MOVE THE MIND – KNOWLEDGE BASE

Awareness and understanding of the potential contribution that sport can have on mental health and mental well being

Dirk Steinbach, Gyöngyver Lacza, Lene Handberg, Judit Boda-Ujlaky, Pritha Chakravarti, Matthias Gütt

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Content

1 INTRODUCTION

The World Health Organization (WHO) defines mental health as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO 2004, p.10). However, a vast amount of available data shows that large parts of the population are not in such a state of good mental health, but are temporarily or permanently affected by various forms of mental disorders. According to the WHO's definition, mental disorders represent disturbances to a person's mental health that are often characterized by some combination of troubled thoughts, emotions, behaviour and relationship with others.

It is important to understand that this is a major health problem, with one in four people in the world being affected by some problem with their mental health at some point in their lives (WHO 2014a). Meaning that mental disorders are the leading cause of disability and the third leading cause of overall disease burden after cardiovascular disease and cancer in Europe. The individual, social and economic costs have been described in great detail (Mental Health: Fact Sheet, WHO 2018).

The COVID-19 pandemic has exacerbated this problem and has also shown to large parts of the population how vulnerable each and every one of us is in terms of both, our physical and mental health: "[...] the mental health impact of the pandemic is going to last longer than the physical health impact," said for example Dr. Antonis Kousoulis, Research Director of UK's Mental Health Foundation. Andrew Solomon points out in an article for The Guardian that „many [had] fear of getting sick and dying, fear of losing people they love, fear of unpredictable shortages and economic disasters" [in The Guardian, 13.04.2020].

At the same time the potential mental health benefits of sport and physical activity have also gained more public recognition during the COVID-19 pandemic. Physical activity, exercise and sport have been widely recommended as tool to maintain a good mental health status (Scherr and Claussen 2020).

This is the starting point from where the Move the Mind project kicks off. Sport and Exercise as a tool to promote mental health and well-being. This document is meant to create the necessary knowledge base and, above all, to define the theoretical and content-related project scope.

1.1 Project Set-Up

Move the Mind is an awareness raising and empowerment project that is co-funded by the Erasmus+ Programme of the European Commission as a Collaborative Partnership in the field of Sport.

The main aim of the project is to help working-age adults to better cope with the challenges of everyday life in times of social crisis by harnessing the positive impact of physical activity and sport on mental health.

Against this aim, the project's work programme is based on three pillars:

(1) Increasing the knowledge base regarding the positive impact of sport and physical activity on mental health. For this purpose, the already existing data and findings will be compiled and systematically processed in order to make this knowledge more accessible to both sports coaches and the actual target group. The paper presented here is intended to create the basis for this.

(2) Building the required capacities in sports coaches at sports participation level. A practice oriented CPD training module aimed at professional and volunteer coaches and instructors who already have a basic teaching competence in sport will be developed for this end.

(3) Directly empower working-age adults to use physical activity and sport as a tool to maintain or improve their mental health and well-being. Relevant information on this topic is prepared on the project website in a way that is tailored to the target group.

1.2 Target Group(s)

Working-age Adults

The very broad group of working-age adults is the actual target group of our project. People with specific mental illnesses are part of this target group, but due to the preventive approach of the project, they are not explicitly in the focus. More explanations regarding the relevance and selection of this target group is given below.

Sports Participation Coaches and Instructors

As a second target group, the project will address sports coaches and instructors who work with the final beneficiaries within the framework of sports and physical activity programmes. The focus is on participation and health-oriented sport.

Competitive and elite sport with its special requirements and constraints (and thus also the coaches working in this field) are deliberately excluded at this stage.

2 WORKING MODEL / RESEARCH LOGIC

The thematic field of sport and mental health is broad, different levels, perspectives and target groups have to be taken into account and the interrelationships between the different aspects are complex.

In order to present the state of research in a structured and systematic way and in order to successfully narrow down the theoretical and thematic scope of the Move the Mind project, this paper will follow the structure and logic of the working model below:
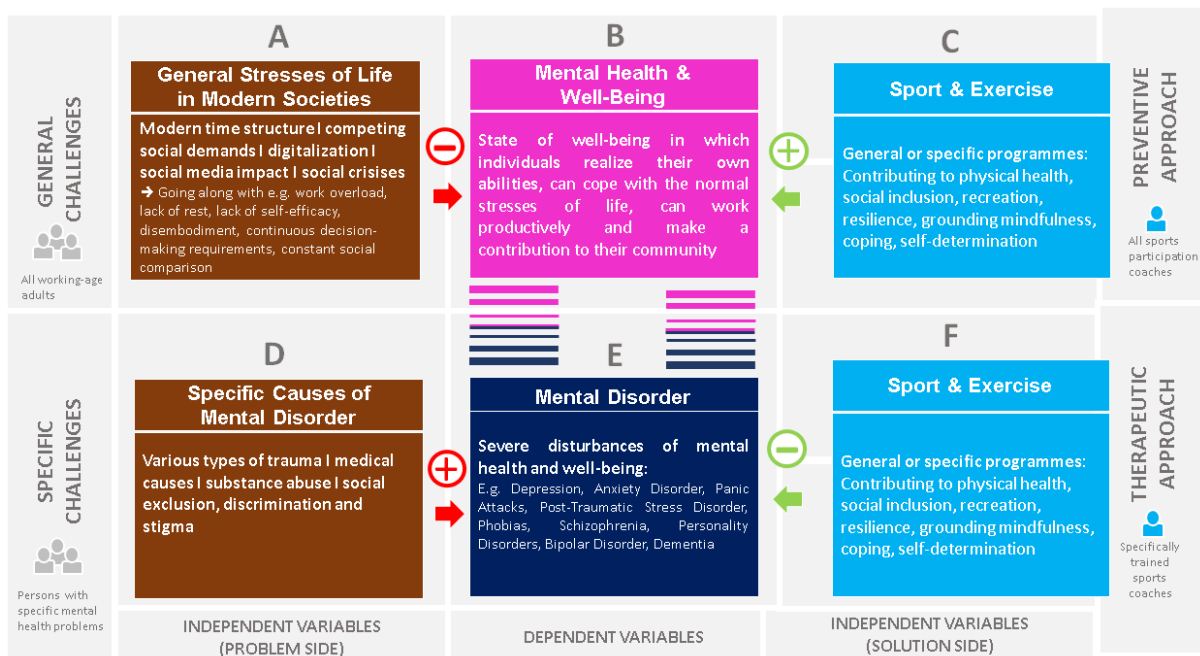

Fig. 1: Move the Mind - Working Model

[1] Mental health & well-being (box B) and mental disorders (box E) are positioned in the middle of our model. They should be considered as the poles of a fluid continuum and represent the dependent variables in our research logic.

[2] On the "problem side" of the model, they are impacted by various independent variables. These can be rather generic challenges (box A) which we have grouped under the label of `general stresses of life in modern societies´. This includes for example our social time structure or the increasing impact of social media. These factors have an impact on almost all of us, they are not considered to be specific or direct causes for mental disorder, but they can have a negative impact on a person´s mental health & well-being.

People that are not only in a state of poor mental health and well-being, but are (already) affected by more severe mental disorders have usually been impacted by specific causes or triggers of mental disorder (box D) such as trauma (abuse, accidents, combat) or medical causes such as brain injuries.

Social crises that threaten people's basic needs for security, prosperity, identity, etc. can act as catalysts or amplifiers of these factors at both levels (box A).

[3] On the solution side of the illustration, sport & exercise are also defined as independent variables. We assume that sport and exercise can have a preventive impact on our mental health issues (box C) or even be used for therapeutic purposes (box F). This distinction between a preventive and therapeutic level is of particular importance with regard to the content-related scope of the project. The envisaged training module for sports coaches is for example aimed at (voluntary) sports coaches and instructors who are qualified to offer prevention-oriented sports activities, but who cannot and may not be expected to work therapeutically in this field. At both levels sport and exercise can be applied as a general resource (physical health, recreation, social inclusion) or in programmes that are specifically designed to promote mental health & well-being in a targeted way.

[4] At this stage, the focus and scope of Move the Mind clearly relates to the upper part of the working model. The main objective is to reach the broad target group of working-age adults and to raise their awareness for sport as a preventive tool for maintaining not only ones physical but also mental health. We also recognise the need for and the benefits of sport and exercise as a tool for therapeutic support in the treatment of more severe mental disorders. Yet, this aspect has to be put on hold for the time being in order not to overburden the coaches and instructors involved.

However, it is known that people who are suffering from more serious forms of mental disorder are also less likely to be physically active, which in turn correlates with other health problems (e.g., all forms of non-communicable diseases). This means that a better understanding of mental illnesses and the specific requirements and needs of this target group can also be part of a CPD programme for sports participation coaches. The ambition, however, should not be to provide therapeutic support by these coaches, but rather to contribute to the accessibility of general exercise-related activities and programmes for people with mental health problems. The principle of "do no harm" is particularly important for the coaching of this target group, which can best be achieved when more sports participation coaches are informed about the different types of mental illnesses and the specific needs of those affected.

2.1 Guiding Questions

In addition to the working model described above, the presentation of the state of knowledge will be guided by a logic, that follows the following set of questions:
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Question 1: What are the typical challenges to our mental health & well-being and which physical, social or psychological needs can be derived from these stresses?

Question 2: How can sport and exercise respond to the identified needs and how do coaches and instructors then have to design their sports programmes so that the activities can unfold the envisaged preventive mental health effect?

Question 3: What attitudes, skills and knowledge do coaches and instructors need for this and how can these competences be conveyed in a targeted and practical way in a CPD course with a rather limited timeframe?

2.2 Academic and Practical Perspectives

Move the Mind is set up as a collaborative partnership, with experts from different backgrounds involved. We will try to make use of this diverse expertise, considering different academic and practical perspectives when answering the above-mentioned guiding questions.

Four basic perspectives may be particularly relevant for our project:

A sociological perspective: What are the societal demands and stress factors that can have a negative impact on our mental health. How do these social structures affect the individual? Which social groups are particularly affected?

A psychological perspective: How do we experience these societal demands and stresses, what needs do we have that need to be satisfied in order to stay mentally healthy. How do we process general and specific stresses and experiences and under what circumstances does this make us ill? On the other hand, what cognitive and emotional resources protect us from becoming mentally ill?

A physiological perspective: Which health-relevant physical processes are activated by the respective external stresses, and how do sport and exercise act as protective factors in this context? How must a training programme be designed from a physiological point of view in order to achieve a corresponding health-promoting effect?

A pedagogical perspective: How should sport and exercise programmes be designed from a pedagogical perspective in order to strengthen the mental resources of the participants? What is important when conveying the content and what role do coaches and instructors play in this?

Furthermore, we will also include the perspective of Eastern Inner Science, which claims to shed light on human capacities that are relevant for our mental well-being but "almost forgotten in modern societies" and that are naturally supported in sport (Handberg 2021).

And last but not least, we will also include the findings from training theory and the practical experience of experts from the field of coaching and coach education in this description of the current state of knowledge.

3 GENERAL AND SPECIFIC CHALLENGES ➔ RE-SULTING NEEDS AND MENTAL HEALTH THREATS

3.1 General Stresses of Life and Derived Threats to our Mental Health & Well-being (see working model box A ➔ box B)

In this section, we will first describe selected developments and characteristics of modern socie-ties and then derive the typical demands, stresses and unmet needs that eventually become a burden on our mental health and well-being.

Section 3.1.1. will identify the most important developments with the most wide-ranging impact and specifically highlight the role of repeated social crisis.

Section 3.1.2 will refer to these developments and relate them to selected theoretical concepts in order to show how exactly these external factors can affect our perceptions and psycho-social needs and thus our mental health and well-being.

3.1.1 Selected Developments and Characteristics of Modern Societies

The following description of selected social developments and characteristics is neither complete nor detailed. The aim is merely to demonstrate which general demands typically affect the target group of working-age adults in order to better understand which physical, social and psychological needs arise from these conditions and which in turn can threaten our mental well-being if not properly addressed in due time.

The health effects of changing environment, not only due to crises, but also rapid changes in technology, work, energy production or urbanization, need to be taken into account. A recent discussion states that psychological factors and the surrounding social environment have a com-bined influence on the physical and mental well-being of individuals and their ability to function (Woodward, K. *Psychosocial studies: An introduction*. 2015), which are dependent on three main psychosocial factors: (1) human capacity, referring to physical and mental health and the realisa-tion of our own strengths and values; (2) social ecology, referring to the social connections and support; and (3) culture and values, referring to cultural norms, behaviour linked to the value sys-tem in each society (Ager, A. *Psychosocial needs in complex emergencies*. 2002; Psychosocial

Working Group. *Working Paper. Psychosocial Intervention in Complex Emergencies: A Conceptual Framework*. 2003).

In the following section we focus on (2) and (3), studying those factors that provide a common basis for better understanding the challenges of modern society. From there we can derive ways to strengthen (1) human capacity to be better equipped to deal with those rising challenges.

Modern Time Structure

Despite the fact that the average total amount of free time has continued to increase in recent decades, "time famine" has been identified as a major social problem in modern societies (Garhammer 2013). At the millennium turn, Garhammer has provided a systematic analysis of the changing time culture and time structure of modern societies. Based on theoretical considerations and empirical data, he identified a total of ten trends in European time culture which have further continued since then: acceleration, compression, permanence, deregulation, desynchronisation, individualisation, time management, fatalism, new time constraints and the economisation of time (cf. Garhammer 1999, p. 464). These developments at the macro level, which can be attributed largely to processes of social differentiation, have led to an increase in the complexity of dealing with time and to a tendency to shift the decision-making pressure from social to individual actors (Garhammer 2000, p. 307).

With the increased complexity of society, the number of potential options for action (opportunities and obligations) has also increased for the individual. At the same time, the internal and external pressure (self- and peer pressure) has increased to realise a large number of activities at a "qualitatively" high (and thus particularly time-consuming) level (i.e. for example, to experience actions intensively, to fulfil duties at work or at home in the best way possible, etc.). In this regard, it is not only the role demands of the employment or family system that are contributing to problems in respect of time use but also, to an increasing degree, the demands arising from the aspirations of leisure system roles which people have chosen for themselves. To the extent that people engage in "serious leisure activities" and identify themselves via such activities, the organization of leisure time frequently appears as a Zeitgeber of equal status beside work and the family. Time scarcity at the individual level is a consequence of this development (Steinbach 2006).

Furthermore, the deregulation of standard working hours (i.e. most people work nine to five) is accompanied by a deregulation of other social institutions (e.g. the standard school day, limited shop opening hours, free Sundays etc.) which in turn leads to a far-reaching de-standardisation and de-synchronisation of other social and individual time structures.

As a result, increasingly complex synchronisation efforts become necessary at the individual and family level, while generalised and collectively accepted restrictions and criteria that could support the individual in these processes have largely been lost. Due to this permanent experience of time scarcity and pressure to make time related decisions, the individual handling of time has become a great challenge and a highly stressful task for many individuals (Steinbach 2004).

Competing Social Demands

Problems of competing social demands and growing time scarcity can primarily be traced back to the functional differentiation of society. This becomes clear when we are looking at simple, not yet differentiated societies. In such a social environment, all individual options to act can be realised one after the other, with all interaction partners being available at the same time due to a lack of alternative opportunities. With the increasing functional differentiation of society, this is no longer possible. Competing demands for time and time scarcity arise:

Bala defines time scarcity as a "deficit between the time required for the satisfaction of needs, the fulfilment of role expectations and the realisation of desired goals on the one hand, and the time actually available on the other." (1978, S. 26). Time scarcity or at least "...the impression of time scarcity thus arises from the difference between what would be possible [or necessary] in a situation and what can be realised." (Bergmann 1981, p. 166) or, according to Luhmann, when the amount of potentially perceivable and experienceable events exceeds the personal time horizon (Luhmann 1968, p. 13).

The expansion of options for action can be observed in two respects: On the one hand, there is a purely factual increase in the available alternatives; on the other hand, an additional temporal expansion also becomes evident:

The factual increase in options for action is exemplary and particularly obvious in the leisure system. Michels refers to this as the market of opportunities (Michels 1999a, p. 21). To give just one example, the number of "sports" has increased from a few dozen to several hundred over the last 30-40 years. Similar examples could be given for almost any other area of life. This factual complexity is further increased by the fact that there is also an expansion of the time frame in which the individual options for action can be realised. The emergence of "round-the-clock" fitness studios is one example of this development within the daily time frame, but the same trend can also be seen with regard to the larger perspective of life: Education-, family- and leisure-time careers are for example determined a lot later in life today than previously. Possibilities or options that used to disappear when people reached a certain age remain much longer (the first child at forty, the first marathon at fifty or the first day at University as a senior student at sixty). This can temporarily

reduce the selection pressure in that an option not chosen is not lost for good, but is theoretically only postponed into the future. However, this means that the number of alternatives for what one would still like to do or could experience remains high, while the personal time horizon becomes ever shorter in the course of life.

> If, on the psychological level, this multiplicity of options leads to the individual wanting too much, taking on too much, making too many commitments, the feeling of missing out on something or not achieving their goals will manifest itself for them because they ultimately lack the time (cf. Steinbach 2004).

The extent to which the necessity or pressure to choose between available options and obligations to act is felt depends to a large extent on the existing self- and external demands. Ellguth, Liebold and Trinczek describe this dilemma as an example for their study group of young male managers, whose time problems they explain against the background of increasing external and self-demands: According to the "double squeeze thesis" developed by the authors, external demands from the world of work for "flexibility, willingness to be mobile and unlimited commitment to the cause" (1998, p. 518) meet with equally increased external and self-demands in the family context (for example, the stronger identification of young men with their role as fathers and the resulting increased self-demand to actively participate in raising children (Ellguth et al. 1998, pp. 525-527).

A similar problem is described for those who sociology describes as the "generation sandwich". Middle-aged men, but a lot more frequently middle-aged women, who are literally squeezed between the obligations for their parents in need of care and the needs of their own, often still minor, children. They are embedded in multigenerational responsibilities whether financially, physically or emotionally. The sandwich generation often juggles a full-time job with unpaid roles as caregiver to children and parents. Ever larger numbers of grandparents are coming under this umbrella, as they are increasingly being relied upon for childcare for their grandchildren, as well as continuing their own jobs or caring for their aged spouses, friends or relatives.

Continuous Digitalization of all Areas of Life

Today's private and professional world consists of communication through a number of (predominantly) digital channels. The all-pervasiveness of smartphones means the availability of internet at all times, which can be a convenience at the best of times and an addictive inability to "switch-off" at the worst of times. Driven by a fear of missing out many people check their communication channels several times a day, leading to constant levels of anxiety, distraction and a constant need to be up to date or connected online. Ironically, these feelings of connection are seldom

meaningful enough to have beneficial effects on our feeling of connectedness – instead they might be only distracting us from our actual personal and professional lives.

Research shows that high smartphone and internet usage is correlated to poor cognitive skills such as attention, memory and learning. This shortened attention span causes forgetfulness and creates a culture of always multi-tasking. Flipping through multiple television channels, switching between multiple screens for entertainment and repeatedly checking various social media are some examples of restlessness and a short attention span.

We also know that using smartphones before bedtime decrease melatonin production, thereby reducing the quantity and quality of sleep – which has a direct relationship to increased anxiety and depression. Upward social comparison tends to have the same effect, by harbouring feelings of inadequacy in comparison to others.

Embodiment, the sense of being localized within one's physical body, is a fundamental aspect of the self. Multi-sensory integration of body related information is processes differently in our brains, compared to disembodied processes. As more and more experiences, tasks and interactions become digitalised, the time spent in disembodied processes has rapidly increased in modern society.

At the same time, online content is moving faster and competing for our attention. A person scrolling social media is exposed to different images and sounds that change by the second. Each image, piece of information or sound evokes a different thought or emotion. Sensory overload follows when the brain is unable to process all the information it is exposed to in that time. A recent survey showed that more than 65% people reported feeling anxious and overwhelmed after listening to the news (San Francisco Chronicle, 2020).

Sensory overload might be more common for people with ADHD, anxiety and those on the Autism spectrum, however, it has been tied to symptoms of stress, specifically - reduced sleep, irritability, headaches, panic attacks and mood changes even in neurotypical adults. As the number of digital stimuli continue to mount in our lives, finding a "reset" button, a concept from sensory integration theory is key to calm an over-stimulated nervous system.

Concepts borrowed from therapeutic fields for treating sensory overload in autism, which is accompanied by heightened sensory sensitivity, can be applied to preventative measures in neurotypical adults, helping them to overcome sensory overload. Sensory activities that help embodiment, especially those that carry

meaningful sensory experiences to counterbalance digital stimuli are important tools in sensory integration.

Increasing Influence of Social Media

Researchers have investigated the effects of social media use on mental well-being with mixed findings. While some studies have reported lower subjective well-being, others have found that non-excessive usage of social networking sites shows positive effects on user's well-being.

A moderating factor of the effect is thought to be social comparison orientation (Wang, J. L., Wang, H. Z., Gaskin, J., & Hawk, S. (2017). Upward social comparison occurs when people compare themselves to someone, they perceive to be superior. With social media providing ample opportunities for people to present their lives as perfect, upward social comparison can tend to induce negative feelings, thereby decreasing user's self-esteem and psychological well-being. This may not always be the case, especially when engaging in downward social comparison, by comparing with people perceived to be inferior.

Nonetheless, digital stress and digital anxiety are very real phenomenon faced by a generation that is always connected and available via multiple media. Stress caused by negative interactions online or the anxiety caused by the inability to disconnect are just some of the struggles of today's society.

Evidence suggests that digital media provides a heightened awareness of network life events of a wide range of acquaintances. The awareness of undesirable life-events in others' lives, i.e., the cost of caring, is associated with higher psychological stress, especially for women (Hampton, 2016).

Scope and Frequency of Global Social Crises

Social crises refer to incidents arising from the disasters which endanger normal social order and public security, causing dysfunction in the social functioning mechanism. In 2008-2009, the world experienced its first financial crises since the Great Depression in the 1930s. The Global Recession had far-reaching effects, and though economies have now recovered, it is important to note the uneven progress in major economies. Social conditions are expected to recover only slowly, with social and economic inequalities growing (Global Social Crises, 2011). Since then, there have been an increasing number of global crises.

The Global Terrorism Index, 2020 stated that there are some signs that political violence is becoming more publicly acceptable, as the level of polarisation in society continues to rise. One of the worrying trends in the last five years is the surge in far-right political terrorism. Globally, in the more economically developed countries, social disenfranchisement and exclusion play an important role in terrorism. Although the impact of terrorism lessened in seven of the nine regions of the world in 2019, it continues to pose a serious threat to society.

The conflict in Syria is just one example of civil unrest and instability that has taken a substantial toll on hundreds of thousands of children and their families. The Syrian conflict alone has led to one of the largest refugee and displacement crisis of our time, affecting millions of people and spilling into many countries. It's also a protracted emergency, which is ongoing for over five years. Statistics show that the number of refugees and displaced people doubled in 2019 when compared to the figures in 2010.

Covid-19 has threatened years of progress by increasing global poverty and social inequalities, and reducing social cohesion. Vaccine inequalities and inequal access to technology exacerbate existing social fragmentation.

In spite of these above-mentioned risks, the biggest challenge to global society remains climate change, to which no one can be immune (Global Risks Report, 2021). "Climate action failure" is the most impactful long-term risk identified in the Global Risks Perception Survey. The incidences of climate change related natural disasters like droughts, cyclones, wildfires and floods are increasing at alarming rates. Entire eco-systems are endangered due to increasing global temperatures. Psychologists use the term climate grief to refer to feelings of sadness, loss, and anxiety in response to climate devastation, described as a response to the loss of cherished species, eco-systems, and landscapes due to climate change.

Already exposed to environmental degradation, the additional burden of the financial crisis, rising inequality and other social crises, this generation faces serious challenges to education, economic prospects and mental health (Global Risks Report, 2021).

Excurse: Increasing Dominance of Conceptual Awareness

In addition to the above mentioned "objective" socio-cultural conditions, Eastern Inner Science (EIS) adds "change of perceptive balance" to the list of challenges. Scholars from Eastern Inner Science observe a shift from a natural perceptive balance between language (conceptual perception: abstract/indirect) and non-language perception (sense perception: non-abstract/direct) to an increasing conceptual perceptive domination. (Tarab Rinpoche and Lene Handberg 2014).

This change is supported by the upbringing, and the school-, university systems, and most working fields of modern culture. In accordance with investigations within Eastern Inner Science, the general change back to the natural balance in "subjective" perceptive condition, would optimize the possibilities of dealing adequately with individually-, culturally- or natural environmentally determined challenges.

To understand the related mental health challenge, it is important to understand the differences between `conceptual, language-based perception´ on the one hand, and 'sense perception' on the other:

The 'object' of the conceptual perception is an abstraction, providing structure based on naming and description with possibility of analysis and comparison accordingly, however implying no direct access to the 'sense reality'; 2) The 'conceptual awareness' naturally and subconsciously screens out the not named without knowing what is screened out. 3) The 'conceptual reality' is naturally sensitive to changes in central self-reference and names selectively accordingly, (which under challenging conditions often would effectuate negatively biased perception, even (re-)victimization). 4) As 'conceptual awareness' has no access to what is not named, it automatically builds 'wholeness ideas' of the perceived entity, based on what is named, regardless of how many aspects have or haven't been conceptually addressed/named. (S. Mookerje and H. Nagasaki, 1964), (Muhr, C. and Handberg L., 2014).

Direct/non-abstract perception of the 'sense-realities' doesn't use language but still gives conscious perception, which is shared by all humans. i.e., when using the sense-awareness in a pure way (not mixed with ideas about s.th.), persons naturally join the 'common-human-agreement reality'. 2) Pure sensation brings the individual into the present moment and is thus stress releasing; 3) The body-sensation additionally provides the advantages of providing a place to be, reconnecting the inner resources, giving the feeling of being supported from within, naturally giving rise to resilience and grit; 4) Gives a joining effect (bringing into one piece), which reduces dissociative tendencies and related stress, on which basis persons enhance a natural feeling relation with oneself and to others – opening body-related intuition and empathy, undercutting loneliness, isolation, and restlessness. (Pruden, Leo M. 1988) (Muhr, C. and Handberg L., 2014)

The investigative material from EIS suggests that, in particularly under existential and challenging condition, it would be favorable for humans to deal with their environment from a more balanced condition in respect to abstract and non-abstract perception. In accordance with Dharmakirti, balancing the non-language perceptions (like the sense perceptions) and the language perceptions (like conceptual perception) opens an important complementary effect, (S. Mookerje and H.

Nagasaki, (1964): seeing what is normally not named or taken into account (within the directly perceived field), on which basis the conceptual awareness could have greater possibilities to creatively investigate the present condition for finding new creative solutions.

> The following needs arise when an individual or community experiences external threats or stresses as described in chapter 3.1.1.

3.1.2 Resulting Needs and Mental Health Threats

Our opportunities for a healthy life are closely linked to diverse individual conditions, such as gender, age, ethnicity, family, education; however, our environment also plays a crucial role. We all need good mental health to flourish, take care of ourselves and interact with others, thus social connections at community level are also decisive elements of mental health. Resilient and empowered communities respond proactively to new or adverse situations, prepare for changes, any economic, social and environmental changes, and cope better with crisis and hardship. Communities that cope better with crises, have proportionately better outcomes in terms of both health and other social determinants, such as social inclusion (WHO: *Health 2020: the European policy for health and well-being*, 2012). Unsurprisingly then, one of the priority areas of the European health policy framework (Health 2020) suggests creating supportive environments and resilient communities.

Need for Adequate Stress Response

"Stress", as it is currently used was coined by Hans Selye in the 1930s, who defined it as "the non-specific response of the body to any demands for change", or with other words "the rate of wear and tear on the body" (Selye H. *The Stress of Life*. 1956). When it comes to mental health from an individual perspective, whether in times of crises or in everyday life, "coping with the normal stresses of life" is an important notion to clarify.

There can be four neurobiological responses to danger: fight, flight, freeze, and fold/fawn. While fight and flight are well-known stress responses, lesser-known responses are the freeze and fold/fawn or appease responses. Fight and flight were most beneficial when humans were nomadic hunter-gatherers. If one were hunting and suddenly chased by a dangerous predator, one's first instinct will likely be to run away. Or, if trapped, one might attack to protect and defend oneself.

Freeze refers to tonic immobility where the nervous system is activated and the person is not able to fight or flee. The freeze response is the most primal system within mammals and can be dated

to almost 400 million years ago in our evolutionary history. It is an extraordinarily rapid flexion response that causes complete shutdown, an innate protective process that adopts a physiological and biochemical reaction mimicking death; a process that is only initiated when the ability to fight or flee is inhibited. The fourth response refers to the act of accommodation, where the person's brain and body respond by appeasing an attacker or initiating interactions as a way to minimize further danger.

> A lot of modern threats are abstract, thus creating constant, low-level stress, not things that we can attack or run from; thus, the body is often in prolonged periods of low-level stress response, i.e., in the Dorsal Vagal state of arousal. This is not the environment our nervous system evolved to be in.

As a result, it is common that the body decides to deal with this situation of being "trapped" and unable to respond satisfactorily by "checking-out", both mentally or physically, called "dissociation". This causes one to feel powerless, hopeless, helpless or depressed.

We then need to return to the stage of social engagement or the "green zone". This can be achieved by activating the ventral vagal nerve network, triggering calmness and signalling safety in the current moment to the brain. An awareness of one's physical state, sensations and needs; as well as social cues, are the first steps in responding to one's nervous system, limiting the effects of stress and preventing dissociation.
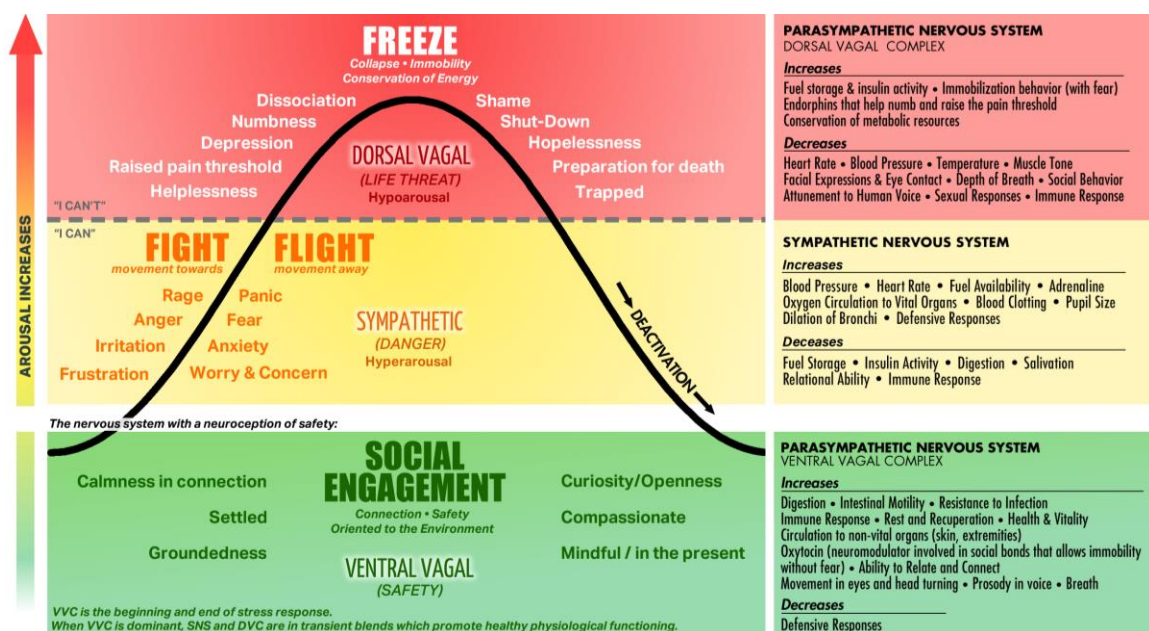

Figure 2: Polyvagal Chart. Source: Ruby Jo Walker (rubyjoewalker.com)

Selye H. (1956) explained the physiological responses of the body to stress in his stress model called General Adaptation Syndrome (GAS). GAS is a three-stage process composed of an (1) alarm reaction, when the body responses to stress with a "fight or flight" reaction, characterized by increasing heart rate caused by adrenalin that boosts energy; and (2) resistance stage, when the body begins to repair itself, and heart rate and blood pressure begin to normalize until it reaches the pre-stress state. Thus, increased stress results in increased productivity, so stress can even motivate people to accomplish more.

However, if stressful situations continue for extended periods of time and cannot be resolved, the body stays on high alert, gets used to higher stress levels and reaches a stage when it is unaware to cope with stress. This is (3) exhaustion, the third stage of the General Adaptation Syndrome, which is the result of prolonged and chronic stress with physical, emotional and mental symptoms, such as weakened immune system, risk of illness, fatigue, decreased stress tolerance, anxiety, burn-out, depression, or even breakdown.
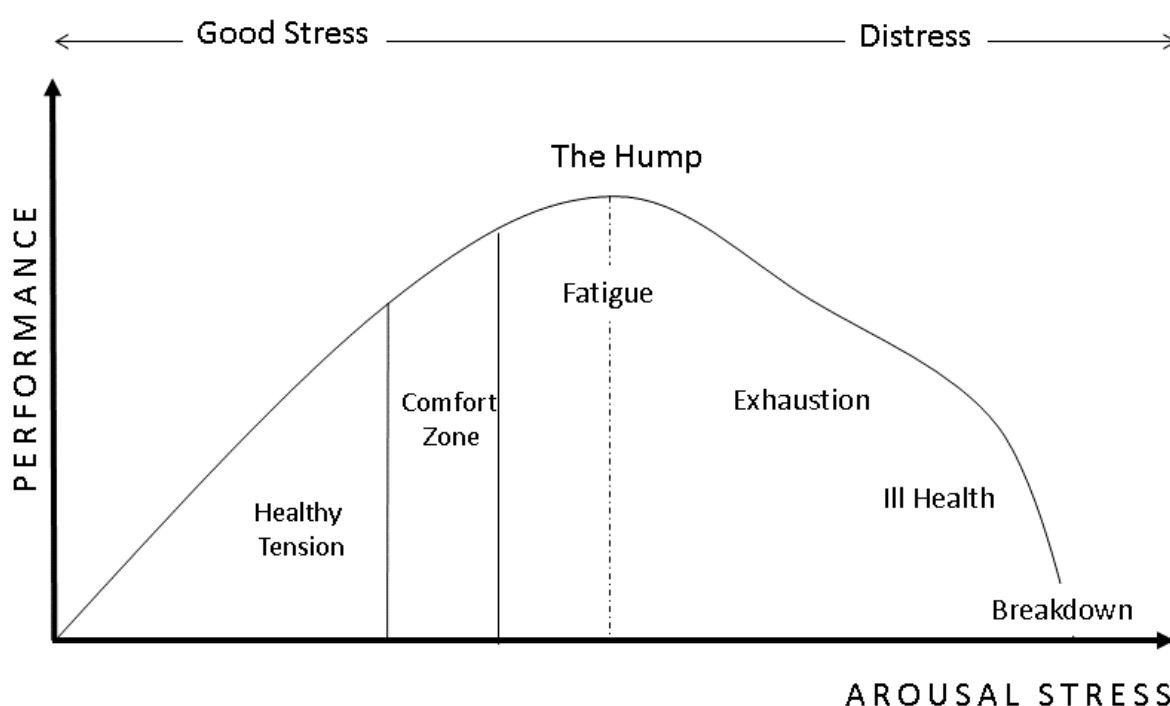

Figure 3 Stress Response Curve. Adapted from Nixon, P.: Practitioner 1979)

Stress adaptation is highly individual, so its peak (the hump between resistance and exhaustion) differs for each of us, and it occurs with any type of stress or stressor. These stressors can be any

trauma, medical problems, family breakdown, and financial troubles: all of these are common consequences of crises (The American Institute of Stress, 2017).

Due to the nature of the abstract threats and stressors of modern life, most threats do not warrant a physical response. Consequently, there is no release or relief from this state of high alert. Over time, people plunge into the third stage of GAS, with all its associated mental and physical health complications. In these cases, there is a need for the body to repair itself (resistance stage) and return to its "baseline state" or "Ventral Vagal". Endorphins released during exercise, autoregulation exercises designed to increase strength, breathing exercises to induce calmness or sports bringing in elements of social interaction or creating a state of flow are various ways to assist the nervous system to repair itself.

Need for Recovery, Regeneration and Recreation (physical and mental)

Regeneration means giving both body and mind a rest after stress in order to restore the original performance capacity. After physical stress in the occupational context, in everyday life or leisure, periods of rest are of great importance. In sports they are an important element and a fundamental part of any adaptation and training process. In case of permanent strain and exhaustion of the body combined with a lack of regeneration (nutrition, breaks, sleep), counterproductive effects such as overtraining occur. Injuries, fatigue, muscle tremors, coordination problems, heart rate changes or sleep disturbances are possible physical consequences. The duration of the required recovery can range from a few hours after athletic training sessions to many weeks or months after overcoming infections, illnesses or longer periods of stress.

While the need for physical recreation is relatively obvious and can only be ignored to a limited extent over longer periods of time, the need for psychological or mental recreation is less tangible and more difficult to determine.

Research tells us, along with our own experiences that taking part in recreational activities can help to improve our fitness and our capacity to deal with the physical challenges of everyday life. But participating in a wide and varied range of leisure and recreation activities, can also help an individual to manage stress levels and help to reduce or slow down different forms of mental disorder such as for example the onset of depression. However not all free time activities mean leisure to all.

The classical view of leisure derives from ancient Greek philosophers. Leisure to ancient Greeks was an ideal state of being, a lofty lifestyle composed of the proper activities made possible by the refinement of the mind.

A noteworthy approach sees leisure from the point of view of its quality, as a state of mind. The source of this philosophy is based on the theory of Aristotle. Neulinger supported this ancient theory and proposed a leisure model, which attempts to translate this approach into modern scientific language. His model was based on two dimensions: perceived freedom and motivation. This definition of leisure is known as the subjective definition. According to this approach, the individual's state of mind at a given moment determines whether the expression given to his actions is the expression of leisure that stems from perceived freedom. The type of motivation for this expression and from the quality of the motivation affects the quality of leisure - whether it is intrinsic, like pleasure and gratification, or extrinsic, like material reward, prize and fame (Ruskin 2002). Sebastian de Grazia (1952) in his book Of Time, Work, and Leisure goes still further in pushing the subjective view of leisure. He noted that leisure is an ideal, state of being, a condition of man, which few desire and fewer achieve.

Referring to Henderson and Sessoms (1994: 83) two basic views of recreation exist. Some theorists analyse the recreation experience in terms of its meaning and motives. Others view recreation as a pleasurable and entertaining activity pursued for their own sake during periods of leisure time.

Dattilo and Murphy (1991: 3) commit that typically recreation has been defined as an activity in which people engage primarily for enjoyment and satisfaction. The notion of recreation is related directly to the activity and it is dependent on the feelings and experiences of individual participants.

Grey and Greben (Godbey 1985: 10, 1974) have suggested that recreation, rather than being set of activities, is an emotional condition within an individual human being that flows from a feeling of well-being and self-satisfaction…. It reinforces self-image. It is a response to achievement of personal goals or positive feedback from others. It is independent of activity, leisure or personal acceptance. This definition stresses the response to activity rather than the activity itself. This means that we might experience recreation in our paid job as well, since the definition states that the emotional condition of recreation is independent of leisure. This makes a major difference with the before mentioned approaches.

Despite all different approaches about the definition of the word recreation there is a general agreement on some basic elements of recreation, summarised by Neumeyer and Neumeyer (1958). Such as (1) recreation is an individual or collective activity that can occur during leisure, (2) it must have some element of intrinsic value (it may also have extrinsic value) (3) the chief motive is the satisfaction of participating in the activity and (4) social stimulation and cultural influences shape specific forms of recreation. (Smith, 1983: 254)

In summary, of the western conceptualisation, recreation can be defined as an activity, which occurs during moments of freedom for satisfaction, derived from positive and meaningful experience. In this study recreation is therefore going to be examined from a comprehensive understanding. The exploration will not be limited on sport related fields of recreation but also be open to a broader perspective on experience and physical activity-based recreation.

Need to Focus on the HERE and NOW

In modern Western societies, future-oriented forms of time perception dominate. At the same time, we are permanently confronted with competing social demands and, through our intensive use of digital tools and social media, we are connected always and everywhere (see above). This leads to a permanent state of *"not being ready yet"*, of *"still having something to do"*, of *"also having to focus on another place",* etc. Such a mindset makes it difficult to switch off, to recover, to come to rest etc. A need arises to interrupt this constant background noises and to be at least temporarily mentally in the here and now.

Eastern Inner Science refers to this need by focusing on the concept of grounding, which is a coping strategy that is designed to "ground" us in, or immediately connect us with, the present moment. Grounding means to bring focus to what is happening physically (instead of cognitively), either in our body or in our surroundings, instead of being trapped by dissociative experiences (Handberg 2021).

Mindfulness is another concept that relates to the idea of having a psychological need for connecting to the present moment and situation. Mindfulness research suggests that the origins of mindfulness practice reach back to *Eastern Inner Science* of mind and associates mindfulness practice with numerous positive psychological benefits, such as lower levels of anxiety, reduced stress and emotional 'reactivity', managing subjective pain, heightened awareness, improved well-being in terms of regulating and expressing emotions, helping in better sleep, avoiding distraction, developing coping strategies, self-compassion and resilience (Moor, 2020)

According to the American Psychological Association mindfulness is "*a moment-to-moment awareness of one's experience without judgement. In this sense, mindfulness is a state and not a trait. While it might be promoted by certain practices or activities, such as meditation or yoga, it is not equivalent to or synonymous with them*" (APA 2012). Another definition comes from Jon Kabat Zinn, who is considered as the father of Mindfulness-Based Stress Reduction (MBSR), stating that "*the awareness that arises from paying attention, on purpose, in the present moment non-judgementally*" (Kabat-Zinn 2015).

Mindfulness-based stress reduction (MBSR) is a standardised meditation programme since 1979 which combines Buddhist meditation with contemporary psychological practice. Originally it was designed for people living with chronic pain, but in the last decades it proved to be an effective intervention for different psychological disorders. It develops a special kind of attention, accompanied by non-judgemental awareness, openness, curiosity and acceptance of inner and outer experiences in the present moment (Chiesa & Serretti, 2009).

MBSR is comprised of three techniques:
- body scan (gradual sweeping of attention through the entire body, focusing noncritically on any body sensation)
- sitting meditation (mindful attention on the breath and abdomen and non-judgemental awareness of cognitions, thoughts and distractions)
- Hatha yoga practice (breathing exercises, simple stretches and asanas)

Chiesa and Serretti (2009) in their meta-analyisis point out that MBSR has a significant nonspecific effect on reduction of stress in healthy people, though it is not clear which of the components contribute to this result. Sagui-Henson, Levens, and Blevins (2018) suggest that MBSR contributes to reduced stress perceptions and stress reactions, and as a consequence, to better dietary habits (fruit and vegetable consumption), sleep quality and greater levels of physical activity.

As Brown (2015) summarized, mindfulness-based interventions enhance psychological well-being and mental health. Compared to relaxation techniques, mindfulness training enhances mood and positive affect, fosters positive interpersonal relationships, which, in turn, contribute to prevention of mental illnesses.

Another well-known concept, that deals with the value of present time perception is Csikszentmihalyi's flow theory: Flow is defined as a ''subjective state that people report when they are completely involved in something to the point of forgetting time, fatigue, and everything else but the activity itself'' (Csikszentmihalyi & Rathunde, 1992, p. 59). Particularly relevant to physical activity participation, flow is seen as a desirable state that carries the potential to enhance self-esteem and promote further participation (Stein, Kimiecik, Daniels, & Jackson, 1995). Research has shown that flow can be achieved in several areas of everyday life however, the leisure context is still considered by many, to be inherently conducive to flow given that leisure contexts often afford opportunities for free choice and to express one's personality (Mannell & Kleiber, 1997; Leckey & Mannell, 2000). Schüler and Brunner (2009) suggest that flow experiences may contribute to the long-term adherence to physical activity because individuals are rewarded for their activity and

are likely to seek this activity again. Experiencing flow, therefore, could contribute to the individuals' immediate well-being and also contribute to long-term beneficial health effects.

Research has further indicated that, in order to experience flow, people need to experience an optimal combination of personal skills and external challenges. This means that the tasks individuals are currently performing have to fit their performance level optimally. If the task is perceived as too easy, individuals experience boredom; and if it is perceived as too difficult, they experience anxiety.

Need for Sensory and Body Perception

In an increasingly digital world, sensory activities that help embodiment, especially those that carry meaningful sensory experiences to counterbalance digital stimuli are important tools in sensory integration.

As found by Eastern Inner Science, activating sense awareness and thus creating grounding is seen as a key factor in bringing harmony and empathy to oneself, providing a stabilising and anti-dissociative factor (see 3.1.1). Through increased body-sensation and reduced dependence on cognitive and language perception tools, one's self-reference feeling could be strengthened and deepened, leading to an increasingly internal support system (of simply being), feelings of safety, and natural grit and resilience. (Ètienne Lamotte 1973); (Tarab Tulku XI, 2014); (Muhr, C. and Handberg L., 2014); (Tarab Tulku Rinpoche & Handberg, L. 2021b)

Sport, as it naturally trains body sensation, could easily be used to regain and retain 'grounding' in body sensation. Obtaining firm 'grounding' and sustaining this condition, even when using conceptual awareness for inner monologues or outer communication with others, and even under challenging conditions that normally effectuates fear or depressive conditions to prevail, it would provide the complementary and stabilising factors for retaining grit and resilience.

Well-grounded individuals are for all the above-mentioned reasons, also better able to experience fulfilment, satisfaction, completeness, strength, dignity and joy (Handberg 2021).

A key learning from neuroscience is that the passage of time is a sensory experience constructed without sensors, as decades of research have not found any brain mechanism resembling a stopwatch. Therefore, slowing down the time percept using sensory activities through mindfulness, grounding and creating a state of flow will be a key takeaway from this section.

Need for Autonomy, Competence and Relatedness

In their self-determination theory on psychological growth, integrity and well-being, Deci and Ryan (1980, 2012 and Ryan &Deci, 2017) identify three basic psychological human needs, namely autonomy, competence and relatedness. Briefly summarised, autonomy means the need to self-regulate one's experiences and actions; competence refers to our basic need to feel effective and mastery in important spheres of life, lastly, relatedness concerns feeling socially connected., „…these needs, unlike a variety of other human desires or gratifications that motivate behaviour, are essential not only for optimal motivation but also for well-being" (Ryan & Deci, 2017, p. 11). The more these basic psychological needs are satisfied, the more autonomous regulation of behaviour occurs. „When autonomous, behaviours are experienced as emanating from, and an expression of, one's self. In contrast, behaviours characterized within SDT as controlled are those in which a person feels externally or internally pressured or compelled to act" (Ryan & Deci, 2017, p. 14). Intrinsically motivated behaviours are performed out of interest and as a reward we experience efficiency and joy. Extrinsic motivations differ in how much autonomy they can ensure for the person. Those motivations, that are congruent with the self (like „I go hiking every weekend with my family to be together and stay healthy", or „I have fun when dancing") are more autonomous, while working out for rewards and punishments are controlled forms of motivation.

Many researchers in the exercise domain (for a review see Ryan and Deci, 2017) have successfully assessed types of regulation and found, for example, that the more autonomous types of regulation (i.e., well-internalised extrinsic motivations, as well as intrinsic motivation) were predictive of moderate to vigorous physical activity. Markland (2009) found that when women had greater discrepancies between their actual and ideal body weights, they tended to be lower in autonomous motivation, which led them to exercise less (in Ryan & Deci, 2017). Interpersonal contexts that support the three basic psychological needs for autonomy, competence, and relatedness, enhance enjoyment, greater engagement, and sustained involvement in physical activity, whereas those that thwart the basic needs are detrimental to motivation and engagement in physical activity (e.g., Gunnell, Crocker, Wilson, Mack, & Zumbo, 2013 – see Ryan & Deci, 2017).
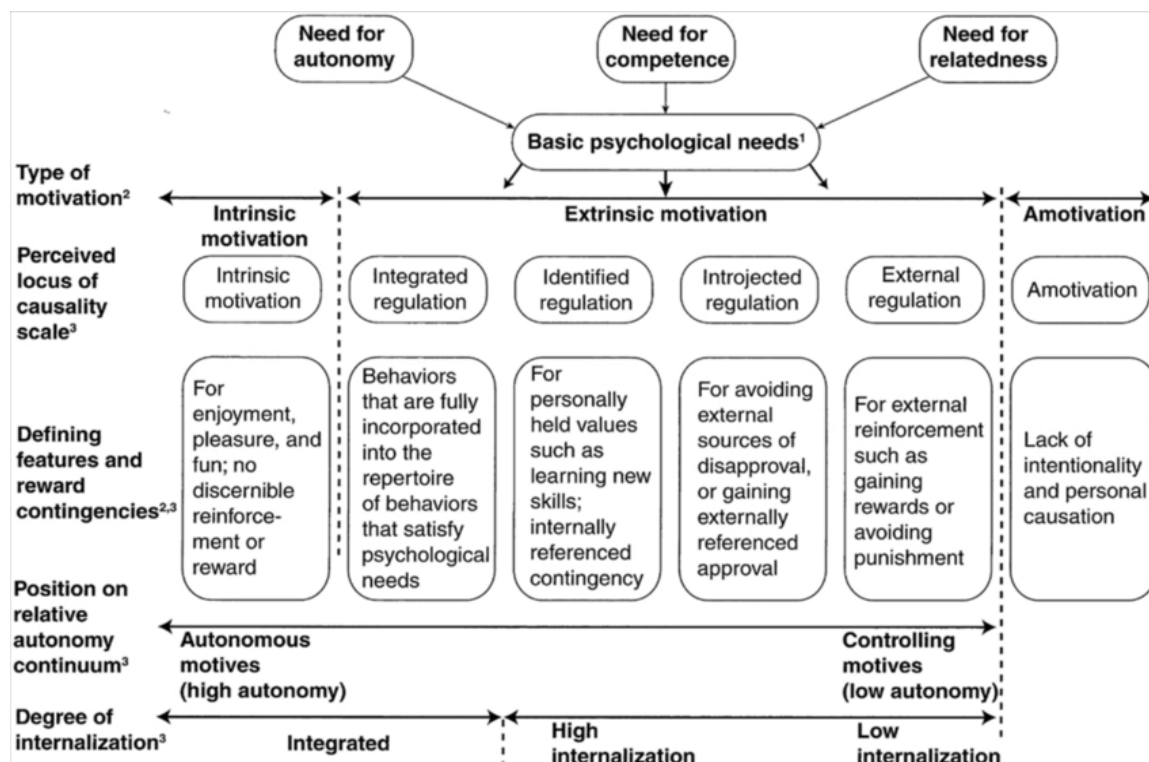
Figure 4: Self-Determination Theory. Source: Ryan & Deci, 2007.

The need for competence as described in SDT closely relates to the concept of self-efficacy: According to Bandura (1977, 1982, 1997) self-efficacy expectations are judgements about how well an individual can organize and carry out behaviours necessary to cope with situations that involve ambiguous, unpredictable and stressful elements. He also points out that it is mainly the perceived inefficacy that makes a person judge a situation as stressful, rather than the real qualities of the situation. This way, people with low self-efficacy expectations avoid any action, that, according to their opinion, exceeds their abilities. High self-efficacy contributes to better health outcomes and well-being.

Need for Safety and Social Support

The large number of crises in current society, compounded by the social pressures of digitalisation and time pressures of modern-day life all make the need for a "safe haven" even more acute. An important way of empowering people, especially those affected by crises, is through psychosocial support, which is an approach aiming at promoting the resilience of individuals, groups and communities in crises. It includes a broad variety of interventions promoting the resources of individuals, groups or communities as a whole. It helps people overcome adversities, bringing them back

to normality and recovery after crises, and acknowledging and reinforcing positive individual and where possible collective coping mechanisms. Coping is the process of adapting to a new life situation, managing difficult circumstances, making an effort to solve problems or seeking to minimise, reduce and tolerate stress and conflict. Based on the Hobfoll Principles, the five core elements of psychosocial support are: (1) promoting a sense of safety, (2) calming, (3) connecting people, (4) supporting efficacy in individuals and communities and (5) instilling hope. These five principles enhance resilience (Koenen K (in ASPIRE Training Module): *Considering the Personal Challenges of Refugees*, 2019).
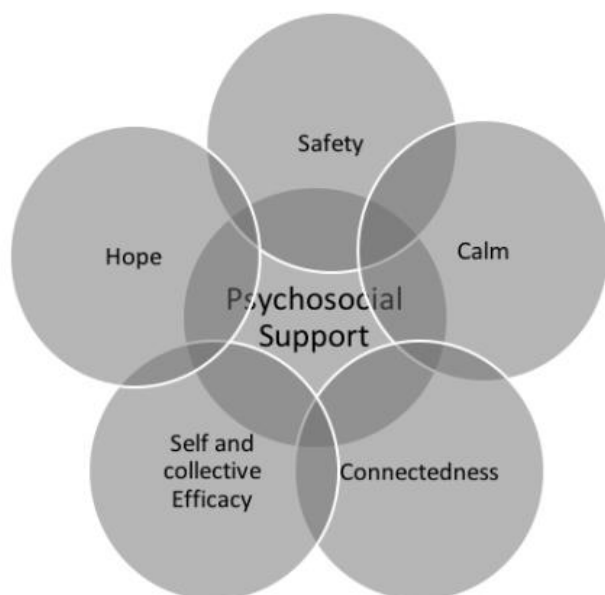

Figure 5: Hobfoll Principles. Source: Koenen 2019

Need for Meaningful, Authentic, Positive and Joyful Experiences

According to the latest Eurobarometer study on Sport and Physical activity (2017) in the EU, the most common reason for engaging in sport or physical activity is to improve health (54%) but 30 % of active people also state that 'to have fun' is one of their major motivators. It is interesting that in the most active countries the 'joy or fun' factor is much higher than among less active countries, for example in Sweden it is 46% but in Romania it is only 17%. It seems that there is a direct correlation between these two factors, the more active populations more often report fun and joy as motivation for physical activity. It appears that people often face difficulties feeling enjoyment while doing physical activity, and as well as maximalising the experience level of their leisure activities. Earlier, it has been discussed that intrinsic motivation and the freedom of choice could be important. However, a study by Frederick and Ryan (1993:124) shows it also depends greatly

from the type of motivation. It states that only interest/enjoyment and competence motivation were related to positive psychological outcomes. Body-related motivation was associated with greater depression and anxiety, but not with self-esteem. Body related motivation more often occurs during fitness and exercise-oriented activities to individual sports.

A different angle to our need for meaningful and authentic experiences can be found in experiential learning theory

David Kolb's work on the experiential learning cycle is among the most influential approaches to learning.

Kolb's Cycle of Experiential Learning

Active Experimentation – testing new ideas; honing skills in a new experience

Concrete Experience – engaging directly in authentic situation

Concrete Experience

Active Experimentation

Reflective Observation

Abstract Conceptualization

Abstract Conceptualization – distilling perceptions into abstract concepts

Reflective Observation – noticing what happened and relating to past experience and conceptual understandings
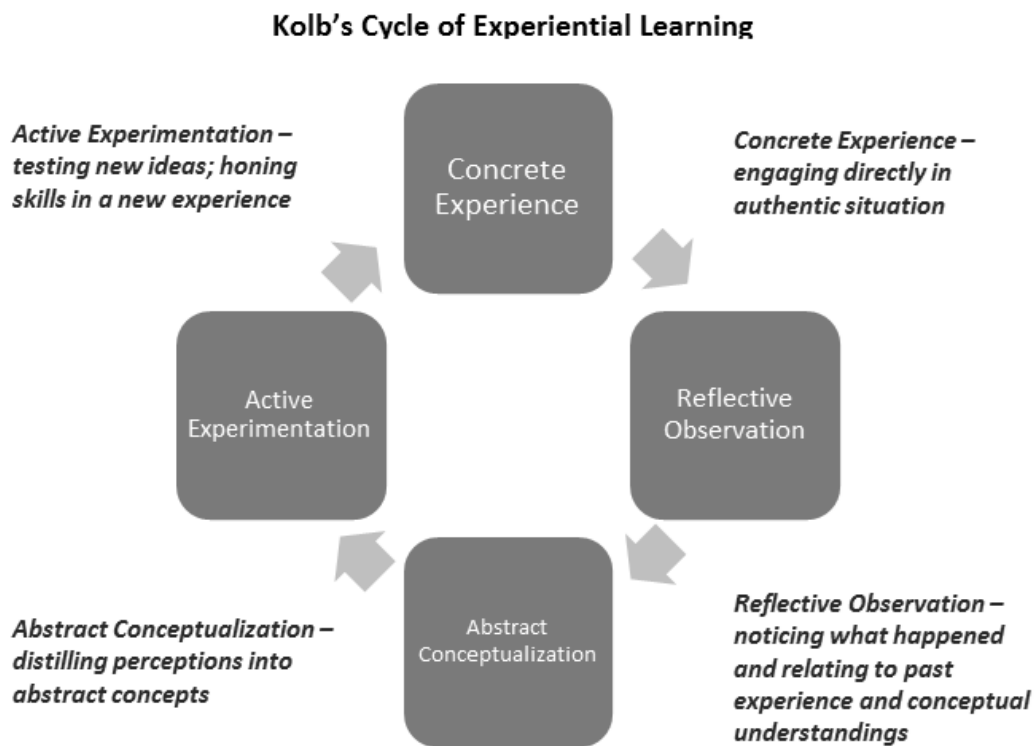
Figure 6: Kolb´s Cycle of Experiential Learning

The experiential learning cycle is a four-step learning process that is applied multiple times in every interaction and experience: Experience – Reflect – Think – Act. It's a learning process initiated by a concrete experience, which demands reflection, review and perspective-taking about the expe-

rience; then abstract thinking to reach conclusions and conceptualise the meaning of the experience; leading to a decision to act, engaging in active experimentation or trying out what has been learned.

This cycle is so natural and organic that people engage in it without being aware that they are learning. It happens almost effortlessly all the time and is constantly transforming our lives. Most people have preferences for the way they use this learning cycle, focusing on some modes more than others.

Research on mindfulness and experiential learning suggests that the practice of mindfulness can help individuals learn from experience by enhancing presence and intentional attention. Yeganeh (2006) studies two predominant streams of mindfulness research and practice: mediative mindfulness and socio-cognitive mindfulness. Mediative mindfulness is the core of Buddhist meditation, advocating the development of mindfulness through a discipline of anchoring the mind in the present moment. Socio-cognitive mindfulness emphasizes cognitive categorization, context, and situational awareness. Mindful experiencing can put the control of our learning and our life back in our hands. (Kolb, 2015: 350-351)

Positive Psychology

According to the mission statement of the International Positive Psychology Association (2009) "positive psychology is the scientific study of what enables individuals and communities to thrive". In order to make life more fulfilling, positive psychology focuses on three main areas of human experience:

- positive subjective states or positive emotions, such as happiness, love, joy, intimacy, satisfaction with life, vitality (subjective level)
- positive personality traits and behavioral patterns, like honesty, wisdom, persistence, i.e., character strengths and virtues (individual level)
- positive institutions like healthy families, schools, workplaces, civic virtues (societal level)

Positive psychology, then, is the scientific study of positive human functioning and flourishing at a number of levels, such as the biological, personal, relational, institutional, cultural and global dimensions of life (Seligman & Csikszentmihályi, 2000). Boehm, Ruberton and Lyubomirski (2018) reviewed the research on relatively simple interventions to increase happiness and found that they can be effective at increasing positive emotions and well-being. Gay (2001) argued that adult distress often occurs because people cannot recollect joy, which in turn leads to retreat from active participation in life (see Compton & Hoffman, 2020). According to Krug and Maier (2015) positive emotions are associated with successful striving for desired goals. Many studies also

highlighted that people who experience and express positive emotions more often are more likely to be physically healthier, more resistant to illness and live longer than others (see Compton & Hoffman, 2020).

As positive and negative emotions seem to be independent (see for example the two continua model form Kayes, 2005), thus, eliminating negative emotions does not mean that positive emotions automatically emerge, it is necessary to apply positive psychological interventions when it comes to mental health. Ryan, Huta and Deci (2008) viewed eudaimonia as "living well", by definition actively pursuing virtues and strengths, using reflectiveness and reason. As outcomes we find inner peace, deep appreciation of life, a sense of connection with other people. Hedonic approach is viewed as a life that feels good, so we experience joy, pleasure, love, fun. Besides the fact that well-being, joy, happiness, love and other positive emotions are good for us per se, positive emotions create better social relationships, happy people are healthier, more involved in communities, feel more control over the situations around them. According to Fredrikson's (2001) broaden-and-build model, positive emotions broaden people's momentary thought-action repertoires, undo lingering negative emotions, fuel psychological resilience, trigger upward spirals toward enhanced emotional well-being and facilitate coping with adversity.

Eudaimonic well-being (flourishing at one's maximal potential) can also be applied related to physical activity. Ferguson, Kowalski, Mack, Wilson, and Crocker (2012) showed that though hedonic well-being was not related to physical activity, women taking part in the study expressed the necessity of physical activity to reach their human potential. The potential mechanisms of this are goal setting/striving, providing bonding experiences allowing self-reflection, developing a physical/able body. This overlaps with Ryff's eudaimonic well-being concept suggesting six components of well-being: environmental mastery (creating an outer world which fits to the person's inner world); personal growth (achieving personal potential); positive relationships with others; purpose in life; self-acceptance, and autonomy. In most of the cases traditional biomedical health promotion endeavours fail, because these programmes lack the meaning of the experience (Kimiecik, 2010). Rector, Christ and Friedman (2019) showed that middle-aged persons, who are physically active, can be characterized by higher eudaimonic well-being. Lewis, Kimiecik, Horn, Zullig, and Ward (2014) implemented an 8-week long eudaimonic well-being intervention at a workplace and the results indicate that the intervention group increased the physical activity level compared to the control group. The Well-Being Way intervention guided individuals through a series of individual or group experiences focused on 1) identifying how they want to feel in their daily activities, 2) preparing to experience how they want to feel, 3) identifying obstacles that prevent them from feeling the way they want, and 4) revisiting how they want to feel when they lose sight of it (Doell et al. 2006).

3.2 Risk Factors for Mental Disorder, and Specific Needs of Persons with Existing Conditions (see working model box D ➜ box E)

Mental health problems have a wide range of causes. It's likely that for many people there is a complicated combination of factors – and different people may be more deeply affected by certain things than others (MIND). Mind mentions for example: Childhood abuse, trauma, or neglect; […] bereavement […] domestic violence, bullying or other abuse as an adult significant trauma as an adult, such as military combat, being involved in a serious incident in which you feared for your life, or being the victim of a violent crime, […] physical causes – for example, a head injury or a neurological condition such as epilepsy can have an impact on your behaviour and mood etc.

As already outlined above, Move the Mind is focusing on the general stress factors for mental health and well-being and the preventive measures to strengthen mental health resilience through sport and exercise. However, a basic understanding of mental illnesses and the specific require-ments and needs of this target group might also be needed for CPD programme for sports partic-ipation coaches (see section 2).

Risk factors are associated with an increased probability of onset, greater severity and longer duration of major health problems. Protective factors refer to conditions that improve people's resistance to risk factors and disorders. They have been defined as those factors that modify or alter a person's response to some environmental hazard that predisposes to a maladaptive out-come (Rutter, 1985). Both risk and protective factors can be individual, family-related, social, eco-nomic and environmental in nature. Mostly it is the cumulative effect of the presence of multiple risk factors, the lack of protective factors and the interplay of risk and protective situations that predisposes individuals to move from a mentally healthy condition to increased vulnerability, then to a mental problem and finally to a full-blown disorder (WHO, Prevention of Mental Disorders).

Three risk factors will be addressed in more detail. First, because these factors are both cause and effect of mental disorder. Second, because they fall into the area between prevention and therapy of mental health, and third, because these factors are important in order to comply with the principle of "do no harm" when practicing sport with vulnerable persons.

- Physical inactivity
- Social exclusion
- Personal factors

Our focus in this paper being the preventive aspects for mental disorders, we discuss in the following section these factors that are proven to affect mental health, either positively or negatively. Ignoring these factors will amplify their negative impact on mental health, while harnessing their positive effects can help reduce the likelihood of emerging mental health issues, and aid in the promotion of mental health and well-being. These factors, taken into consideration along with professional support, medication and other proven remedies can also aid in therapeutic means, though this is outside the scope of this project.

3.2.1 Risk Factors that Impact Mental Health

Physical Inactivity

Physical inactivity is a key contributor to the global burden of disease and disproportionately impacts the wellbeing of people experiencing mental illness. Regular exercise is one of the most important coping techniques in terms of reducing tension and increasing energy; ironically, exercise is one of the first things to fall by the wayside (Carrie Wilkens, PhD (in Center for Motivation and Change): *Behavioral Strategies for Coping with Stress*, 2014). Being active can seem like a difficult task on bad days – but this is when our bodies and minds benefit the most from physical activity and sport. Exercise has already been mentioned in the WHO's cycle of mental health.

"*We have known for a long time that exercise promotes physiological and neurochemical responses that make you feel good*," says Prof Nanette Mutrie of the University of Edinburgh's Institute for Sport, Physical Education and Health Science (Sirin K. (in Guardian): *One step at a time: how to improve mental health through fitness*, 2019). Physical activity is an effective prevention strategy for mental disorders, such as depression. Findings, such as the assessment of bidirectional relationship between physical activity and depression among adults (JAMA Psychiatry, 2019), empirically support this fact. Another study from 2014 revealed (Disability and Rehabilitation Journal, Volume 37, Issue 16, 2015) that exercise therapy improves both mental and physical health in patients with major depression. "*What appears to be happening is that exercise affords the body an opportunity to practice responding to stress, streamlining the communication between the systems involved in the stress response*," says J. Kip Matthews, Ph.D., a sport and exercise psychologist (Kristen D. (in Guardian): *Why endorphins (and exercise) make you happy*, 2016).

Despite the overwhelming evidence that exercise benefits mental health, people with mental disorders experience high rates of comorbid chronic physical diseases including diabetes, obesity,

and cardiovascular disease, contributing to an increased mortality risk, regardless of psychiatric diagnosis (Correll CU, et al., 2017). People with mental disorders have been shown to be significantly less physically active or less likely to meet international physical activity recommendations (Vancampfort, D., Firth, J., Schuch, F. B., Rosenbaum, S., Mugisha, J., Hallgren, M., ... & Stubbs, B., 2017). Mental and physical health can also be related through common risk factors, such as poor housing leading to both poor mental and poor physical health. The additional negative health implications of being physically inactive should not be ignored in people suffering from mental ill-health.

Physical inactivity then, is a double-edged sword. It is both a cause and a consequence of mental ill-health. People that are physically active are more likely to be mentally healthy, while people that are already mentally ill are more likely to also be physically inactive, consequently suffering from greater risk of comorbid chronic physical diseases. Physical activity has preventative as well as therapeutic impact on mental health. It is both a protective and a risk factor.

Social Exclusion

Social exclusion like stigma and discrimination can also make someone's mental health problems worse, and delay or stop them getting help. Stigma can influence the lives of people with mental health problems in many ways. According to Corrigan (2004), it "diminishes self-esteem and robs people of social opportunities". Fear and prejudices can cause people to keep distance from people with mental illness. The Queensland Alliance for Mental Health (2010) found that people with mental health problems are "frequently the object of ridicule or derision and are depicted within the media as being violent, impulsive and incompetent". This isolates them from their peers and society in general. This might also lead to self-stigma, where a person suffering from mental illness blames themselves for their illness.

Considering that health is a concept influenced by a set of complex factors, i.e., biological, psychological, social, cultural, economic and spiritual, it should be acknowledged that health and mental illness do not simply have biological or psychological aspects, but also have concurrent social dimensions and nature (Harandi, T. F., Taghinasab, M. M., & Nayeri, T. D., 2017). Strengthening community networks is mentioned as a strategy to reduce risk of mental illness and improve quality of life (WHO, Prevention of Mental Disorders).

Social factors can play an important role in creating, maintaining, and promoting mental health; and have a major role in incidence, prevalence and persistence of the disease.

Personal Factors

Individual and family-related risk factors can be biological, emotional, cognitive, behavioural, interpersonal or related to the family context. There is ample evidence that school-based programmes can influence positive mental health by reducing risk factors through social–emotional learning and ecological interventions (Domitrovitch et al., 2005). General skill building programmes focussing on building cognitive abilities, reducing inhibitions, improving emotional knowledge and problem-solving skills have successfully targeted a range of risk and protective factors – for e.g., reducing depressive symptoms, substance abuse, bullying and anxiety (WHO, Prevention of Mental Disorders).

3.2.2 Prevalence of Selected Disease Patterns

The International Classification of Diseases (ICT) define a mental disorder as "a clinically recognizable set of symptoms or behaviours associated in most cases with distress and with interference with personal functions". The estimated prevalence of mental disorders in the WHO European Region in 2015 was equivalent to 12% of the entire population. This population in the WHO European Region includes nearly 900 million people from 53 Member States, living in diverse cultural, economic, social, and political circumstances. With the inclusion of neurological disorders such as dementia, epilepsy and headache disorders, this number increases to 50% of the population (WHO: *Mental health: Fact sheet*, 2019).

The most common mental disorders are depression and anxiety. Depression often starts at a young age, it affects women more often than men, and unemployed people are also at high risk. The economic consequences of mental health problems – mainly in the form of lost productivity – are estimated to average 3-4% of gross national product in European Union countries (Gabriel P, Liimatainen M-R. *Mental health in the workplace*. 2000).

Taking into consideration certain gender differences, women are twice as likely to develop depression compared to men (Chu I-Hua, 2009). Especially for middle-aged women, the experience of symptoms during menopause can be detrimental to their mental health (Elavsky & McAuley, 2007).

More information on different types of mental health problems is available here.

4. SPORT AND EXERCISE BENEFITS → REQUIRE-MENTS FOR SPORT PROGRAMMES FOR MENTAL HEALTH PROMOTION

Chapter four will highlight the potential of sport and exercise to respond to the needs described in chapter three and derive from this how sport programmes to promote mental health should be designed. In doing so, design criteria such as content, intensity, duration, frequency will be considered as well as the surrounding conditions (setting, safeguarding, etc.) under which such training should take place.

The Journal of Mental Health & Physical Activity (MENPA) supports physical activity for mental health promotion because:

- Physical activity is more cost-effective than either psychotherapy or medication
- Physical activity is associated with minimal side effects
- Physical activity can be maintained throughout an individual's life

Maintaining physical and mental health is closely related to an individual's way of life, compliance with their physical requirements, emotional goals and socio-cultural values. One of the most effective methods to enhance well-being is through physical activity. Evidence shows that physical inactivity and sedentary lifestyles are a direct cause of many chronic diseases. On the other hand, research has shown the benefits of regular exercise for the prevention and treatment of metabolic and mental disorders, especially those caused by the chronic stress of postmodern lifestyle (MENS Project Policy Papers, 2018).

These positive effects are the outcome of both central neuroendocrine effects of exercise (which help to reduce stress sensitivity), and peripheral metabolic effects (increase in insulin sensitivity). Exercise also stimulates the production of mood-enhancing neurotransmitters and endorphins (which relieve pain and make people feel good).

A cross-sectional study carried out between 2011 and 2015 among 1.2 million individuals in the USA has shown association between physical exercise and mental health. Findings revealed that individuals who exercised had 43.2% fewer days of poor mental health reported than individuals

who did not, but were, otherwise, matched for several physical and sociodemographic character-istics.

> Interestingly, all exercise types were associated with a lower mental health burden, but the largest asso-ciated were seen for popular team sports, cycling, aerobic and gym activities, as well as durations of 45 minutes and three to five times per week (The Lancet Psychiatry, Volume 5, Issue 9, 2018).

There is overwhelming evidence that sport – in the Council of Europe's meaning of all forms of physical activity – is an effective way to manage stress and mental disorders and contribute to physical and mental health and psychosocial well-being.

4.1 Preventive Mental Health Promotion through Sport and Exercise (see working model box C → box B).

The effectiveness of sport in improved mental health can be explained as follows:

Relief from prolonged, non-specific stress conditions: For the many abstract threats in modern life that cause prolonged levels of high arousal stress but do not warrant a physical response, sport can provide the release or relief from this state of high alert, and return to its "baseline state" or "ventral vagal" by activating the ventral vagal nerve network to trigger calm and a sense of safety.

In an increasingly digital world, sport and physical activities carry meaningful sensory experiences to counterbalance digital stimuli are important tools in sensory integration.

Results of cross-sectional and longitudinal studies indicate that aerobic exercises training has an-tidepressant and anxiolytic (anxiety-relieving) effects and protects against harmful consequences of stress. Physical activity and exercise have consistently shown to improve mood and affect. Physical activity increases coping efficacy and memory function (Foley et al., 2008). Playing sport is more effective for stress reduction than physical activity like cycling to work or housework (Aszt-alos et al., 2009).

Reduced risk- and increased protective factors for mental disorder: Regular exercise in the form of physical activity or sport is undoubtedly one of the best individual coping strategies against stress that improves the well-being of people, both with mental disorders and with good mental health. Mastering new tasks and meeting goals, as well as feeling part of a sports team or sport club can have a brightening effect on our mood (Sirin K. (in Guardian): *One step at a time: how to*

improve mental health through fitness, 2019). In addition, sport has other significant psychological components that improve well-being: it improves self-esteem and a sense of community.

Advantageous effects have been shown to emerge through involvement in moderate aerobic activities, while the effects of excessive intensity can have negative effects on health, such as paradoxically increased risk of cardiac death and increased injuries. Physical activity therefore plays an important role in treatment and dealing with modest to medium forms of mental health problems or mental illnesses (mostly depression and anxiety).

Furthermore, sport aids social inclusion, which greatly affects quality of life. It aids in building personal resilience and self-confidence, as well as other personal and life skills which are protective factors in mental health promotion.

A study using a sample consisting of women at different stages of menopause showed that women experienced an increase in the positive effects of physical activity and a reduction in the negative effects associated with their condition (Elavsky & McAuley, 2007).

The adoption of lifelong regular physical activity therefore is both preventive and therapeutic, which in turn improves the quality of life. The important factors are the type, amount and intensity of physical activity that are dependent on the individual's health, capacity, desires and goals.

Requirements for an effective sport and exercise programme: Physical activity impacts our stress and anxiety levels, depression, mood, resilience, self-esteem, and social inclusion. However, these positive aspects can only be harnessed if the sports provision is effective. A report of the Council of Europe stated that the presumed positive outcomes of sport are "only a possibility" (Council of Europe: Sport and Physical Activity as a Socialisation Environment: scientific review part 1, 1994). It does not necessarily follow that playing sports results in positive benefits for the participants. Although participation in sport can be beneficial for mental health and contribute to positive health development, "it is best not to take the relationship as a "given"; it can be difficult to achieve; and can only be realized in association with a series of conductive 'change mechanisms' (Whitelaw, S., J. Teuton, J. Swift, & G. Scobie. The physical activity–mental wellbeing association in young people: A case study in dealing with a complex public health topic using a 'realistic evaluation' framework. 2010).

Good Fit: One recent model suggested that positive experiences are those in which there is a good 'fit' between the person and the sporting activity (Bailey, R.P: *Sport, Physical Education, and Educational Worth. Educational Theory*, 2018). This means that, on one hand, the person participating in sport needs to choose or needs to be guided to choose the right activity. Knowing the barriers and stressors of the individual helps planning an exercise programme to maximize benefits for stress management and well-being. In this, the following characteristics need to be considered: enjoyability, type, duration, and regularity of physical activity or sports.

Positive Coaching: On the other hand, activities need to be adapted to harness the impact of sport and physical activity on mental health. Even more than that, activities alone are not enough to ensure that the experience is a positive and healthy one. Positive and effective sports provision depends on two main aspects: (1) activities and (2) appropriate context (Bailey R.P. (in Sport and Health)): *Is Sport Good for us?*, 2018). Thus, sporting activity needs to be conducted in an appropriate way that considers the mental and psychosocial aspects of human development, health and well-being.

Coaching has been shown to influence the self-esteem of exercisers. Zschucke et al (2013) stated that positive instruction such as praising good performance and effort, providing technical instruction in a non-judgmental way and encouragement with respect to improving on mistakes lead to greater self-esteem. Coaches that encourage individuals to improve their own skills and performance rather than comparing with peers also encourage increased competence and self-esteem. Competition and evaluation in comparison to other's performance can be particularly problematic for those with the lowest ability and self-esteem. Recent studies indicated that training effects and mood improvement can also be achieved using internet- or telecommunication-based support.

Based on this, there is a need to make sports participants and coaches aware and better prepared to harness the positive mental aspects of sport to empower people, especially those who are hit by crises, and promote their physical and mental well-being. Sports participation coaches need to better understand the connection between mental health and sport and how they can contribute to recovery, resilience, and personal mental development. They need to better understand mental health and the stigmas associated with mental health problems, recognize the individual stressors and barriers to participating in physical activity and sports, understand and connect with people to provide a person-centred and safe experience for coping, communicate effectively and offer appropriate guidance for calming, self-efficacy and hope.

Taking gender differences into account: Asztalos, De Bourdeaudhuij & Cardon, 2009, found that men see better results in reduced feelings of depression, anxiety and symptoms of somatization when they participate in vigorous intensity physical activity, while women respond optimally to mild intensity.

Examples of Programmes and Practices

Programmes targeting participants:

INSER_SPORT [by UFEC]

Youth at risk of social exclusion are put in contact with third sector organizations that collaborate with UFEC. Not all the participants suffer from a mental illness but sport is used as a tool to boost their self-esteem, believe in their possibilities, improve their social skills and improve, at the end, their mental wellbeing, through the technical classes that the UFEC psychologists give in transversal and soft skills.

Programmes targeting sport professionals / coaches:

POSITIVE COACHING [by Sport Drenthe]

Target group/audience and participation criteria: board members of the association, trainers/coaches/leaders and parents. Over 4 workshops, the different target audiences are introduced to the concept of positive coaching and given "assignments" for its practice. Aspects like when and how to give criticism and feedback, dealing with different types of players and parents are focused on. During the meetings, the importance of positive coaching to parents is explained to the target audience, supported by fun and educational videos.

MENTAL HEALTH AWARENESS FOR SPORT AND PA+ [By UK Coaching]

The aim of the course is to gain the knowledge, skills and confidence to better understand and support people living with mental health problems, and create a positive environment that ensures they enjoy the benefits of being active and keep coming back for more. The modules in this course aim at building people's resilience, self-esteem and confidence, adapting sport sessions to make them more inclusive, enabling and support mental health recovery, and tackling stigma and discrimination.

MASTER´S PROGRAMME [by Edge Hill University in association with Everton Football Club]

The programme works with academic experts, practitioners and other professionals to further understanding of the links between sport, physical activity and mental health and develop expertise in the design and evaluation of programmes intended to promote mental health and wellbeing. It examines how mental health may be compromised, as well as enhanced, by participating and working in community and professional sport.

HEALTH COACHING COURSE [by Dolmen Salut]

The course gives insight on all aspects of health in sport – from physical to mental health. It focuses on teaching students on how to be a good coach specialised in nutrition, social relations, personal growth, relaxing, leisure, and exercise.

HOW SPORT COACHES CAN LOOK AFTER THEIR MENTAL HEALTH [by Believe Perform]

This is an online course developed specifically for sport coaches. It has been designed to help improve coaches' knowledge around mental health and to support them to apply practical strategies to enhance their psychological toolbox. The course covers a range of material with its focus on providing coaches with coping skills that they can use on a daily basis to help contribute to building positive mental health.

INTERNATIONAL COACHING COURSE [by Hungarian University of Physical Education]

3-month non-degree full-time course in English, organized by the UPE International Relations Center. It offers training over 20 Olympic sports. Subjects related to mental well-being are: coach and athlete burnout, most common psychiatric disorders among athletes, mental aspects of sport injuries. Related sport psychology topics include self-determination theory, coach-athlete relationship, coaching philosophy, children as a special population of service delivery.

RECREATION AND HEALTH PROMOTION MANAGER [by Hungarian University of Physical Education]

6 Semester degree course, organized by the UPE. Graduates envisaged to work in different areas of recreation such as outdoor or fitness working as recreation activity leaders Subjects related to mental well-being are: coach-athlete relationship, the impact of physical activity on mental health, stress, coping, positive psychology, physical activity and health, mental hygiene.

4.2 Therapeutic Mental Health Promotion through Sport and Exercise (see working model box F → box E).

As described repeatedly, mental health therapy through sport will not be part of the planned CPD training for sports coaches. Nevertheless, the state of knowledge will be taken into account in this paper. To this end, a very brief summary of how sport and exercise are currently used in the therapy of mental disorders will be presented below.

Anxiety: Zschucke, Gaudlitz and Strohle (2013) found that aerobic and anaerobic exercise a) had similar effectiveness to cognitive/behavioral therapy in the treatment of anxiety disorders, and b) are more effective than most other anxiety-reducing activities. With respect to anxiety, Scully et al (1998) claimed that the literature unequivocally supports the positive effect of even short bursts of exercise. In addition, the nature of the exercise is immaterial. Running, walking, cycling, swimming, or aerobic dance are the common physical activities associated with anxiety reduction. Even moderate and low intensity exercise is effective in reducing anxiety. Regular sessions over a period of time, for example 20-40 minutes, 3 times weekly, done over a period of over 4 months, see the best results in reduction in anxiety. Panic disorders show similar improvements with physical activity.

Depression: Research shows that physical activity and exercise have the potential for improving mental health in individuals with a major depression and psychotic disorders (Firth et al., 2015; Rosenbaum et al., 2014). For mild to moderate depression, the effect of exercise may be comparable with antidepressant medication and psychotherapy; for severe depression, exercise seems to be a valuable complementary therapy to the traditional treatment (Knapen et al., 2015). This holds true regardless of age (Hassmen et al., 2000). Based on research findings and also the recommendations of the Netherlands Working Group on Multidisciplinary Guideline Development for Anxiety and Depression (2013), exercise is a recommendation for light depressive episodes as well as for first and recurrent moderate major depressive episodes.

In an attempt to be more specific, based on research findings and the recommendations of the National Institute for Clinical Excellence (2004) in the United Kingdom, it is proposed that people with mild depression of all ages may follow a structured exercise program of (typically) up to 3 sessions per week, of moderate duration (45 min to 1 h). The exercise should ideally last longer

than three months, in a supervised setting. The importance of supervision by experts and participation in an organized exercise program is recommended by the Scottish Intercollegiate Guidelines Network (2010) as a treatment option for patients with depression.

Dementia: Physical activity has been identified as a protective factor in studies that examined risks for dementia. The Mental Health Foundation, in a published guide presenting the positive impact of physical activity on mental health, stated that physical activity can help to delay further decline in functioning. Studies show that there is approximately a 20% to 30% lower risk of depression and dementia for adults participating in daily physical activity. Physical activity also seems to reduce the likelihood of experiencing cognitive decline in people who do not have dementia. Patients of mental disorders like bipolar disorder, schizophrenia all benefit from physical activity.

Examples of Programmes and Practices

¿QUEDAMOS? [By UFEC]

Since 2019, ¿QUEDAMOS? project aims to achieve wellbeing and a better life quality through leisure and sport to its beneficiaries. Activities are organized every month to practice sport and leisure activities. The objective is to realise activities that are beneficial for their health, not only physically but also mental. Another important factor is that the participants have different backgrounds, but the space is shared with people suffering from similar diseases at all ages, which provides social connections and support.

5. NEXT STEPS

The next stage of our project focuses on deduced what attitudes, skills and knowledge sport coaches and instructors need and how these competences can be conveyed in a targeted and practical way through our CPD course.