p. 17).

According to Robinson, Segal, J., Segal, R., and Smith (2015), “deep breathing is the cornerstone of many other relaxation practices, too, and can be combined with other relaxing elements such as aromatherapy and music”. For athletes who participate in sports that involve a series of short performance, for example, baseball, football and tennis, deep breathing should be a part of between-performance routine (Taylor, 2010). The deep breathing technique could be combined with aromatherapy in order to produce a better recovery. According to Chitty and Dawson (2011) “aromatherapy is the use of plant oils to promote psychological and physical wellbeing (p. 27) Moreover Dollemore et al. (1995) claim that essential oils can cure many conditions which are linked to nervous tension, headaches, insomnia and anxiety. Therefore, essential oils, such as rosemary, basil, lavender, jasmine, noroli and peppermint, could be spread in the room for deep breathing and meditation sessions in order to provide mental and emotional support. Moreover, few drops of essential oils could add on hot stones during sauna session. What is more, in order to improve sauna sessions, chromotherapy technique could also be of special use. “Chromotherapy is used to improve the performance of athletes; whereas red light appears to help athletes who need short, quick bursts of energy, blue light assists in performances requiring a steadier energy output” (Yousuf Azeemi & Mohsin Raza, 2005, p. 486).

Finally, several scholars advocate beneficial effects of nature contact (Largo-Wight, 2011; Erickson, 2012). “Live indoor plants promote healthy air quality and stress reduction in a “dose-dependent: relationship” (Largo-Wight, 2011, p. 51). This idea can be incorporated in the context of recovery by adding natural plants in the lounge area of sports clubs. This action could positively influence sportsmen’s wellness as “contact with nature provides stress reduction, which, in turn, leads to improved health
outcomes” (Erickson, 2012, p. 89). What is more, “...access to a view of natural elements...even for brief moments, were associated with satisfaction, resources necessary to combat stress, restoration from stress, and health” (Largo-Wight, 2011, p. 52). Indeed, these qualities of plants could help to reduce exhaustion and cope with mental fatigue.

To conclude, the articles mentioned above were of a special importance to the author of the current thesis as they support the author’s hypothesis about the importance of recovery in the context of professional sport. Moreover, the articles explain the necessity of conducting recovery by the means of the holistic approach in order to balance all wellness aspects of sportsmen. Although some of the articles presented researches which were medically oriented, they still provide useful information for the current thesis. It was interesting to read several opinions on the same topic in order to gain more comprehensive knowledge on a particular issue. Finally, it is necessary to notice that it was difficult to find up to date information concerning recovery modalities. Therefore, the author of the paper came to a conclusion that there is a gap in this sphere which needs to be further research.
2. METHODOLOGY

2.1. Method, sample, data collection practicalities

The current chapter will describe the methodology of data collection chosen by the author; provide a substantiation of its relevance for the current research. Subsequently, the chapter will provide detailed information concerning the sample selected for the research. Finally, the issues concerning data collection practicalities will be discussed.

For the purpose of the current research the mixed method was implemented by the author. A mixed methods research design is a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative research and methods in a single study to understand a research problem (Creswell, 2012). This method was selected due to the fact that simultaneous use of qualitative and quantitative approaches provides a better understanding of the current research problems than either approach alone. The following Figure 2 illustrates the process of the application of mixed methods.

![Mixed method application](image)

**Figure 2.** Mixed method application (Adapted from Creswell, 2012).

Thus, the author has conducted pre-experimental and post-experimental questionnaires among football players of club X, as well as pre-experimental and post-experimental interview with the coach of this team. As a research strategy the author decided to choose the experiment. This strategy was preferred as it allowed investigating how team members would react to a given stimulus. In addition, the experiment helped to monitor the effects of changing conditions, namely, incorporating new recovery modalities.
Sample is a group of people or things that is chosen out of a larger number and is asked questions or tested in order to get information about the larger group (Kothari, 2013). The sample of the current research is represented by 20 football players of club X. This club represents a part of Estonian elite football league. This league was chosen due to the fact that the teams of this league perform on a professional level and, therefore, have the ultimate need for well-considered recovery plan. The age of the current team varies from 18 to 24 and for all of these players football is considered as the main source of income. This particular club was chosen due to the fact that the author of the paper had previous working experience in this club, and, therefore, had an opportunity to observe the atmosphere of the team from the insight.

Based on the review of the literature, a semi-structured interview and questionnaire were compiled by the author. In general, the questionnaire was divided into four subsections dedicated to three wellness dimensions and recovery modalities. The bases for questionnaire and interview design is compiled by the author and illustrated in the Table 1. The author formulated questions with regard to the topics discussed by the scholars mentioned in the literature review.

**Table 1. Bases for questionnaire and interview design**

<table>
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<th>Questions aimed at…</th>
<th>Resource</th>
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The semi-structured interview was conducted with the coach of the team X at the pre-experimental and post-experimental stages. During this type of interview the interviewer uses a list of questions and themes that need to be covered during the conversation but in a relatively broad and flexible way (Alvesson, 2013). However, the interviewer is able to follow topical trajectories in the conversation that may stray from the guide when he or she feels this is appropriate. For the purpose of the current research the author conducted a face-to-face semi-structured interview. Face-to-face interviews are characterised by synchronous communication in time and place which allows taking the advantage of such social cues as voice, intonation and body language of the interviewee (Opdenakker, 2006). Thus, the interviewer can get additional information apart from the verbal answer. Another advantage of face-to-face interviews is the absence of significant time delay between question and answer meaning that the interviewee is more spontaneous, without an extended reflection (Sincero, 2012). Moreover, a face-to-face interview has the advantage that the interviewer can make more use of standardisation of the situation by creating good interview ambience (Opdenakker, 2006). However, there are still some disadvantages. The major problem faced by the author was the fact that this type of interview was quite time-consuming. This method is time-consuming as there is often a need to travel and meet the respondents at either single or different locations (Sincero, 2012). This type of interview was chosen, first of all, due to its flexibility, as questions prepared by the author could be changed or adapted depending on the respondent’s answers. In addition, the use of open-ended questions allowed the respondent to talk in his own words, which helped the author to get a real sense of a person’s understanding of the situation. The pre-experimental interview consisted of 12 questions and was conducted in Estonian language. The translated version of pre-experimental interview can be found in the Appendix 1. The aim of the pre-experimental interview was to find out the coach’s opinion on the atmosphere in the team, the efficiency of existing recovery plan and to understand overall process of trainings and recoveries. The second semi-structured interview was conducted with the coach after the experiment. This interview consisted of six questions and was aimed at revealing the influence of recovery modalities on the sportsmen’s overall wellness. The translated version of post-experimental interview can
be found in the Appendix 2. Both interviews were conducted in order to view the situation from different perspectives – team’s and coach’s.

Taking into consideration the disadvantage of the face-to-face interview, mentioned above, pre-experimental and post-experimental questionnaires were distributed among the football players of club X instead of conducting interview. Ideally, if the author had more time and money, the face-to-face interviews could be conducted with each of the players. The questionnaire is a list of a research or survey questions which people are asked to answer in a predetermined order (Taylor, 2013). One of the advantages of the current research method is the fact that data can be collected from a large number of people in a short period of time and without relatively high costs (Popper, 2004). Moreover, data gathered by the means of questionnaire can be used to measure changes more easily which makes it convenient for testing of the stated hypothesis (Popper, 2004). On the other hand, there is no guarantee that the respondent is being absolutely truthful, serious and understanding the full context of the situation (Popper, 2004). Despite the above-mentioned disadvantages, the author of the paper chose the questionnaire in order to gather data due to the fact that it allowed to trace the changes in the answers easily. Moreover, the author was present during the time the players were answering, therefore, they had a chance to ask clarifying questions concerning the questionnaire. Questionnaires were designed by incorporating open-ended questions along with Likert scale questions. The latter is a method of ascribing quantitative value to qualitative data, to make it corresponding to statistical analysis, where a numerical value is assigned to each potential choice and a mean figure for all the responses is computed at the end of the evaluation or survey (Boone & Boone, 2012). For the current questionnaires the following scale was integrated by the author: 1 – corresponding to “strongly disagree”; 2 – corresponding to “disagree”; 3 – corresponding to “neutral”; 4 – corresponding to “agree”; 5 – corresponding to “strongly agree”. The questionnaires were divided in subgroups corresponding to emotional, spiritual and social wellness, and recovery modalities. The pre-experimental questionnaire consists of 21 questions, five of which are open-ended. The aim of this questionnaire was to understand the emotional state of the players, opinion on the atmosphere in the team and satisfaction of players with the existing recovery plan. In addition, the questionnaire helped to identify problems related to wellness of each separate player. Finally, some of the questions
were aimed at understanding players’ preferences towards possible recovery modalities. The pre-experimental questionnaire can be found in the Appendix 3. The post-experimental questionnaire consists of 16 Likert scale questions and two open-ended questions. The aim of this questionnaire was to reveal the changes related to implementation of new recovery modalities proposed by the author. Moreover, players were asked to distinguish the most effective recoveries which they would like to see in the future recovery plan. The post-experimental questionnaire can be found in the Appendix 4.

The experiment lasted for one month, from 16th of February to 16th of March. The purpose of the experiment was to introduce new recovery modalities aiming at improvement of sportsmen’s emotional, spiritual and social wellness. Initially, the recovery plan of club X included only massage and sauna session. It should be noticed that these two recoveries, in the way as they are currently presented in the club, aim mainly at the improvement of the physical wellness. Using Feature tree, the author of the paper summarized possible recovery modalities mentioned in the literature review. To add, using the Sticker vote tool, the author of the paper chose several recovery modalities from the number of others as they are easy to implement and do not require much costs. The following recovery modalities were integrated in the recovery plan during the experiment:

- Playing music in the changing rooms (aimed at improvement of emotional wellness).
- Meditation/stretching trainings with the instructor (twice a week; aimed at improvement of emotional and spiritual wellness).
- Offering fruit and drinks after the game (once a week; aimed at improvement of social and emotional wellness).
- Arranging plants in the lounge area (aimed at improvement of emotional wellness).
- Ask players to conduct cold water immersion therapy after each training (aimed at improvements of physical and emotional wellness).
• Ask coach to talk to players after each training at least for 15 minutes (discussing the issues during the training; aimed at improvement of social and emotional wellness).

• Organize photo shoot while training (aimed at improvement of social wellness).

• Organize bowling game (aimed at improvement of emotional and social wellness).

• Organizing mood-lifting and self-esteem lectures (aimed at improving emotional and spiritual wellness).

The full schedule of experiment can be seen in the Appendix 5. It is important to mention that several recoveries, namely, music, plants, fruit and drinks after the games, are not mentioned in the schedule due to the fact that they were implemented on a daily bases throughout the whole experiment. To add, for the purpose of the experiment the meditation and stretching coach, photographer and lecturer were invited by the author of the current paper. These people agreed to participate voluntary. The fruit and drinks after the game as well as plants were provided by the author while the bowling game was entirely sponsored by the club X with the money received from the tickets to one of the games of club X.

2.2. Data analysis

At the pre-experimental stage the author of the thesis conducted an interview with the coach of the team X. In addition, questionnaires were distributed among twenty football players. The questionnaire response rate was 100 per cent. Finally, the author will bring up the conclusions made on the bases of the data gathered during the interview.

The players have quite tough timetable as they dedicate time to sport six times a week, ten months in a year. Although the intensity of the trainings varies, it is less intensive before and after the game, the sportsmen still experience stress as they should constantly stay in an excellent physical and mental state.

The spectrum of the existing recovery modalities in the football club X is quite narrow. There are only two possible alternatives: sauna and sports massage. From the response of the coach, who states that he did not consider the efficiency of the current recovery
modalities, it can be seen that the importance of a good recovery plan is underestimated in the current football club. However, the coach proposed adding the bath for cold water therapies, explaining his choice by the fact that several other football clubs already practice this type of recovery.

Based on the coach’s comments on the existing emotional state of the team, it can be said that the team seems to be depressed which is probably related to the losses in previous matches. Moreover, the lack of team spirit can be traced. What is more, the coach noticed that players tend to enter the field already being exhausted. Thus, the players cannot be fully concentrated on the game. As it can be concluded from the coach’s comments on the existing recovery modalities, such condition of the sportsmen could be the consequence of the under-recovery. Moreover, during the interview it was revealed that club does not have sports psychologist. Consequently, the option of emotional recovery has not been considered by the club X. However, various trainings and lectures aimed at the improvement of self-esteem and overall motivation could be useful for the improvement of the emotional state of the team.

Concerning the relationships between the coach and the team as a whole and the relations between coach and each team member separately, it can be supposed that there is a lack of trust from both sides. Thus, the players would rather discuss their problems and concerns with each other than turn to the coach. Only game-related topics are discussed with the coach. The current situation could be explained by too tough training strategy of the coach, as he tends to pay little attention to praising his players.

While considering relationships between team members, it was revealed that players do not socialize as a whole cohesive team, which, from the author’s point of view, inevitably leads to the lack of team spirit. Despite being friendly towards new team members, players do not strive for new friendship and tend to stick to separate small groups. This problem might be the reason of unhealthy atmosphere in the team and it is necessary to encourage players to unite with each other. For example, the coach mentioned the tradition of organizing an event for the whole team at the end of each season. However, the tradition could be further developed and such events could be conducted several times during the season.
During the analysis of the questionnaire, questions including Likert scale were grouped in subsections, corresponding to different dimensions of wellness, namely emotional, social and spiritual. To add, several questions, aimed at recovery modalities in particular and corresponding to both physical and emotional wellness, were gathered in the last group. After each subgroup the author provides figures illustrating the results received from the questions involved in a particular group.

Concerning overall satisfaction with the emotional state of football players after training sessions, it became evident that most part of the team, namely twelve people out of twenty, are not satisfied. This fact could signify the need for improvement of general atmosphere in the team. The numbers are shown in the Figure 3. The negative tendency related to the emotional state of the team is further supported by the inability of players to cope with day to day training pressures. The data gathered demonstrates that in general fifteen people are unable to deal with day to day training pressures, while only three do not experience any problems with this issue. What is more, eleven of twenty players feel stressed after training and matches while only four people feel more or less comfortable. This tendency is quite logical due to the very nature of sports events which is inevitably accompanied by tight competition causing high level of stress. However, if handled well, this stress can be relieved quite easily. As a result, only eight team members go to each training with a pleasure. Thus, the data mentioned above signifies the unsatisfactory level of the team’s emotional wellness. Therefore, this issue should be definitely considered more thoroughly by the coach and other people working in the sports team.
Further, the author analysed questions connected to social wellness of players. The results linked to this dimension of wellness are illustrated in the Figure 4. Concerning the questions related to sharing feelings and concerns with the coach and receiving his feedback, relatively high number of football players preferred to answer neutrally, ten and five people respectively. While considering the coach’s individual approach towards each player, eleven people out of twenty emphasized the problem with this issue. In general, lack of communication and mutual support between team and coach can significantly worsen the social wellness of the team. One more indicator that could cause anxiety concerning social wellness of the team is the fact that only seven people tend to socialize with their team members outside the football field. Social wellness among the team members is an integral part of the whole life of the team and it is highly important for the achievement of the common goals of the team.

**Figure 3.** Factors influencing emotional wellness (n=20)
The following paragraph is dedicated to the questions concerning spiritual wellness. The results are indicated in the Figure 5. In general, only eight people out of twenty feel comfortable in the team and seven people realize their importance for it. Ideally, each team member should feel himself comfortable and important for the team. Interestingly, fourteen team members answered neutrally concerning their motivation. Such ambiguity is a bad sign, as in order to reach success in the team sports, players should have strong motivation towards victory. Supposedly, lack of motivation may again root in the miscommunication with the coach. Moreover, only five people claim that they feel secure while entering the sports club. Interestingly, the two questions mentioned above demonstrate the most frequent answer – “neither agree, nor disagree”. This fact is presumably related to either the desire to hide the truth or high level of uncertainty among players. Thus, it became evident that one more wellness aspect, namely, spiritual wellness needs improvement in order to enhance an atmosphere in the team.
The following paragraph is related to recovery modalities. The data gathered is illustrated in the Figure 6. Concerning the general satisfaction with the existing recovery plan, eleven people are not satisfied with the existing recovery modalities. This could be explained by the fact that only four people out of twenty get enough restoration and refreshment after the currently offered recovery modalities. Surely, the range of recovery modalities offered in club X is quite narrow as it offers only sauna sessions and massage therapies. On the contrary, several other Estonian football clubs offer a bigger list of recovery modalities, for example, baths for cold water immersion and stretching classes. In addition, only eight players get stress reduction and six have an ability to improve their mood by the means of the existing recovery plan. This issue could be explained by the fact that the recovery modalities of club X are mainly aimed at the improvement of one’s physical wellness. However, if considering the existing recovery modalities, sauna tends to be more effective than massage in order to make the sportsman feel more uplifted. High number of positive answers concerning the sauna could be explained by the fact that despite the relaxing effect, the sauna also provides an extra opportunity for communication.

Figure 5. Factors influencing spiritual wellness (n=20)
Moreover, the team members were asked to propose changes for the existing recovery plan of club X and the answers were the following: “to broaden recovery options”, “receive recoveries aimed at relaxation”, “I would like to get exhilarating recovery”, “I don’t care”. The answers are illustrated in the Figure 7.

In order to further implement the new possible recovery modality for the improvement of emotional and spiritual wellness, team members were asked to choose their favourite music genre. The answers are shown in the Figure 8. It can be seen that most of the respondents tend to prefer rap music. Therefore, this kind of music will be implemented for the purpose of the future experiment.

**Figure 6.** Opinion on recovery modalities (n=20)
The final question of the pre-experimental questionnaire was related to the recovery modalities practiced by sportsmen independently. The answers can be seen in the Figure 9. These answers once again support the need for further development of the existing recovery plan of club X and also provide some additional ideas for the new recovery modalities. Moreover, several recovery modalities are already practiced by the players.
individually. However, they could be easily implemented in the context of recovery plan of the whole team.

Figure 9. Independently practiced recoveries (n=20)

Having conducted an experiment, the author of the thesis interviewed the coach of the team X one more time. In addition, post-experimental questionnaires were distributed among twenty football players in order to understand whether any changes occurred after the implementation of an alternative recovery plan.

In general, it can be stated that the coach’s answers signified some positive changes in the emotional state of the team X. The coach admitted that the players became more calm and relaxed not only during training sessions but also before games. These changes lead to the higher concentration during the games. Moreover, according to coach, the overall atmosphere in the team has definitely improved. Now the players communicate with each other more and they also demonstrate more positive attitude towards the newly came players. Concerning the opinion on new recovery modalities, the coach noticed that players became more flexible and self-confident. The coach assumed that the first improvement is caused by the constant stretching and yoga classes. As a result, players had fewer complaints about pains and physical fatigue.
Concerning the second improvement, the coach supposed that self-esteem and motivation lectures helped the players to gain more confidence which is one of the vital aspects for successful sports career. Based on his observations, the coach suggested implementing the above mentioned techniques into the existing recovery plan. Moreover, the coach positively evaluated implementation of music and new way of cold water therapy, as both are easy to implement and at the same time efficient. However, the coach did notice any positive influence of such recoveries as decorating the lounge with plants and photoshoot session. Although the latter was aimed at improvement of the relationship among players, it distracted the sportsman’s attention from the training. Therefore, the coach came to a conclusion that such events should be practiced during the free time. Although the coach did some steps towards the improvement of the relationship with each player, still, not each player is ready to share his feelings with the coach. However, the coach hopes that this issue is just a matter of time.

On the 16th of March, the author distributed post-experimental questionnaires among the players. In addition, post-experimental interview was conducted with the coach. Having analyzed the data gathered from the post-experimental questionnaires the significant difference was noticed in the responses of players concerning their emotional wellness. In general, positive tendency can be noticed concerning the emotional state of the players. The most noticeable difference can be traced in the responses concerning the satisfaction with the emotional state after trainings. While on the pre-experimental stage only five people out of twenty were satisfied, then after the experiment eighteen people feel positive towards this issue. In addition, slight change can be seen in the desire of players to go to each training. If before the experiment eight people went to training with pleasure, then by the moment this number increased up to twelve. What is more, after the experiment only five people out of 20 are still unable to deal with day-to-day training pressures. Furthermore, half of the team still feels stressed after training and matches. Undoubtedly, tress after trainings and matches cannot be totally eliminated, as professional sportsmen are sincerely dedicated to sport and cannot spot worrying about their results. However, the proposed recovery modalities can be very helpful in reducing stress. Figure 10 demonstrates the results of the questions concerning the emotional wellness of players after the experiment.
On the contrary, the answers concerning social wellness did not change much. Thus, the players’ attitude towards sharing their feelings with the coach improved slightly, namely, six people instead of four feel comfortable sharing their feelings and concerns. Moreover, the number of players feeling individual approach of the coach did not change. However, some positive tendency can be traced due to the fact that four people comparing to previous two preferred to abstain from the answer. Supposedly, the experiment made the coach reconsider his approach and, in long-term perspective his position may improve. In addition, some positive changes can be traced in the question concerning the feedback that players receive from the coach. If before the experiment eight people claimed to receive not enough feedback from the coach, then now this number decreased to five. Overall, such small change in numbers can be explained by the fact that good relationship between the coach and the team needs time to be established. However, improvements can be seen in the relationship among the players. Thus, if before the experiment seven people out of 20 socialized with their teammates outside the field, then after the experiment this number increased up to nine people. The author assumes that the different recovery plan involving more socializing inspired the players to spend more time together. Figure 11 demonstrates the result of the questions concerning the social wellness of players after the experiment.

**Figure 10. Factors influencing emotional wellness (n=20)**
As it can be seen from the Figure 12, 14 people out of 20 feel themselves comfortable and welcomed in the team, which is six people more than before the experiment. As it was previously mentioned, the emotional state of the team has improved which could positively influence their spiritual wellness. Unfortunately, there is still quite a big number of players that feel themselves unsafe when entering the football club. The results indicate that seven people now feel secure, which two people more than before the experiment. Furthermore, more people compared to pre-experimental questionnaire started to feel themselves as an important team members. It should be noticed that the difference is quite small, however it is moving in the positive dimension, and therefore, in future it could reach noticeable changes. In addition, more people admitted to have more motivation after the training session. The results of the questionnaire show that six people now feel more motivated, while there were only two before the experiment. This change could be explained by the fact that players received recovery modalities aimed at the improvement of their self-esteem, and as a result, the teammates felt themselves treated with respect.
The noticeable positive change is illustrated by the fact that 17 people, compared to previous seven, are now satisfied with the recovery modalities currently offered in the football club. Moreover, as it can be seen from the Figure 13, 12 players out of 20 feel enough restoration and are able to reduce stress by the means of the currently offered recovery modalities. In addition, 13 people noticed improvements in their mood after the implementation of the new recovery plan. In general, the previous four questions were of a special interest for the author of the current thesis as they helped to get the answer to the research question.

Finally, the players were asked to choose the most efficient, from their point of view, recovery modalities. They were allowed to use more than one answer. Thus, the most preferred ones were meditation and stretching, music, sauna session. On the contrary, the least preferred recovery options were plants arrangement, communication with the coach and motivation lectures. The responses are illustrated in the Figure 14.

**Figure 12.** Factors influencing spiritual wellness (n=20)
Figure 13. Opinion on recovery modalities (n=20)

Figure 14. Opinions on the most efficient recovery modalities (n=20)

Further, the players were asked to suggest which of the new proposed recovery modalities could be successfully integrated in the existing recovery plan. Players were allowed to choose more than one answer. The results are illustrated in Figure 15.
The proposals concerning the integration of new recovery modalities (n=20)

The next chapter will sum up the ideas received by the author throughout the research and provide several suggestions concerning the improvement of the recovery plan for team X.
3. RESULTS AND DISCUSSION

As the service design theory was one of the pillars of the current research, the six service design tasks, offered by Moritz (2010) were implemented step by step throughout the research. For the first task, namely understanding, the author collected theoretical data on two major topics: wellness and recovery modalities. In addition, pre-experimental interview and questionnaire were conducted to reveal needs and preferences of football players. For the second task, namely thinking, the author analyzed data gathered and tried to make connections between scholarly sources and opinions of the respondents and set overall direction of the experiment. For the third task, namely generating, the author tried to propose possible innovations for the improvement of the recovery plan while on the fourth stage, namely filtering, the most efficient, easy to implement and affordable recovery modalities were selected for the experiment. During the explaining task the experiment was conducted in order to test the ideas chosen on the previous stage. Finally, post-experimental interview and questionnaire were conducted in order to realize the efficiency of the proposed recovery plan and provide suggestions for further development. Overall, the service design theory was implemented in order to create a recovery plan for customers, who, in the frames of the current paper, are represented by football players. In order to create a good and efficient recovery plan, the author of the paper had to follow the tasks described by Moritz (2010).

During the period from 15th of February until 15th of March the author conducted an experiment among the players of Estonian football club X. The aim of the experiment was to diversify an existing recovery plan of players and further reveal whether the proposed alternative enabled the enhancement of the sportsman’s wellness. Moreover, pre-experimental interview and questionnaire were conducted in order to get background information concerning the current wellness of players and their satisfaction with the existing recovery plan. After the experiment the questionnaire and interview
were conducted as well. The post-experimental data collection was necessary in order to verify the author’s hypothesis concerning the need for better post-recovery planning in order to enhance sportsman’s sense of wellness.

Based on the increased number of positive responses in the post-experimental questionnaire, it could be suggested that the hypothesis proposed by the author at the beginning of her research has been proved. Indeed, even slight changes in the existing recovery plan contributed to the improvement of several dimensions of sportsman’s wellness. In addition, the author of the paper managed to answer the previously stated research question. The recovery plan, suggested by the author could become the possible alternative for the enhancement of sportsman’s wellness as it is multifaceted, aiming at different wellness dimensions.

At the pre-experimental stage it was revealed that in general players are not satisfied with the current recovery plan. This could be explained by the fact that in order to recover efficiently, all wellness dimensions should be balanced (Adams et al., 2010; Erickson, 2012; Calder, 2003). Therefore, having analyzed the pre-experimental data, it can be stated that recovery modalities aimed at enhancement of emotional, spiritual and social wellness dimensions need to be further developed. In case the importance of the abovementioned dimensions is ignored, players will experience stress, fatigue and mental exhaustion.

When the existing problems were revealed, the author of the paper proposed several recovery modalities which were aimed at the improvement of the current situation in the club X. The choice of recovery modalities was determined, first of all, by theoretical data gathered by the author at the initial stage of her research. In addition, it was highly important to propose both efficient and easy to implement recovery modalities, as the club does not have additional financing for the improvement of the sportsman’s recovery plan.

First of all, the author proposed playing music in the changing rooms. It is a common knowledge that music has psycho-physiological effect and hence it positively influences the process of recovery (Petruk, 2013; Calder, 2005; Sorenson et al., 2008; Bhavsar et al., 2014; Dollemore et al., 1995). Moreover, according to Terry and Karageorghis
music can affect motivation and mood levels. What is more, Dollemore et al. (1995) claimed that sound waves can balance energy centres, namely chakras promoting health and harmony with one’s self. Based on the music preferences of team members of club X, the author proposed playing hip-hop music in the changing rooms before and after the training and games in order to inspire players and motivate them. Relying of the experiments of several scholars, namely Terry and Karageorghis (2006), the author of the paper suggests that implementation of music could serve as a successful facilitator to athletic performance. Moreover, as it was previously mentioned, hip-hop is one of the most powerful music genres that inspire and motivate people to strive for the fulfilment of new goals (Potter, 1995). Karageorghis (n.d.) compiled a list of songs which could inspire the listener to achieve new heights in sports. He suggests the following pre-match motivational songs: “We Are The Champions”; “All Together Now”; “Pass Out”; “Carnival de Paris”; “Jai Ho”. However, players should also listen to the relaxing music, for example, during the massage or sauna session. Karageorghis (n.d.) suggests the following songs in order to improve post-game recovery: “Anywhere Is”, “Mas que Nada”, “At the River”, “Kiss from a Rose”, and “Mac Albatross”. It should be noticed that several of these pre-match song have already been played in the changing rooms during the experiment and produced an energizing effect on the players. Therefore, the author of the current thesis would like to suggest implementing this playlist on a regular basis as one of the recovery modalities. It should be noticed that although this recovery option is one of the most affordable, still it is very influential for the purpose of emotional recovery.

In addition, another effective and easy to implement recovery option, namely the addition of nature elements, was used. The author arranged the plants in the lounge area of the sports club X. This recovery option was inspired by the research of Erickson (2012) who revealed that contact with nature provides stress reduction which in turn leads to overall enhancement of one’s wellbeing. However, it should be justly noticed that this step was not efficient enough in the frame of the current research. This could be explained by the fact that sportsmen spend limited amount of time in the lounge area. On the other hand if they practice regular walks in parks and forests, this type of recovery could be more influential.
Meditation and stretching trainings were conducted by the visiting instructor in order to influence the sportsmen’s emotional and spiritual wellness. Several scholars advocate beneficial effect of meditation and stretching. Athletes who practice meditation can expect better performance, endurance, concentration, tension release and inner harmony (Calder, 2003; Venter, 2014; Jiang, 2005; Johnson, 2015). During meditation and stretching sessions, athletes could also practice deep breathing technique, the beneficial effects of which were mentioned by Robinson et al. (2015) and Taylor (2010). Meditation sessions were combined with stretching trainings during the week. Flexibility exercises like stretching have powerful stress-busting abilities which help an athlete to calm the mind, providing a mental break and giving one’s body a chance to recharge (Drefke, 2013). Relying on the results of the experiment as well as literature review, the author of the paper suggests that this kind of recovery can be key to helping one become more focused, positive and can teach sportsman to relax, focus and feel more positive about his athletic performance. Indeed, it was noticed by the author of the thesis that players became more relaxed and calm after these sessions. Moreover, the athletes became more concentrated during the games. This tendency proves the positive influence of the abovementioned recovery modalities. As this type of recovery has received positive evaluation from most of the football players of the club X, it should be definitely incorporated in their timetable on a regular basis. The author of the paper would like to describe in details the meditation techniques proposed by Kay (2013) that do not need special knowledge and equipment for fulfilment. For example, sportsmen could practice Transcendental Meditation (TM), which involves simply sitting quietly with your eyes closed and a clear mind for about 20 minutes as a way to focus and reduce stress. To add, positive visualization technique could be used by team members. This technique involves picturing some of the circumstances that may occur during a game or match and then visualizing one’s response. Repeating Mantras is also an efficient technique for recovering from stressful matches. Mantra meditation starts with a quote, phrase or word that inspires the person. Then one should sit quietly for a few minutes as he repeats the mantra in his head ten times. Finally, breathing exercises could be implemented as one of the recovery techniques. During this recovery, one should focus on his breathing. This technique may help to prepare for better performance. Players should lie on their back and place a hand over their stomach.
Then, they should breathe so deeply that their hand rises over their belly and then push the air back out again. The exercise should be repeated until one feels more in control of his nerves. These four meditation techniques could be done without supervisors, so the club does not have to spend money on the instructor, but instead, provide sportsmen with a room for conducting these sessions. Moreover, apart from stretching classes, players should, definitely devote 10-15 minutes after each training to simple stretching exercises. During this time sportsmen can do lunges with side stretch, hamstring stretch, triceps stretch, chest opener and quad stretch.

It should be noticed that lectures on motivation and self-esteem received positive evaluation from the coach and the players. For players who are under-motivated, the coach needs firstly to convince and motivate these athletes to believe that they can succeed and, secondly, that only hard work will lead to success (Eklund & Tenenbaum, 2014; Barber, n.d.). Visiting lecturer was invited in order to conduct motivation lectures aimed at the improvement of the players’ self-esteem. This recovery modality was chosen in order to make each player feel his importance as the part of the team and to lift the team spirit. In addition, these lectures were helpful for the coach as they mentioned some techniques on how to inspire the team members and raise their team spirit. The author of the paper suggests that having passed the lectures the coach could independently develop the athlete’s confidence and positive self-esteem by following several simple rules, which are offered below.

Firstly, the coach should show respect towards each athlete and never compare athletes to one another as each person is individual. To add, the coach should give an athlete the feeling of being valuable and powerful. What is more, the coach should avoid scolding the players for their failures, as he needs to boost their self-esteem rather than assault. As threats potentially lower confidence and set up an ineffective coaching relationship, the coach should encourage his players rather than punish. As it was previously mentioned by Guenzi and Ruta (2013), key motivational drivers include sensitivity in listening and in dialoguing because these behaviours by team leaders demonstrate thoughtfulness and involvement with team members individually. So the author of the current thesis suggests that listening to athletes is a way to let them know that they are being heard, they are important, and they are appreciated. This simple method
performed by the coach could elevate motivation and spiritual wellness of a player in particular, because listening shows individualized attention toward each player. Moreover, the coach should always find some time to listen to an athlete and let him know that he is significant and that his problems are important. Interestingly, this aspect has already been proposed by the author of the current research during the experiment. For this reason, the author has asked coach to talk to players after each training and game at least for fifteen minutes. This action was aimed at the improvement of the relationship, creating trust and mutual support among the coach and players. It is important to be open, direct, and honest while communicating with the athletes. Positive coaching is more effective than negative one, as permanent criticism and negative comments will not make athletes feel good about themselves. In addition, the coach should imbue his athletes that failures and mistakes are an integrate part of the learning process and not a cause for embarrassment. As the author noticed that one of the proposed steps appeared to be beneficial for both, athletes and the coach, other steps mentioned above should definitely become an integrate part of coach’s work.

After the games the players were offered fruit and drinks. Proposing this option the author intended to facilitate some quality time for team members in order to pull together the team and improve the overall atmosphere in the team. As it was previously mentioned by Guenzi and Ruta (2013), Coutts and Sirotic (2015), socializing outside the team is vital for the enhancement of team cohesion and the improvement of team performance. To add, healthy atmosphere within the team and strong team spirit will not only facilitate comfort for each player but also influence overall team’s performance. If the relationship within the team is friendly and warm, the stress level of players will be significantly lowered. Based on the Venter’s (2014) idea that one of the recovery options aimed at the improvement of social and emotional wellness is communicating with teammates in informal atmosphere, the bowling was also organized as another opportunity to allow players to socialize outside the field. What is more, photo-shoot was organized during one of the trainings in order to ease the tense connected to pre-game anxiety and lift the mood of the players. It is important to mention that these activities not only pulled the team together but also contributed to the improvement of the relationship with the coach. The author would like to suggest facilitating such events more often, for example, once a month in order to praise the players for the efforts made
and unite the team. During the spring and summer time players could have barbeque in the green area of the city. Thus, players will not only get an opportunity to spend some quality time with their teammates, but also get in contact with nature. As it was mentioned by Guenzi and Ruta (2013), the coach can and must actively shape the quantity and quality of social relations that are established among players, deciding how to act to encourage and discourage them. Relying on this statement, it could be justly stated that the social wellness aspect of each player is directly dependent on coach. Therefore, in order to recover well, for example, after the season, the club could facilitate training camps in nature in order to improve team spirit, build or maintain interpersonal relationships. This type of recovery will help players to improve their social and emotional wellness, as well as getting away from the busy lifestyle and unite with the beautiful countryside surroundings.

The already existing recovery modality, namely, massage, should remain in the recovery plan of the team X due to the fact that it does not only relief muscle soreness, but also promotes the increasing of serotonin and endorphin, which leads to the overall mood improvement (Delextarat et al., 2012). The effectiveness of massage involves physiological and emotional moments. In fact, the benefits of massage are more psychological than physiological (Petruk, 2013). Resting on the research of Petruk (2013) who examined the combination of sports massage and functional music and its beneficial effect on sportmen’s recovery, the author of the paper also implemented this technique during her experiment. Due to the fact that music implementation is quite an affordable and at the same time effective technique, the author would like to recommend integrating this option on a regular basis.

As the existing sauna sessions got positive evaluation from major part of the team, this recovery option should remain in the recovery plan of club X. However, it could be diversified and slightly improved. For example, music therapy, colour therapy and aroma therapy could be incorporated in the already existing sauna session. Thus, for instance, research in music therapy supports its effectiveness in many areas such as: overall physical rehabilitation and facilitating movement, increasing people's motivation to become engaged in their treatment, and providing emotional support (Busch, 2015; Karageorghis, n.d.). Moreover, colour therapy also provides many benefits as it promotes better health and overall wellbeing. It is important to mention that each of the
colours of the spectrum is associated with specific healing properties. The light bulbs in the sauna could be replaced with colourful ones, for example, green, blue and purple. Blue colour will have calming and relaxing effect, while green will provide balance and peace, fight depression, irritability and insomnia; purple promote spiritual awakening and muscle relaxation (Azeemi, & Mohsin Raza, 2005). Moreover, Dollemore et al. suggest using floral oils in order to relieve stress; lavender in order to create a relaxing and stress-relief effect and citrus oils in order to create bright, uplifting atmosphere. In addition, Mihina and Anderson (2010) broaden the list of essential oils suggesting to implement bergamot for relaxing, refreshing effect, and alleviating depression, peppermint for stimulating, refreshing, cooling the mind and body effect; geranium for uplifting and calming effect; lavender to relieve irritability and sleeplessness. Moreover, Mihina and Anderson (2010) highlight such oil as marjoram as it has calming, relaxing and sedating effect, relieves pain, insomnia, headaches, and makes an excellent after-sports rub because of its pain relieving ability. The above mentioned suggestions on improvement of sauna sessions will not require much cost, and at the same time will fundamentally enrich recovery plan of football club X.

Finally, existing sauna recovery was complemented by cold water immersion as it helps to reduce stress, relieve depression and promotes overall strengthening of muscles and immune system (Delextrat et al., 2013; Venter, 2014; Calder, 2003; Cochrane, 2004). This type of recovery influences both, physical and emotional wellness of the sportsmen. It is important to notice that even if the club cannot afford the expensive equipment, this recovery option can be easily replaced with accessible alternatives proposed by the author, namely cold shower. Halson (2013) suggests several tips for conducting an effective cold water immersion. Throughout the procedure cold water temperature should be 10-15°C and the duration should be 14–15 min. In the absence of special equipment for cold water immersions, the author of the paper would like to suggest practicing this type of recovery in the showers of the sports club alternating it with sauna sessions.

The design of the recovery plan was based on the service design theory and its different steps. In addition, customers of the designed service, namely recovery plan, were presented by football players of the club X. To add, the current service was aimed at the
improvement of several wellness dimensions of wellness as the author of the paper came to a conclusion that an efficient recovery plan should aim at different wellness dimensions in order to help an elite sportsman restore in a full range. Moreover, it should be noticed that different service design stages helped the author of the paper to understand the necessity of the multifaceted recovery plan, the needs and demands of the elite football players. Moreover, a post-experimental questionnaire and interview conducted on the realizing stage, helped the author of the paper trace the positive changes in the responses, and, therefore, once again confirmed the need in creating a multifaceted recovery plan. Having analysed the data gathered from the experiment, pre- and post-experimental interviews and questionnaires, the author came to a conclusion that there is a need of improvement of the recovery plan of club X. As the current recovery plan includes only sauna session and massage, it can be characterized as not efficient enough due to the fact that it does not imply enough wellness dimensions. Therefore, the author of the paper suggests incorporating additional recovery modalities that will influence such important dimensions of wellness as spiritual, emotional and social. For this purpose the author proposes the following possible options: meditation, stretching, music, aromatherapy, colortherapy, socializing with the teammates, communicating with the coach.
CONCLUSION

Professional sportsmen constantly work hard in order to prepare for successful performances throughout the competitive season. Unfortunately, many athletes ignore or forget the performance benefits gained through implementing recovery strategies within their daily training programs. To add, due to pressures of regular trainings and various competitions, sportsmen often experience both, physical and mental fatigue, and stress. When stress levels are further heightened, individuals may become unable to meet recovery demands if they are not engaged in additional recovery activities. As a consequence of this, stress will accumulate and, without intervention, the symptoms of overtraining are likely to appear. The author has noticed that, in case of the Estonian football club X, players seem to be constantly exhausted, low-spirited and not enough concentrated during the games, which could signify overtraining among the players. Therefore, the author hypothesized that there is a need for better post-recovery planning in order to enhance sportsmen’s sense of wellness. At the present moment the club X practices only two recovery modalities, such as sauna sessions and massage, both aiming mostly at physical recovery. Based on the theoretical knowledge gained by the author during her research, it became evident that a good recovery plan should be balanced, aiming at not only physical, but also emotional, spiritual and social wellness dimensions of an athlete. Therefore, the author decided to examine the possibilities for improvement of the particular recovery plan on the case of club X who is the part of elite Estonian Football League. Thus, the author has formulated the following research question: what type of recovery plan could be efficient for the enhancement of sportsmen’s wellness?

Based on the stated above research question, the author set the aim to reveal general principles of efficient recovery plan and try to implement gained knowledge on practice by offering her own multidimensional recovery plan. By distinguishing affordable recovery modalities, testing their efficiency and, as a result, proposing her own recovery plan, the author managed to accomplish the objectives set for the purpose of the research. As the paper was based on the service design tasks, different stages of research corresponded to particular tasks. Thus, the author conducted literature review as well as pre-experimental interview and questionnaire for understanding task. Further, the
author analyzed data gathered and tried to draw connections between scholarly sources and opinions of the respondents, setting overall dimension of the experiment for the thinking task. For the following, generating task, the author proposed possible innovations for the improvement of the existing recovery plan of club X. For the generating task the Feature tree tool was used. Next, the most efficient and affordable recovery modalities were selected for the experiment by the means of filtering task. For this task Sticker vote tool was implemented. During the explaining task the author conducted an experiment in order to test the previously chosen ideas. Finally, the author conducted post-experimental interview and questionnaire in order to realize the efficiency of the proposed recovery plan and provide suggestions for further developments. By the means of the research the author managed to prove her hypothesis. Due to the fact that at the pre-experimental stage the sportsmen of club X were experiencing high level of stress and fatigue, which were eliminated by the means of modified recovery plan, it became evident that the need for better recovery indeed exists. To be more precise, after the experiment players became more calm, concentrated and less tense. In addition, the author managed to answer the stated above research question. Thus, the proposed idea of balanced and multidimensional recovery delineated in the literature review was proven to be efficient. Therefore, the recovery plan should aim not only at physical, but also spiritual, social and emotional wellness dimensions in order to provide thorough recovery.

The current Master thesis provided theoretical background on service design in the context of professional sport, wellness concept and its dimensions and recovery modalities. Moreover, the author gathered empiric data by the means of interviews, questionnaires and experiment. The data gathered was analyzed. Further, the author brought together theoretical background and the results' analysis and provided suggestions concerning the improvement of the existing recovery plan of club X.

The current research still has several limitations. Firstly, the participants of this study were elite football players from the same club. Therefore, the sample size was small (n=20). Consequently, care must be taken in interpreting the results of this study. Secondly, the duration of the research was contracted to the period of one month. Therefore, not all improvements, for example, those related to social wellness, namely
relationship among the team and coach, could be traced easily. Finally, the author was faced difficulties related to the lack of resources for conducting an experiment. Therefore, the experiment included only the most affordable recoveries, while the author was forced to refuse from several efficient but too expensive recoveries.

The current research concentrated on proposing improved recovery plan for elite football players of club X which is the part of Estonian Football League. Therefore, the author of the paper proposes several considerations for future research in this field. Firstly, in order to get more reliable data, sample size could be broadened by involving in the experiment several teams from the same league. To add, distinction could be made among male and female teams and various kinds of team sports. Secondly, research could benefit from longitudinal study. This would allow revealing the benefits of the recoveries in the full range. Moreover, the researchers could collaborate with the Estonian Sports Association in order to financing. This step could provide opportunities for implementing wider range of recovery modalities. In addition, this research could be further developed by examining the importance of such aspects of sleep and nutrition for the efficient recovery.

The current paper could help to understand the significance of well-considered recovery. Moreover, this research could help coaches as well as sportsmen to understand the benefits of the multidimensional recovery plan. To add, athletes could adopt some practical and affordable recovery ideas from this research in order to implement them on a daily bases for the purpose of their own recovery.
REFERENCE LIST


APPENDIX 1.

Pre-Experimental Interview (Semi-structured)

1) How often do the sportsmen train?
2) Is the intensity of training equal throughout the week?
3) What types of recovery modalities are being practiced at the moment?
4) Do you see any changes in emotional state of players after the recovery session?
5) How could you comment on the current emotional state of the team?
6) Do you talk to your players after the training session?
7) Please name the most frequently occurring complaints that you receive from the players?
8) Do you organize any events for the players apart from training sessions and games?
9) What type of training strategy do you have? Do you prefer to influence player through the encouragement or punishment?
10) Do the players have the opportunity to turn to sports psychologist in case it is necessary?
11) What are the relationships of players? Do they socialize with each other apart from the training sessions and matches?
12) How friendly are the players towards new team members?
13) Do you consider the existing recovery strategy efficient enough or you feel that it needs improvement?
APPENDIX 2.
Post-Experimental Interview (Semi-structured)

1) What could you say about the current emotional state of the team?

2) Have you noticed any changes in the in-team climate?

3) Did you notice any of the offered recovery modalities to be the most efficient?

4) What kind of recoveries, in your opinion, could be successfully integrated in the existing recovery plan?

5) What was, in your opinion, the least effective recovery method?

6) Did the number of complaints from players remain the same?
APPENDIX 3.

Pre-Experimental Questionnaire

Dear respondent,

The current questionnaire is conducted for the purpose of the research aimed at the level of satisfaction with the existing recovery plan within your sports club. The confidentiality of responses is guaranteed. Please devote 15 minutes to answer the questions below.

Please tick the number that best represents your response to each question

Scale: 1 - strongly disagree; 2 - disagree; 3 - neutral; 4 - agree; 5 - strongly agree

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<th>Questions</th>
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<td>2. I am able to deal with day-to-day training pressures</td>
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<td>3. I go to each training with pleasure</td>
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<td>5. I am comfortable sharing my feelings and concerns with the coach</td>
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Please answer in few words the following questions:

17. After which of the offered recovery modalities do you feel the most uplifted?
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18. Which of the offered recovery modalities influences your mood the least?
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19. What would you like to change in the current recovery plan?
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20. What kind of music inspires you?
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21. Do you practice any additional recovery modalities independently from your team? (if yes, please specify)
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APPENDIX 4.

Post-Experimental Questionnaire

Dear respondent,

The current questionnaire is conducted for the purpose of the research aimed at the level of satisfaction with the existing recovery plan within your sports club. The confidentiality of responses is guaranteed. Please devote 15 minutes to answer the questions below.

Please tick the number that best represents your response to each question

Scale: 1 - strongly disagree; 2 - disagree; 3 - neutral; 4 - agree; 5 - strongly agree

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Please answer in few words the following questions:

17. Which of the offered recovery modalities were the most efficient? (please specify)

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18. What kind of recoveries, in your opinion, could be successfully integrated in the existing recovery plan?

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### APPENDIX 5.

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<td>Fruit &amp; Drink time</td>
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APPENDIX 6.
APPENDIX 7.

Ice baths  ✔
Music  ✔
Chromotherapy  ✔
Stretching  ✔
Meditation  ✔
Nutrition  ✔
Aromatherapy  ✔
Amenity Greenary  ✔
Cold water immersion  ✔
Massage  ✔
Sauna  ✔
Sleep  ✔
Autogenic training  ✔
Breathing  ✔
Relaxing massage  ✔
Yoga  ✔
Socializing with team  ✔
Communication with the coach  ✔
Lectures  ✔
РЕЗЮМЕ

Тема данной исследовательской работы - веллнес профессиональных спортсменов после тренировок: разработка плана восстановления для эстонских футболистов. Следует отметить, что профессиональный спорт неразрывно связан с высоким риском повреждений и травм, постаянными физическими и эмоциональными нагрузками. Более того, профессиональные спортсмены регулярно сталкиваются с жесткой конкуренцией, так как каждая команда имеет собственных фанатов, которые ждут от них высоких результатов. Автор считает, что должное внимание следует обратить на веллнес спортсмена чтобы поддерживать наибольшую эффективность его результатов. Специалистам, работающим со спортсменами, не следует недооценивать ни одно из направлений веллнеса. Один из вариантов поддержания веллнеса спортсмена – создание правильных условий для восстановления после тренировок и игр. В ходе предварительного исследования существующих планов восстановления автор столкнулся с проблемой отсутствия современных источников. Более того, в основном внимание уделяется улучшению физического направления веллнеса через восстановление, в то время как эмоциональный, духовный и социальный аспекты недостаточно изучены. К тому же, в течение последних лет на территории Эстонии не проводилось исследований, направленных на выявление положительного влияния восстановления на Эстонских профессиональных спортсменов. Учитывая все вышеупомянутые факторы, автор решил изучить данную тему более детально.

В начале исследования автор сформулировал следующую гипотезу: спортсменам требуется более продуманный план восстановления для того, чтобы улучшить их веллнес. Для проверки данной гипотезы автор опросил команду из двадцати футболистов Эстонского футбольного клуба Х, который является членом высшей лиги. Также автор провел интервью с тренером данной команды, чтобы узнать мнение с разных углов. Для подтверждения или опровержения данной гипотезы автор провел эксперимент, который длился один месяц. В ходе этого эксперимента автор предложил собственный план по восстановлению, учитывающий такие веллнес направления как не только физический, но и эмоциональный, духовный и социальный.
На начальной стадии исследования автор поставил следующий вопрос: какой план восстановления мог бы быть эффективным для улучшения веллнеса спортсменов. Целью данного исследования являлся анализ основных принципов эффективного плана восстановления, улучшающего различные направления веллнеса профессионального спортсмена и применить полученные знания на практике, предложив собственный разносторонний план восстановления. Основываясь на поставленной цели автор сформулировал следующие задачи: на базируясь на теоретических данных, выявить доступные методы восстановления, которые могли бы существенно улучшить веллнес спортсмена, провести эксперимент для проверки эффективности предложенных методов восстановления, предложить возможный план для эффективного восстановления, который будет учитывать не только физический но и эмоциональный веллнес.

После проведения эксперимента и анализа результатов опросников и интервью, автору удалось подтвердить гипотезу. Было замечено, что до эксперимента спортсмены клуба X находились в постоянном стрессе и испытывали усталость и утомление, которые были в дальнейшем устранены с помощью улучшенного плана восстановления. Таким образом, стало очевидно, что необходимость улучшенного восстановительного плана действительно существует. После эксперимента игроки стали более спокойными, сконцентрированными и менее напряженными. Также автору удалось ответить на вопрос исследования и выяснить, что план восстановления должен быть разносторонним, направленным не только на физический, но и на эмоциональный, духовный и социальные аспекты веллнеса.

Данная работа основывается на шести задачах сервис дизайна. Работа состоит из введения, трех основных частей, заключения и завершается коротким резюме на русском языке. Первая глава разделена на три подраздела в которых представлена теоретическая база на тему сервис дизайна в контексте профессионального спорта, веллнес концепция и ее направления и виды восстановления. Вторая глава включает в себя метод исследования, описание участников эксперимента и способ сбора информации. Так же эта глава включает анализ информации, собранной в интервью и опросниках. Третья глава объединяет теоретическую базу с
результатами анализа и описывает предложения автора по улучшению существующего плана восстановления клуба Х. Заключение кратко описывает результаты, ограничения в проведении исследования и предложения для будущего развития темы.
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I, Ksenia Vainberg

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WELLNESS OF PROFESSIONAL SPORTSMEN AFTER TRAINING SESSION: DESIGNING RECOVERY PLAN FOR ESTONIAN FOOTBALL PLAYERS

supervised by Monika Übner, Senior Research Fellow, PhD

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Pärnu, 20.05.2015