MENTAL EUROPEAN NETWORK OF SPORT EVENTS

M.E.N.S. PROJECT

12 POLICY PAPERS

ON THE CONNECTION OF MENTAL HEALTH WITH SPORT & PHYSICAL EXERCISE

TO PROMOTE ACTIVE LIVING FOR MENTAL HEALTH

M.E.N.S. Project
Mental European Network of Sports

June 2018

Supported by the

European Commission

“Mens Sana in Corpore Sano”

Through our work

we rediscover the preventive impact
of Active Living to the field
of Mental Health
and the therapeutic benefits it offers
to all human beings out there who suffer
from an illness of the mind.

we truly hope that reading this paper
will aid anyone in their quest, or whatever
it is that led them here in the first place.

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FOREWORD

THE inspiration for the acronym “M.E.N.S.” came up from the famous latin quote: “Mens Sana in Corpore Sano” in which not only the word itself but also its content directly refers to the core of the initiative.

This core is no other than the link between Sport & Physical Exercise with Mental Wellbeing. If the connection itself seems to be common or self-evident, unfortunately the review of the evolution of relevant policies and actions proves that we are far from integrating this fundamental truth into our daily life as well as in the wider therapeutic approaches.

It is rather characteristic that, until the time of this initiative, any such effort, if and when was manifested, was framed in contexts that are weakly related or not related at all to Mental Health (sporting events, scientific documentation, advocacy rights, etc.)

This initial belief was the trigger of the design of a strategy in such a way so to develop all the required components towards the realization of this approach at a European level.

Thus, the main pillars of the project, which is co-funded by the European Commission under the ERASMUS + / Sport Program, are:

1. The development of a structural policy background aiming to effectively connect physical activity and sports to mental health.
2. The raise of awareness amongst stakeholders, professionals and the general public to prove the value of this connection.
3. The foundation of an institutional tool in order to achieve the main goal.

The volume which you are holding right now is our answer to the first pillar. It is the result of the work of the seventeen project partners, functionally distributed on individual topics which were considered as the first aspects that need to be explored around the link between physical exercise and sport with mental health. Consequently, there are not the only ones who should be reviewed and in addition, the content does not meet the results of fully complete scientific researches. They are, essentially, position papers with strong documentation that urgently support not only the necessity for further scientific research but also the demand for the development of specific policies at a European level and also, of effective practices at both national and local levels.

However, we must underline the extensive list of bibliographic references, the comprehensive presentation of European policies and the collection of a large number of relevant practices which are mapped for the first time, all which are factors that and can support researchers and professionals of the field in an important manner.

Of course, change as a fact can not only be the result of expanding scientific knowledge. This knowledge needs to become available to the general public and especially to everyone who is functionally involved in this process. This is what the “Life is like a bike” European Campaign stands for, aiming to achieve the goal of the second of the aforementioned pillars of this project.

It is undeniable that a project has a limited duration and spatial scope. If there are no tools to ensure that these limits are exceeded, then not even the best effort can deliver the expectations. Thus, the strategic planning of the project is complete with the establishment of the European Network of Active Leaving for Mental Health (ENALMH) which holds an institutional role in the

continuous promotion of the objectives of this initiative at a European level.

However, no theoretical processing, communication intervention, or institutional reinforcement can be compared to the inner power and value of direct experience which alone is capable of conferring the requested authority and revealing the dynamics of this new approach. Its most indicative result is the organization of the 1st European Athletic Organization for Mental Health that will take place in Athens in September 2018, under the framework of the "EVENTS" project, twin sibling of "MENS" aiming, among others, to realize its achievements.

From these very first steps, it is clear that a wider Movement of Active Living for Mental Health (www.activelivingmentalhealth.eu) is born, to which all respective groups are invited to participate and contribute however they can: recipients and providers of mental health services, policy makers, educational and research institutions, professional as well as amateur athletes and players, the private sector of sport, physical activity or health / welfare, and, finally, society as a whole, either individually or collectively.

The ever-worsening statistical picture of the spreading numbers of mental illnesses and, on the other hand, the given contribution of physical activity to their prevention as well as to combating stigma is something that should concern everyone and must seek the support by the respective institutions of the European Union.

We honestly hope that we are off to a good start.

The Manager of MENS Project

Nicos Andreopoulos
Acting Secretary General of ENALMH Network

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All the authors who worked hard for the writing of these papers are listed in the start of each document. However, there are a few other people whose contribution in this work is worth mentioning.

First of all we would like to express our sincere appreciation to Emmnanouil Skordilis, Associate Professor in Adapted Physical Activity in the University of Athens, for the systematic and continuous scientific support, evaluation and assessment of all twelve policy papers.

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Our sincere thanks to all.

The MENS Project team

INTRODUCTION

THE PROJECT

Mental **E**uropean **N**etwork of **S**port events- "**MENS**", which in Latin is "mentis" and means: Mind, thought, intention and intellect.

"MENS" Project aims to develop strong institutional procedures for the specific contribution of sports and physical exercise to the prevention, therapy and rehabilitation of the Mentally Ill at a European level.

Due to four key reasons these procedures are currently in nil to low:

- The stigma is still associated with current procedures and therapeutic intervention courses and the mental patients themselves.
- The lack of widespread documentation of the importance and effects of sports in rehabilitation of mentally ill.
- The lack of expertise of health professionals for the integration of sports activities in the current treatment concepts.
- The absence of specific cross-sectoral policies to encourage the integration of sports activities in the rehabilitation processes of the mental patients.

Overal Goal

A new approach on the relation between Physical exercise / Sport and Mental Health

The project's goal is to promote voluntary activities in sport, together with social inclusion, equal opportunities and awareness of the importance of health-enhancing physical activity through increased participation in, and equal access to, sport for all.

Actions

- Desk review for recording national policies and good practices conjugating sports and mental health
- Creation of models for sport events involving mentally ill at a local / national level as parts of the "Sports for all" movement and steps towards a European Mental Health Sport Event.
- Conduction of policy documentation papers for critical scientific issues on the use of sports in rehabilitation of mental health as specified below.
- Implementation of an Awareness Campaign in European level aiming at building a defined framework for the connection of Sport with Mental Health
- Publicity and dissemination activities of high effectiveness

Core target of the project has been the establishment of a European Network aiming at the conjunction of Mental Health and Sport/ Physical Exercise.

The Partnership

Partner	Organization	Country	Website
PP1 Coordinator	K.S.D.E.O. "EDRA"	Greece	www.edra-coop.gr
PP2	National and Kapodistrian University of Athens School of Physical Education and Sport Science (PESS)	Greece	http://old.phed.uoa.gr/index_en.php
PP3	University of Kent School of Physical Sciences	UK	https://www.kent.ac.uk/
PP4	COOS Sociale Onlus	Italy	http://www.cooss.it/
PP5	Foundation INTRAS	Spain	http://www.intras.es/
PP6	E.U.F.A.M.I. European Network	Belgium	http://www.eufami.org/
PP7	Golbasi Sporium Spor Kulübü ve Dernegi	Turkey	http://www.ankaragolbasi.gov.tr
PP8	Asociacija Olimpikas	Lithuania	https://www.facebook.com/Olimpikas/
PP9	OZARA Zavod Maribor	Slovenia	http://www.ozara.si/ozara-zavod-maribor/
PP10	SSOI – Rijeca, Disability sports Association	Croatia	http://www.ssoi-rijeka.hr/
PP11	Centro Studi Di Villa Montesca	Italy	http://www.montesca.eu/
PP12	ANARP Organization	Portugal	http://www.anarp.org.pt/
PP13	First Fortnight	Ireland	http://firstfortnight.ie/
PP14	Merseyside Expanding Horizons	UK	http://www.expandinghorizons.co.uk/
PP15	Municipality of Galatsi	Greece	http://www.galatsi.gov.gr/
PP16	CESIE	Italy	http://cesie.org/
PP17	Fokus Praha	Czech Republic	http://www.fokus-praha.cz/

The Network

The Network has the legal form of an International Non-Profit Association (AISBL), it is legally seated in Brussels, Belgium and operates under the Belgian Law and the geographical scope of its activities includes the countries which are members of the Council of Europe.

The main goals of the Network are:

- Enrichment of the therapeutic procedures of mental health services with the good use of sport and physical exercise for the users.
- Strengthening of social cohesion by combating stigma of the mentally ill people.
- Emerging of Sport and Physical Exercise as a fundamental parameter to the prevention of mental health problems
- Support and realization of sport events and physical activities for Mental Health by its members
- Contribution in research and educative processes which aim to clarify and extend the connections between the fields of Sport and Physical Exercise and Mental Health.
- Support the rights of the users of mental health services with means that stem from its mission
- Promotion of policies which are related with the connection between the fields of Sport and Physical Exercise and Mental Health at European and National Levels.
- Cooperation with other, specialized organizations which are active in the fields mentioned given the fact that only an integrated multidisciplinary holistic approach can deliver the necessary results in the field of Mental Health

The Policy Papers

Nr.	Policy Papers	Responsible Partners
1	**Association of sports, physical activity and exercise with mental health: Existing policies and practices in the European Union**	KSDEO EDRA Greece
2	**Development of models of physical activities, sport events & exercise programs**	UNIVERSITY OF ATHENS SCHOOL OF PHYSICAL SCIENCES Greece
3	**Mental Indicators and physical activity**	UNIVERSITY of KENT SCHOOL OF PHYSICAL SCIENCES United Kingdom
4	**The preventive role of physical activity in mental health**	COOS Marche Cooperativa Sociale Onlus Italy
5	**Inclusion of people with mental health problems through sport**	FOKUS Czech Republic
6	**Mental health and stigma in Europe**	FIRST FORTNIGHT Ireland
7	**Addressing stigma in local authorities through sports**	MUNICIPALITY OF GALATSI Greece
8	**Active living and mental health: Social partnership between the public and private sectors**	MERSEYSIDE EXPANDING HORIZONS United Kingdom
9	**Sports as a means of non-pharmaceutical treatment for mental illness**	INTRAS FOUNDATIONS Spain
10	**Physical activity for the treatment of patients with mental illness: Training needs of professionals**	CENTRO STUDI E INIZIATIVE EUROPEO Italy
11	**Sport and mental health within the typical education systems**	CENTRO STUDI VILLA MONTESCA Italy
12	**Comparative approach on sports for mental health and sports for physical or intellectual disabilities**	SSOI - RIJECA DISABILITY SPORTS ASSOCIATION, Croatia / GOLBASI SPORIUM SPOR KULÜBÜ VE DERNEGI, Turkey / OZARA ZAVOD MARIBOR, Slovenia / ASOCIACIJAS OLIMPIKAS, Lithuania

01

ASSOCIATION OF SPORTS, PHYSICAL ACTIVITY AND EXERCISE WITH MENTAL HEALTH: EXISTING POLICIES AND PRACTICES IN THE EUROPEAN UNION

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SOCIAL COOPERATIVE ACTIVITIES
FOR VULNERABLE GROUPS

INTRODUCTION

Purpose

The connection between mental health and physical activity has received excessive interest during the last years. This interest derives mainly from the increased number of people suffering from mental health issues, which positioned mental health among the first priorities of the public agenda in Europe. Recent studies estimated that 38.2% of the EU population suffers from a mental disorder, compared to 27.4% reported in 2005 (Wittchen et. al, 2011). More specifically, Wittchen et al (2011) stated that one third of the total EU population suffers from mental disorders. Furthermore, according to Mental Health and Wellbeing Report (2016) mental disorders account for 22% of the EU's disability burden, as measured in years lived with disability (YLD). Additionally, the social and economic cost of metal health services seems to be increasing and adding up in the already strained economy of European Countries (Liopis & Anderson, 2005). Gabriel and Liimatainen (2000) suggested that the estimated cost for Mental health services among European countries accounted for about 3 to 4 % of the Gross National Product without including the related costs of other sectors, like for example long or short term absenteeism from work due to mental health issues. More specifically, with mental health affecting not only the emotional but also the financial and social status of a person and his/ her family, in 2016 the Mental Health and Wellbeing Report estimated that about 450 billion euros are spend every year in the European Union (EU), as direct and indirect costs, for mental disorders, linking thus the sustainability of the health system in the EU member's states with the handling of the mental health issues. Moreover, the World Bank in a 2002 report suggested among others that

a disadvantaged economy may be improved by a better mental health plan and considered it as a part of its strategy to improve overall efficiency.

All these alarming reports and the increase of the mental health issue in Europe, has led the EU and the Member states to collaborate with international organizations like the World Health Organization (WHO), the Organization for Economic Co-operation and Development (OECD), etc., in order to find ways to improve mental health among European citizens. However, despite all the efforts, much is still needed in order to be able to overcome the treatment gap, improve the quality of services, support, strengthen, mainstream the prevention of mental health illnesses and promote a healthy livelihood (EU Joint Action for Mental Health and Wellbeing, 2016).

The need for alternative therapies that will enhance the life and the wellbeing of people dealing with mental health issue is urgent along with the need to focus on the development of additional treatment opportunities. Many have connected physical activity with the improvement of quality of life for people suffering from mental health issues (Firth et al., 2015; Rosenbaum et al., 2014; European Week of Sport, 2015). However, much more is needed to establish a relationship between the two and connect policies in the European Union and the member states.

The purpose of this policy paper is to examine and record the existing policies and practices with respect to the association among Mental Health, Sports and Physical Activities across the European Union. The data will be recovered from the respective European Institutions, Member States and the organizations which are active in the field. Moreover, the policy paper aims to provide a more in-depth insight from the current practices on Mental Health, Sport and Physical Activity in the EU state members, draw conclusions from the Respective practices and provide suggestions and future recommendations.

General Framework

The connection between sports with physical disabilities and/or intellectual disabilities is well established and documented. However this is not true for sports and disabilities due to mental health issues. The reason is that a mental disorder isn't necessarily considered a disability due to the fact that many patients dealing with mental health issues may be fully functional in the broader context of social life. Furthermore, a mental disorder can often be temporary and can be prevented, something that doesn't always apply in the physical or intellectual disability. Another essential difference is the fact that mentally ill people are often victims of stigma and discrimination, which naturally leads them to withdrawal from society and exclusion from social life. On the contrary, people that suffer from other forms of disabilities usually are able to contribute to society despite of their disability. The *UN National convention on the Rights of Person with Disabilities* (UNCRPD) (2006) and respective laws secure the involvement of people with disabilities in society and working environments thus consequently improving the acceptance and inclusion in society. One of the most powerful trends of community based psychiatry is the social constructs which are usually involved in the treatment of people with mental health problems. The development of these constructs lead to the adoption of positive institutional and informal roles which extend beyond the frameworks of humanitarian awareness and solidarity.

The above remarks triggered the development of the "Active living for mental health" movement (http://www.activelivingmentalhealth.eu), which aims not on the creation of another entrenched process, such as Special Olympics or Paralympics, but the recognition of sports, exercise and physical activity for the prevention, rehabilitation, foundation of personal development and social inclusion of metal health patients. This "Active living" movement in Mental health is a part of a holistic intervention that seems to become the dominant model on policy development across the European Union.

This holistic approach considers mental health as an indivisible whole that is directly related with the evolution of our species, the existing social and economic environment, as well as the environmental factors that compound the psychological, mental and physiological conditions of a person. Furthermore, it includes comprehensive and preventive treatments, rehabilitation and social integration methods. The main characteristic of this approach is that it is interdisciplinary, which means that arts, sports, employment, rights protection and regional development contribute to the success of the plan. Furthermore, this approach produces

and provides synergies among national systems, community, scientific community, private sector, civil society organizations and most importantly the patients themselves and their families.

Thus applying the above framework to form a scientific context of sport activities that are directly connected with Mental Health could lead to the formulation of an "Active living" movement, in which there will be no distinction between those who suffer from a mental illness and those who don't, targeting the stigma and enhancing the social inclusion of people with mental illnesses. Furthermore, this framework will greatly benefit and contribute to the financial burden of Mental Health, by strengthening the prevention dimension and the integration of low cost parameters.

BASIC DEFINITIONS

Policy

The definition of policy is not an easy task as it entails many components and it can be used in many different occasions. According to the Law dictionary (https://thelawdictionary.org/policy/), policies are *"The general principles by which a government is guided in its management of public affairs, or the legislature in its measures. This term, as applied to a law, ordinance, or rule of law, denotes its general purpose or tendency considered as directed to the policy"*.

Additionally, the Merriam-Webster dictionary provides numerous related definitions for policy like: a) "A definite course or method of action selected (by government, institution, group or individual) from among alternatives and in the light of given conditions to guide and, usually, to determine present and future decisions"', b) "A specific decision or set of decisions designed to care out such a course of action" or c) "Such a specific decision or set of decisions together with related actions designed to implement them".

The above shows the complexity of the term policy and its use in different context. However, as the Food and Agriculture Organization of the United Nations states, the purpose of a policy is to affect the real world and the respective political realities should be taken into account when forming policies (ILRI, 1995). In the present attempt we adopted the statement from the Mental Health Policy and Practice across Europe (2007) which stated that "Policy ultimately is dependent first on identifying the needs of the population, then understanding what current structures and services are available, and finally determining how to augment or change the current service mix" (p. 108).

Mental health policy

According to WHO (2007), a mental health policy is an official statement by a government of health authority that provides the overall direction for mental health by defining a vision, values, principles and objectives, and by establishing a broad model of action to achieve that vision. The present policy paper aims to coordinate, through a common vision, all programs and services that are related to mental health. The paper aims to become an official government guideline for the interrelated areas of action or direction that is required in order to improve mental health.

Mental Health / Mental Disorder

The World Health Organization (WHO) defined mental health in 2001 as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (p. 1). Later, the definition was enriched as follows: *"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).

Furthermore, ICD-10 (1992) defined mental disorders as "the existence of a clinically recognizable set of symptoms or behavior, associated in most cases with distress and with interference with personal function" (p. 11). The DSM-IV (1994) classification on the other hand gives a more concrete definition of mental disorder: a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. a painful symptom) or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. In addition, this syndrome or pattern

must not be merely an expectable and culturally sanctioned response to a particular event, for example, the death of a loved one. Whatever its original causes, it must currently be considered a manifestation of a behavioral or biological dysfunction in the individual. Neither deviant behavior (e.g., political, religious, or sexual) nor conflicts that are primarily between the individual and society are mental disorders unless the deviance or conflict is a symptom of a dysfunction in the individual, as described above (p.xxi).

Physical Activity and Exercise

WHO defines physical activity as *"any bodily movement produced by skeletal muscles that require energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits".* Furthermore, WHO suggested that physical activity should not be confused with "exercise", which is a subcategory of physical activity that is *planned, structured, repetitive*, and its main aim is to improve one's physical fitness (WHO, 2018).

Mental Well-being

WHO defines Mental well –being as "a state of complete physical, mental and social well-being and not merely *the absence of disease or infirmity…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, 2001, p. 1).

Practice

According to the Oxford dictionary (2018), a practice is "The actual application or use of an idea, belief, or method, as opposed to theories relating to it; the customary, habitual, or expected procedure or way of doing of something".

MAPPING METHODOLOGY

The goal was to locate and present the general policies and practices of the European Union (EU) state countries concerning Mental Health and the association between mental health and physical activities. In order to reach that goal, a general mapping of policies undertaken by EU and Member states was conducted. A search strategy was introduced, including a combination of key words (e.g. 'mental health policy', 'mental health and physical activity, 'mental health and wellbeing' 'sport policy' 'physical activity', 'exercise', 'health', 'mental health', 'wellbeing', etc.) into relevant scholarly databases (Web of Science, PsycINFO, Scopus, Google Scholar, Sport Discus) and European Commission databases, to locate and identify policies in mental health, exercise, sports and physical activity.

Additionally, four criteria were established for the inclusion of practices in this review: a) Sport, physical activity, event or Festival for Mental health, b) Therapeutic schemes/processes that use Sport and Physical Activity (taking place in mental health structures, hospitals etc.), c) Awareness campaigns on the issue – connecting the two fields and d) Educational programs connecting Mental Health, Sports and physical Activity. Furthermore, a mapping process that took place from February until September 2017 in all 28 EU Member States and Turkey, seeking information and data from several organizations with possible sport and physical activity practices within mental health units, was used as a starting point for the research of existing practices. The target groups of this mapping were: 1) Public or Private Entities operating in the field of Mental Health, 2) Organization and entities operating in the Physical Activity/ Sports sector, 3) Research and Educational institutions, 4) Local Authorities, 5) Policy and Decision makers and finally 6) State Authorities. All organizations located were screened and those with practices that where connected with the project's objectives and aims were documented. A brief picture on the mapping results can be found on the following link: http://mensproject.eu/wpcontent/uploads/2018/03/MAPPING-FINAL-RESULTS.pdf. Finally, an extensive research was conducting using relevant key words (e.g. 'mental health and sport activity practices', 'Sport and exercise in mental health illnesses', 'sport as a treatment for mental health' etc.), into relevant databases and internet sources (EU committee database etc.).

POLICIES AND POLICY SUGGESTIONS FROM THE EU INSTITUTIONS AND MEMBER STATES

Attention around mental health has increased during the past decades, alongside with the interest of European and international organizations and policy makers on developing policies directly affecting individuals with mental health illnesses. This paper focuses on the presentation of Mental Health Policies in the European Union and its EU Member states. The importance of mental health for the general public and for the development of health EU citizens was first acknowledged in 2001 by the World Health Organization who devoted the World Health and the World Health Report entirely on mental health. The World Health day (2001) with the title "Stop Exclusion – Dare to care" addressed the need to stop ignoring the problem and excluding people suffering from mental health issues from the community. The World Health report "Mental Health: New Understanding, New Hope" (2001) had as a major goal to assist all relative actors understand the inseparable relationship between mental and physical health and the influence they exert to each other. It is worth mentioning that the report suggested that in 2001 more that 40% of the countries had no mental health policy and even more striking was the fact that over 90% of the countries had no mental health policy that included children and adolescents (p. 3). However, the report suggested that the development of mental health policies should be done with respect to the relative new United Nation General Assembly Resolution for protection of people experiencing a mental health issue in 1991. It is also worth mentioning that in this report, for the first time, a connection between mental well-being and physical health was established (p. 115). Furthermore, in order to make sure that this initiative would continue to exert influence, WHO created the Mental Health Gap Action Programme (mhGAP), with a main goal to implement the recommendations of the World Health Report (WHO, 2003).

Following the previous two declarations that were the first who brought the focus on mental health, WHO continued issuing reports and papers to keep the attention on mental health, and which led to the formulation of an official mental health policy by the European Commission in 2005 in the form of a 'green' paper.

In 2002, WHO issued a report on "Prevention and Promotion on mental health", followed by a report in 2003 ("Investing in mental health") and in 2004 ("Promoting Mental Health"). These reports are stressing the importance to focus on mental health, the prevention of mental health illnesses and the promotion of mental health in 'general' populations. It is also worth mentioning that in these papers mental health is defined as a foundation for wellbeing and effective functioning in the community, stressing thus it's importance. Following the above trend and in an attempt to help policy-makers to develop mental health policies and action plans, WHO (2004) released the "Mental Health policy, plans and programmes".

As mentioned above, 2005 was an important year for mental health policy formulation. In January, WHO held a conference on mental health, the *"Mental Health Declaration for Europe"*, along with the approval of the 'Mental Health Action Plan for Europe'. The major aim was to set the ground for the development of mental health policies in Europe and propose actions needed in order to be able to establish policies that respect the best interest of individuals with mental health issues. As an immediate response to this initiative and call for action, the European Commission issued a Green paper with the title "*Improving Mental Health of the Population: Toward a strategy on mental health for the European Union*" in order to contribute to the implementation of the framework established in the conference. In the policy it is stressed that when dealing with mental health a comprehensive approach is needed in the plan for intervention, calling thus for a collaboration between fields to establish the most appropriate and innovative treatment plan (p. 5). As a derivative, the European Commission proposed the launch of an *EU-platform for Mental Health*, which would promote the cross-sectoral collaboration between different actors (p. 13). Additionally, WHO formed the Commission on Social Determinant of Health, to address social factors leading to health issues, possible health and mental health inequalities and well-being of girls and women (CSDH, 2008).

In 2007, the European observatory on Health System and Policies Services, in collaboration with WHO, issued a report on mental health policies and practices across Europe. One of the main findings was that even though the damaging effect of poor mental health is evident and one would think that

policy makers would focus on the development of mental health policies to prevent the damaging effect, the researchers found that the development of such policies was poor. It is also worth mentioning that by that time (2007) 37% of the European countries had no mental health policy at all (p. 241). Furthermore, WHO issued a Fact sheet in 2007 to strengthening the promotion of Mental health and suggesting that mental health is the foundation of well-being. The goal was to promote acting from all countries and engage all relevant actors to support and endorse mental health. Additionally, Mental Health Europe also called European countries and policy makers to invest into the development and provision of support mechanisms promoting the mental health and well-being of all and preventing mental disorders. At the same time, the European countries were urged to ensure all the rights and access to opportunities for those who are suffering from mental illnesses (p. 1).

An EU-high level Conference was held in Brussels in 2008 and issued a) a European Pact for Mental Health and Well-being, in which the five priority areas for mental health were outlined along with b) the fact that a decisive political step was needed to make mental health and well-being the key priorities (p. 3).Additionally, during the same year (2008) the EU guidelines for physical activity were issued. The guidelines stressed that physical activity was of key importance to maintain cognitive function, lower risk for depression and anxiety, improve self-image and self-esteem, and support not only the quality of physical but also the quality of mental life (p. 3). Additionally, WHO and the European Commission issued a report on Mental Health policies and practices in Europe, in order to evaluate the progress in the member states since the declaration and action plan of 2005. Results showed that there is diversity among European Member states in the development and implementation of the actions declared by the Action plan for mental health. More specifically, the results showed that 21 of 42 countries participating in the survey had produced a separate mental health policy, more than half of the 42 countries had adopted new mental health policies since 2005, and only 4 countries reported having no mental health policy at all (p. 11-15).

In 2009, WHO Europe issued a report on Mental Health, Resilience and Inequalities, in which mental health is presented as a central element in building resilient citizens and communities. Furthermore, the report suggested that the emphasis on mental health activities that focus on the wellbeing of the populations "is an important shift towards recognizing the benefits of promotion and prevention, in addition to improving the treatment of existing disorders" (p. 6). The WHO suggested that the improved mental health can significantly improve the quality of one's personal and social life. Connected to the importance given in the social context of mental health, WHO Europe in 2011 issued a report about the effect of economic crisis to mental health, stressing the importance that mental health plays in the successful recovery of European Economy (p. 2).

In 2011 WHO issued the policy Promoting sport and enhancing health in European Union countries, in which emphasis was given to the health enhancing activities and the importance of sport in the wellbeing of the general population. The policy also referred to the inclusion of people with disabilities in sports but it mainly addressed physical disabilities.

In 2013 the volume of reports represented an increased interest on mental health and wellbeing among legislators. Firstly, the WHO issued an action plan for mental health recognizing the important role it plays in the general population health, along with the aim to achieve equality through universal health coverage and stressed the importance of prevention. Secondly, the report investing in mental health 'Evidence for action', was published by WHO. Through the report, the promotion, protection and restoration of mental health resumed a vital role not only for the individual but also for the communities and societies (p. 5). Furthermore, the report suggested that investing in mental health can enhance individual and population health and wellbeing, protect human rights and improve economic efficiency. It is worth mentioning that the authors suggested that the mental health legislations of the European counties are either absent or outdated, which, according to them, violated the rights of people suffering from mental health issues (p. 16). Thirdly, a conference was held in Lithuania in 2013, in which the importance of mental health for the wellbeing of the general population was again recognized. During the conference, it was recognized that there was absence of effective actions to improve the wellbeing of the population and prevent mental health issues among European countries and encourage

a multi-sectoral collaboration to achieve this goal (p. 2). Additionally, the importance of physical activity in the sustainability of a good mental health and the promotion of wellbeing was promoted through the Councils recommendation on Promoting health encasing physical activities across sectors.

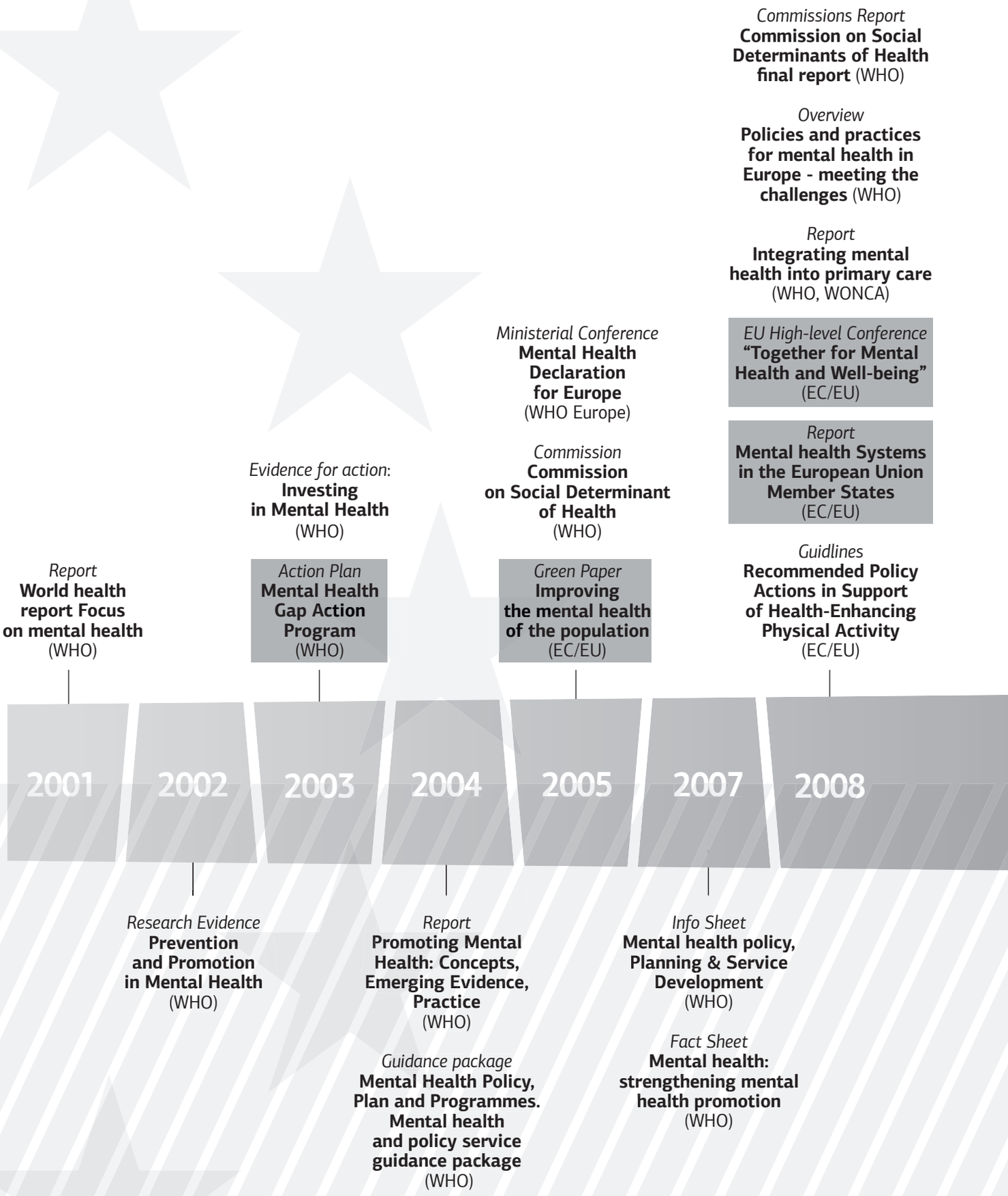
The European Commission issued a review of the *Mental health systems in European Union member states*, in which an increased emphasis on policies promoting the mental health of the general population was noted. Furthermore, the research that was performed for the report showed some very interesting information about the development of mental health policies in Europe. More specifically, all twenty-nine countries reported having some form of mental health legislation. However, Estonia reported not having a mental policy, even though their general health program includes some references to mental health, and Sweden and Estonia didn't have stand-alone mental health policies. Some countries had just started developing mental health policies, like Slovenia, while others reported of not having included mental health as a priority (Bulgaria and Czech Republic). However, it is worth mentioning that at the time of the report, mental health and wellbeing were set as a priority for two thirds of the participating counties (p. 456).

Finally, as a response to the increased interest and attention on mental health, EU countries launched in 2013 the *Joint Action on Mental Health and Wellbeing*, with the cooperation of 25 member states, Iceland and Norway. The aim of the joint action was to contribute on the promotion of mental health and wellbeing, the prevention of mental disorders, the improvement of care and the promotion of social inclusion of people with mental disorders (https://ec.europa.eu/health/mental_health/eu_compass/jamhwb_en).

In the 2015 evaluation report following the *European week of sports,* the importance of physical activity and exercise on the wellbeing of European citizens was noted in an attempt to promote the participation of all citizens in sports. Additionally, the WHO issued the report on mental health action plan, in which mental health was considered as one of the biggest challenges for public health among European countries. Furthermore, following the establishment of *Joint Action on mental health and wellbeing, a web – based mechanism called EU compass for action on Mental health and Wellbeing*, was established in order to collect, exchange, analyze, monitor policy development, activities and good practices on mental health and wellbeing among the member states (https://ec.europa.eu/health/mental_health/eu_compass_en).

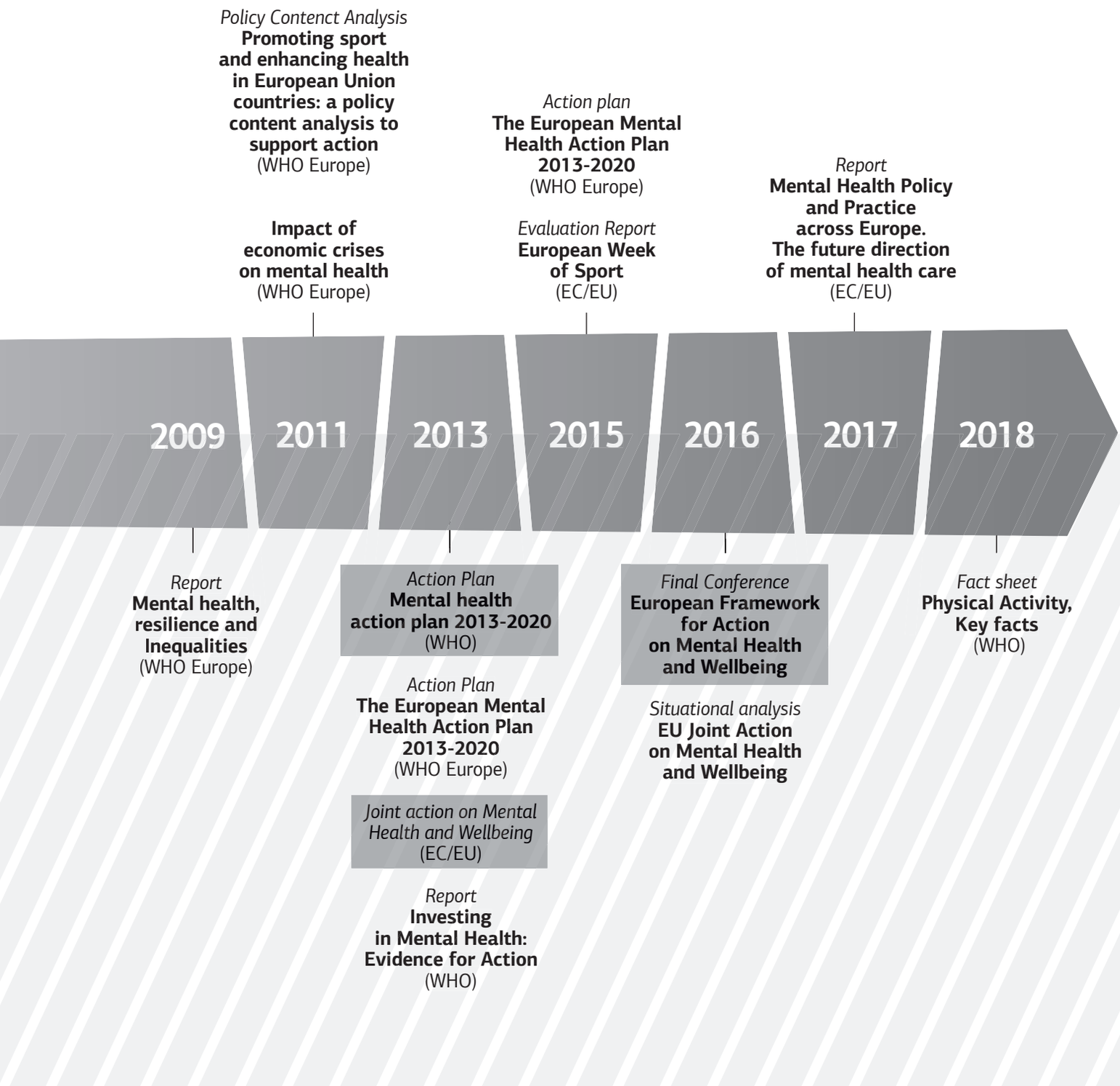
In 2016, the *European framework for Action on Mental Health and wellbeing* was issued supportingthat access and participation in cultural and social activities, as well as outdoor recreational activities and green spaces promote mental health and wellbeing (p. 7). The European framework proposed that mental health should be "incorporated in all policies in all levels, i.e. international, national, regional and local" (p. 16).

Finally, the *EU Compass for Action on Mental Health and Wellbeing Annual report* (2016), addressed as one of the most important issues in the EU member states the inadequate response to the needs of people with mental disorders (p. 5). Furthermore, the authors suggested that community based services were associated with "greater user satisfaction, better participation in social life, increased met needs and adherence to treatment" (p. 5). It is worth mentioning that in the analyses of the activities developed by the Member states in the last year (2015-2016) a significant progress has been reported towards the objective established by the *European Pact and the Framework for Action*. Several countries had developed or updated their mental health legislations but the authors suggested that legislative challenges still remained in the field (p. 6). More specifically, in some countries the assessment focused on the reform of the existing mental health legislation (e.g Finland, Denmark, Slovenia, Italy, Netherlands), in others on the preparation of new legislation (e.g. Slovakia) and in others in the integration of new concepts in the existing legislation (e.g. Lithuania, Estonia, Portugal, Spain and Turkey). A graphic representation of the policy development in the European Union can be found below in the following **Graph 1**.


2001
Report
World health report Focus on mental health
(WHO)
2002
Research Evidence
Prevention and Promotion in Mental Health
(WHO)
2003
Evidence for action:
Investing in Mental Health
(WHO)
Action Plan
Mental Health Gap Action Program
(WHO)
2004
Report
Promoting Mental Health: Concepts, Emerging Evidence, Practice
(WHO)
Guidance package
Mental Health Policy, Plan and Programmes. Mental health and policy service guidance package
(WHO)
2005
Ministerial Conference
Mental Health Declaration for Europe
(WHO Europe)
Commission
Commission on Social Determinant of Health
(WHO)
Green Paper
Improving the mental health of the population
(EC/EU)
2007
Info Sheet
Mental health policy, Planning & Service Development
(WHO)
Fact Sheet
Mental health: strengthening mental health promotion
(WHO)
2008
Commissions Report
Commission on Social Determinants of Health final report (WHO)
Overview
Policies and practices for mental health in Europe - meeting the challenges (WHO)
Report
Integrating mental health into primary care
(WHO, WONCA)
EU High-level Conference
"Together for Mental Health and Well-being"
(EC/EU)
Report
Mental health Systems in the European Union Member States
(EC/EU)
Guidlines
Recommended Policy Actions in Support of Health-Enhancing Physical Activity
(EC/EU)

GRAPH 1

DEVELOPMENT OF EUROPEAN MENTAL HEALTH POLICIES



The focus on the above presentation was the development of policies in the European institutions. Presenting the development of mental health and wellbeing policies in the member states is a much more complicated and demanding task that extents the length of this paper. However, a list of mental health policies of state members is offered in Annex 1. Furthermore, it is also evident from the above presentation that even though much interest has been put in the connection and the benefits of sports, exercise and physical activity on mental health and the wellbeing of the general population, not much has been done on a policy level. However, some European countries have developed guidelines and some have incorporated physical activity as a part of treatment scheme for people experiencing mental health illnesses.

PRACTICES FROM THE EU INSTITUTIONS AND THE EU MEMBER STATES

The purpose of this section is to locate and collect available practices in the field of physical activity and mental health covering one or more of the criteria mentioned in the methodology section. Respectively, the purpose of this section is not to evaluate or assess the available practices developed and performed by institutions or practitioners in Europe. The purpose of this section is to make available to professionals of both fields, Physical Education and Mental Health, a comprehensive list of practices that are taking place in different member states of the European Union. The evolution, assessment or further development of the existing practices is a much more challenging and ambitious task and requires the unity and expertise of professionals from many different scientific fields.

Furthermore, all due to the lack of distinction between physical disabilities and mental health disabilities in most policies, the identification of practices that were concerned with physical activity and exercise in mental health units covering the four criteria set up in the methodology section was very challenging. It is worth mentioning that in countries outside Europe, like Australia or Canada for example, there is a clear distinction among the practices of patients with mental health illness. In Europe this distinction is still developing. For the purpose of this desk review, only the practices taking place in European State members were researched and will be presented in the Annex 2.

As it is presented in the table in **Annex 2** 97 practices were located, with United Kingdom (13), Spain (9) and Ireland (8) had the merit in the number of located practices, followed by Italy (7), Netherlands (7), Portugal (6), Germany (5) and Denmark (5). We were unable to locate practices in 5 countries (Cyprus, Estonia, Luxemburg, Malta and Sweden). The remaining countries had between 4 and 1 practice published. It is worth mentioning that it was not a surprise that many practices were located in United Kingdom given that it is one of the few countries that have developed guidelines for mental health professionals and doctors to incorporate physical activity in their treatment scheme (e.g. Royal College of Psychiatrist, April 2018 *"Physical activity and Mental Health; Ministry of Health (2018) Guidance Wellbeing and Mental health; Applying our health").*

It also worth mentioning that in Norway, the Ministry of Health has been expressing the need to use physical exercise and activity along with art therapy on the treatment of people suffering from mental health issues (Witacker, 2017). Such an example is the Norwegian psychiatric hospital in Asqard, the first hospital in which there is no medicine used as treatment for mental health patients, but they treat patients with organized physical activities and art therapy. This supports the connection of mental health with physical activity and exercise and raises its importance to a level that was priory not taken into consideration.

Another important element to notice is that the southern counties (Spain, Italy, Portugal, Greece) hade each moderate to high level of practices, given that southern countries seem to be more introverted societies in mental health issues.

It is also important to note at this point that these findings represent our research findings with the criteria restrictions and other limitations. This means that there might be other practices in place which were not located or didn't fit the criteria we set in our method section.

CONCLUSIONS / SUGGESTIONS

Based on the above findings both in policies and practices, it is evident that there is a lot to be done in all fields to officially relate mental health with physical activity, exercise and sports. The limited connection between mental health services and physical activity in the European state members became evident in the policies section, with only few states having guidelines or programs that support this link. Thus, there is a need nowadays for all relevant sectors to focus on the establishment and the creation of policies that stress the importance of physical activity for the promotion of mental health. Further, the conduction of respective recommendations by the European Union and the adaptation of those policies by the member states seem essential to promote the common goals.

The second point in the review was that practices in the European state members connecting and promoting mental health with physical activity are limited. Thus the focus should be based in developing and communicating practices in the field of mental health and physical activity. The development of a database for example, an instrument that may support professionals access a variety of practices, assess and evaluate their effectiveness and communicate with different experts in the field, may be useful to consider.

However, as a closing remark, it is worth mentioning that the recent emphasis of the WHO and the European Union in mental health has created a very fruitful environment. This environment may support the developing of new collaborations and new connections in this very important matter for all the European citizens and the European economy.

ANNEX 1. POLICIES TABLE

What	Who	Link
Mental health: new understanding, new Hope. The World Health Report	World Health Organization	http://www.who.int/whr/2001/en/whr01_en.pdf?ua=1
Stop Exclusion - Dare to care.	World Health Organization	http://www.who.int/world-health-day/previous/2001/files/whd2001_dare_to_care_en.pdf
Prevention and Promotion in Mental Health.	World Health Organization	http://www.who.int/mental_health/media/en/545.pdf
Investing in Mental Health	World Health Organization	http://apps.who.int/iris/bitstream/handle/10665/87232/9789241564618_eng.pdf?sequence=1
Mental Health Gap Action Program	World Health Organization	http://www.who.int/mental_health/mhgap/en/
Promoting Mental Health: Concepts, Emerging Evidence, and Practice.	World Health Organization	http://www.who.int/mental_health/evidence/en/promoting_mhh.pdf
Mental Health Policy, Plan and Programmes.	World Health Organization	http://www.who.int/mental_health/policy/en/policy_plans_revision.pdf
Mental Health Declaration for Europe: Facing Challenges, Building Solutions	World Health Organization Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0013/100822/edoc07.pdf
Mental health: strengthening mental health promotion.	World Health Organization	https://mindyourmindproject.org/wp-content/uploads/2014/11/WHO-Statement-on-Mental-Health-Promotion.pdf

Mental health policy, Planning & Service Development info Sheet	World Health Organization	http://www.who.int/mental_health/policy/services/1_MHPolicyPlan_Infosheet.pdf
Closing the gap in a generation: Health equity through action on the social determinants of health : Commission on Social Determinants of Health final report	World Health Organization	http://apps.who.int/iris/bitstream/handle/10665/43943/9789241563703_eng.pdf;jsessionid=D9BA7894B79DCF68249D48E5D9F70944?sequence=1
Policies and practices for mental health in Europe - meeting the challenges.	World Health Organization Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0006/96450/E91732.pdf
Integrating mental health into primary care: a global perspective	World Health Organization WONCA	http://www.who.int/mental_health/resources/mentalhealth_PHC_2008.pdf
Mental health, resilience and Inequalities	World Health Organization Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0012/100821/E92227.pdf
Impact of economic crises on mental health.	World Health Organization Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0008/134999/e94837.pdf
Promoting sport and enhancing health in European Union countries: a policy content analysis to support action	World Health Organization-Regional Office for Europe	http://www.euro.who.int/data/asset s/pdf file/0006/147237/e95168.pdf
Mental health action plan 2013-2020	World Health Organization	http://apps.who.int/iris/bitstream/handle/10665/89966/9789241506021_eng.pdf?sequence=1
The European Mental Health Action Plan 2013-2020. (2013)	World Health Organization-Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0020/280604/WHO-Europe-Mental-Health-Acion-Plan-2013-2020.pdf
Investing in Mental Health: Evidence for Action	World Health Organization	http://apps.who.int/iris/bitstream/handle/10665/87232/9789241564618_eng.pdf?sequence=1
The European Mental Health Action Plan 2013-2020. (2015)	World Health Organization-Regional Office for Europe	http://www.euro.who.int/__data/assets/pdf_file/0020/280604/WHO-Europe-Mental-Health-Acion-Plan-2013-2020.pdf
Physical Activity, Key facts.	World Health Organization	http://www.who.int/news-room/fact-sheets/detail/physical-activity
Physical activity and health in Europe: evidence for action	World Health Organization-Regional Office for Europe	http://www.euro.who.int/ data/asset s/pdf_file/0011/87545/E89490.pdf
Recommendation on policies promoting health-enhancing physical activity across sectors	Council of Europe	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ%3AC%3A2013%3A354%3A0001%3A0005%3AEN%3APDF

Recommended Policy Actions in Support of Health-Enhancing Physical Activity	European Union Guidelines- EU Working Group "Sport & Health"	http://ec.europa.eu/assets/eac/sport/li brary/policy_documents/eu-physical-activity-guidelines-2008_en.pdf
European Pact for Mental health and Well-being	European Commission	http://ec.europa.eu/health/ph_determinants/life_style/mental/docs/pact_en.pdf
Joint action on Mental Health and Wellbeing	European Commission	https://ec.europa.eu/health/mental_health/eu_compass/jamhwb_en
European Week of Sport- Evaluation Report	European Commission	http://ec.europa.eu/assets/eac/sport/library/documents/ewos-2015-evaluation-report_en.pdf
European Framework for Action on Mental Health and Wellbeing	Join Action – Mental health and Wellbeing – European Union	https://www.mentalhealthandwellbeing.eu/assets/docs/publications/Framework%20for%20action_19jan%20(1)-20160119192639.pdf
EU Joint Action on Mental Health and Wellbeing	Join Action – Mental health and Wellbeing – European Union	https://www.mentalhealthandwellbeing.eu/assets/docs/publications/MHiAP%20Final.pdf
Green Paper - Improving the mental health of the population: Towards a strategy on mental health for the European Union	European Commission	https://ec.europa.eu/health/ph_determinants/life_style/mental/green_paper/mental_gp_en.pdf
Council conclusions on 'The European Pact for Mental Health and Well-being: results and future action	Council Of The European Union	https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/122389.pdf
Mental health Systems in the European Union Member States, Status of Mental Health in Populations and Benefits to be Expected from Investments into Mental Health European profile of prevention and promotion of mental health (EuroPoPP-MH).	European Commission	https://ec.europa.eu/health//sites/health/files/mental_health/docs/europopp_full_en.pdf
White Paper on Sport	European Commission	http://eur-lex.europa.eu/legal- content/EN/TXT/PDF/?uri=CELEX:52007DC0391&from=EN
European Disability Strategy 2010- 2020: A Renewed Commitment to a Barrier- Free Europe	European Commission	http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM%3A2010%3A0636%3AFIN%3Aen%3APDF
Developing the European Dimension in Sport	European Commission	http://eur- lex.europa.eu/LexUriServ/LexUriServ.do ?uri=COM:2011:0012:FIN:EN:PDF
Convention on the Rights of Persons with Disabilities and Optional Protocol	United Nations	http://www.un.org/disabilities/documents/convention/convoptprot-e.pdf
The role of sport as a source of and a driver for active social inclusion	Council of Europe	http://eur- lex.europa.eu/LexUriServ/LexUriServ.do ?uri=OJ:C:2010:326:0005:0008:EN:PDF%20

Mental Health Policy and Practice across Europe The future direction of mental health care	European Observatory	http://apps.who.int/iris/bitstream/handle/10665/107811/E89814.pdf?sequence=1
Health policy in Austria Health targets for Austria Public Health in Austria	Austria OECD Federal Ministry of Health Family and Youth European Observatory	https://www.oecd.org/els/health-systems/Health-Policy-in-Austria-March-2017.pdf https://gesundheitsziele-oesterreich.at/website2017/wp-content/uploads/2017/05/health-targets-austria.pdf http://www.euro.who.int/__data/assets/pdf_file/0004/153868/e95955.pdf
Health Policy in Belgium The Belgian National Strategy for Wellbeing at Work 2016-2020	Belgium	http://www.oecd.org/belgium/Health-Policy-in-Belgium-February-2016.pdf file:///C:/Users/user/Downloads/05_NatStrat_finaal_EN.pdf
Bulgaria Health 2020	Bulgaria	https://gateway.euro.who.int/en/country-profiles/bulgaria/
	Croatia	
“Sports for all” program	Cyprus Cyprus Sports Organization	http://ago.org.cy/archiki-selida/ago/
National strategies for health protection and support and disease prevention	Czech Republic	http://www.mzcr.cz/Admin/_upload/files/5/ak%C4%8Dn%C3%AD%20pl%C3%A1ny%20-%20p%C5%99%C3%ADlohy/AP%2003_dusevni%20zdravi_.pdf
Healthcare In Denmark	Denmark	https://www.sum.dk/English/~/media/Filer%20-%20Publikationer_i_pdf/2016/Healthcare-in-dk-16-dec/Healthcare-english-V16-dec.ashx file:///C:/Users/user/Downloads/DNK--Denmark_GR_Ministry_of_the_Interior_and_Health_2003-2003.pdf

Estonian Mental Health and Well-Being Coalition (VATEK) Sport Policy	Estonia	http://vatek.ee/wp-content/uploads/2016/05/WHO_et-en_05689_Vaimse-tervise-strateegia_en_ED_C.pdf http://www.kul.ee/en/activities/sport
Sports Club for Health (ACforH) – updated guidelines for health-enhancing sports activities in a club setting. Policies and development.	Finland Ministry of Education and Culture	https://www.scforh.info http://minedu.fi/en/policies-and-development-sport
Mental Health in France. State of Health in the EU France	France	https://santefrancais.ca/wp-content/uploads/Argumentaire-sant---mentale-SK-EN.pdf https://ec.europa.eu/health/sites/health/files/state/docs/chp_fr_english.pdf
National Recommendations for Physical Activity and Physical Activity Promotion. Government Report on Wellbeing in Germany. Health in Germany – the most important developments.	Germany Federal Ministry of Health German Government	https://www.sport.fau.de/files/2015/05/National-Recommendations-for-Physical-Activity-and-Physical-Activity-Promotion.pdf https://buergerdialog.gut-leben-in-deutschland.de/SharedDocs/Downloads/EN/LB/Government-Report-on-Wellbeing-in-Germany.pdf?__blob=publicationFile https://www.rki.de/EN/Content/Health_Monitoring/Health_Reporting/HealthInGermany/Health-in-Germany_most_important_developments.pdf?__blob=publicationFile
“Sports for all” Ψυχική & Δημόσια Υγεία Εθνικό Σχέδιο Δράσης για τη Δημόσια Υγεία - 2008 - 2012	Greece University of Thessaly Ministry of Labor, Social Security and Welfare Ministry of Health and Social Solidarity	http://www.athlisigiaolous.gr/uploads/Odigos%20diaxeirisis%20PAGO.pdf http://www.epanad.gov.gr/default.asp?pID=37& file:///C:/Users/user/Downloads/ethniko%20drasis.pdf
	Hungary	

Get Ireland Walking – Strategy & Action plan 2017-2020 Mental Health in Ireland: Awareness and Attitudes “Hi Healthy Ireland” A framework for improves health and wellbeing. Get Ireland Active! National Physical Activity Plan for Ireland	Ireland Sport Ireland Health Service Executive Ministry of Health and Ministry of Transport, Tourism and Sport	https://www.getirelandwalking.ie/_files/2017103145513_626b84f6.pdf https://www.healthpromotion.ie/hp-files/docs/HSP00612.pdf https://health.gov.ie/wp-content/uploads/2014/03/HealthyIrelandBrochureWA2.pdf https://health.gov.ie/wp-content/uploads/2016/01/Get-Ireland-Active-the-National-Physical-Activity-Plan.pdf
	Italy	
Sports Policy Guidelines 2004-2009	Latvia Republic of Latvia	http://vvc.gov.lv/index.php?route=product/search&search=Sports%20Policy%20Guidelines%20&category_id=60&sub_category=true&description=true
	Lithuania	
	Luxemburg	
	Malta	
National policy document on health Health close to people	Netherlands Ministry of Health, Welfare and Sport (VWS)	file:///C:/Users/user/Downloads/health-close-to-people.pdf
Wellbeing and public mental health on local level Norwegian policy. Working together for physical activity	Norway Norwegian Ministry of Health and Care Services Ministries	http://www.nordiskfolkesundhedskonference.dk/media/1471/w1-arne-marius-fosse.pdf https://www.regjeringen.no/globalassets/upload/kilde/hod/red/2006/0002/ddd/pdfv/269037-hod_kortversjon_engelsk.pdf
	Poland	

	Portugal	
	Romania	
	Slovakia	
National Health Enhancing Physical Activity Programme 2007-2012 Physical activity for health	Slovenia Ministry of Health	http://www.mz.gov.si/fileadmin/mz.gov.si/pageuploads/angleska_verzija_MZ/HEPA-Slovenia-prevod_ang.pdf http://www.mz.gov.si/en/areas_of_work/public_health/healthy_lifestyle/physical_activity_for_health/
Plan Integral para la Actividad Fisica Y El Deporte	Spain	http://www.csd.gob.es/csd/estaticos/plan-integral/LIBRO-PLAN-AD.pdf
Public health and Sport objectives	Sweden Government Offices of Sweden	http://www.government.se/government-policy/public-health-and-sport/public-health-and-sport-objectives/
Health Guide to Switzerland Health-Enhancing Physical Activity in Adults Recommendations for Switzerland Non commutable disease and physical activity	Switzerland Federal Office of Public Health FOPH Federal office of Sports Swiss Tropical and Public Health Institute	http://www.migesplus.ch/fileadmin/Publikationen/eng_GWW_web_1_.pdf file:///C:/Users/user/Downloads/hepa_Merkblatt_Gesundheitswirksame_Bewegung_Erwachsene_EN.pdf https://www.swisstph.ch/de/topics/non-communicable-diseases/physical-activity/
A manifesto for better mental health	United Kingdom The Mental Health Policy Group	https://www.mind.org.uk/media/1113989/a-manifesto-for-better-mental-health.pdf
Mental Health Charter for Sport and Recreation	United Kingdom U.K. Deputy Prime Minister's Office, U.K. Department for Culture, Media & Sport, U.K. Department of Health	https://www.gov.uk/government/news/deputy-prime-minister-launches-mental-health-in-sport-initiative https://www.nhsinform.scot/healthy-living/mental-wellbeing/five-steps-to-mental-wellbeing

Mental Wellbeing	U.K. National Health Service	https://www.nhsinform.scot/healthy-living/mental-wellbeing/five-steps-to-mental-wellbeing https://www.gov.uk/government/consultations/changes-to-mental-health-act-1983-code-of-practice
Wellbeing and mental health: Applying All Our Health	U.K. Public Health	https://www.gov.uk/government/publications/wellbeing-in-mental-health-applying-all-our-health/wellbeing-in-mental-health-applying-all-our-health
Physical Activity and Mental Health	U.K. Royal college of Psychiatrists	https://www.rcpsych.ac.uk/mentalhealthinfo/treatments/physicalactivity.aspx
Five steps to mental wellbeing	U.K. NHS Scottish Government	https://www.nhsinform.scot/healthy-living/mental-wellbeing/five-steps-to-mental-wellbeing#get-active-for-mental-wellbeing
Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009-2011 Mental Health in Scotland: Improving the Physical Health and Well Being of those Experiencing Mental Illness	U.K. Scottish Government	http://www.gov.scot/Publications/2009/05/06154655/0 http://www.gov.scot/Publications/2008/11/28152218/16
Introduction to the Mental Health Charter for Sport and Recreation	U.K. – Sport and Recreation Alliance	https://www.sportandrecreation.org.uk/policy/the-mental-health-charter/introduction-to-the-mental-health-charter-for
Exercise for depression	U.K.- NHS	https://www.nhs.uk/conditions/stress-anxiety-depression/exercise-for-depression/
Constitution Article 59 “Development of sports and arbitration”	Turkey The Turkish Constitution	https://global.tbmm.gov.tr/docs/constitution_en.pdf http://www.turkishculture.org/lifestyles/sports-228.htm

ANNEX 2: PRACTICES TABLE

Note: This is a limited printed version. The detailed version with practice description and respective hyperlinks can be found in the project website (www.mensproject.eu)

Country	Organization /Entity	Title of Practice - Category
Austria	Pro Mente	Charity Football Tournament – Sport Event
Belgium	Department of Movement and Sports Sciences, Ghent University, Ghent	Interrelation of Sport Participation, Physical Activity, Social Capital and Mental Health in Disadvantaged Communities: - Research
	Te Gek!	From prison to CARE campaign internment - Awareness Campaign
	Ups&Downs	Walks – Physical Activity
	Parantee- Psylos	Move it -Physical Activity
	Parantee- Psylos	Provincial Football competition – Sport Event Calendar & Other Practices
Bulgaria	My World	Sport Event for people with mental disabilities – Sport Event
Croatia	PK Forca	Therapy Swimming – Physical Activity
Cyprus	Cyprus Sports for all (AGO)	Sport Programme for People with Special Needs – Sport Activities
Czech R.	Bohnice Psychiatric Hospital.	Urban Challenge 2018 – Physical Activity
	Bohnice Psychiatric Hospital.	Color Run – Physical Activity
	Vida	"How to go with us" – Physical Exercise Workshop
	Czech Union of Sport	Come and Sport with Us – Sport Events
Denmark	Opus	Use the Body in Psychiatry – Physical Exercise program
	DAI-Sport	Several Practices- Sport activities & Physical Exercise program
	DAI-Sport in cooperation with Municipalities	Sport for the Mind-Awareness Project
	Sports Festival for the Mind	Sports Festival for the Mind – Sport & Physical Exercise program
	IFK98/Fighters Idrætsfestiva	Several practices - Sport & Physical Exercise program
Estonia		
Finland	Finnish Confederation of Mental Health	Mental Health Championship – Sport Event
France	UNAFAM	Psycyclette – Sport Event
	French Federation of Adapted Sport	Sport Calendar- Sport & Physical Exercise program
	Schizo Espoir	The Strides – Sport Event
	Bicyle	Bicycle in the region – Physical Exercise Program

Germany	Don Bosco Aschau am Inn	Sport Therapy Groups – Sport as complimentary treatment
	VGS	Coping with Stress – Physical Exercise workshops
	Disabled Rehabilitation Sports Club Lölrrach	Sports for mentally disabled people – Sport Activities
Greece	KSDEO EDRA	Panattica Sport Event for Mentally Ill– Sport Event
	EPAPSY	Three-point Shot against Stigma – Sport Event
	NGO "Regeneration & Progress," with the exclusive support of the Stavros Niarchos Foundation	Sport Paths Program – Sport & Educative Awareness Activities
Hungary	A Revolution Hospital	Sport Therapy – Sport as complimentary treatment
Italy	Psychologists and Psychotherapeutes in Vicenza and Thiene.	Sport & Mental Training/EMDR Method – Sport activities
	Italian Sports Centre	Commission for Sport and Marginality – Sport Activities
	Francesko Pisco	Awareness in Motion – Physical Exercise program
	Psychiatric Users Association in Ferrara, in collaboration with public Mental r Department, the Municipality of Ferrara and UISP, the Italian Union Promoting Sport for All	Sport: A Possible Road toward Social Inclusion and Quality of Life - Sport Activities as part of study and research
	Italian Union of Sport for All - UISP	Matti per il calcio – Sport Event
	Italian Union of Sport for All (UISP) – Volleyball, and UISP Valle d'Aosta	Palio di Sant'Orso – Sport Event
	Servizio Sanitario Regionale (Emilia-Romagna)	MÀT – Settimana della Salute Mentale – Sport Activities as part of Mental Health week
Ireland	Mental Health Ireland	Woodlands for Health – Physical Exercise program
	The Gaelic Athletic Association	Healthy Clubs Project (HCP) –Sport & Awareness Activities
	The Irish Sports Council	Sports Council Challenge – Physical Exercise program
	the National Centre for Youth Mental Health	"Think Big" – Awareness project
	The Irish Rugby Football Union, Rugby Players Ireland	Tackle Your Feelings– Awareness project
	State of Mind Ireland	State of Mind – Education & Awareness project
	Cycle Against Suicide	Cycle Against Suicide- Sport Event
	Ulster University, in partnership with leading charity State of Mind Ireland	Sport &Mental Health program - Sport Activities
	Several Authors	Mental Health and Wellbeing Interventions in Sport - Peper

Latvia	Solvita Zemīte	Spiritual Growth or Meditation for the Movement – Physical Exercise Session
Lithuania	Zarasai Social Care Home	Sporting Activities – Sport as complimentary treatment
Luxemburg		
Malta		
Netherlands	SportGGZ	I am a Mindrunner- Physical Exercise program
	Stap Uit De Burnout	Get out of your Burn-Out- Physical Exercise program
	Bewegen voor je Brein	Moving for your brain – Communication and Awareness Platform
	Various Rotterdam Organizations	Move your fit, become visibly active - - Physical Exercise program
	Dennis Timp	Better in the saddle - Physical Exercise as complimentary therapy
	GGz Centraal	Limitless – Sport Activities
	Professional Association Running Therapy Netherlands	Running to feel better - Physical Exercise program
Poland	Foundation “Disabled and Awaiting Help”	IX Integrative Sports Competition – Sport Event
Portugal	ANARP	Project “Tackle Stigma” – Sport Event
	AFUA	Socio-Occupational Units – Sport as a Complimentary therapy
	National Federation of Mental Illness Rehabilitation Entities	Walk for Mental Health - Physical Exercise program
	Association for the Support of Depressive and Bipolar Patients	Activities Espaço d’Arte – Physical Exercise Sessions
	GIS – Irmãs Hospitaleiras	“Stigma out of play” – Sport Event
	Fundação S. João de Deus - Casa de Saúde do Telhal	Golf Activities – Sport Activities
Romania	National University of Physical Education and Sport	‘Design and planning of leisure activities’ – Education Course
Slovakia	ZPP Radost	Dance and movement elements – Physical Exercise as complimentary therapy
	ZPP Radost	Ping pong Tournament – Sport Event
Slovenia	Slovenian Association for Mental Health	Sport Activities – Sport as complimentary therapy
	ALTRA-Committee for Mental Health News	Sport Activities– Sport as complimentary therapy
	Society for Mental Health and Creative Spent Free Time “VEZI”	Sport-Recreational Activities– Sport as complimentary therapy

Spain	Fundacion INTRAS	CLUB DUERO – Sport Activities
	FAISEM	Andalusian Sports and Mental Health Championship – Sport Event
	Association of Mental Health-FEAFES-HUELVA	"Mental Health with Sports" Race – Sport Event
	AEDIR- Spanish Sports Association for Integration and Recovery	Sport & Mental Health Events – Sport and Physical Exercise as complimentary therapies
	FAISEM	Tiquitaca for Mental Health- Sport Event
	FEAFES- FAISEM	"Crazy for the Shot"- Sport Event
	Nueva Luz	"Walking" – Physical Exercise Program
	Clubojanco	Climbing - Physical Exercise Program
Sweden	The Swedish School of Sport and Health Science	The Swedish approach on physical activity on prescription
Turkey	Artvin Coruh University	Sport Activities
	Capoeira4Refugees	Capoeira program for refuge children – Physical Exercise Program
UK	Mental Health Foundation	How to look after your mental health using exercise - Guidelines
	Edge Hill University	MSc Sport, Physical Exercise programand Mental Health – Education Course
	Sport England	Mental Health and Physical Activity – Sport Activities and Physical Exercise programs
	UK Coaching (in alliance with MIND)	Sport and Recreational Alliance (SRA) Mental Health Charter for Sport and Recreation – Sport activities and Physical Exercise programs
	MIND- For Better Mental Health	Several Practices – Sport Events and Physical Exercise programs
	England Athletics (in cooperation with MIND)	17 Minutes for me – Awareness Campaign
	England Athletics (in cooperation with MIND)	Run and Talk - Physical Exercise programs and Awareness project
	Physical Exercise program and health alliance	Mental Health Football UK – Sport Event
	Heads Together Org.	Several Practices – Sport Activities and Physical Exercise programs
	Sport in Mind Org.	Several Practices – Sport Events and Educational workshops & seminars
	British University and College Sports	Student Minds – Guidelines & Planning
	MeUnited	MeUnited – Sport Activities
	Sport England	Case Studies – Exchange of Knowledge & Awareness

Indicative EU Practices	In sport Project	In Sport+ - Several Sport Events & Activities
	MENS Project	"Life is Like A Bike" – EU Awareness Campaign
	EVENTS Project	1st European Sport & Physical Exercise Event for Mental Health in Athens, hosting patients from 15 countries
	1st European Sports Festival	Sport Events & Physical Exercise Programs in five countries
	European Culture and Sport Organization	Dream World Cup 2018 – Sport Event

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02

DEVELOPMENT OF MODELS OF PHYSICAL ACTIVITIES, SPORT EVENTS & EXERCISE PROGRAMS

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INTRODUCTION

During the last decades Europe is facing the challenge of a rapid rise of mental illnesses. Specifically, mental ill health is responsible for almost 20% of the burden of disease in Europe and mental health problems affect one out of four individuals at some time in life. Furthermore, 6 out of the 20 countries with the highest suicide rates in the world are located in the European region (WHO, 2017).

People with mental health problems such as anxiety, depression, schizophrenia, and bipolar disorders are striving to improve their quality of life following a different number of treatments. Although a number of recent research and clinical findings have proved the usefulness of physical activity as an alternative preventative strategy and adjust (supplementary or complementary) treatment for mental illness (e.g., Firth et al., 2015; Rosenbaum et al., 2014), most of medical practitioners do not support its usefulness. They claim that physical exercise, apart from depression, is not considered as an effective treatment for mental illnesses.

Furthermore, recent research interventions have strongly supported that physical activity/exercise has the potential for improving mental and physical health in individuals with a major depression and psychotic disorders (Firth et al., 2015; Rosenbaum et al., 2014). Also, physical activity/exercise has been found to reduce auditory hallucinations and improve sleep patterns and levels of self-esteem in individuals who have been diagnosed with schizophrenia (Firth et al., 2015, Kimhy et al., 2015).

Likewise, research in people with mental health disorders shows that physical activities and exercise programs are important in improving the physical health of these individuals. The literature suggested that these people die 16 to 20 years earlier than the general population with problems related to poor access to medical care, poor diet, medication-induced weight, significant weight

gain, smoking and little or no exercise (Saha et al., 2007).

Finally, physical activities are considered as effective tools for treating mental disorders because they are: (a) cost-effective alternate strategies to those who prefer not to use medication or who cannot access therapy, (b) associated with minimal adverse side-effects, (c) indefinitely sustained by the individual, and (d) able to simultaneously improve physical as well mental health and tackle mental illness (Taylor & Faulkner, 2010).

STATEMENT OF THE PROBLEM

The purpose of the position statement is to discuss the beneficial effect of physical activity/exercise such as aerobic exercise, walking, yoga etc., upon individuals with mental health problems. More specifically research as well clinical findings have indicated so far that physical activity and physical exercise have a positive effect to various psychological issues such as self-esteem, sense of mastery, anxiety, and depression as well as to various severe mental illnesses such as schizophrenia, schizo-affective disorders, and bipolar disorders. Additionally, there is evidence that mental ill people who are systematically engaged in physical activity/exercise programs improve their physical and health outcomes, as well as their quality of life.

The International Classification of Functioning, Disability and Health – ICF (WHO, 2001) was used as the broad framework in the present policy paper (Khan & Pallant, 2011). The ICF was developed by the World Health Organization (WHO) to replace the outdated International Classification of Impairment, Disability and Handicap (ICIDH), through collaboration with a variety of stakeholders, across several countries and cultures (Jelsma, 2009). The general ICF concept 'combines' the medical and social aspects into a 'bio-psychosocial model' and views disability through the interaction of biological, personal and social factors (Li et al., 2016). Disability is experienced as a decrement of functioning related to a disease (e.g. mental health, spinal cord injury, etc), which may interact with contextual factors (environmental and personal) and lead individuals to experience activity limitations and participation restrictions in their daily lives.

BASIC DEFINITIONS

Mental health

Mental health is defined as a state of well-being in which every individual realizes his/her own potential, can cope with the normal stress of life, work productively and fruitfully, and is able to make a contribution to his/her community (WHO, 2004)

The positive dimension of mental health is stressed in WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Mental health is the foundation for thinking, communication, learning, resilience and self-esteem of an individual. Mental health is also the key to relationships, personal and emotional well being and contribution to community or society.

Mental health involves effective functioning in daily activities resulting in productive activities (work, school, care giving), healthy relationships and ability to adapt to change and cope with adversity.

Physical activity - Physical exercise

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits. Regular moderate intensity physical activity –such as walking, cycling, or participating in sports- has significant benefits for health (WHO, 2017).

The term "physical activity" should not be confused with "exercise", which is a subcategory of physical activity that is planned, structured, repetitive, and aims to improve or maintain one or more components of physical fitness. Beyond exercise, any other physical activity that is done during leisure time, for transport to get to and from places, or as part of a person's work, has a health benefit. Further, both moderate- and vigorous-intensity physical activity improve health (WHO, 2017).

Physical activity promotes wellbeing, physical and mental health, prevents disease, improves social connectedness and quality of life, provides economic benefits and contributes to environmental sustain-ability. Communities

that support health enhancing physical activity, in a variety of accessible and affordable ways, across different settings and throughout life, can achieve many of these benefits. The Toronto Charter for Physical Activity (2010) outlines four actions based upon nine guiding principles and is a call for all countries, regions and communities to strive for greater political and social commitment to support health enhancing physical activity for all (Bull, Gauven, Bauman, Shilton, Kohl, & Salmon, 2010).

Sport

An activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment. An occasion in which people compete in various athletic activities (Oxford Living Dictionary).

Sport in UK or sports in USA are all usually forms of competitive physical activity or games which, through casual or organized participation, aim to use, maintain or improve physical ability and skills while providing enjoyment to participants, and in some cases, entertainment for spectators (Wikipedia).

MOTIVATION

Regular involvement in physical activities and exercise programs can help individuals with mild and severe mental health problems to improve both their physical and mental health as well as their quality of life.

METHODS/PROCEDURE/ APPROACH

The goal of this section was to establish general guidelines, based on recent scientific evidence, supporting the effect of physical activity (PA) and exercise, upon individuals with mental health problems (MHP). In order to reach that goal, a literature review was conducted, following the guidelines of Ackley, Swan, Ladwig and Tucker (2008). According to Ackley et al. (2008), different types of scientific questions may be answered by different types of research. The supporting level of evidence (LOE), often called hierarchy of evidence, is provided by studies with different methodological quality. The highest level of evidence is provided by systematic reviews or meta-analyses, followed by randomized control trials (RCTs), control trials without randomization (quasi experimental), etc. Based on the above, systematic reviews with interventions incorporating PA and exercise to treat individuals with MHP were considered. A broad search strategy was introduced, including a combination of key words (e.g. 'physical activity', 'exercise', 'health', 'recreation', 'mental health', 'patients with mental health problems', 'review studies', dementia', bipolar disorder', 'anxiety disorder', 'depression'), in the Scopus, PubMed and Cochrane Library databases.

REVIEW OF THE LITERATURE

Exercise and Depression relationship: Research evidence

The effect of exercise on depression has been the subject of research for several decades, and the literature on the subject is growing during that last few years.

Physical activity (PA) and exercise are recommended in clinical treatment guidelines as one of the potential options that should be offered to patients with subthreshold depressive symptoms or mild to moderate levels of depression (Cleare, Pariante, Young, Anderson, Christmas, Cowen et al., 2015; Ekkekakis, 2015). This recommendation is based on the assumption that exercise can serve as a psycho prophylactic factor for the treatment of patients who have also a mix of mental and physical health problems. Exercise therapy also improves body image, patient s coping strategies with negative emotions, quality of family and work life, and independence in activities of their daily life (Knapen, Vancamfort, Morien, & Marchal, 2015). Using a different approach, Stubbs, Vancampfort, Firth, Schuch, Hallgren, Smith et al. (2018) examined the association among sedentary behavior and depression in 42,469 individuals using cross-sectional data, which were analyzed in the World Health Organization's Study on Global Ageing and Adult Health. The results indicated that self-reported sedentary behavior was negatively linked to individuals' experience of depression. More specifically, people with depression spent approximately more than

30 minutes every day in sedentary behaviors than non-depressed participants, which was increased to 35 minutes for adults aged above 65 years old. The association between sedentary behavior and depression increased at higher levels of sedentary behavior, and specifically when it was exceeding more than 8h per day.

Following the previous findings, the Royal Australian and New Zealand College of Psychiatrists (Malhi, Bassett, Boyce, Bryant, Fitzgerald, Fritz et al., 2015) mentioned that the lack of exercise is recognized as an "agent that can potential lower mood." As such, it is a factor that should be addressed at "step zero" of stepped treatment: "it stands to common reason that for both mood and general medical well-being sedentary patients should be actively encouraged to engage in regular exercise" (p. 1119). "Step one" treatments (psychological therapy or pharmacotherapy) should be initiated only if "step zero" measures prove insufficient (Ekkekakis & Murri, 2017, p. A2).

Based on the wide clinical and theoretical knowledge on exercise and depression, researchers have noticed that exercise might affect differently different levels of depression. The positive effect of exercise has been supported and well established for subthreshold depressive symptoms or mild to moderate depression. In addition to that, recent meta-analytic and review studies suggested that exercise can reduce depression severity among adults with major depressive disorder (MDD) (Nasstasia, Baker, Halpin, Hides, Lewin, Kelly, & Callister, 2018). Given the limitations and accessibility of current psychological and pharmacotherapy treatment approaches, there is an urgent need to extend treatment options for youth with MDD. As there is substantial difference in some cases among different level of depression, the Canadian Network for Mood and Anxiety Treatments (Ravindran, Balneaves, Faulkner, Ortiz, McIntosh, Morehouse et al., 2016) recommended exercise as "first-line monotherapy for mild to moderate major depressive disorder and as second-line adjunctive treatment for moderate to severe major depressive disorder" (p. 579).

In addition to the above, meta-analytic and review studies strongly support the claim that exercise is an evidence-based treatment for both low to medium and major depression disorder (MDD) as well (Schuch, Vancamproft, Richards, Rosenbaum, Ward, & Stubbs, 2016). Larger effects were noted for physical activity interventions in MDD, using aerobic exercise, at moderate and vigorous intensities, in an unsupervised and supervised setting by exercise professionals. Based on that, exercise seems to exert an important and significant antidepressant effect in people with depression (including MDD). In some cases, previous research didn't indicate any effect of exercise on depression, however recent meta-analyses may have underestimated the benefits of exercise due to publication bias (Ekkekakis, 2015). Finally, research findings have supported that even regular leisure-time exercise was associated with reduced incidence of future depression (Harvey, Øverland, Hatch, Wessely, Mykletun, & Hotopf, 2018). The majority of this protective effect occurred at low levels of exercise and was observed regardless of intensity of depressive symptoms. After adjustment for confounders, the population attributable fraction suggested that, assuming the relationship was causal, 12% of future cases of depression could have been prevented if all participants had engaged in at least 1 hour of physical activity per week.

Exercise and Anxiety relationship: Research evidence

Although, only few population surveys measure anxiety disorders, lifestyle changes, such as an increase in levels of physical activity, can be a positive treatment supplement. A meta-analysis of exercise and anxiety reduction conducted by Petruzzello et al. (1991), reported a small-to-moderate effect of physical activity programmes with respect to trait anxiety. Another meta-analysis by Wipfli, Rethorst, and Landers (2008) examined the effects of exercise on anxiety and reported larger reductions in anxiety among exercise groups than no-treatment-control groups. Further, exercise groups exhibited wider reductions in anxiety compared with groups that received alternative forms of anxiety-reducing treatment.

Active individuals exhibited fewer symptoms of anxiety compared to inactives, as Azevedo Da Silva et al. (2012) reported. Jayakody Gunadasa and Hosker (2014) found that exercise could reduce symptoms of anxiety disorders such as panic and social phobia. However, they were unable to make conclusions about the optimal

mode or intensity of exercise.

In the frame of the National Comorbidity Survey in US, Goodwin (2003) measured a range of anxiety disorders and their relationship with physical activity. The results showed a significant association between regular physical activity and lower prevalence of current major depression, panic attacks, social phobia, specific phobia and agoraphobia. Furthermore, this study provided evidence of a dose-response effect, with those reporting the highest physical activity also reporting the lowest prevalence of mental disorders.

Herring, O'Connor, and Dishman (2010) conducted a systematic review of studies that used exercise training as a treatment for anxiety symptoms in patients with chronic medical conditions. They found a promising new line of research that could help many patients cope with anxiety symptoms. Moreover, Herring, Jacob, Suveg, Dishman and O'Connor (2012) conducted an intervention study with patients diagnosed with generalised anxiety disorder. The researchers found that the exercise groups (resistance and aerobic training) reduced worry symptoms in comparison to the non-exercise group.

Finally, in the exercise psychology literature the reductions in anxiety resulting from physical activity seem to last longer compared to exclusive counselling or medical treatments. Exercise can make individuals more resistant to stress, while individuals who participate in physical activities are better able to deal with every day difficulties and stressful situations.

Exercise and Schizophrenia relationship: Research evidence

Physical activity (PA) and exercise is perceived as the cornerstone to prevent cardiovascular diseases and associated mortality rates due to unhealthy dietary habits, sedentary lifestyle, weight gain, diabetes, metabolic syndrome, alcohol and tobacco use, etc. The most commonly employed form of PA is the involvement in aerobic exercise and there is a substantial body of recent literature examining the positive effect of aerobics for individuals with schizophrenia. The theory behind the above speculation lies in previous research findings claiming that aerobic exercise has an effect upon attention, memory and executive function through stimulating neuroplasticity. Exercise increase hippocampal volume and white matter integrity as well. Further research in patients with schizophrenia have demonstrated that physical activity/ exercise is associated with enhanced cognitive skills, greater white and grey matter volume and hippocampal volume neurotrophic factor (BDNF) that promote brain plasticity.

Accordingly, recent meta analytic studies, review studies and RCTs for the treatment of patients with schizophrenia through exercise and PA were examined. The goal was to summarize the recent literature and provide guidelines to researchers, clinicians and practitioners alike addressing the needs of individuals with schizophrenia.

Firth et al. (2017) found positive results of aerobics and claimed that in order to reach wider benefits from exercise, interventions using higher dosages (minutes per week) in supervised settings with specialized professionals are required. Positive results were also evident from a variety of RCT studies, with a different duration (e.g. 6 weeks, 8 weeks, 12 weeks, 6 months), exercise modules (e.g treadmill walking, aerobic and anaerobic – strength training, resistance training), frequency (e.g. 2 or 3 times per week) and intensity level (e.g. Heggelund et al., 2011; Scheewe et al., 2012; Strassing et al., 2012). It appears therefore that any form of exercise may be beneficial, but caution should be given to the guidelines presented by Vancampfort et al. (2015) for the designing of PA intervention programs for individuals with schizophrenia. These guidelines claim that empathy and encouragement are important issues throughout the intervention, since the patients are often struggling with ambivalence and doubt of their abilities to continue and keep up with the demands of the program. It is essential to create interventions based upon the preferences of patients, and develop an individualized plan taking into account the barriers the patients are confronted with (physical, cognitive and emotional). The patients must develop individual and achievable goals, adaptable always according to their physical activity background, side-effects of psychotropic medication, perceived exertion and overall exercise tolerance. Further, between-peers comparisons are not useful and specialist may focus on facilitating personal reasons to participate and being active for the positive experience of the activities themselves and not for a long-lasting and distance goal (e.g. weight reduction). Instead, emphasizing

short-term benefits is a more feasible approach, ideally after each session. Development of an identity as an active fit person is essential and encouragement of goal modifications sometimes is necessary. Specialists may also need to ask for support (e.g. family members and friends), and discuss with them problems related to barriers for participation.

Exercise and Bipolar disorder relationship: Research evidence

Besides the common pharmacological treatment, exercise and physical activity (PA) has been identified as a non-pharmacological intervention due to it's respective anti-inflammatory effect upon patients with Bipolar Disorders (BD). Researchers in the field agree that BD patients experience significantly lower levels of daily physical activity (PA), with respect to the ASCM guidelines. The reduced PA has been related to several secondary medical conditions, such as type II diabetes, metabolic syndrome, cardiovascular diseases (CVD), increased weight, and stroke. The secondary medical conditions and the increased risk of physical health problems have an impact upon the course of the illness, with an increased risk of recurrent episodes, frequent hospitalizations, unhealthy dietary patterns, physical inactivity, depressive recurrence, smoking, substance abuse, low-self efficacy, and an overall reduction in the cost-effectiveness of therapeutic interventions.

Accordingly, results from meta analytic and review studies are presented to provide general guidelines to researchers, clinicians and practitioners alike addressing the needs of patients with BD. Bauer et al. (2016) described the therapeutic interventions targeting nutrition, PA and wellness for individuals with BD. The interventions ranged in duration (from 12 weeks to 24 months), main outcome measures (e.g. BMI), estimates of autonomic functioning (e.g. blood pressure), glucose levels, cholesterol, quality of life, quality of sleep, exercise, thoughts about dieting and weight loss, mood, inflammation (e.g. C-reactive protein), etc. The researchers found that the interventions led to a decrease in body weight, reduced diastolic blood pressure, decreased severity of manic episodes, increased energy and exercise levels, better food choices, etc. These encouraging findings included individualized screening and coaching, adoption and maintenance of behavioral changes, sustained involvement and choice of primary goals (e.g. Life Goals Collaborative Care - LGCC).

Positive findings were reported from RCT studies examining the engagement of PA upon a variety of measures, such as BMI, body weight, cholesterol, glucose levels, waist circumference, sustained mood improvement, manic episodes, depressive symptoms, sleep quality, prolonged engagement in PA, wellness, proper nutrition, etc. (Gillhof et al., 2010; Goldstein et al., 2011; Kilbourne et al., 2013). These studies used a variety of interventions, with respect to content (e.g. motivational intervention, patient self-management of physical health goals - Life Goals Collaborative Care, LGCC) and duration (3 to 24 months long).

Exercise and Dementia relationship: Research evidence

Researchers have argued that non pharmacological interventions, such as physical activity (PA) and exercise appear as an alternative treatment for patients with dementia. The beneficial effect of PA upon cognitive and physical function has been described through the induced neurological changes within the cerebral structures. The enhancement of neurotrophin levels, neurogenesis, vascularization, increased volumes of the prefrontal cortex and anterior hippocampus within the brain may explain the beneficial effects. Further, the PA may also mediate neuroinflammation, inhibit neuronal dysfunction and even reduce the aggregation of pathogenic proteins responsible for the disease.

In the present effort we attempted to summarize recent literature and provide evidence for the beneficial effect of physical activity (PA) and exercise for the treatment of individuals with dementia and related severe mental illnesses (e.g. Alzheimer, severe mental illness, Parkinson). Positive research findings were evident, using different intervention modules and duration and providing useful guidelines for researchers and practitioners alike. Riemersma-van der Lek et al. (2008) examined the effect of bright light in a group of patients with dementia and reported gains in the outcome variables assessed (physical activity and activities of daily living). Ancoli-Israel et

al. (2002) examined the effect of two hours evening bright light sessions, combined with 2 hours evening dim light sessions and sleep restriction rules and reported significant gain upon the PA levels for the SMI patients involved. Holmes et al. (2006) used a sequence of live music, recorded music and silent periods (30 minutes each), and examined their effect upon the involvement in PA of patients with dementia. The researchers reported that the engagement to PA was higher in the life music condition and lower in the recorded music (Holmes et al., 2006). Sixsmith and Gibson (2007) reported improved participation of dementia patients in activities that are personally stimulating, individualized and meaningful to them. Cioffi et al (2007) examined the effect of a decorative environment, with unrestricted areas, large windows and multisensory rooms, upon the engagement on PA of dementia patients. The researchers found improved engagement in PA and activities of daily living, and concluded that the unrestricted nature of the environment provides freedom to walk and engagement in daily activities (Cioffi et al., 2007).

Beebe and colleagues (2011) conducted a 16 week walking program, 3 times per week, upon the attendance, persistence and compliance of patients with severe mental illness (SMI). The researchers reported increment in persistence and compliance with the demands of the program. Bodin and Martinsen (2004) examined a program of martial arts versus stationary bicycling on the perceived self-efficacy and depressive symptoms. The researchers found that the martial arts condition increased self-efficacy, which in turn, was not associated with the depressive symptoms of patients. Similar gain was not evident in the stationary bicycling group. The researchers stated that the participants in the martial arts group motivated each other to perform the activities and enjoyed the program throughout (Bodin & Martinsen, 2004). Daumit et al. (2011) conducted a 6 month intervention, focusing on healthy meals, organized PA in groups and weight management counseling in SMI patients. The researchers claimed that there was success on the program attributed, to an extent, from the social support and encouragement the participants experienced during the 6 months period (Daumit et al., 2011). Van Citters et al. (2010) conducted a 9 months individualized health promotion program. The participants met with a health mentor once a week and had free access to fitness facilities throughout the study. The researchers found that the readiness to engage in exercise increased during the intervention, while significant gains were observed for time involvement in PA as well (Van Citters et al., 2010).

CONCLUSIONS/ IMPLICATIONS/ RECOMMENDATIONS

Physical Activity/Exercise and Depression

Based on the research findings and the guidelines of National Institutes around the World, the following recommendations can be followed for the use of exercise for individuals with depression:

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 treatments (Knapen et al., 2015). 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) at 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 may last more 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. Furthermore, the National Collaborating Centre for Mental Health and National Institute for Health and Care Excellence (2010) at United Kingdom (Clinical Guideline 90) indicated that “for people with persistent subthreshold depressive symptoms or mild to moderate depression”

(p. 213), a "structured group physical activity program" should be presented among other "low-intensity" treatment options. Such a program should (a) be delivered in groups with support from a competent practitioner, and (b) consist typically of three sessions per week of moderate duration (45 min to 1h) over 10 to 14 weeks.

Physical therapists, exercise physiologists, physical educators and other health related professionals should be aware that several symptoms of depression (e.g., amotivation, loss of appetite, interest, and energy, generalized feelings of mental and physical fatigue, cognitive deficiency, low levels of self-confidence and general self-esteem, as well as, psychosomatic complaints) along with physical health problems may interfere with participation in exercise. Therefore, motivational strategies are important and should be applied and incorporated in exercise interventions programs in order to enhance the patients' motivation and adherence, which are two very important factors of exercise efficiency (Knapen et al., 2015). As a conclusion, exercise and PA may be recommended as an effective treatment if it is supervised, structured, and organized, the patient is engaged for 3 times/ week, for 45' to 60' of moderate intensity, for approximately four months.

Physical Activity/Exercise and Anxiety disorders

Based on the research findings the following recommendations can be followed for the prescription of exercise for people with anxiety disorders:

What type of exercise is suitable? Running, walking, cycling, swimming, or aerobic dance are the common physical activities associated with anxiety reduction.

How often should someone exercise? Exercise must be performed at a minimum of three times per week to reduce trait anxiety. For state anxiety, a single bout of exercise can create positive emotions and anxiety reduction. However, this reduction in state anxiety is temporary and usually lasts only few hours.

How hard should someone exercise? It is not necessary to exercise at high intensity in order to produce a positive influence in anxiety. Usually, both moderate and low intensity exercises seem to be effective in anxiety reduction.

How long should someone exercise? Exercise sessions should last at least 15-20 minutes in order to produce noticeable reductions in anxiety.

How soon an improvement should be expected? Exercise programs must be performed for a minimum of nine to twelve weeks to result in a significant improvement in trait anxiety. Further, exercise should become part of ones regular lifestyle if he/ she wants to retain the positive effects.

To sum up, take into your consideration some directions:

- Choose an exercise that you personally like,
- Select relaxing thoughts while you exercise,
- Learn to listen to your body for stress signals,
- Don't get carried away with your exercise program - the more is not the better always,
- Be flexible if you don't gain desired benefits – make adjustments if needed,
- Exercise with your favourite music,
- Give some variety in your exercise – in kind, frequency, intensity or duration.

Physical Activity/Exercise and Schizophrenia

Following the suggestions of scholars in the field, it appears that aerobic and combined aerobic/ anaerobic exercises (e.g. 30 min of indoor cycling, three times per week for 3 months) improves the cognitive deficits of patients with schizophrenia (Falkai, Malchow, & Schmitt, 2017) and may be prescribed with confidence. Aerobic interventions should shift from 'fatness to fitness', since health and mortality are primary outcomes while BMI and weight may be perceived as secondary outcome variable (Vancampfort, Rosenbaum, Ward, & Stubbs, 2015). Achievable and realistic goals are essential elements and all professionals involved may need to have adopted, in advance, a behavior strategy to negotiate the (possible) relapse of the patients throughout their involvement in PA. Vancampfort et al. (2015) reported that 'it is important to explain to persons with schizophrenia that relapses are part of the process of change and that responding with guilt, frustration and self-criticism may decrease their ability to maintain PA. Relapse prevention strategies such as

realistic goal setting, planned activity, realistic expectations, identifying and modifying negative thinking, and focusing on benefits of single exercise sessions seem to be effective' (p. 10). The presence of qualified professionals (e.g. exercise physiologists, physical therapists) and the respective supervision will minimize the dropout rates and maximize the efficiency of the prescribed PA programs for individuals with schizophrenia (Vancampfort et al., 2016).

Physical Activity/Exercise and Bipolar Disorders

The research findings so far justify the necessity for well-designed intervention programs to enhance PA, reduce sedentary behaviors and decrease the elevated risk for comorbid conditions in patients with BD (Janey et al., 2014; Vancampfort et al., 2016). A multidisciplinary team of psychologists, psychiatrists, nutritionists, experts in PA and sports (e.g. exercise physiologists) may work together and facilitate the patient's compliance and adherence to the demands of the interventions (Bauer et al., 2016). Another practical advice is to increase the time spent in light physical activity every day (e.g. getting up from the chair and moving around during TV breaks, adding five minutes walks) which may 'position sedentary people with bipolar disorder to transition to brief bouts of moderate-to-vigorous intensity physical activity as well as muscle strengthening activities in order to improve long-term physical outcomes' (Vancampfort et al, 2016, p. 151). Further, the complications of PA and exercise must be taken under consideration (Melo et al., 2016). PA may very well relieve the symptoms of hypomania and prevent mood changes on one hand, but on the other hand it may worsen manic or hypomanic episodes (Melo et al., 2016). Clinicians therefore must be aware of the subtype, phase of the BD and comorbid conditions that limit adherence and participation (Wright et al., 2016). The PA interventions may attempt to accommodate the multiplicity of affective states experienced by the patients, such as mania, hypomania, depression, euthymia and mixed affective states. The duration, frequency and intensity of the planned PA programs therefore may be constantly adjusted, according to the phases experienced by the patients. The PA programs will require decisions as to whether the intervention will be combined with pharmacological treatment, incorporate input from other health professionals (e.g. nutritionists), combine cognitive or behavioral therapies, etc. The clinicians may also use the patient's opinion and previous experience to enhance acceptability upon the demands of the intervention (especially for new exercises with BD). Factors such as past experiences, beliefs, choices, abilities, attitudes, opinions of significant others, accessibility, self-confidence, etc. may have a detrimental impact upon their engagement and adherence to any prescribed PA intervention (Wright et al., 2016).

Physical Activity/Exercise and Dementia

The literature suggested that aerobic exercises, with a frequency of 3 - 4 times per week seem beneficial for individuals with Severe Mental Illness (SMI), Alzheimer and Parkinson disease (Dustine & Moore, 2005). The sessions however may not exceed 30 minutes each. The intensity, in turn, may not exceed 11-14 points of a 20 Likert type scale. Resistance exercises are very useful, but they may be restricted to 2 sessions per week, with a single set of 8-12 repetitions at baseline, at 50-70% of their 1RM. Professionals may increase the work load to 2 sets of 8-12 repetitions each. Flexibility exercises are essential, 5 times per week, with repetitions lasting no more than 20-30 seconds, to retain the full range of motion. These guidelines must be followed with a warm up and cool down sessions, lasting no more than 5-10 minutes each. With respect to patients with an Alzheimer disease, Dustine and Moore (2005) claimed that walking is the preferred method to retain PA levels, with individualized and feasible goals. The major goal however is the pleasure the patients experience throughout the activity. The duration and frequency differ, according to individual needs and preferences. Muscle tone exercises are useful, usually in a seated position. Again, personal enjoyment is the necessary criterion for the patients to engage, with 10-12 repetitions in each exercise. Finally, with respect to Parkinson, Dustine and Moore (2004) claimed that different exercise modules, besides walking, such as hand cycle ergometer and rowing machines are useful to retain and increase the patient's work capacity. The frequency for aerobic exercise (3 times per week), intensity of 60-80% of maximum HR and duration of less than 60 minutes is preferable. To increase endurance patients may also engage themselves in short distance

outdoor walking (20-30 m), usually under supervision. The short walking sessions are held 4-6 times per day and the preferable speed is self-selected from the patients. With respect to strength, gym equipment is used, with light weight, 3 sessions per week, with 1 set of 8-12 repetitions for major muscle groups. Flexibility exercises are also important, to retain and increase the range of motion, with a frequency of 1-3 sessions per week.

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03

MENTAL INDICATORS AND PHYSICAL ACTIVITY

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INTRODUCTION

The physiological benefits of physical activity are well known, as they may promote a better quality of life by substantially reducing the risk of developing diabetes, heart conditions and a number of other conditions that are aggravated by a sedentary lifestyle (Richardson et al., 2005). Research studies in this area have reported a 60% reduction in chronic physical conditions (Richardson et al., 2005). Moreover there is growing literature supporting the psychological benefits of regular physical activity ranging from improved mood to reduction of depression, anger, anxiety (Hassmen et al., 2000), while improving self - efficacy and complex cognitive and physiological processes that can ameliorate conditions such as clinical depression (Hassmen et al., 2000).

Over the last few decades mental health disorders have become an increasingly pressuring problem of public health systems. This problem has led to the exploration of alternative systems to support and complement medical and psychiatric treatment in light of increasing evidence for the benefits of physical activity on medical disorders. People suffering from mental disorders are more likely to have a sedentary lifestyle accompanied by higher probabilities to develop diabetes and high blood pressure due to the medication, poor diet and low activity rates (Richardson et al., 2005). Therefore, the potential benefits of physical activity on mental disorders are significant as it can help ameliorate the side effects of medication, while improving multiple psychological aspects such as the mood, self-perception, emotional stability, confidence, memory and self- control (Taylor et al., 1985).

Physical activity, exercise and fitness are three terms that are commonly used, and quite frequently interchangeably as synonyms. However, it is important to clarify that these concepts are not the same. According to Caspersen et al. (1985) physical activity consists of any bodily movement produced by muscles that result in energy expenditure (i.e. occupational, sports, or other activities). Exercise, on the other hand, can be defined as any sub-category of physical activity that is planned and structured, to improve physical fitness. Lastly, physical fitness refers to a set of attributes that are health or skill related. In the context of this policy report, the broader concept of “physical activity“ will be used

throughout.

The influence of physical activity can be seen from a number of perspectives. It can help an individual change his daily routine, interact with others, increase self- esteem and confidence, master physical challenges, gain new skills, have a better body awareness and benefit from its positive physical impacts (Callaghan, 2003; Ströhle, 2009; White et al., 2009). It can be used to promote the well-being and positive psychology via the positive effects of physical activity (physiological and psychological (Daley, 2002), while on the other hand it can help prevent and treat mental illness and disorders (Fox, 1999). The majority of the articles and research addressing the benefits of physical activity on mental health deal mainly with depression. However there is growing research and need for more with respect to the benefits of physical activity in more serious mental illnesses.

Statement of the Problem: The purpose of the present policy paper was to address the above issues and discuss the evidence based benefits of physical activity upon individuals with a variety of mental health illnesses, such as depression, anxiety disorders, schizophrenia, bipolar disorder, etc.

METHOD

In order to identify what is known about the aspects associated with physical activity and mental health, a narrative literature review was conducted. Narrative reviews embrace a less formal approach than systematic reviews, however there are still very "useful in gathering together a volume of literature in a specific subject area and summarizing and synthesizing it" (Cronin et al., 2008, p.38). The identification of the sources for this narrative literature review was carried out by employing a systematic key-word search into relevant scholarly databases (Web of Science, PsycINFO, Scopus, Google Scholar, SportsDiscus) to identify a wide range of relevant literature. These searches were conducted including controlled keywords such as 'physical activity', 'mental health', 'mental disorders', 'exercise', 'psychological effects', and 'sport'. The search was limited to scholarly academic articles and conference proceedings in English.

REVIEW OF THE LITERATURE

DEPRESSION

Recognizing the importance of mental health, mental health services in the UK have reached a consensus that there is a positive association between physical activity and mental health. Physical activity and exercise are perceived as helpful supplements for the treatment of anxiety disorders and may benefit emotionally people of all ages regardless of their sex (Callaghan, 2003). Depression seems to be related to one's perception of the physical self on which physical activity can have some positive influence upon (White al., 2009). In most studies physical activity has a positive effect on depression comparable to that of psychotherapy (Fox, 1999; Ströhle, 2009) and improvement can be equivalent to that of cognitive therapy (Richardson et al., 2005).

The benefit is greater for people with moderate depression and studies carried out on larger populations have shown that people who engage in physical activity regularly over longer periods of time have significantly lower depression scores regardless of age (Hassmen et al., 2000; Morgan, 1997). The type of physical activity, aerobic or anaerobic, does not seem to make a difference and can bring up to 50% reduction of symptoms. Even in severe cases of depression, 30 min of treadmill training, for 10 consecutive days produced statistically significant reduction in depressive symptoms (Ströhle, 2009).

Moreover, apart from reducing the negative effects of depression, physical activity has an important effect on increasing positive aspects such as increased coping efficacy, better memory function (Foley et al., 2008), sense of coherence, perceived health and fitness, and an increased sense of social integration (Hassmen et al., 2000). In addition physical activity can improve the quality of the sleep cycle, which is generally affected when depressed or under stress, thus, promoting the effectiveness of antidepressants (Stathopoulou et al., 2006).

The procedural path of intervention is not fully understood and needs to be further explored. Nevertheless the fact that physical activity can bring similar and sometimes superior results to those of psychotherapy is

noteworthy and significant enough to consider physical activity when comparing the costs of traditional treatments like psychotherapy (Morgan, 1997). Furthermore, the health benefits of physical activity, such as improved mood, self – esteem and restful sleep provide a compelling argument for adopting physical activity as an alternative or a parallel type of therapy (Atkinson, 2007).

ANXIETY DISORDERS

Intense physical activity reduces state anxiety, which can be attributed to the effect of the distraction element (Morgan, 1997), and physical activity can have anxiolytic effects on healthy population, but this has not been yet generalized on clinical populations. The majority of the studies show that physical activity brings about various physiological changes that cannot be associated with other relaxations techniques. Sports are consistently more effective in reducing stress as opposed to more purposeful physical activities such as housework and cycling to work. This might be attributed to the perceived linkage between the activity and its purpose, leading to reduced enjoyment of the activity itself (Asztalos et al., 2009).

The most noticeable changes in people with anxiety disorders are shown to be induced by following a physical activity regime accompanied by medical treatment. However, caution is required as some of the sensations brought up by physical activity can be perceived as those experienced under stress i.e increased heart rate, sweating etc (Stathopoulou et al., 2006; Ströhle, 2009).

Overall, the benefits of physical activity and exercise on reducing anxiety has received some attention from scholars, however, there is still a need for further evidence as this is a field that is not sufficiently explored.

BIPOLAR DISORDERS AND SCHIZOPHRENIA

Bipolar disorder and schizophrenia can be debilitating psychiatric disorders accompanied by high mortality rates, and increased risks of developing cardiovascular disease, diabetes, obesity, hypertension and dyslipidemia (Vancampfort et al., 2012). The reason for these increased risks is not attributed to a single factor, but rather the interaction of the treatment, genetics and lifestyle. As the majority of the people suffering from schizophrenia or bipolar disorders do not engage in regular intense physical activities (Wright et al., 2009), and especially in those that include social interaction, the adoption of physical activity as part of a multidisciplinary treatment is of special importance (Vancampfort et al., 2012).

Studying and monitoring the effect of physical activity in people with serious mental illnesses is particularly challenging due to different barriers ranging from the medication side effects, to stigmatization and limited access to the mental health system. These factors along with the lack of sufficient research in this area make the adoption and maintenance of incorporating physical activity in the mental rehabilitation program especially difficult (Hodgson et al., 2011).

Nevertheless, based on the limited studies on bipolar disorders, there is enough evidence to support the positive effect of physical activity on the physical and mental health in people with serious mental disorders. In people with schizophrenia, exercise can help reduce auditory hallucinations, improve the sleep pattern and self-esteem (Callaghan, 2003). As weight gain and cardiovascular disease is almost inevitable, while the cost effectiveness of physical activity has already been highlighted, its integration in the treatment of serious mental illness such as bipolar disorder and schizophrenia is essential (Vancampfort et al., 2012). On the other hand, exercise can help people with serious mental illness by promoting social interaction, which is important for mental recovery (Hodgson et al., 2011).

Benefits to physical well-being were not reported as much, whereas aspects such as the feeling of attainment, the sense of structure, the voluntary aspect as opposed to the 'must follow your treatment' approach, the social interaction and the increased confidence seemed to be the more important benefits to the participants (Hodgson et al., 2011). Physical activity has the potential to help people with schizophrenia be optimistic as it can help them experience success, take control, maintain relationships, find meaning, and achieve a sense of normality (Hodgson et al., 2011). Despite the benefits there are serious obstacles, such

as accessibility and expense that make the adoption of physical activity difficult, whilst monitoring and support by sensitive staff is also essential to adhere to any regular activity in the long term (Hodgson et al., 2011).

Similarly to depression and anxiety disorders, the mechanism and the extent to which physical activity helps improve serious mental health disorders cannot be easily determined, and can differ from person to person. Yet, physical activity helps increase confidence and self-esteem and offers a means of distraction from the effects of the illness.

OTHER AREAS OF POSITIVE BENEFIT

In non-clinical population studies assessing the impact of physical activity and especially that of aerobic exercise, an inverse relationship between exercise, emotional well-being and depressive symptoms was reported. The intensity of the activity seems to be important contrary to the findings of other studies, pinpointing to the fact that increased aerobic power is required for a stronger relationship between physical activity and low rates of depression (Galper et al., 2006).

An earlier large scale study on a non-clinical population that took place in California (Camacho et al., 1991) showed that the risk of developing depressive symptoms is dramatically reduced by following a regular physical activity routine. What is also interesting is that the regency of the physical activity is relevant as people who gave up physical activity over time were one and a half times as likely to develop depression as were those who maintained their daily levels (Camacho et al., 1991).

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

Further, there is increasingly supporting evidence about the benefits of physical activity in people with diabetes, obesity, and certain types of cancer such as colon and breast cancer (Bauman, 2004). Other areas where the benefit of physical activity has been shown to be effective is in cases of substance and alcohol abuse. Adopting physical activity alongside a rehabilitation program is more effective helping to reduce cravings, anxiety and depression, compared to usual treatment (Stathopoulou et al., 2006).

Considering the cost and the stigma related with traditional therapies, physical activity presents a cost effective alternative since most studies have shown that it helps to manage and lower depressive symptoms.

POSITIVE PSYCHOLOGY

It is well known and proven that physical activity has various benefits on human health strengthening the body and the mind and promoting one's well-being, which is not defined only in terms of not being depressed or stressed. Being well is subjective and there are a number of positive feelings that once evoked they can promote positive psychology (Hefferon & Mutrie, 2012). Positive psychology helps increase resilience and overcome negative situations by increasing positive emotions. Since the majority of the studies show an increase in the 'feel good' effect after a physical activity, it can be concluded that physical activity is a positive psychological intervention (Hefferon & Mutrie, 2012). This can be taking place by improving self-acceptance, autonomy, environmental mastery, positive relationships, personal relationships, and purpose in life through physical activity (Hefferon & Mutrie, 2012).

Approaching physical activity from a different perspective bringing together the body and the mind is currently being put to practice in Australia, where an 'exercise clinic' uses intervals of 'high intensity' physical activity as a 'drug' to manage different chronic health problems (Clarke, 2017). People are empowered this way to take control of their physical and mental health. Working together with the patients' doctors and therapists, people are empowered to take control of their physical and mental health supporting the evidence for following a combined treatment (Clarke, 2017).

CONCLUSION

Physical activity has been shown to reduce a number of health risks such as obesity, diabetes, high blood pressure, benefits the patients of certain types of cancer, reduce depressive symptoms, anxiety as well as the negative effects of different mental health illnesses. Even though the mechanism is not fully understood and further research is required, the benefits of physical activity and exercise are undoubtedly significant bringing together the body and the mind of humans in order to achieve well-being.

When it comes to design any type of health intervention program, patients' opinions and perceptions are of great significance and should be taken into account. In a study conducted by Daley (2002) on the value of physical activity to mental health clinical populations it was reported that more than 50% of the patients recognize the value of physical activity and they also regard it as the treatment that helped them most.

Nevertheless, when employing any physical activity program the specific needs and characteristics of the targeted group should be taken into consideration, especially when it comes to clinical populations, which quite frequently are accustomed to a sedentary lifestyle. Physical activity should be used in conjunction with counselling and medical therapies in order to enable patients sustain a regular program that promotes the respective positive aspects (Daley, 2002).

Given the evidence of the benefits, both at physiological and psychological level, and the cost associated with mental health, physical activity should be further encouraged to become part of the therapeutic treatment recognizing the importance of both the mind and body (Daley, 2002).

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04

THE PREVENTIVE ROLE OF PHYSICAL ACTIVITY IN MENTAL HEALTH

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INTRODUCTION

There is a growing body of evidence on the positive association between physical activity and mental health, mental development and cognitive processes. A notable number of longitudinal and cross-sectional research studies converge on the usefulness of physical activity as a preventative strategy and adjunct treatment for mental illness. Physical activity has been reported to affect a wide spectrum of health factors ranging from emotion and mood, quality of life, self-esteem, social activity and cognitive functioning.

Examination of self-perceived stress resilience and trait anxiety (which may be risk factors for developing severe mental health problems) revealed that individuals may get psychological, as well as physiological benefits from physical activity. Substantial evidence also suggests that physical activity reduces symptoms of depression, anxiety, distress and enhance well-being.

STATEMENT OF THE PROBLEM

The purpose of the present policy paper was (a) to explore the association between physical activity and mental health and (b) to demonstrate the usefulness of physical activity as a preventive strategy against several symptoms of mental disorders.

Specifically, the paper will provide:

1. a **literature review** of scientific papers, evidences and good practices demonstrating the preventive potential of physical activity against mental disorders and the positive effects it may have on public health and active ageing. The paper also proposes a bottom-up enquiry, where relevant actors operating in the field of physical activity, sports and mental health report their experiences.
2. **relevant national policies and EU directives** promoting health-enhancing physical activity.
3. **recommendations** for policy makers and

suggestions for the promotion/support of effective initiatives at European, national and local levels. Specifically, the recommendations will aim at raising awareness on the risks of physical inactivity.

PURPOSE/MOTIVATION OF THE PROPOSED POLICY PAPER

Based on the association between mental health and the benefits arising from the participation in physical activities, this paper will:

- Demonstrate the preventive value of physical activities through a literature review;
- Present relevant national policies and EU directives, with particular reference to HEPA- Health-Enhancing Physical Activity, issued by the Council of the European Union;
- Present the MENS network in the development of a scientific background, which will be a valid contribution to the regional, national and EU policies on sport and health;
- Provide recommendations for policy makers and suggestions for the promotion/support of effective initiatives at European, national and local levels.

METHODS / PROCEDURE / APPROACH

A large body of empirical evidence exists with respect to the effectiveness of physical activity in the prevention of depressive symptoms and mental disorders. The evidence proposed in this paper mainly derives from correlational and longitudinal studies, systematic reviews and meta-analyses.

A correlational study seeks to figure out if two or more variables are related. Several epidemiological studies have found significant cross-sectional correlations between mental health and physical activity (PA) levels: regular PA is associated with a) a decreased prevalence of depression, panic disorder and social phobia, and b) low rates of affective, anxiety, or substance use disorder. More specifically, McAuley (1994) identified the positive association between exercise and psychological wellbeing, Bucksch and Schlicht (2006) the relevance between physical activity and mood, while Cooney (2013) revealed that PA decreases the incidence rates of depressive and anxiety disorders in older adults.

A longitudinal study is an observational research method in which data are gathered for the same subjects repeatedly over a period of time. In their longitudinal study, Mammen and Faulkner (2013) provided valuable insight into the preventing role of physical activity in depression.

Scientific evidence has also been based on systematic reviews and meta-analyses, where papers and articles have been sought through a combination of key works such as “physical activity”, “mental health”, “depression”, “anxiety”, “self-esteem” and “mental wellbeing”.

1. REVIEW OF THE LITERATURE

For basic definitions of “physical activity”, “physical exercise” and “sports”, please refer to the policy paper Development of model(s) of sport event(s) (2018) by the University of Athens.

Association between physical activity (PA), depression, anxiety and stress: research evidence

Sufficient evidence nowadays confirms the existence of a strong association between physical activity and a number of dimensions of mental health. **Depression**, for example, is a common mental illness: it is predicted that by the 2020 it will be the leading cause of disability worldwide. The illness has tremendous impact on quality of life, is associated with an increased risk of secondary health conditions (i.e. cardiovascular disease) and its adverse effects extend beyond the individual, mainly in terms of care burden and health costs for the community. However, the exact dose-response relationship between physical activity and depression is unclear. Faulkner (2016) stated that taking into account the possible methodological limitations, confounding factors and bias, studies continue

to demonstrate a relationship between physical activity and a decreased risk of **depression**. Promoting physical activity may serve as a valuable mental health promotion strategy in reducing the risk of developing depression.

Strawbridge et al (2002) compared the effects of higher levels of physical activity on prevalent and incident **depression**. The researchers found that even with adjustments for age, sex, ethnicity, financial strain, chronic conditions, disability, body mass index, alcohol consumption, smoking, and social relations, greater physical activity was protective for both prevalent **depression** and incident depression over a period of 5 years.

Salmon (2001) stated that claims for the psychological benefits of exercise have tended to precede supportive evidence. Results of cross-sectional and longitudinal studies are more consistent and indicate that aerobic exercise training has **antidepressant** and anxiolytic effects and protects against harmful consequences of **stress**. The emotional effects of exercise however remain confusing, since both positive and negative effects have been reported.

Hyland and Swan (2012) presented a comprehensive review of the empirical literature regarding the beneficial effects of exercise based interventions for the alleviation of **anxiety** and mood disorders. The evidence obtained from longitudinal studies, in conjunction with data obtained from well controlled cross-sectional studies, provided empirical support that engagement in regular physical activity can prevent the onset of depressive and anxiety symptoms and lead to substantially greater psychological health. Additionally, in the case of **depression** these improvements are at least equal to those observed in pharmacotherapy treatments, and there is tentative evidence that exercise-based interventions may also produce clinical improvements in both anxiety and depressive symptoms equal to those observed in Cognitive Behavioral Therapy (CBT) based interventions.

Hyland and Swan (2012) stated that exercise based treatments offer a highly effective alternative to conventional treatment methods for both anxiety and depressive disorders. Exercise treatment is fully accessible to practically all individuals, with few, if any, associated financial costs, and no known or obvious side-effects.

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.

Scully, Kremer, Meade, Graham and Dudgeon (1998) stated that it seems safe to accept that exercise regimens will have a positive influence on **depression**, with the most powerful effects noted among clinical populations. Further, research evidence suggest that a) aerobic exercise is most effective, including activities such as walking, jogging, cycling, light circuit training, and weight training, and b) regimens extending over several months appear to yield the most positive effects.

With respect to **anxiety**, Scully et al (1998) stated that the literature unequivocally supports the positive effects of exercise, with short bursts of exercise appearing to be sufficient. In addition, the nature of the exercise does not appear to be crucial. The most positive effects are noted among those who adhere to programs for several months. As for **stress responsiveness**, the role that exercise can play is probably best described as preventive rather than corrective, and the stress response itself remains only partially understood. With these caveats in mind, it would appear that a regimen of aerobic exercise (continuous exercise of sufficient intensity to elevate heart rate significantly above resting pulse rate for over 21 minutes duration) may significantly enhance stress responsiveness, and in particular stress that is related to lifestyle or work.

Association between physical activity (PA), affect, mood and self-esteem: research evidence

There is enough evidence nowadays describing the benefits of physical activity (PA) for physical and psychological health. There are several meta-analyses showing the positive effects of PA and sports on mental health and confirming that activities of low-to-moderate intensity substantially affect the psychological well-being. Kanning and Schlicht (2010) stated that subjects in the exercise samples had higher positive **affect** levels when compared with the inactive control groups. An interesting finding was that physically active episodes were smaller when mood scores were high. This could be suggestive of a ceiling effect: the higher the **mood** scores are, the less PA

affects mood. It may also support the idea that PA may be a "tool" for mood repair, which is a topic of critical concern to health professionals and public health practitioners who promote wellbeing and quality of life.

Several studies have investigated the **mood** enhancing properties of exercise and have shown that exercise may indeed have a positive influence on mood state. Overall these results do indicate that various forms of exercise, both aerobic and anaerobic, may be associated with an elevation of mood state, although given the diversity of results it is likely that more than one underlying mechanism may be implicated. Scully, Kremer, Meade, Graham and Dudgeon (1998) claimed the positive link between exercise and self-esteem, which appears to be strongest among those whose **self-esteem** is low. Self-esteem improved with participation in physical activity regardless of physical activity type.

Physical activity and exercise have consistently been associated with positive **mood** and **affect**. A direct association between physical activity and psychological well-being has been confirmed in several large-scale epidemiological surveys, by means of various measures of activity and well-being. Bingham (2009) claimed that higher levels of physical activity were associated with greater health-related quality of life among persons with diagnosed mental disorders. Researchers observed a spectrum of improvements and cautiously concluded that "physical activity can be beneficial for people suffering from mental disorders." Several types of exercise are effective in changing self-perceptions, but most of the supporting research evidence clusters around aerobic exercise and resistance training, with the latter showing greater effectiveness in the short term. Further, physical fitness training was noted to reduce depression and anxiety, elevate low self-esteem and promote a generally healthier psychological state in youth offenders.

Edmunds (2015) claimed that the potential benefits of physical activity in terms of emotional, cognitive and social wellbeing receive relatively less attention. **Self-esteem** for example is fundamental to psychological wellbeing. It is regarded as a key indicator of emotional stability and adjustment to life demands. High self-esteem is associated with a number of positive characteristics such as independence, leadership, adaptability and resilience to stress and health-related behaviors. On the other hand, low self-esteem is associated with mental illness such as depression and anxiety. Low self-esteem is predictive of depression, while high self-esteem predicted positive mood state and higher levels of relationship satisfaction. However, not all physical activity interventions are effective and some may even be detrimental to **self-esteem**. Therefore it is important to consider the underlying mechanisms for how and why physical activity improves self-esteem. Edmunds (2015) provided several suggestions that may be used from practitioners when designing and implementing physical activity interventions. Based on motivational theories, research has shown that having choice and control over the physical activity you do (what type of activity, how often and at what intensity) is associated with greater persistence, greater enjoyment and a more positive impact on wellbeing. Further, exercisers benefit from getting feedback on their progress. Physical activity goals should be set so that they are achievable and result in feelings of success. Besides, where physical activity is undertaken - as part of a group or brings the exerciser into contact with other people - is an opportunity for individuals to increase their social networks and make friends, which are acknowledged as protective factor for wellbeing and mental health.

Zschucke et al (2013) attempted to gather clinical and experimental evidence on the benefits of physical activity (PA) and exercise in the prevention and treatment of affective disorders. A large number of clinical studies have investigated exercise-induced decreases in negative **affect** and sleep disturbances. Overall, a moderate clinical effect was found when exercise was compared to no-treatment or a control treatment. Contrasting exercise interventions to cognitive therapy or antidepressants, no significant differences in the reduction of depressive symptoms were found at the end of treatment, indicating that exercise was as effective as these standard treatments.

Very few studies have finally dealt specifically with **walking** and their results are equivocal. Striking contradictions and inconsistencies are evident, mainly due to different methodological choices: examining for example only changes in anxiety to the exclusion of other affective states, which might be influenced by walking. Ekkekakis et al (2000) examined whether short

bouts of walking can bring about significant changes in **affect**. Walking is being promoted as one such activity that is easy to do, familiar, generally safe and inexpensive. Walking has been shown to be the most popular mode of health-oriented physical activity among adults. The results showed that short bouts of walking were associated with significant and often substantial shifts towards higher activation and improved affective valence. The study was limited to samples of young, healthy and mostly physically active individuals. Whether the findings will generalize to other populations, such as the elderly, or various patient and medically vulnerable populations, remains unknown.

The effect of physical activity (PA) in cognition: research evidence

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.

Most cross-sectional studies show that older adults who are fit display better cognitive performance than those who are less fit. Bingham (2009) stated that the association between fitness and cognitive performance is task-dependent, with tasks that are rapid and demand attention (e.g., reaction-time tasks) having the most pronounced effects. Results of intervention studies are equivocal, but meta-analytic findings indicated a small but statistically significant improvement in cognitive functioning among older adults who increase their aerobic fitness (Bingham, 2009).

Several prospective studies have found that a high level of PA seems to delay the onset of dementia: Zschucke, Gaudlitz and Strohle (2013) stated that since improvements in strength and endurance after training were found in cognitively impaired patients as well as healthy controls, PA interventions are generally feasible in this population. A recent review concluded that PA interventions of all types are beneficial to slow down cognitive decline, and that the best effects can be found with moderate intensity (e.g., brisk walking) for at least 30 minutes on five days per week (Denkinger et al, 2012). Finally, Van Uffelen (2007) carried out a study which made evident that partial improvements in memory and attention occurred in subjects with exercise adherence.

2. POLICY REVIEW: NATIONAL POLICIES AND EU DIRECTIVES PROMOTING HEALTH-ENHANCING PHYSICAL ACTIVITIES

A policy review was carried out, to identify papers, directives and regulations promoting sports and physical activity as preventive strategies against mental disorders.

At **European** level, a basic document on which to modulate further recommendation is the call for action for enhancing health through sport and for promoting Health-Enhancing Physical Activity (HEPA), launched by the Council of the European Union (Official Journal of the European Union, 2010). Through this document, the European Union presented it's vision of sports as a means for enhancing personal development, sense of identity and belonging, physical and mental wellbeing, empowerment, social and intercultural inclusion. The benefits of physical activity and exercise across the life course are paramount and include lowered risk of chronic diseases, as well as positive effects on mental health development and cognitive processes.

Sport exhibit a vital role, not only in individual health and fitness, but in shaping our wider European society: supporting an open dialogue between policy makers and sport organizers promotes healthy living and social cohesion for young people across Europe.

At **Italian** level, the Ministry of Sports established in June 2016 the National Sports Office, whose functions, among others, is the supporting of legislative acts in the field of sport.

A relevant agreement for promoting social inclusion through sports was finally signed

on 2017 between the Under-Secretary of State and the Minister of Sport. Through this agreement, projects enhancing the integration of disabled people, ethnic minorities, immigrants and vulnerable social groups though sport initiatives can be funded, providing that relevant organizations (amateur sport clubs and associations, volunteer organizations, associations and social cooperatives) are involved.

At **regional** level, Marche Region acknowledges LR.5/2012 as the principal regulatory tool to promote sports and recreational activities. The main objective is to promote the concept of 'sport for all'.

The Health Regional Plan For Prevention (2014/2018) promotes sport and physical activity as an integral part of everyday life, acknowledging the benefits they produce in terms of health, well-being and disease prevention. The strategy advocated by the Regional Council is to enhance sport at all ages for the many psycho-physical benefits it can bring to children, adults and older persons.

The Regional Plan for Sports Promotion (2016/2020) sets out the guidelines for the promotion of sport. The main purpose is to enhance sport practice as a training and recreational tool, to promote healthy lifestyle and to enhance participatory life models.

RECOMMENDATIONS

Physical activity and mental health: further research needed

A large body of empirical evidence demonstrated the beneficial effects of physical activity and exercise for the alleviation of depressive and anxiety symptoms. It is important that researchers, physicians, and exercise practitioners work together to develop sound guidelines relating to psychological benefits of exercise, taking due cognizance of psychosocial variables—for example, gender, age, previous mental health and environmental constraints. Curiously, to date, the effectiveness of physical activity and exercise in reducing mental disorders symptoms cannot be determined because of a lack of good-quality research on clinical populations, with adequate follow-up: although a number of studies have yielded positive results on the effectiveness of exercise as an adjunct treatment, evidence is limited for most psychiatric disorders. The precise description of conditions, standardized interventions, validated assessment strategies, adequate randomization, control conditions and power estimations are essential to obtain meaningful results and to allow for the calculation of effect sizes in future meta-analyses.

Several studies confirm that mood or subjective well-being is affected by personality or by gender differences: future studies should analyze whether physical activity affects mood among females in the same way as among males for instance, or whether the amount of overall physical activity affects the association between mood and exercise.

Further research with representative community samples and more exact measures of physical activity is needed to definitively answer the question of how strong is the protective effect of physical activity upon the risks and symptoms of mental disorders.

Physical activity and mental health: the role of health professionals and sports trainers

Faulkner (2016) claimed that health professionals have an important role to play in establishing inter-professional collaboration and use systematically exercise and physical activity for the prevention and treatment of mental health illnesses.

Including physical activity programs in psychiatric services gives the opportunity to individuals with mental illness to have frequent contact with their mental health professionals.

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 mistake-contingent encouragement lead to increased self-esteem. Encouraging individuals to focus on improving their own skills and performance rather than on comparison with others are associated with greater increases in 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.

Attention should be paid to the potential role of ICT-based coaching programs: recent studies indicated that training effects and mood improvements can also be achieved using internet- or telecommunication-based support.

Physical activity and mental health: a bottom-up enquiry

To reinforce the findings emerged by the literature review, a bottom-up enquiry was carried out, involving organizations, associations, local bodies and entities active in the field of sports and mental health. The aim of this enquiry was to assess whether physical activity is perceived as therapeutic treatment and if sports practices are commonly used with their patients.

It emerged that physical activity, exercise and sports are highly practiced with positive results, the most evident being a high participation, an increased sense of belonging, better human relationships, sharing of experiences and positive feelings. It was referred that patients who have constantly participated in sport activities in the last five years, have decreased the use of medicinal drugs and inpatient treatments. Besides, it was noticed an improvement in the relationship between patients/professionals: when the latter take part to sports activities, the relationships get stronger, with a relevant therapeutic impact.

These results confirm the findings emerged from the literature review, and highlight some areas requiring innovative strategies and political interventions.

Recommendations to policy makers

- Policies should promote the development of sport events, providing infrastructures and facilities. Value should be given to the daily sport/physical activities, in daily and informal environments (parks, public places), where people can informally meet and interact with a common (sport) objective/ interest to share.
- Structures for referring individuals to supervised exercise programs should be made available, including counseling by qualified practitioners. Professional supervision and training management should be provided, to best address specific mental illness barriers.
- Human relations within the health environments should be promoted and encouraged: the "humanization" of mental health services is a key aspect, which requires professional training to the operators.

CONCLUSIONS

As part of their work to promote better mental health, the MH Foundation produced a **pocket guide** to show the positive impact that physical activity can have on mental wellbeing, including some tips and suggestions to help people get started.

According to the MH Foundation, physical activity has a huge potential to enhance wellbeing. Even a short burst of 10 minutes' brisk walking increases mental alertness, energy and positive mood. Participation in regular physical activity can increase self-esteem and can reduce stress and anxiety. It also plays a role in preventing the development of mental health problems and in improving the quality of life of people experiencing mental health illnesses.

Considering the wealth of the research results mentioned above, it is worthwhile to mention that the growth rate of this interdisciplinary field is so great that an international, peer-reviewed Journal of Mental Health and Physical Activity (MENPA) has recently been created for this subject exclusively. In their inaugural editorial, the co-editors stated that beyond the research evidence pointing at the effectiveness of physical activity in the prevention and treatment of mental illness, there are four additional reasons why physical activity should be considered a potential mental-health promotion strategy:

1. Physical activity is more cost-effective than either psychopharmacological or psychotherapeutic interventions. If appropriate, "physical activity may be a cost-effective alternative for those who prefer not to use medication or who cannot access therapy."
2. In contrast to pharmacological interventions, physical activity is associated with minimal adverse side-effects.
3. Physical activity can be indefinitely sustained by the individual, unlike pharmacological and psychotherapeutic treatments, which often have a specified endpoint.
4. Physical activity stands apart from more traditional treatments and therapies for mental health problems because it has the potential to simultaneously improve health and well-being and tackle mental illness.

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05

INCLUSION OF PEOPLE WITH MENTAL HEALTH PROBLEMS THROUGH SPORT

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INTRODUCTION

The present policy paper examined how the physical activities, leisure activities and sport may support the inclusion process of individuals with mental health problems. The paper addressed the importance of physical activities with respect to a) the active participation of the individuals involved and b) the fact that several communities exclude from several activities the majority of individuals with mental health problems and mainly those with severe mental illnesses (SMI).

It has been argued that people with severe mental illness are among the most excluded in society (Sayce, 2001). Social exclusion is a process through which individuals or groups are completely or partially excluded from full participation in the society in which they live (European Foundation 1995). Exclusion from participation in community life leads to a downward spiral of increasing isolation and deterioration of mental health (Office of the Deputy, 2004). The key risk factors leading to exclusion are: low income; family conflict; being in care; school problems; being an ex-prisoner; being from an ethnic minority; living in deprived neighbourhoods in urban and rural areas; mental health problems, age and disability (Hughes, 2010). Following the above argument, it may be useful to explore a) the mechanism of exclusion, and b) why societies exclude certain individuals and groups. The goal was to describe the process of inclusion/exclusion, learn from previous experience and propose ways that all children and adults will be treated as valued, respected and contributing members of society (Saloojee, 2003).

DEFINITION OF MENTAL HEALTH PROBLEMS, SPORT AND INCLUSION

a) Definition of mental health / mental health problems

WHO (2014) defines Mental Health as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community. The Headspace (2018) follows with the statement that good mental health is about being able to work and study to your full potential, cope with day to day life

stresses, be involved in the community and live your life in a free and satisfying way.

There are many discussions and approaches defying mental health problems. For this paper we have chosen a definition provided by the Stanford Encyclopedia of philosophy (2010) which states that mental health problems are real and involve disturbances of thought, experience, emotion serious enough to cause functional impairment in people, making it more difficult for them to sustain interpersonal relationships and carry on their jobs, and sometimes leading to self-destructive behaviour and even suicide.

For the purposes of the present study, only individuals with severe mental health illnesses (SMI) were taken under consideration.

b) Definition of sport and physical activities

Sport and physical activities have always been an inseparable part of everyone's life. This thought is supported by Pierre de Coubertin (the founder of the International Olympic Committee, 1863-1937), cited in White paper (2007), who defined sport as a part of every man and woman's heritage and its absence can never be compensated for. Another view of sport and its role within the modern society is presented by Bailey (2015) who sees sport as a collective noun and usually refers to a range of activities, processes, social relationships and presumed physical, psychological and sociological outcomes. This principle is also supported in White Paper (2007) with a proclamation that sport is an area of human activity that greatly interests citizens of the European Union and has enormous potential for bringing them together, reaching out to all, regardless of age or social origin. Regular moderate intensity physical activity – such as walking, cycling, or participating in sports – has significant benefits for health; for instance, it can reduce the risk of cardiovascular diseases, diabetes, colon and breast cancer, and depression (WHO, 2018).

The association of sport and physical activities with mental health is important for the purposes of the present paper. Tylor et al. (1985) claimed that mental health in both clinical and nonclinical population is positively affected by vigorous physical activity. Raglin (1990) concluded that psychological benefits associated with exercise are comparable to gains found with standard forms of psychotherapy. Hull (2012) attempted to describe the benefits of sport for children and adolescents. One of the findings is that those who are physically active seem less likely to suffer from mental health problems and may have enhanced cognitive functioning (Hull, 2012).

c) Definition of social inclusion/ inclusion

'Social inclusion is a process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social, political and cultural life and to enjoy a standard of living that is considered normal in the society in which they live. It ensures that they have greater participation in decision making which affects their lives and access to their fundamental rights' (Commission of the European Communities, 2010).

'Social exclusion is a complex and multi-dimensional process. It involves the lack or denial of resources, rights, goods and services, and the inability to participate in the normal relationships and activities available to the majority of people in a society, whether in economic, social, cultural or political arenas. It affects both the quality of life of individuals and the equity and cohesion of society as a whole' (Levitas et al, 2007).

STATEMENT OF THE PROBLEM

The purpose of the present policy paper was to explore mainly the following questions:

Do physical activities and sport have any special benefits to people with mental health problems? Are people with mental health problems excluded from regular activities in the community such as physical activities and sport? And if yes, what are the mechanisms of these exclusions and are there any solutions to this issue?

METHODS

For the purpose of the present policy paper, a literature review was conducted. "Writing a literature review is a means of reviewing the main ideas and research relating to your chosen area of interest" (Bryman, 2008).

RESULTS

The benefits of physical activities and sport for people with mental health problems.

The positive effect of physical activities, exercises and sport within the general population is well known and recognized, especially from the health point of view. Warburton (2006) has concluded that physical inactivity is a modifiable risk factor for cardiovascular disease and a widening variety of other chronic diseases, including diabetes mellitus, cancer (colon and breast), obesity, hypertension, bone and joint diseases (osteoporosis and osteoarthritis), and depression. Cron-Grant and Grant (2000) have confirmed this thesis and added another dimension by stating that there is now a growing body of evidence and considerable support for the claim that regular physical activity can contribute to the prevention of mental health problems and can be an effective element of an overall treatment plan for those suffering with mental health illnesses. At the same direction, Dickerson at al. (2006) stated that people with severe mental illness (SMI) experience poorer overall physical health than the general population, while those with SMI have higher risks for cardiovascular disease, obesity, and metabolic dysfunction, leading to low quality of life and increased mortality rates.

Richardson et al. (2005) pointed out that researchers have only recently begun to examine the impact of physical activity on the mental and physical health of individuals with serious mental illness. Carless and Douglas (2004) concluded in their study that much of the existing literature has focused on people without diagnosed mental health problems or people with mild to moderate depression or anxiety. Only a small amount of research has explored the potential of physical activity for people with severe and enduring mental health problems and, at present, the therapeutic potential of physical activity for this client group is unresolved (Carless & Douglas, 2004).

When we try to describe the benefits of sport and physical activities that people with SMI may get from, it is also crucial to mention that there is two way how look at these benefits. Craft (2005) attempted to describe how exercise might reduce or alleviate the symptoms of mental illness. Carless (2007) stated that there is a need to see the distinction between helping symptoms and helping people and this difference is beneficial for mental health promotion among people with serious mental illness. At the same study Carless (2007) suggested that there are several ways in which participation in various forms of physical activity might contribute to mental health promotion among people with a mental illness:

- Group-based physical activity has been shown to offer opportunities for positive social experiences which are valued by some users of mental health services (Carter-Morris & Faulkner, 2003, cited in Carless 2007).
- Positive sport and exercise experiences have the potential to help improve self-esteem among people who have a serious mental illness (Faulkner & Sparkes, 1999, cited in Carless 2007).
- Exercise is associated with positive affect and improved mood among people with clinical depression (Faulkner & Biddle, 2004, cited in Carless 2007).
- Physical activity or sport has the potential to act as a personally meaningful and valuable activity which brings a sense of purpose to the lives of some people with mental health problems (Raine et al, 2002, cited in Carless 2007).

Repper and Perkins (2003, cited in Carless 2007) pointed out that factors such as shared experience, finding meaning and purpose in life, having a reason for living, taking control and having choices, experiencing pleasure and building self-esteem are crucially important when living with mental illness.

Exclusion/inclusion of people with mental health problems from/to regular activities in the community

Concepts of social inclusion and exclusion relate to broad matters such as poverty, education and have a direct impact in the lives of individuals with disabilities as well as those with mental health problems (Wright & Stickley, 2012). This idea is supported by Friedli (2009) who claimed that it is difficult to differentiate between the causes and effects of mental health problems and social exclusion.

A number of researchers argue that the social exclusion of people with mental health problems is related to the phenomena of stigma. Negative social attitudes towards mental illness, in the form of stigmatisation, are widespread and make the experience of a mental disorder

much more damaging, difficult, and disabling for many people (Repper & Perkins, 2003). Davis (2005) pointed out the danger of legitimacy from labeling individuals and groups as 'socially excluded' because, he argued, by doing so, they become further sidelined from mainstream society and further stigmatized. Illich (1975) assigned stigmatization and social exclusion to medical classification that determines loss of autonomy and social separation. Illich (1975) also evolved this idea by stating that diagnosis always intensifies stress, defines incapacity, imposes inactivity and focuses apprehension on non-recovery, on uncertainty and on one's dependence upon future medical findings, all of which amounts to a loss of autonomy for self-definition. It also isolates a person in a special role, separates him/her from the normal and healthy and requires submission to the authority of specialized personnel.

Sayce (2001) described social inclusion as a virtuous circle of improved rights of access to the social and economic world, new opportunities, recovery of status and meaning, and reduced impact of disability. Key issues are the availability of a range of opportunities that users can choose to pursue, with support and adjustment where necessary. Ranking (2005) defined social inclusion as the policy drive towards 'bringing people with mental illness into mainstream society, enabling access to ordinary opportunities for employment, leisure, family and community life'. Ranking (2005) argued that without serious efforts to promote social inclusion, people with mental health problems are likely to remain marginalized at the edges of society. Mental health will continue to exact heavy costs on individual lives, and financial costs on government. Sayce (2005) underpinned this idea and stated that social inclusion is the key challenge and ultimate goal of mental health services.

Upon the evidence presented with respect to the social inclusion of people with severe mental health problems, a number of researchers raised concerns about this process. Sayce (1998) stated that the social inclusion taps into the common sense established ideas that 'everyone should be included in the one-nation Britain, everyone should have a chance to contribute and be involved'.

It is remarkable that individuals with mental health problems are still struggling to achieve social inclusion, when by now there should be enough mechanisms, structures, policies and laws which would ensure their participation (Secker et. al 2007, cited in Spandler 2007). Above all, the biggest risk of the whole process is that social inclusion might be selected by societies to regulate, treat and address the needs of individuals with mental health problems (Spandler, 2007). In other words, people with mental health problems should want to be involved and take part in society, as it is undeniably beneficial for their health. However, it is precisely this 'common sense' idea that is problematic. One of the problems with the move to 'promoting inclusion' is that inclusion in practice implicitly assumes that the quality of mainstream society is not only desirable, but unproblematic and legitimate (Levitas 2004).

CONCLUSION RECOMMENDATIONS

There is massive evidence recognizing that physical activity, sport and exercise have a positive impact on people with mental health problems. From the physical, mental and social point of view, more attention should be paid with respect to the exact benefits of physical activity and sports upon certain symptoms. For instance, evaluation of a football project for individuals with mental health illnesses (Carter-Morris & Faulkner, 2003) showed that their involvement offered a safe opportunity for interaction, regardless of their diagnosis. Participation in the football project had led to a widening of their social contacts (Carter-Morris & Faulkner, 2003).

The biggest problem seems to be in the stigmatisation, discrimination and lack of understanding of mental health problems within the general community. Sayce (1998) stated that a) individuals within a society are discriminated against for a variety of reasons, b) it would be more accurate to describe this as discrimination rather than exclusion and c) identify the lack of human rights that people with mental health experience. Therefore the main focus of social inclusion should be on the development of community bonds, anti-stigmatization and anti–discrimination practices.

Understanding the experiences of people with SMI is therefore an important task if the stigmatisation and, subsequently, social exclusion of those with mental health problems is to be tackled. Making this understanding

socially available in an accessible form is one way to challenge stigma and social exclusion at a personal level (Carles & Sparkes, 2008). An important arising question is who should be the promoter of a wide understanding of the experiences concept and who should be in lead of the appropriate social inclusion activities and practices. Rankin (2005) argued that social inclusion is the key challenge and ultimate goal of mental health services. Sayce (2001) supported this argument and stated that social inclusion requires leadership from psychiatry, mental health professionals and the service user/survivor movement.

In summary, it is obvious that the most important goal is to create inclusive opportunities within the community for people with mental health problems, including the opportunities to participate in sport and physical activities. This can be done by promotion of mental health in general and by the raising of public awareness with respect to mental health and mental health illnesses. Furthermore, support from local communities is crucial for creating proper inclusive environments.

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06

MENTAL HEALTH AND STIGMA IN EUROPE

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INTRODUCTION

Mental health is not merely the absence of mental illness. The World Health Organization (WHO) defines mental health as "A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (WHO, 2014a).

One in four people in the world will be affected by a problem with their mental health at some point in their lives (WHO, 2014a). Around 450 million people currently suffer from conditions such as depression, schizophrenia and anxiety, placing mental illness among the leading causes of poor health and disability worldwide. The associated human and economic toll on individuals with mental health difficulties is substantial. In a 2010 study, mental illness was found to lead to direct and indirect costs of €461billion in Europe, or roughly 3.4% of Gross Domestic Product (GDP) (Gustavsson et al, 2011). This is consistent with other research over the last decade that puts the figure between 3% and 4% of GDP (The Economist Intelligence Unit, 2014). Mental health problems have caused a rising proportion of work disability in European member states. The WHO estimate that 9% of all disability-adjusted life years (a measure of the overall disease burden) were the direct result of mental and substance misuse disorders in the European Region in 2015.

It is estimated that two-thirds of people with a known mental illness never seek professional help (Thornicroft, 2007). Reasons for this include stigma, neglect and discrimination (Dunne, MacGabhann, Amering & McGowan, 2018). Although mental health problems occur in almost every family at some point, individuals who experience mental ill-health continue to face prejudice from others and can feel excluded and ashamed (Corrigan & Watson, 2002). Depression is also the major contributor to suicide highlighting the need for a global public health response (WHO, 2017a). Other risk factors include age, gender, and socioeconomic status. Six European countries fall within the top 20 countries with the highest estimated suicide rates globally; Lithuania is the highest. In high income countries 3.5 males commit suicide for every female. However, in low and middle-income countries the suicide rate is as high as 4.1 males: females. 90% of

suicides are linked to mental illness in high-income countries, and 22% of suicides are linked to alcohol use (WHO, 2014b). Improving the mental health of Europeans, and early identification and treatment of illnesses such as depression, mean disability and death by suicide could be reduced. This poses a series of challenges at a public health level, and reducing stigma plays a critical role.

STATEMENT OF THE PROBLEM

Given the burden of mental health problems on both the individual and society, it is vital that work is completed to enable specialist service providers and supporting organisations across Europe to cope with and provide effective prevention and treatment programmes. The large gap between those who receive adequate, appropriate treatment for their mental health difficulties and those who do not also needs to be narrowed. Stigma is one of the reasons for the lack of attention to mental health by healthcare systems and policymakers. In order to reduce mental health stigma, we need to first understand the nature and extent of the problem and examine current best practice guidelines that help improve outcomes. This paper aims to address these issues.

APPROACH

In order to achieve these aims, an extensive literature review (original studies, systematic reviews, Cochrane reviews, reference searching, local service surveys, WHO and European MH action plans) were conducted, exploring the following questions:

- How do we define stigma and how does it relate to mental health?
- What does the research tell us about the stigma associated with mental health?
- What are the most effective approaches to reduce mental health stigma?
- What types of interventions delivered are taken by European countries?
- Mental health policy: A comparison of Ireland and Lithuania

LITERATURE REVIEW

Stigma

Stigma can be conceptualised through the social-cognitive model that includes three elements: stereotypes, prejudice and discrimination (Corrigan, Druss & Perlick, 2014). A stereotype is an over-generalised or simplified belief about a group of people based on characteristics such as religion, gender, or health status (e.g. someone with a mental illness is crazy or dangerous). Stereotypes are not necessarily harmful, as people can be aware of them without agreeing with them. By contrast, prejudice involves agreement with the stereotype which results in an emotional reaction of some kind (e.g. I'm afraid of that person because he has a mental health difficulty). Discrimination is the behaviour which is associated with this emotional reaction. It is the restriction of rights and opportunity of people based on their membership to a particular group (e.g. avoiding or not hiring a person with a mental health condition due to the belief that he/ she is dangerous).

Stigma is often fuelled by misconceptions and can lead to discriminatory behaviour. For example, a common myth is that people with mental illness are violent and more dangerous than the general population or the belief that mental health problems are due to personal weakness (Crisp, Gelder, Rix, Meltzer & Rowlands, 2000). The language used to describe individuals with mental health problems can also be stigmatising for example, being called "crazy", "mad", "nuts" or "a lunatic" (Angermeyer & Matschinger, 2003). Some people continue to believe that mental health difficulties are untreatable or that sufferers are less able. This type of stigma can lead to abuse, rejection, isolation and exclude sufferers from health care and support that may help them.

From a societal perspective, stigma can be differentiated into public stigma, self (or internalised) stigma, and structural stigma. Public stigma is the negative reaction of a community or society towards a particular (stigmatised) group based on stereotypes -such as the belief that all people with mental illness are dangerous (Corrigan & Watson, 2002). Different cultures may hold different ideas about the origins of mental health difficulties, for example Chinese traditional beliefs view mental illnesses as a punishment

for an ancestor's misconduct (Yang, 2007). Self-stigma, is when people who are stigmatised, share the stereotypes of others, and turn them against themselves e.g. "if people who have mental illnesses are dangerous, I must be dangerous" (Watson, Corrigan, Larson & Sells, 2007). This response to prejudice can lead to adverse behavioural consequences, such as not applying for jobs, prevent people speaking out, and seeking professional help (Henderson, Evans-Lacko & Thornicroft, 2013). Several studies have found that people with mental health problems often do not attend psychiatric clinics even when an appointment is made, resulting in treatment being delayed and a waste of resources (Byrne, 2000). Finally, structural stigma occurs when public institutions either intentionally or unintentionally restrict the rights of the stigmatised group.

What does the research tell us about the stigma associated with mental health?

Discrimination and stigma associated with mental ill-health has been recorded primarily through surveys. For example, members of the public responded to short vignettes about people with mental illnesses in the US General Social Survey. Between 35% and 69% of participants indicated that they were unwilling to make friends with, have as a neighbour, socialise with, have marry into their family, or work closely with a person with schizophrenia (Pescosolido et al, 2010). Changing the diagnosis from schizophrenia to major depression, gave responses of 20-53% for the same questions thus highlighting general and diagnosis-specific discrimination.

Since 2011, First Fortnight, Ireland's mental health arts festival has conducted an annual survey to assess the attitudes of festival attendees regarding mental health matters. Out of the 1,517 people who responded in 2018, almost half (47%) of those surveyed would not want people to know if they were experiencing mental health problems, 28% found it hard to speak with someone with mental health illness and 56% were afraid of experiencing mental health difficulties in the future. Moreover, 27% would delay seeking treatment for fear of people knowing about their difficulties and 1/5 of respondents were not willing or were unsure about living with someone with a mental health problem (D. Keegan, personal communication, February 17, 2018). It is essential that we tackle mental health stigma and not let it stand in the way of people seeking help when in distress

St Patrick's Mental Health Services survey a representative sample of 500 adults across Ireland annually. Even though 28% of respondents had previously received treatment for a mental health difficulty, 64% believed that being treated for a mental health difficulty was a sign of personal failure. 38% of respondents would not tell their partner if they were taking anti-depressants, 25% would not tell someone that they had received inpatient psychiatric care, and only 55% would share such information with a partner (St Patrick's Mental Health Survey, 2017). Other stigma-related findings include almost half (44%) of respondents would not trust someone who experienced post-natal depression to babysit and 23% would not willingly marry someone previously hospitalised for depression. Despite many public awareness campaigns in Ireland, 70% of those surveyed in believed that mental health was still not talked about enough in the media. With a quarter of the 500 respondents indicating they would not tell someone if they were experiencing suicidal thoughts, the message was clear. We must do more.

In a study of perceived stigma in 815 adults with significant mental health disability across 6 European countries, 46.7% reported embarrassment, and 18% reported discrimination experiences, resulting in 14.8% with perceived stigma (Alonso et al., 2009). Perceived stigma was more frequent among those with low education (studied 12 years or less), those married /co-habiting, and the unemployed (Alonso et al., 2009). The mentally unwell with perceived stigma had significantly poorer quality of life, more work/role limitations, and more social limitation than others with mental health difficulties highlighting the significant negative impact stigma can have on one's psychological, social and occupational well-being.

What are the most effective approaches to reduce mental health stigma?

In the following section the content and effectiveness of interventions to reduce mental health stigma will be outlined and discussed to identify their implications for future research, policy, and practice. Whether such

programmes can affect knowledge (cognitive domain), problems of attitudes (prejudice or affective domain), and problems of behaviour (discrimination or behavioural domain) will be outlined.

Three general strategies have been identified in the research as being successful in combatting stigma: 1) Education; 2) Contact; and 3) Protest (Buechter, Pieper, Ueffing & Zschorlich, 2013; Corrigan, Green, Lundin, Kubiak & Penn, 2001; Corrigan & Penn, 1999; Corrigan, River, et al., 2001). Education should underpin most anti-stigma programmes as well as raising mental health awareness (Kaminski & Harry, 1999; Pinfold, Thornicroft, Huxley & Farmer, 2005). Informing people about what mental health is, how to look after one's mental health, what mental illness involves, and replacing myths with facts is required. Methods of doing this include developing documentary films portraying mental illness, giving seminars, and creating information leaflets. Secondly, service user and carer involvement are recommended (Alexander & Link, 2003; Corrigan et al., 2001). Introducing the public to people with mental health difficulties either in person, via presentations, videos etc. has been demonstrated to reduce negative attitudes and stigma. Interestingly, whilst direct contact with mental health service users was more effective than education at reducing stigma in adults, the opposite has been found true for adolescents (Corrigan, Morris, Michaels, Rafacz & Rusch, 2012). Finally, protest is a reactive strategy used to challenge inaccurate or stigmatising attitudes. Examples of which include writings, campaigns, marches, sit-ins and boycotts. In addition to these strategies Link (2001) advises a multi-faceted, long-term, targeted approach should be used, while the National Institute of Mental Health England recommend appropriate monitoring and evaluation to ensure the validity of an effective anti-stigma mental health interventions (as cited in Borschmann, Greenberg, Jones & Henderson, 2014).

As mentioned, self-stigma occurs when people with mental health difficulties agree with and apply negative stereotypes to themselves. Jorm (2012) demonstrated that it can arise from inaccurate or insufficient knowledge about one's mental health condition and treatment options. Therefore, improving mental health literacy could help contribute to reducing self-stigma. Another method to help people challenge self-stigma has been cognitive restructuring. Cognitive restructuring (one of the elements of Cognitive Behavioural Therapy) enables individuals to view stigmatising beliefs as irrational self-statements (Morrison el., 2013).

Campaigns targeted at entire populations appear to work best if they are recovery-oriented and aim to remove the distance between "us" and "them". Allport's (1954) Intergroup Contact Hypothesis somewhat explains why the above findings may occur. Allport suggested that contact between members of different groups (under certain circumstances - common goals, equal status, intergroup cooperation) can promote tolerance and reduce prejudice and intergroup conflict. It is the benefit observed by such contact that underpins many policies and campaigns to address stigma against certain religions, racial discrimination and gender identity. Later research on Allport's theory indicated that while the criteria he identified enhanced effects, they were not a prerequisite, and mere exposure to a person might cause attitude changes (Pettigrew & Tropp, 2005). Four mediating variables have been suggested through which contact may lead to change in attitudes: 1) learning about the other group, 2) changing one's behaviour towards the other group members, 3) developing positive emotions and experiences and reduction in anxiety, and 4) gaining insight about one's own group, resulting in increased tolerance towards the other group (Pettigrew, 1998).

Anti-stigma campaigns are an important tool in challenging discrimination and stigma, and several meta-analyses have been completed in Western countries (Mittal, Sullivan, Chekuri, Allee & Corrigan, 2012; Griffiths, Carron-Arthur, Parsons & Reid, 2014; Tsang et al, 2016). However, their outcomes are not always easy to quantity as they are often limited by their lack of detailed descriptions and published evaluation (Sayce, 2003). Moreover, while stigma is a cross-cultural phenomenon, there are differences in the experiences, understanding and meaning of mental illness between countries due to historical, cultural, religious and philosophical values. Strategies can vary greatly in terms of settings, mechanisms, and interventions, and as programmes cannot be separated from the culture which they operate, problems with establishing what might work best arises (Xu, Huang, Kosters & Rusch, 2017).

European examples of interventions to reduce mental health stigma

Broadly speaking, campaigns to reduce mental health stigma in Europe are either generic or diagnosis-specific in nature. Examples of generic campaigns include, the "Head's Together" initiative in the UK (led by The Duke and Duchess of Cambridge and Prince Harry), and the "Coming Out Proud" peer-led group intervention, which has been shown to have immediate positive effects on reducing stigma (Corrigan, Larson, Michaels, Buchholz, Rossi, et al., 2015; Rushe, Zlati, Black & Thornicroft, 2014). The Global Anti-Stigma Alliance (GASA) was established in June 2012 at a conference co-hosted by the Mental Health Commission of Canada and the World Psychiatric Association. Its aim is to share learning, best practice and research to achieve better outcomes for people facing discrimination and stigma. It also hopes to achieve more joined up working both internationally and within neighbouring countries. Member countries have run significant anti-stigma programmes and work across several key areas including workplaces, communities, schools, mental health professionals and social media. The Alliance has had successes. For example, since "Time to Change" began in the UK (a core group member of GASA), around 4.1 million adults in England have improved attitudes towards mental health problems according to their research; an improvement of 9.6% between 2008-2016 (Henderson & Thornicroft, 2016). Materials have been shared and adapted for other member countries. For example, Time to Change developed a film (The Stand-Up Kid) which was adapted for a Danish audience.

Stigma reduction initiatives that target a specific diagnosis include, the World Psychiatric Association's "Open the Doors" worldwide programme. Their mission is to increase public awareness of the nature and treatment options for schizophrenia, improve public attitudes about those who have, or have had schizophrenia, and to work to eliminate discrimination and prejudice about the illness. The programme has local action groups set up in over ten European countries. In line with best practice, programmes are adapted for target groups and locally relevant messages. The UK's Mental Health Awareness in Action Programme (MHAA Programme) is an example of one of the projects under this organisation. Elements of the MHAA programme include an educational intervention by service users, carers and mental health professionals via workshops, delivery of mental health awareness sessions to community groups, and a school intervention project. The programme was successful in that participant's knowledge, understanding and attitudes towards people with mental health difficulties improved with the workshops, but on the negative side, the fundamental element of behaviour-change appeared to be unaffected (Pinfold et al., 2005). An adapted programme in Germany reported a reduction in negative stereotypes and social distance towards people with schizophrenia. Evaluation of film screenings and theatre productions about mental illness however revealed an increase in stigmatising beliefs (Gaebel, Baumann & Zaske, 2005), highlighting the need for regular efficacy evaluations and the complexity in designing an effective anti-stigma intervention.

In Ghent, Belgium, "The How Different is Different?" programme brought young people aged 16-19 years in connection with people with mental illnesses. Both hospital and community settings were utilised to enable each group to get to know each other for several days and discover their similarities. In a different element of the programme, service users or their relatives, visited schools to speak about their personal experiences, and at the end of the school year, participants (both patients and pupils) presented a project and spoke of their experiences. The success of programmes like this can be difficult to measure; however, analysis of diaries kept by the pupils demonstrated changes in their attitudes over time. The programme's success was also shown by its growth from 5 participating schools and 20 pupils in 1991, to 46 schools and 1,500 pupils by 2003.

There is a growing body of evidence that physical activity is associated with better mental health (Richards et al., 2015) and could be preventive in the onset of depression (Mammen & Faulkner, 2013). Aspects of competitive sport may paradoxically, contribute to deterioration in mental health (Hagiwara, Iwatsuki, Isogai, Van Raalte & Brewer, 2017). Intensive/over training, organisational pressure, injury, and an almost obsessive drive to win can reduce an athlete's resilience. Moreover, when success in sports is relied on for self-worth, there is a risk of depression following perceived failure, negative public opinion, ageing, and not seeking help due to the perceived culture

for "mental toughness." Stories of high-profile athletes such as Frank Bruno & Ricky Hatton (boxing), Nigel Owens (rugby) and Clarke Carlisle (football) highlight not only the persistent stigma surrounding mental illness, but the potential of sport to tackle it. Organisations have developed programmes recently to integrate mental health into their networks. For example, Rugby Players Ireland has a 3-year mental well-being campaign "Tackle Your Feelings" aimed at promoting positive conversations around mental health, while the GAA (Gaelic Athletic Association) have a mental health charter to help clubs develop a culture that supports and promotes emotional well-being. In Portugal, the Portuguese Player Union SJPF have a mental health project which aims to detect, prevent and respond to psychological problems that football players may experience during and after their careers.

Finally, Twardzicki (2008) demonstrated that the creative arts have a role in promoting the mental health of participants, in reducing stigma against people with mental health problems, and improving social inclusion. Participation in the arts can have a therapeutic impact on promoting recovery and reducing self-stigma (Crawford & Patterson, 2007; Quinn, Shulman, Knifton & Byrne, 2011). However, while some studies have shown that arts and film events can reduce stigmatising attitudes about dangerousness and capability (Twardzicki, 2008). Examples such as the "Open the Doors" programme in Germany (described earlier) highlight how it can also have a negative effect (Quinn et al., 2011). It is therefore imperative that the nature of the arts event is carefully examined as not all pieces with a mental health theme will automatically reduce stigma, and that festivals focus on the service user narrative.

In summary, only a few European countries have proven effective population-based interventions making it challenging to draw clear recommendations. Given the persistent and disabling nature of mental ill-health and mental health stigma, it is crucial that finance is invested in programmes that can be demonstrated to be effective and culturally appropriate.

Mental health policy: A comparison of Ireland and Lithuania

A commitment to respond to the mental health needs of the European Union led to the publication of the European Mental Health Plan 2013-2020 (WHO, 2013). It has four core objectives, each of which has proposed actions for member states. These are:

1. Everyone has an equal opportunity to realize mental well-being throughout their lifespan, particularly those who are most vulnerable or at risk;
2. The human rights of people with mental health problems are fully valued, protected and promoted;
3. Mental health services are accessible, affordable, and available in the community
4. People are entitled to respectful, safe and effective treatment.

The plan aims to reduce stigma, normalise a mental health issue, ensure that services are accessible to all and that anyone who experiences a mental health issue will be respectfully treated. Policies across government can reduce exposures to mental health risk factors. Unemployment, debt, and social inequality negatively impact mental well-being and increase suicide risk. As mentioned, many people do not engage with, or maintain contact with mental health services; stigma and negative experiences contribute to this. Mental health policies that focus on structural reform and improved quality services are required.

One of the most tragic results of mental health problems is suicide. While we know that not everyone who attempts suicide has a diagnosable mental health illness (Phillips, 2010), there are a subset of individuals who do experience suicidal ideation and may attempt or complete suicide. Over 800,000 people die by suicide each year around the world (average 16/100,000) and it is the second leading cause of death among 15-29 year olds, globally (WHO, 2017b).

In the early 1900s, Ireland was thought to have a low suicide rate, which then significantly increased as the 20th century progressed, peaking in 2009. However, improved recording procedures after 1967 by the Central Statistics Office and the removal of suicide and attempted suicide as offences under Irish criminal law in 1993 (Kelly, 2017) impacted on recorded numbers. Ireland recorded a population of 4.76

million in 2016 (Central Statistics Office, 2017), and in the same year an estimated 399 people committed suicide (8.5/100,000) (National Office for Suicide Prevention (NOSP), 2017). NOSP was set up within the Irish health service in 2005 to oversee the implementation and coordination of "Reach Out: National Strategy for Action on Suicide Prevention, 2005-2014". This has since been followed on by a new policy "Connecting for Life" which links with other mental health and well-being policies such as "A Vision for Change", and "Healthy Ireland" (Department of Health, 2015). The national policy sets out a vision for Ireland where fewer lives are lost through suicide and where communities are supported in improving their mental health, reducing stigmatising attitudes and provision of high-quality mental health services. Investment of resources, development and following through of national policies has been successful. Suicide rates in Ireland are declining; the 2016 estimated figure represents a 26% decrease over 5 years despite an increase in population (NOSP, 2017).

For every completed suicide, there are many more who attempt to take their lives but survive. A past suicide attempt remains an important part of the individual's history and may leave permanent scars. For these people, stigma is a prominent concern, and many feel ashamed about their suicide attempt and avoid talking about it with others (Fulginiti, Pahwa, Frey, Rice & Brekke, 2016). This withholding can result in further social isolation and lack of both formal and informal support, thus compounding an already extremely distressing time for the individual and prolong a mental health illness (if present).

Suicide and related stigma has also been a significant concern in Lithuania. According to world health ratings, in 2014 almost 32/100,000 people in Lithuania committed suicide – twice the global average. This number peaked at almost 46/100,000 population in 1995, one of the highest internationally. Lithuania was part of the Soviet Union for 50 years (1940-1990) and joined the EU in 2004. Statistics Lithuania (2018) estimates that the total population in 2018 is 2,810,118 (preliminary data) and placed it in the upper, middle income group (by World Bank 2010 criteria) with a total health expenditure of 6.59% of GDP. Male life expectancy in Lithuania equates with that of Western Europe several decades ago. In 2015, life expectancy at birth was 68 years for males (78 years for females), because of high rates of cardiovascular disease, and death by suicide (WHO, 2015). The establishment of the Suicide Prevention Centre (a subdivision of the State Mental Health Centre) occurred in 2015. This, along with the 2016-2019 Suicide Prevention Strategy for Vilnius in 2016 is a step in the right direction to understand and tackle this extensive problem (Muiznieks, 2017).

Like Irish history and other eastern European countries, mental health care in Lithuania has been dependent on hospitalisation, with medication being the primary treatment approach (Puras, 2005). Following the collapse of the Soviet Union in August 1991, Lithuania had 5380 psychiatric beds. The mental health of the population deteriorated in the first decade after independence. This was accompanied by spiking suicide rates, and spread of alcohol and drug misuse (Murauskiene, Janoniene, Veniute, van Ginneken & Karanikolos, 2013; Puras, 2005). As the Soviet model of psychiatric care was based on isolating the mentally ill in psychiatric hospitals and care homes, it created significant stigma, promoted social exclusion, and prevented integration into the community (Van Voren, 2013). Moreover, it violated the rights of patients' lives (Mickevicius, Blazys, Migaliova, Lukosaityte & Puras, 2005). In the 1990s mental health reform in Lithuania focused on creating a regulatory framework and creating a body responsible for co-ordination of mental health policy, including the Mental Health Law (1995). This legislation formed the basis for improvements in quality of care and prevention of the misuse of psychiatric care. It is in line with human rights covenants, however it has been suggested that violations against the human rights of those with mental illness, especially their right to treatment, employment and state support exists (Puras, Germanavicius, Povilaitis, Veniute & Jsailionis, 2004). Several policy documents followed, including the National Mental Health Strategy (Seimo of The Republic of Lithuania, 2007), and the establishment of the State Mental Health Centre which coordinates mental health policy. Multidisciplinary community and out-patient services have been developed which offer a range of medical and psychological interventions.

By 2011 the number of psychiatric beds dropped to 2528 (Murauskiene, et al., 2013). This was partially achieved through the transfer of patients with a chronic mental illness from psychiatric hospitals to psychiatric long-stay care institutions (Puras, 2005). Length of in-patient stays also fell (63.7 days in 1991 to 19.9 in 2015) and deinstitutionalisation is

occurring (Eurostat, 2017). While progress is being made, goals have not been reached and detailed analysis of services, programmes and policies is lacking. Moreover, challenges such as a lack of funding, socioeconomic inequalities and resource issues continue to exist.

The present literature review did not uncover policy documents related to challenging stigma, or the implementation of psychological and psychosocial interventions in Lithuania in the English language. An open environment, cooperation model has been adopted to help integrate individuals with mental health difficulties into the labour market through a system of social support. Programmes have also been delivered to teachers and future public health professionals to help combat stigma and social exclusion. Examples of programmes include a mental health awareness programme – National Programme for Drugs Control and Prevention of Drug Addiction 2010-2016 and a workplace mental health programme: Implementation of Mental Health Strategy and Suicide Prevention.

CONCLUSION

Few illnesses are more poorly understood and more subject to prejudice than mental illness. The WHO and the World Psychiatric Association both recognise that discrimination associated with mental disorders is strongly linked to suffering, disability and poverty (Corrigan & Watson, 2002). The negative impact of stigma delays accessing treatment for mental health difficulties and therefore prolongs suffering to the individual and those close to them. It also has a significant negative impact on the European economy due to direct and indirect costs.

Being integrated into one's community, engaging in productive occupation and reaching one's potential is core to the WHO's definition of mental health and helps empower people with mental health difficulties (Leamy, Bird, Le Boutillier, Williams & Slade, 2011).While there has been agreement between policymakers, advocacy groups and carers on the importance and benefit this has for people affected by mental illness, few countries have come close to achieving this ideal. Investing in improving the mental health of populations contributes to improved health, quality of life, resilience and reducing the number of suicides. In this paper several anti-stigma interventions have been shown to be effective. At their core, they are contact-based educational programmes. There is considerable heterogeneity in delivery, which demonstrates that there is more than one way to deliver an effective anti-stigma programme. Interventions need to be long-term, critically evaluated with findings disseminated widely for others to learn from. Mental health policy, helps contribute to the development of quality services, where the service user can determine their own goals and build a fulfilling life of their own choosing. EU Member States have demonstrated their commitment to the protection of those with mental health difficulties in their signing of the UN Convention on the Rights of Persons with Disabilities. This guarantees protection of human rights issues such as the right to treatment, the right to choose, social inclusion and protection against abuse (Baumann, 2010; UN Human Rights Council, 2017). Yet, these rights are not fully implemented.

The development of progressive mental health policy is complex and requires multiple levels of government departments to work together e.g. health, employment, social care, recreation and finance. There also needs to be adaptations made between European, national and regional programmes, as targeted, culturally relevant interventions work best. The EU will continue to have direct and indirect effects on the mental health services in the coming years. While changes in the structure of the EU will bring challenges, it will also provide opportunities for learning and supporting states with less developed services. Each country will however continue to face its own problems. For example, while Lithuania has been developing its policies and community-based services, Ireland has had well developed policies but has struggled to full implement them. Member States need to routinely collect and aggregate data to monitor the implementation of mental health policies, stigma-reduction programmes and their impact on the health and well-being of its people. Rates of mental health difficulties and suicide remain too high in Europe. Cross-sectional co-operation, networking, and collaboration among policy makers, experts and individuals from health and non-health sectors, along with representatives from civil society is key to improve the mental health and well-being of citizens.

There is no 'them', there is only 'us'.

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07

ADDRESSING STIGMA IN LOCAL AUTHORITIES THROUGH SPORTS

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INTRODUCTION

The policy paper intends to demonstrate: a) how sports can play a role in the promotion of mental health and b) help change the way mental illness is perceived in local authorities. The principal goal is to show that the creation of a strong and concrete link between mental health and sports can be achieved through sport events at local authorities.

STATEMENT OF THE PROBLEM

The purpose of the present article is to emphasize, through literature review, the usefulness of sports in the prevention and extinction of stigma against people suffering from mental illnesses. The article concludes to a set of proposed sport events and initiatives which could be supported by local societies. These actions are included in the framework of the institutional role of the local government administration and are based on the advantages of structures and services which they may offer to the citizen.

Definition of stigma in mental illness

According to the World Health Organization, mental disorders comprise a broad range of problems with different symptoms. However, mental disorders are characterized by a combination of unusual thoughts, emotions, behaviours and relationships with others. The most common mental disorders are schizophrenia, depression, intellectual disabilities and substance abuse disorders. Epidemiological studies have shown that one in four people in the world will be affected by mental or neurological disorders at some point in their lives, and around 450 million people currently suffer from mental illnesses (WHO, 2001). Specifically, it is estimated that on a global scale 121 million people are suffering from depression and 24 million people are suffering from schizophrenia. On the one hand, the growing number of people suffering from mentally illness is the principal factor for the recognition of the importance of mental health, and on the other hand, the social consequences of the social stigma of the mental health patients bring about substantial financial burden on the public health budgets of each state.

Mental illnesses are rooted in a range of behavioral and emotional symptoms of the patient and are surcharged with dark collective representations. The medical approach of mental illness is situated in the West during the Late Middle Ages. The *repression of unreason,* as the totality of socially provocative manifestations are called by Foucault, including mental disorders, is manifested within a rational era for the protection of the urban family and the collective identity from the symbolic threat of "madness". The stigma of mental illness is a complex process which is developed within social interactions and dynamics of social relationships. The agony for uniformity and purity of society leads to the marginalization of the mentally ill, a condition which in turn hinders the prevention of prejudices concerning mental illness and their recovery. The stigma, as defined by Goffman (2011) concerns firstly social relationships and secondly natural characteristics. In their study about the ways in which stigma affects the lives of patients with schizophrenia in Germany, Schulze and Angermeyer (2003) indicated four dimensions of stigma, which are related to: a) interpersonal relationships of the patient, usually concerning limited personal contacts, b) social perceptions concerning mental illness, as projected through media and movies, c) legal regulations concerning the illness and the provided social structures and services, and d) access of the patient to social roles, as those of the professional or husband.

A crucially factor for the destigmatisation of the mentally ill is the distinction between self-stigmatisation and social stigma. The first one refers to personal experiences and perceptions of the person bearing stigmatising attributes, namely people with stereotypical characteristics, such as the mentally ill. These persons are usually socialize as undervalued members of society, a perception cultivating feelings of shame and discrimination, a decrease in functionality and negative feelings (Corrigan, Druss & Perlick, 2014). On the other hand, social stigma refers to a combination of perceived dangerousness and social distance (Zartaloudi & Madianos, 2010).

Research findings converge that stigma is a crucial factor for the life of the patient. Social isolation deteriorates the already burdened psychological state of mental health patient. Behaviours based on discrimination, which in many cases constitute an over exaggeration by the media and the immediate linkage of mental health and cases of interpersonal violence (Sukel, 2016), exacerbate self-stigmatisation of the patient leading to his/her exclusion from social life (Byrne, 2000).

Definition of sports

At the beginning of the 19th century Max Weber in his work *"Protestant ethic and the spirit of capitalism"* attempted to connect physical exercise and rational society, the logic that discards instictive enjoyment of life through lighthearted choices of entertainment and sports (Weber, 1997). During the post-war period the development of leisure time and subsequently entertainment, defined the field for the development of citizens' interest for sport events. Today, in the modern era, with fast-paced daily lives, a person resorts to physical exercise and sports as a scientifically documented and appropriate means for the enhancement of his/her physical and mental health.

According to the Council of Europe, sports are defined as: *"all forms of physical activity which, through casual or organized participation, aim at expressing or improving physical fitness and mental well-being, forming social relationships or obtaining results in competition at all levels"*[1].Therefore, sports are more than a practical body exercise. One's opportunity to participate and enjoy sports and free exercise is a human right. Sport is assumed as a means to promote social cohesion and acceptance. In 2002, Kofi Annan, the Secretary General of the United Nations at the time, emphasised:
"Sport can play a role in improving the lives of individuals; not only individuals, I might add, but whole communities. I am convinced that the time is right to build on that understanding, to encourage governments, development agencies and communities to think how sport can be included ... in the midst of poverty, disease and conflict" (Ireland-Piper & Weinert, 2014).

The well-known saying of Thales of Miletus *"healthy in body, resourceful in soul and of readily teachable nature"*, answering to the question of who is the happier individual, confirms numerous studies noting significant reductions in levels of stress and depression in individuals participating in exercise regimens

1. White Paper - White Paper on Sport {SEC(2007) 932} {SEC(2007) 934} {SEC(2007) 935} {SEC(2007) 936} / COM/2007/0391final,availableat:https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52007DC0391

comparatively to people receiving medication (Wipfli, Rethorst & Landers, 2008). The meta-analysis of 105 studies in a reference period from 1980 to 2008 noted that frequent engagement in aerobic exercise affects mood positively (Reed & Buck, 2009). According to Raglin and Wilson (2012) during the course of physical exercise a change in bodily temperature is caused because of the increased central and peripheral nervous activity of the brain as well as the reduction of muscular expansion improving the person's mood. During exercise, dopamine, norepinephrine, epinephrine and serotonin hormones are affected, hormones that are used in the treatment against depression and schizophrenia. These hormones also increase released endorphins which are characterized as natural opioids that function as pain reducers.

Research findings demonstrate as a promising practice the direct and personal contact between healthy population and members of a group experiencing social stigmatisation (Pettigrew & Tropp, 2006). Through research it has been noted that physical activity can be as effective as medication in treating anxiety and depression, and that it constitutes a tool for the enhancement of a person's trust and self-esteem. Furthermore, regular exercise can reduce the danger of developing dementia by almost a third, through the enhancement of the cognitive function of the brain and the improvement of memory (Rendi et al, 2008). Studies have noted the positive impact of exercise on persons suffering from depression and to a lesser extent on those suffering from schizophrenia (Friedrich, 2017). Further research results support the positive impact of football on the psychosocial needs of mental health patients (Darongkamas et al, 2011).

Besides the positive effects of exercise on mental health and wellbeing of persons taking part in sporting activities, literature shows the important socio-emotional functioning of sport. Organized sporting activities emerge as an extremely complex social area where people take part. Leisure-time sport activities or alternatively "active recreation" activities are understood as activities that are conducted aiming for relaxation, health and wellness or enjoyment [2]. 'Traditional' sport is also of crucial importance having formal operational rules. Sport reinvigorates the body and ensures the well-being and medical fitness of the individual. It activates latent mental powers of the individual, mobilises his/her "mental stock" and activates friendly relationships and team spiritedness. Systematic exercise works on the basis of goal-attainment, handling collective victory and defeat, and provides outlets for the utilization of leisure time through mitigation of loneliness and introversion.

However, for some, medium-intensity physical activity is most suitably recommended as a form of exercise for the mentally-ill patient, as evidence show that competitive sport can burden the mental health of the patient by triggering factors that cause anxiety (Bauman, 2016). Such factors could be pressure for success, prolonged hours of training and subsequently the distancing of the patient from his/her home and family, the negative emotional effect of injury/injuries and other interpersonal relationship problems (Wiese-Bjornstal, 2010).

THE ROLE OF LOCAL AUTHORITIES IN ADDRESSING STIGMA

Available information confirms the importance of national and local initiatives in reducing prejudices against people experiencing mental health problems. The improvement of the well-being of people with mental health problems includes the provision of effective treatments and social interventions based on employment programmes, counselling activities to support the family of the mentally-ill patient, as well as public educational programmes towards the general population or targeting specific target groups such as the pupil population. Another way to reduce stigma and help people suffering from mental health problems is through their participation in sporting activities. Combating stigma, moreover, is based on mental health patients' rights as guaranteed at national level as well as on the basis of international resolutions, decisions and pacts of general interest for the

2. According to the National Sport and Active Recreation Policy Framework of Australia.

protection of human rights[3].

According to the United Nations Convention, persons with disabilities inlude those suffering from long-term physical, mental, intellectual or sensory disabilities hindering their effective participation in society on an equal basis with others. EU, and specifically the Charter of Fundamental Rights of the EU prohibits every discrimination on the grounds of disability (Article 21), while it recognises the right of persons with disabilities to benefit from measures designed to ensure, inter alia, their participation in social life (Article 26).

This desk literature review was conducted through various sources of information gathered in the World Wide Web and a review of recent literature, concluding to the recording of actions and strategies for people experiencing mental health problems. These activities and strategies are to be implemented by cities or are designed by the central administration of the state in the form of National Action Plans, awareness campaigns, prescription of sporting activities, organization of sporting events, drafting of national Directives, etc.

A typical example is the one of the government of Northern Ireland with a constant and persistent presence in promoting mental health of the population, social inclusion of the mentally-ill and the lifting of the social stigma of mental illness included in the drafting of its National Action Plans.[4] The government of Scotland, published in 2008 a Guidance Paper[5] with guidelines on the improvement of physical health and well-being of people experiencing mental illness as well as the Mental Health Policy Document for Scotland, *Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009–2011*,[6] wherein the orientation of government initiatives towards the improvement of the physical condition of mental health patients is explicitly mentioned.

Proposals by the Northern Ireland House of Sport (2017) and of The National Centre of Mental Health Research, Information and Workforce Development of New Zealand (2009) for combating mental health stigma emphasize the crucial importance of understanding of the terms of mental health and well-being through programmes of information dissemination and awareness activities, targeting members of sporting facilities and members of involved organizations.

The city of New York launched a comprehensive programme for improving access to mental health care and lifting the obstacles to treatment because of the stigma of the mental health patient. Three-quarters of the programme's budget are covered by the city's funds. The programme entitled ThriveNYC[7] was officially launched in November 2015, encompassing prevention and treatment actions of mental illness at local level through cooperation with 20 public services and 54 private services. Information dissemination actions concerned informing and educating teaching professionals working in nursery schools of the city, the design of screening of depressive disorders and the provision of treatment for mothers and pregnant women. A

3. Indicatively mentioning the following: a) Universal Declaration of Human Rights (10/12/1948), b) International Covenant on economic, social and cultural rights (19/12/1966), as well as other international texts of specific nature such as the c) Declaration of Hawaii / II, d) Regulation Proposal R 83/2 for the Protection of Persons suffering from Mental Disorder and placed as Involuntary Patients which was accepted by the Committee of Ministers of the Council of Europe (22/02/1983), e) Declaration on the Rights and Legal Protection of Mental Health Patients (17/10/1989), f) Recommendation 1235 of the Parliamentary Plenary of the Council of Europe (12/04/1994), g) Madrid Declaration on Ethical Standards for Psychiatric Practice (25/08/1996), h) Resolution of the Council of the European Union on the promotion of mental health (18/11/1999), i) White Paper on the protection of human rights and dignity of persons suffering from mental disorder and especially those involuntarily placed in psychiatric establishments, j) Recommendation of the Committe of Ministers of the Council of Europe on the protection of human rights and dignity of persons with mental disorders (22/09/2004).

4. See in this respect: a) The Bamford Review of Mental Health and Learning Disability (Northern Ireland). Mental Health Improvement and Well-Being –A Personal, Public and Political Issue, 2007, b) Health, Social Service and Public Safety, 20009, Delivering the Bamford vision. The response of Northern Ireland executive to the Bamford review of mental health and learning disability - Action Plan 2009-2011 and 2012-2015.

5. Scottish Government, 2008, Mental Health in Scotland: Improving the Physical Health and Well-Being of those Experiencing Mental illness: http://www.scotland.gov.uk/Publications/2008/11/28152218/16

6. Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009-2011: http://www.scotland.gov.uk/Publications/2009/05/06154655/0

7. The official webpage of the programme: https://thrivenyc.cityofnewyork.us/

further pre-planned action is the allocation of 15.000 apartments for the accomodation for the homeless mentally ill.

The official recommendation of the National Institute for Health and Care Excellence (NICE) of England for persons with mild to moderate depression is the participation in approximately three sporting activity sessions each week, lasting around fourty five minutes up to an hour, for a period of 10 to 14 weeks. The general practitioner is the one that can assist concerning the form of activity best suiting the needs of each patient. However, for the selection of the suitable activity the webpage Prescription for Exercise[8] is available to the citizens.

The government of England together with the Sport and Recreation Alliance created the first Mental Health Charter for Sport[9] promoting mental health in the field of sport and recreation. Aiming to lift the ideologies of stigma around mental health, the Charter has been signed by the largest sport organizations of the country. The government has commited to cover part of the funding of the activities for a certain time period.

The Sport England and The Mental Health Charity Mind[10] are in close cooperation offering a large scale programme aiming mainly at improving the lives of 75.000 mentally ill persons suffering from depression and anxiety, through sport. The programme is implemented in eight areas of the country offering support teams, counselling sessions and information sessions for the mobilisation of the mentally ill in order to incorporate sport in their lives. Part of the funding stems from national sources.

In January 2009 in England mental health charities MIND and Rethink launched the programme entitled Time to Change, the largest nationwide programme to combat stigmatisation and discrimination on mental health grounds. The main goal of the programme was the reduction of stigma by facilitating social contacts between members. One of the project's programmes was Get Moving! The programme includes organising more than 100 events within a week in October of every year. Participating in the events are persons having an experience of some form of mental illness and the general public. Participants could engage in physical activity, offering relaxed social contact between those experiencing mental health problems and members of the general public, as well as in organized sports, like a game of football where each team comprised of mentally-ill and healthy persons. In each game individuals are participating equally and working towards the common objective of the team's victory (London & Evans-Lacko, 2010).

Although the aforementioned case-study initiatives that were documented do not provide details and methodological information regarding the way in which they were designed and implemented, it is, however, apparent, that local administration societies are capable of ensuring, through their institutional role in governing local affairs, the advantage of close proximity to the citizens with an experience of mental illness. The organs of local government provide in their organisational structure social services and structures which statutively serve and undertake initiatives benefitting the mentally ill. Among others, services provided concern the psychosocial support of vulnerable social groups, including the mentally ill, information concerning their rights, the creation of motives for their social activation, the design and implementation of actions to promote citizens' health. It may be added that municipalities possess parks and sporting fields which can host adjusted sport programmes for the inclusion of persons experiencing mental health problems. However, there are no findings claiming that stigma in local societies and neighborhoods have been reduced. Given the extent of the aggravating characteristics of mental health, for the person and the society as a whole, local administration initiatives' with programmes and actions having sport as a central axis could work as a tool of prevention and mitigation against mental illness stigma, and perhaps as a complementary treatment measure.

8. Prescription for Exercise, website: http://prescription4exercise.com/patientpublic/choosing-the-right-activity/

9. The Mental Health Charter for Sport and Recreation: https://www.sportandrecreation.org.uk/policy/the-mental-health-charter/introduction-to-the-mental-health-charter-for

10. Mind, mental health charity: https://www.mind.org.uk/information-support/tips-for-everyday-living/physical-activity-sport-and-exercise/

CONCLUSION / RECOMMENDATIONS

The ambition of the present article was to demonstrate that sport and physical exercise are effective tools in the support of goals to combat mental illness stigma. The multiple benefits of physical exercise and organized sport are not only enjoyed by those involved, as in this case the mentally ill, but are extended throughout local society. The periodization of actions and short-term or long-term programmes which have been designed or already implemented at local and supra-local level aim at encouraging inclusion and enhancement of self-esteem of the mental health patient. These initiatives are oriented towards the abilities of the patient and the means to his/her empowerment, contrary to the medical intervention which is based on the "disabilities" of the mental health patient (Seligman & Csikszentmihalyi, 2014).

Sport is not only occasional relaxation and enjoyment for the person. Sport is offering the opportunity to develop a long-term campaign of valuable chances of communication, co-existence and mobilization of the community in matters of stigma and exclusion of the mental health patient. Nowadays, mental illness affects one in four citizens of the EU. If this percentage continues the same in next generations it is crucial on the one hand to effectively intervene in order to facilitate the daily lives of the patients, and on the other hand to mitigate the stigmatising prejudices against them. Inter alia, sport could be capitalized as a means to increase social contacts of the people with mental health problems and the general population and discourage shaped beliefs concerning mental illness.

The need to incorporate sport in policies and programmes of local administration with a long-term view and of lasting nature results therefrom. Increased responsibilities of local authorities in the field of public health and well-being create the grounds for the possibility of extending services for a holistic approach of mental health. Local authorities can undertake the design of a range of initiatives through making available sport facilities and organising sport programmes which are based on the design of sporting events and awareness campaigns and a model rooted on the value of «sport for everyone»[11].

Thus, the development of strategies to address mental illness stigma at local level seems that could be proven fruitful. Local authorities could play a much more important role in addressing stigmatisation and discrimination of the mentally ill through: a) the development of policies in favour of lifting stigma and social exclusion of the mentally ill, b) programming and developing of services of permanent or frequent nature for the increase of social contacts of mental health patients, c) the integration of the stigmatisation experience in evaluations and d) the improvement of multidisciplinary cooperation to address stigmatisation and discrimination (Gormley & Quinn, 2009).

The suitable space of the local society characterized by the immediacy of relationships between persons, the proximity of access to infrastructures and sporting areas, form those conditions that increase contacts of citizens with experience of mental illness and the communication with patients themselves. Frequent contacts facilitate a change of persons' beliefs about "the dangerous mentally-ill person" or the connection between deviant behiavour and the mentally ill.

Design of a coordination strategy to mitigate stigma should be based and promoting the following:

- One of the strategies to combat stigma is the education and information of the general public. Lifting prejudices concerning mental illness, of exaggerated stereotypes about the "dangerous mentally-ill", the refuting of false assumptions about the incapacity of the mental health patient, and those beliefs that demonise the patient

11. During the last decades it seems that the orientation leans towards more holistic interventions and actions for the prevention of physical and mental illness. Diversity is perceived as a source of learning and social acceptance. More specifically, the holistic models adressing mental disorders seem effective by combining on the one hand, focused personal interventions, and on the other hand, interventions at community-level by taking advantage of the funds of the community itself (Kourkoutas, 2008· Fraser et al., 2004· Hansen, 2000). Furthermore, research demonstrates positive results on psychosocial and emotional development of children with disabilities that attend mainstream schools and not special schools (Droatar, 2006· Kourkoutas, 2008). Pre-school age is shown as the most appropriate age because up until then children have not formed stereotypical perceptions concerning persons with disability (Tafa &Manolitsis, 2003: 156).

suffering from a mental illness could come about by continuously informing and raising awareness of the public.

- Participation and relaxation through sports could be a way to transform internal introversion of the patient to creativity and extroversion. The localised level of sport facilities favours the extension of social relations with persons taking part in sporting activities at neighborhood level, enhancing the personal development of the patient while simultaneously enhancing local social cohesion.

More specifically, three lines of action are proposed that local authorities are able to uphold:

1. Ensuring the social support of people experiencing mental health problems at local level through: cultivating and improving social abilities of patients through physical exercise and sports. Creation of a holistic approach to address mental illness which is substantiated on the creation of structures responding to multiple needs of the mentally-ill inhabitants of the area.
2. Combating self-stigmatisation.
3. Combating stigma and discrimination against the mentally-ill.

In order for these initiatives against stigmatisation of mental illness to succeed, the continuous introduction of anti-stigmatisation practices from various fields is a pre-requisite. The above lines of action could be specified to specific measures and initiatives by local authorities. Indicatively, the following are suggested:

1. A primary investigation of the opinion of the local population of the area about issues concerning mental illness. This action must come first before any action to create a sport facility and the participation of mentally-ill in relevant activities.
2. The creation of adequately organized sport facilities and defined spaces of free access, such as parks, green spaces specially adapted for walking, cycle trails, and outdoor gyms which can offer a variety of sport activities responding to the abilities and preferences of the mental health patient.

   Aerobic exercise, muscle-strengthening exercises, relaxation techniques, breathing exercises, balance exercises, dancing and walking are choices of non-competitive character. During their execution a person can control their intensity and rhythm and furthermore they promote social inclusion and integration, by not differentiating from those that each interested person can perform.
3. Development of information programmes responding to the needs and specificities of the mental health patient having as target groups the general population as well as the users of the sport facilities of the area.
4. Staffing of sport facilities by specially qualified personnel (e.g. trainers, doctors, occupational therapists, psychologists), who can, on the one hand, design and implement exercise programmes, and the other hand, organize open self-help groups, discussion groups, other treatments for the maintenance and lifting of the functional level or independence of each person participating in sporting activities can reach.

The simultaneous operation of "treatment groups" and sport teams, seem to be the essential extension of social help for the mental health patient. Self-help groups will bridge the connection or referral of the patient with other specialized units for the treatment of mental illness. Stigma, as it has been noted, reduces the patient's self-esteem and hinders his participation in treatment (Corrigan, 2004).

Although available literature scientifically confirms that sporting interventions improve physical well-being, social and emotional well-being and social inclusion of a person with mental health problems, the following issues remain to be researched:

- Which sporting activity or which sport is the most suitable and for which mental illness?
- For how long and in which frequency can the mentally-ill person benefit from his/her participation in a group or personal activity and under which circumstances?
- Which are the most important long-term benefits for the mentally-ill person?
- Impact evaluation and usefulness of interventions, as explained above, and the methodological principles of intervention based upon.
- What can be done to lift mental illness stigma and its enforcement practices?

In conclusion, we can reasonably assume that steady funding of eligible sporting activities benefiting the persons experiencing mental health problems will ensure the long-term effect of services as well as their quality.

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08

ACTIVE LIVING AND MENTAL HEALTH: SOCIAL PARTNERSHIP BETWEEN THE PUBLIC AND PRIVATE SECTORS

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INTRODUCTION

A reduction in public Sector resources is evident nowadays, for both healthcare (and Mental Health) and sport services (physical/ leisure activity) (The Moray Council). The need to develop partnerships between the public and private sector becomes therefore increasingly important. Considering the rising numbers of people experiencing issues of mental health, there is a growing need to develop cross sectoral initiatives, raise awareness and provide effective responses for both the prevention and treatment of individuals with mental health problems.

"According to a systematic review and statistics from several European Union (EU) countries (Iceland, Norway and Switzerland), almost 27% of the adult population (aged 18–65) had experienced at least one of a series of mental disorders in the past year (this included problems arising from substance use, psychoses, depression, anxiety, and eating disorders)" (World Health Organisation, 2017).

This paper is attempting to describe the benefits of Public and Private Partnership in general and in the fields of sport and mental health. We examined the existence of public-private partnerships, provided a thorough understanding of relevant issues and illustrated how a responsible implementation of these partnerships can benefit all parties involved.

We discuss experiences of finding, developing, implementing, and evaluating public–private partnerships and how this can be implemented across the field of mental health and sport (active Lifestyles).

The paper demonstrates how public–private partnerships may widen participation, provide resources, improve efficiency, and allow for access to and sharing of expertise, as well as increasing awareness across and breaking

down barriers of exclusion. It also provides recommendations on how to develop and sustain public and private sector partnerships and implement active living programmes as a means to improve mental health across all sectors of the community, both as a preventative measure for vulnerable groups at risk of mental ill health and as a treatment of those who have experienced mental health issues.

WHY ARE SOCIAL PARTNERSHIPS IMPORTANT?

As public-sector services are streamlined and reviewed, there is recognition that innovative and targeted responses to community health issues are necessary. Collaboration between public, private and third sector service providers and professionals is gaining recognition as a solution to reduce duplication, be more cost effective, minimise gaps in provision and target harder to reach groups. "'There is an ever-increasing appetite to develop collaborative partnerships in health-related activities" (Alexander et al, 2001).

The Employment Support Allowance (ESA) (2010) defined Public-Private Partnerships (PPPs) as "complex, long-term contracts between two units, one of which is normally a corporation (or a group of corporations, private or public) called the operator or partner, and the other normally a government unit called the grantor. PPPs involve a significant capital expenditure to create or renovate fixed assets by the corporation, which then operates and manages the assets to produce and deliver services either to the government unit or to the general public on behalf of the public unit".

In recent years, across Europe, in an attempt to reduce stigma, raise awareness and be more responsive, several mental health partnerships have been established (Evans-Lacko et al, 2014). These partnerships bring together people with different experience and perspectives and offer the possibilities of identifying innovative solutions and more efficient mechanisms of prevention and treatment.

There is a growing investment in collaboration across many services and sectors including mental health which demonstrates that funders and policy makers are recognising that partnerships provide effectively the development of efficient approaches to address relevant issues. "Collaborative partnerships are a promising strategy for engaging people and organizations in the common purpose of addressing community-determined issues of health and well-being" (Roussos & Fawcett, 2000)

Whilst these partnerships are established, managed and organized differently, they all share the common idea that in today's society the majority of health-related initiatives cannot be designed and delivered by a single body, or organization. By bringing together the complementary skills and resources of a wide range of professionals, services users, volunteers and organizations, social partnerships have the ability and resources to develop and deliver a more effective and comprehensive range of services and with a more strategic foundation. This issue becomes more important when combining two separate fields, such as Sport and Mental health.

BASIC DEFINITION

A Social Partnership is:

A strategic partnering arrangement which involves the stakeholders across sectors in the design development and delivery of programmes (Rees, Mullins & Bovaird, 2012)

In the context of the MENS project, a Social Partnership is based on a co-planning approach, through which third sector organisations, public sector organisations and private sector organisations may be organised in order to share responsibility for designing and continuously upgrading sports related provision and training programmes to respond to the ever-changing needs of people from disadvantaged groups. It requires that each sector a) attempts to meet their individual objectives and b) collaborate to provide better services than acting alone.

Social Partnerships recognise and value the contribution of voluntary sector organisations (NGO'S) to the planning and delivery of services. They bring to the network close relationships with people with mental health issues. By working with private and public-sector partners they can ensure that programmes are designed to meet their service users' needs. Voluntary sector and private sector organisations share an

equivalent role in programme design, alongside public-sector authorities; programmes can be designed with the needs of people with mental health issues at the forefront of the process. Programmes can then be tested in a grass roots level and the final programme that emerges from this process can then be mainstreamed.

METHODS / PROCEDURE / APPROACH

This research aims to examine the positive outcomes from the partnership between the public and private sectors, and stress its importance in the fields of mental health and sport.

The primary goal of this research attempt is to establish the benefits of and develop guidelines for Social Partnership (SP) in the field of Mental Health and Active Living in an accessible way so that it can be used to inform policy makers and daily practice. The research brings together evidence from recent empirical research on social partnerships reported in journals, articles and literature. This effort incorporates partnerships between local statutory sector agencies with the third and private sectors, as well as partnerships with local communities or people using services.

The present literature review provides the information that forms a basis of the conditions needed to build social partnership and give it the best chance of success. This allowed us to develop guidelines upon the development of social partnerships with respect to the context of Active Living (sport) and mental health that may lead to positive outcomes.

REVIEW OF THE LITERATURE

The main goal of several agencies working with individuals with mental health issues is the development of their soft skills, the building of their confidence and enabling their societal participation. The long-term benefits are fostered through their social integration and the development of networks from across the sectors which have knowledge, experience and skills of supporting people with mental health issues through sport and active living. To achieve this specific purpose, it is important and useful for the mental health agencies to increase collaboration between public and private sector. Indeed, it is an important way to increase awareness and to break down barriers.

To improve the confidence and participation of people with mental health issues, specific courses and lessons are required. For instance, self-management, whose skills can be learnt are usually taught by people with direct experience of mental illness and health. Taking self-management courses help individuals to understand how their own mental health problems affect their life, how to recognise the early signs and prevent or minimise the impact of an episode of illness (https://www.mentalhealth.org.uk/a-to-z/s/self-management-mental-ill-health).

Moreover, sport and activities constitute an important tool to prevent and to narrow mental health issues. Indeed, the findings show that physical activity has an important role to play in building resilience, enabling and supporting mental health recovery and tackling stigma and discrimination.

The National Institute for Health Care Excellence (NICE) guidelines stated that physical activity should be one of the first interventions recommended by doctors treating individuals with mild to moderate depression. Being physically active can reduce someone's risk of depression by up to 30%. It can also reduce anxiety and stress, combat low mood and increase self-esteem. Being physically active is especially important for people with severe and long-lasting mental health problems (such as bipolar disorder or schizophrenia), because they are:

- Twice as likely to die from heart disease.
- Four times as likely to die from respiratory disease.
- On average, likely to die between 10 and 17 years earlier than the general population, driven in large by poor physical health.

Physical activities are considered as effective tools for treating mental disorders because they are:

- Cost-effective alternate strategies to those who prefer not to use medication or who cannot access therapy

- Associated with minimal adverse side-effects
- Indefinitely sustained by the individual
- Able to simultaneously improve physical as well mental health and tackle mental illness.

A best practice related to the field is Digital Peer support, in which people use their own experience to help each other online. A relevant website called Elefriends, allows everyone above 18 years old who is struggling with mental illness to join (https://www.mind.org.uk/media/17047308/get-set-to-go-research-summary-report.pdf).

According to surveys and studies, people affected by mental health issues suffer from discrimination and inequalities at work and they experience difficulties to find and sustain employment. Indeed, the unemployment rate of this group is around 90% — in contrast to that of persons with physical or sensory disabilities which is approximately 50%. Again, expressed differently, only 10% of persons with a serious psychiatric background who wish to work are employed. Women fare less well than men. It has long been known that severe mental illness often impairs dramatically one's capacity to work and to earn a living. It can lead to impoverishment, which in turn may worsen the illness. Thus, all efforts to find employment for these individuals are essential since they improve quality of life and reduce both impoverishment and the high service and welfare costs engendered by this group.

Sources also confirm that the majority of people with severe mental health problems have been exposed to programmes that focus more on developing work skills than on actual paid work. These programmes are summarised briefly:

- **Hospital-based programmes of training and work integration:** These are less used now than in the past; their aim is to increase self-confidence and general functioning. The activities taught in these programmes usually incorporate food distribution, gardening, running a small store, etc. While participants tend to have reduced numbers of days of hospitalization, it appears that few obtain successful permanent employment.
- **Sheltered workshops:** This is another traditional approach where subcontract work is used. It is felt that this type of work does not prepare very well for remunerative employment and that the person tends to remain in a patient role. However, 10-15% of participants have been found capable of moving to a more intensive programme.
- **Training in community living:** These programmes have been developed through the pioneering efforts of Stein, Test and Marx. They attended to the basic needs and features of individual management as well as a global approach. While participation in such programmes reduces hospitalization and increase independent living, it has not been found to have a great impact on keeping a permanent job.
- **Programmes of assertive community treatment (PACT):** These programmes were also developed by Stein, Test and Marx in response to the growing need for community-based services for individuals with severe mental illness. The focus has been on recovery from illness and enhanced quality of life. The training was implemented in Canada and in several areas of the United States. PACT is an interdisciplinary team approach including a psychiatrist, registered nurses, peer specialists, vocational specialists, an addiction specialist and a programme administrator. Crisis care is available 24 hours a day. This integrated, community-based model provides "the treatment, rehabilitation and support services that individuals with severe mental illness need to live successfully in the community".

Obtaining competitively paid employment for a person with a background of serious mental illness remains a challenge at the best of times. It is even more difficult in periods of high unemployment when the availability of nondisabled workers is plentiful (http://www.who.int/mental_health/media/en/712.pdf).

However, this can only take place if social partnerships exist locally in the area where the network is being developed. In order to continuously improve and develop the service provision for people with mental health issues, both employers and public-sector officers need to be given a platform where they can influence and co-design the services. Equally social partners also need to be involved as they can develop unique resources and support to people with mental health issues in an unpressurised environment.

The social partnership between employers and public sector is of great importance not only for people suffering from mental health issues, but also for the employers themselves and the private sector in general. There are more reasons to support this bilateral benefit of this collaboration. First of all research suggests that mental health disorder account for 22% of the EU's disability burden (Mental health and wellbeing report, 2016). Secondly, as Liopis and Anderson (2005) suggested the social and economic cost of mental health services seems to be increasing and adding up in the already strained economy. Thirdly, EU-OSHA (2014) reported that the cost of mental health due to reductive productivity and absenteeism was €136 billion/per year.

EU Compass on Mental health in the Work place (2017) reported that "from an economic perspective, robust data is available indicating a return on investment at the level of mental health promotion in the workplace (p. 22). Additionally, WHO (2017) published a Fact sheet on Mental health in Work place in which a series of intervention and good practices are suggested in order to make workplace healthy. Those included:

- Awareness of the workplace environment and how it can be adapted to promote better mental health for different employees.
- Learning from the motivations of organizational leaders and employees who have taken action.
- Not reinventing wheels by being aware of what other companies who have taken action have done.
- Understanding the opportunities and needs of individual employees, in helping to develop better policies for workplace mental health.
- Awareness of sources of support and where people can find help.
- Implementation and enforcement of health and safety policies and practices, including identification of distress, harmful use of psychoactive substances and illness and providing resources to manage them.
- Informing staff that support is available.
- Involving employees in decision-making, conveying a feeling of control and participation; organizational practices that support a healthy work-life balance.
- Programmes for career development of employees.
- Recognizing and rewarding the contribution of employees.

There are different opinions and ideas about the collaboration between public and private sector. According to Pauline Vaillancourt Rosenau, there are some important strength elements that should be considered. Indeed, the public sector draws attention to public interest, stewardship and solidarity considerations. It operates more efficiently at openness to public scrutiny, employment concerns, policy management, regulation, preventing discrimination or exploitation etc. The private sector on the other hand is thought to be creative and dynamic, bringing access to finance, knowledge of technologies, managerial efficiency, and entrepreneurial spirit. It is better at performing economic tasks, innovating and replicating successful experiments, adapting to rapid change and preforming complex or technical tasks.

The non-profit organisations (or third sector) are strong in areas that require compassion and commitment to individuals. They do well when customers or clients require extensive trust, or need hands on personal attention. Partnerships offer the promise of greatest success when the strengths of more than one player are required. The need to balance between public and private, especially when policy is involved, is widely appreciated by those committed to a larger role for the public sector.

Public-private policy partnerships have in common a shared responsibility for policy that impacts citizens. Authentic partnering involves close collaboration and the combination of the strengths of both the private sector (more competitive and efficient) and the public sector.

However, real benefits of public-private policy partnership may not be entirely evident as yet across the whole range of policy sectors (Public-Private policy partnership).

However, when talking about partnership we need to take into account benefits and risks.

The benefits are:

- Increase efficiency thanks to better risk sharing and incentives to perform.
- Better project management and innovation.
- Once efficiency/innovation gains are factored in, higher value for money.
- Current market conditions, with excess liquidity and low interest rates, may provide attractive opportunity to finance PPPs.

- Spread the upfront capital expenditure of a project over the life-time to asset.
- The private partner is assuming certain risks that would otherwise be left with the public authority.

The risks instead are:

- Lengthy contracts may make demand projections increasingly unreliable.
- Regulatory capture and investments hold-up.
- Higher cost of finance for the private partner vs. public.
- Contractually ring-fenced payments over a long period may not take into account the economic cycle.

(Public Private Partnership in Member states: Mirco Tomasi)

Different sources and examples confirm how partnerships between public and private sectors can achieve common goals. An example is given by the role that private and public sector have had in the city of New York. Under the leadership of Mayor Michael R. Bloomberg, private partners have begun to collaborate with city government in ways that push new boundaries and allow government to embrace an entrepreneurial spirit (http://www.bbhub.io/dotorg/sites/2/2015/07/The_Collaborative_City.pdf).

The main impact on Voluntary (and Private) Sector organisations active in mental health and sport is that it strengthens their capacity to offer high quality services, tailored for individuals with mental health issues.

Successful adoption of the Social Partnership approach to the design and delivery of sports related programmes can engender significant benefits:

- Programmes are not designed in isolation – the third sector's organisations (NGO's) ability to innovate, its experience in working on a day-to-day basis with particular client groups and linking with input from employers and the wider community can help to deliver better, more efficient programmes and achieve key outcomes for the participants involved.
- Allowing greater agility to find creative solutions to service users and service providers. Increasing focus on changing needs of people with mental health issues and makes services better able to meet these needs.
- Helping to break down cross sectoral barriers.
- Supporting the delivery of wider social and economic benefits focused upon communities.
- Promoting the sharing and transfer of skills and knowledge between partners.

Historically, local public/private/ and voluntary sector partnerships created before 2008 focused on improving health for the individuals involved. However, the relevance of this type of partnership appears to have increased in the UK since **2016** when Strategic Health Authorities were replaced by local Clinical Commissioning Groups and Health watches, both of which required cross sectoral representation. Furthermore, during this period, the number of people with mental health issues being supported to take a more active role in sports in order to alleviate symptoms related to mental health was increased.

Sport can have positive psychosocial benefits, and moderate-to-vigorous intensity physical activity can improve physical and mental health (Biddle, Mutrie & Gorely, 2015). However, evidence suggests that competitive sport may contribute to poor mental health (Bauman, 2016) and may lead to specific stressors that hinder an athletes' mental health optimisation (Donohue et al., 2007). These stressors are:

- Pressure to achieve success (Evans, Weinberg & Jackson, 1992);
- Extended times being separated from family (Masland, 1983);
- Negative emotional consequences of injury (Wiese-Bjornstal, 2010);
- Substance and alcohol abuse

(http://www.sportni.net/sportni/wp-content/uploads/2017/03/Mental-Health-Report-Final.pdf).

A practice example is **the Sport and Recreation Alliance and ukactive** have now come together again to provide a picture of the public health, commissioning landscape in England and to set out the sport, recreation and physical activity sector's critical role at the heart of the fight to improve public health (http://www.ukactive.com/downloads/managed/Physical_Activity_and_Health_-_Final_Version.pdf).

Another useful example coming from Asia is the promotion of a Partnership for mental health issues in the area of Asia-Pacific. In this area there is a lack in understanding problems related to mental health issues and lack of consciousness.

The "Janness Menti sane" program attempted to provide information relevant to mental health issues; individuals with mental illnesses live in an environment of discrimination and exclusion. Moreover, another goal was to influence the public opinion and to improve the diagnosis and the access to new treatments (like sport). The innovative part of this project is that it recognised the importance of having a public and private partnership (http://www.janssen.com/it/sustainability/fostering-mental-health-partnerships-in-asia-pacific).

The main causes and reasons of failure and limitations of partnerships are related to:

- **Management of the project:** The challenges lie in sharing information, coordinating and acting jointly. Thus, the effective management of a project depends on the establishment of well-functioning corporate governance structures.
- **Conflicts of interest:** The public and the private sector set completely different priorities stemming from their different value systems. While a private company aims at making the highest possible profit, public organizations carry a certain responsibility when providing services of general interest.
- **Accountability**
- **Risk management**
- **Transaction costs**
- **Costs of regulation**

(http://www.libertas-institut.com/de/PDF/Claudia%20Reim_PPP_London_Underground_Aug-2009.pdf).

Partnerships designed, initiated and implemented by local actors alone are still very rare. The MENS network considers partnerships of pivotal importance to promote and to increase innovative methodologies for people with mental health issues.

Evidence also suggests that bottom-up and small-scale initiatives by private actors, such as local firms or NGOs, do exist and have played a role in alleviating the impact of mental health. This policy paper therefore aims to empower social partners to initiate local partnerships.

Since the crisis in 2009, some important developments can be found in the creation of these partnerships in the EU, in the UK and in the Netherlands. These partnerships became more prominent across the whole European continent to deal with the changing political and economic climate and retained a crucial role to address the needs of disadvantaged groups since 2009. Worsening labour market conditions have prompted European (e.g. Denmark, Netherlands, Sweden and the UK) countries to make full use of or set up new local initiatives to promote strategies which enhance mental wellbeing. It is possible, in these countries, to find positive evidence of Social Partnership using trade union and employer expertise to tackle the mental health, employment and sport.

The success factors for the implementation of Social Partnerships are generally described as the right mix of 'ingredients' at the local level, such as commitment from stakeholders to develop partnerships and the empowerment of local communities and local actors. The local 'ingredients' combined with a governance framework favourable to Social Partnership - at the highest level, will allow space for local action and guaranteeing long-term funding.

Research suggests that in many European countries, partnerships between private and public authorities (social partners) still represent untapped potential; many countries in the EU have not fully seized the opportunity to use local partnerships to tackle health inequalities. Many countries incorporate obstacles to the deployment of local partnership due to a centralised framework for sports and health policy. Partnerships designed, initiated and implemented by local actors alone are still very rare, and therefore the MENS network considers it of pivotal importance to promote such partnership working as a key way to increase innovative methodologies for people with mental health issues.

This report illustrated how the public – private partnerships can improve and enlarge the scope and participation in activities, especially when these partnerships are planned and implemented in the correct way. Moreover the research demonstrated that these type of partnerships have an additional value in terms of resources and efficiency, as well as it can give access to expertise and increase the knowledge and fight the stereotypes about inclusion.

CONCLUSIONS / IMPLICATIONS / RECOMMENDATIONS

Cross Sector collaboration is essential for mental health and active living promotion

Mental health (and active lifestyles) can be improved through the collective action of all sections of society. Improving mental health requires policies and programmes in government, community and private sectors including education, employment, transport, environment, housing, leisure and welfare, as well as specific activities in the health field relating to the prevention and treatment of ill-health.

Mental health and active living concerns everybody

The inclusion of individuals, families, communities, businesses, health and social care professionals will benefit from collaborative solutions to mental health and active living. Particularly important are the decision-makers in governments at local and national levels whose actions and policies around health, sport, active living and community engagement affect mental health.

Community Action

Community action is of key importance in the promotion of active living as a treatment and prevention of mental health. People from all sectors of society working together to bring about change and provide solutions to shared problems will improve social capital, provide people a sense of empowerment and increase the capacity and resilience of the community.

A cross sectoral approach to mental health and active living promotion

Cross sectoral collaboration is a key element to promoting and implementing mental health and active living programmes. Collaborations are also important to include active living as a wider concept than just sport or exercise to reach more individuals and provide opportunities across services:
"If we are to reduce health inequities it is essential to take action on the social determinants of health – the 'causes of the causes' of ill health. That means working in partnership at local level to improve the social conditions in which we are born, live, grow, work and age. ..... Empowering individuals and communities, and giving people a voice is integral to addressing health inequalities" (http://www.artscouncil.org.uk/sites/default/files/download-file/Be_Creative_Be_Well.pdf).

Shared decision making

According to the World Health Organisation, sharing the decision making in mental health services is imperative to inclusive and collaborative practice:
"Without support in making decisions, users are kept in long-term dependency relationships. People cannot become independent without the opportunity to make important decisions about their lives. (http://www.euro.who.int/data/assets/pdf_file/0020/113834/E93430.pdf).

Reduction of Stigma

Using sport and active living to treat, prevent and also raise awareness of mental health, is also key to removing social stigmas around mental health. By participating in active lifestyle and related activities it removes barriers and breaks down preconceived ideas about people with mental health illnesses. Further, it raises awareness of the need for everyone to be aware of their mental health, how to maintain their mental health and how sport and active living may contribute.
"From elite sport through to grass-roots participation, sport can be used to reduce stigma and start positive conversations about mental health. Sport should also be accessible to people with mental health problems. That's why we're supporting the Mental Health Charter for Sport and Recreation" (https://www.mind.org.uk/about-us/our-policy-work/sport-physical-activity-and-mental-health/).

Promoting mental health and active living awareness

For mental health and active living promotion social partnerships need to:

- build on existing activity in a variety of sectors, settings and organisations;
- create different partnerships for different purposes, at varying levels; and

• create collaborative action "horizontally" within government departments and organisations, and between those expert in policy, practice, and research.

The need for collaborative practice in mental health and active living promotion is firmly established by the socio-political and economic determinants of health.

That is, influencing the determinants of health, such as improving social cohesion, accessibility and anti- discrimination practices. These goals will not be achieved by the public health sector action alone but rather through a cross sector approach. It requires a multidisciplinary approach involving research, policy, and practice in employment, education, law, welfare, arts, sports, leisure, tourism and the environment to improve mental health through increased participation and social cohesion. To achieve positive outcomes requires shared planning and ownership across all sectors of society.

Successful collaborative social partnerships take time and a commitment to shared goals and outcomes. There are challenges such as funding, especially within and across sectors, diversity within cultural professional and political backgrounds and, different priorities and complex decision-making processes. These challenges require a strengthening of capacity across the individual, organisational, and community dimensions. (Fawcett, 2000).

Evidence exists for the effectiveness of a wide range of exemplary mental health promotion programmes and policies. Their outcomes show that mental health promotion is a realistic option within a public health approach across the lifespan and across settings such as perinatal care, schools, work and local communities. In many fields of life, well-designed interventions can contribute to better mental health and well-being of the population [(WHO, 2004), p. 34].

An example of this is: 'Get Set to Go' - With support from Sport England and the National Lottery. 'Get Set to Go' has been helping people with mental health problems get active. Since 2015, 'Get Set to Go' has seen 3,585 people with mental health problems take part in specially designed physical activity projects at local and community level. Following an evaluation, findings show that physical activity has an important role to play in building resilience, enabling and supporting mental health recovery and tackling stigma and discrimination.

(https://www.mind.org.uk/about-us/our-policy-work/sport-physical-activity-and-mental-health/).

It is clear that mental health and active living promotion depends on cross sectoral collaboration and that a significant number of services and interventions are outside of the remit of traditional mental health and social care services.

The true purpose of social partnership should be to bring together people, places, and practices that have been successful in developing good quality mental health and active living practices. With the support of a continuous mutual learning and collaboration concept, organisations and individuals can benefit from others' experiences and contribute to better mental health care through active living promotion and programmes to reduce disparities in access to services.

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09

SPORTS AS A MEANS OF NON-PHARMACEUTICAL TREATMENT FOR MENTAL ILLNESS

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INTRODUCTION

There are many indications that recommend the physical activity and exercise as a precursor of physical and mental health. In this sense, there are several studies that support their role as a complementary or compensatory intervention of pharmacological treatments for people who have mental health problems. Similarly, physical activity and exercise may constitute a safe mechanism of prevention and intervention for a wide range of mental health problems.

This policy paper aims to clarify the comparable physical and emotional benefits of physical activity and exercise to the pharmacological treatments in people with mental health problems, mainly in the compensation of the side effects of prescribed medication.

A substantial body of evidence supports the role of exercise interventions for people with a mental illness in a non-pharmaceutical way or in a complementary way (Lam & Riba, 2016; Ekkekakis, 2013). Physical activity can be a cost-effective and safe intervention for the prevention and treatment of a wide range of mental health problems. Routine exercise alleviates stress and anxiety (Pickett, Kendrick & Yardley, 2017), moderate depression (Wegner et al., 2014; Gerber et al., 2012; Clow & Edmunds, 2014), improves self-esteem (Fox, Biddle, Fox & Boutcher, 2000; Hibbert & Rothschild, 2016), on physical and mental health and well-being of individuals with schizophrenia. Physical activity appears to alleviate negative symptoms and can also be a useful method for keeping positive symptoms under control (Kimhy et al., 2017).

STATEMENT OF THE PROBLEM

Mental health problems are increasingly common and are considered one of the major factors generating functional limitations or disability worldwide. Epidemiological studies reveal that from 10 to more than 30% of the adult population suffer disorders of mood, such as depression or anxiety (Kessler et al., 2005). Other more serious mental health illnesses, usually represented by schizophrenia and other forms of psychosis, account for about 1% of

the world's population. One in four people suffer from mental illness throughout their lives, and around 450 million people suffer from mental illness worldwide (WHO, 2005).

In this sense, pharmacological treatments are the first and most widespread intervention that is carried out to stabilize and recover people suffering from these conditions. These treatments turn out to be effective, but they also have certain side effects that diminish the patient's quality of life.

This paper attempts to value and emphasise on the positive effects that physical activity, exercise and sport could have as a complementary, adjunct and compensatory intervention to the current treatments for individuals suffering from mental illness.

BASIC DEFINITIONS

Mental health

Mental Health Europe (MHE), in its conceptual framework for the Promotion of Mental Health and the Prevention of Disorders, remarks that there is no official definition of mental health. Cultural differences and the various theories on this regard make it difficult to produce a single definition. However, most experts agree that mental health and the absence of mental illness are not the same. In other words, the absence of a recognized mental disorder is not necessarily an indicator of mental health. In regards to this statement, mental health or a state of well-being protects against the development of disorders, while mental disorders increase the risk of mental discomfort. Mental health is an integral component for health and well-being in general (WHO, 2013), and it should be treated with the same urgency and consideration with physical health. In line with this approach, the Comprehensive Mental Health Action Plan 2013-2020 (WHO, 2013) has the internationally accepted principle that "there is no health without mental health".

Mental Health Problems

According to the World Health Organization, mental disorders are the cause of about 23% of the total productive years lost due to situations of disability. Mental illnesses are the main cause of disability during the years in which an adult is considered productive. Individuals with mental problems not only experience decreased productivity due to disability, but also have elevated risks of premature death because of behaviours and physical problems associated with the disease itself (Lam & Riba, 2016).

In Europe, psychiatric disorders are the second cause of economic burden due to illness, only behind cardiovascular diseases. In the European Union, 18,4 million people between the ages of 18 and 65 suffer from major depression every year (Commission of the European Communities, 2005). In addition, mental disorders increase the risk of contracting other diseases, such as cardiovascular diseases, diabetes and metabolic syndrome; all of which are closely related to a sedentary lifestyle due to physical inactivity. The impact of mental disorders on the quality of life is greater than that of chronic diseases such as arthritis, diabetes or heart and respiratory diseases. In addition, the ignorance and stigmatization surrounding mental illnesses are widespread. There is a widespread belief that it is not possible to treat mental disorders, or that people who suffer from them are difficult, unintelligent or unable to take decisions. Such stigmatization can lead to mistreatment, rejection and isolation, and deprive affected people of medical care and support.

According to the World Health Organization, it is estimated that approximately 20% of children and adolescents in the world have related disorders or mental health problems. About half of mental disorders appear before the age of 14. In all cultures, similar types of disorders are observed. Neuropsychiatric disorders are among the main causes of disability for young people. However, the regions of the world with the highest percentages of population under 19 years old, who suffer from mental health issues, are those with the least mental health resources. Most low-income countries have a single psychiatrist for every one to four million children.

The World Health Organization also notes that more than 800.000 people commit suicide every year, and that suicide is the second cause of death in the group from 15 to 29 years old. There are indications that for every adult who commits suicide, there are more than 20 attempts. A 75% of suicides take place in low and middle-income countries. Mental disorders and alcohol abuse contribute to the increased number of suicides (WHO, 2016). Early identification and tailored treatment are

essential to ensure that these people receive the support they may need and a tailored and effective treatment should consider different spheres of life, including the positive use of leisure and free time and the participation in physical activities and sports.

The WHO claimed that in most countries there are frequent reports of violations of the human rights of people with mental health problems. These violations include physical coercion, imprisonment and deprivation of basic needs and privacy. Few countries have a legal framework that adequately protects the rights of people with mental disorders.

The social and economic cost of mental illness is estimated at around 4% of the European Union's GNP, over 182.000 million euros. It is estimated that mental health conditions is one of the main reasons for economic cost worldwide, with a figure close to 1,6 billion euros (Barton & Rogerson, 2017). In European countries, the mental health budget accounts for 5,8% of the total health budget. In many European countries, mental illness causes 45-55% of working absenteeism.

A study on the global cost of diseases (Whiteford, Ferrari, Degenhardt, Feigin & Vos, 2015) estimated that a large part of the bill linked to the diseases of the world comes from those related to mental health issues, neurological disorders and substance abuse.

In 2013, according to data from Mental Health and Related Issues Statistics (Eurostat, 2017), there were 177.000 deaths in the European Union because of mental and behavioural disorders, which is equivalent to 3,8% of all deaths. The EU standardized mortality rate for mental and behavioural disorders was 36,4 deaths per 100.000 inhabitants.

Pharmacological treatment as an instrument to improve the conditions of people with mental health problems

The benefits of pharmacological treatments in people with mental health problems are thoroughly demonstrated. In fact, the main cause of relapse is a poor medicine management. The medication for each patient is individually decided by the mental health professional, taking into account the patient's needs. The pharmacological treatments extend for a long time, sometimes along the whole life of the patients, even when he/she feels well. They do not only have an effect of remission of the symptoms, but they must also be taken to prevent crises and relapses. In general, the medicines protect patients from stressful events that may happen to them and prevent the development of crisis.

Stop taking the medication or taking the wrong dose has serious consequences, such as the increase of the number of relapses (approximately 80% of people suffering from schizophrenia who stop taking drugs relapse during the first year), increase the severity of relapses (more frequent involuntary hospital admissions and more severe symptoms), or their duration (patients usually need more days to recover), and difficult the prognosis of the disease.

The patients' recovery is more effective as soon as the pharmacological treatment is established and maintained. There are a wide variety of medicines depending on the type of mental health problem identified. To treat schizophrenia and other psychoses, the neuroleptics and antipsychotics are highlighted. Medicines with these active ingredients block the receptors of dopamine (substance responsible for transmitting information between cells of the nervous system), in which an excess can produce symptoms such as hallucinations and delusions. They organize the thought and consequently, they also prevent relapses acting as a "filter" which avoid the excessive transmission of information from one neuron to another in the brain.

For the treatment of depression, there are several medicine that are classified depending on the neurotransmitter on which they act:

- Tricyclics
- IMAOS
- Inhibitors of Serotonin Reuptake (SSRIThey are the safest and have a lower number of side effects and interactions with other types of medications;
- Noradrenergics and serotoninergics
- Trazodone
- Nefadodona
- Noradrenergics and serotoninergics
- Trazodone: Deprax; Nefadodona

Other types of medicines include:

- Antiparkinsonians or anticholinergics that help to correct the side effects of

neuroleptics that affect the muscles: rigid or uncoordinated movements, tremors, movements of the eyes "as if they were going backwards";

- Tranquilizers / benzodiazepines / anxiolytics that have anxiolytic (to treat anxiety), sedative, muscle relaxant, and sleep-inducing properties.;
- Normothymic / stabilizers or mood regulators, such as lithium, used to treat schizophrenic conditions resistant to other types of treatment. Taking these medicines requires the adjustment of dosage until reaching the desired therapeutic levels of lithium in blood. A monthly lithium test would be performed during the first six months of treatment, and then every three to six months;
- Carbamazepine: it was initially used when it was discovered as an antiepileptic. Later, its effectiveness as an antimanic was proven, and to avoid relapses in Bipolar Disorders or manic - depressive psychosis.

Nonetheless, despite the proven benefits of pharmacological treatments, they also have some side effects that, although to a lesser extent, affect the physical and mental state, and therefore the quality of life of people suffering from mental health illnesses.

In relation to psychoses, increased weigh, metabolic syndrome or sexual dysfunction could be some of the side effects (Cano et al., 2014; Caqueo-Urízar, Urzúa & Rus-Calafell, 2017). Extrapyramidal effects are characterized by a motor restlessness, especially of legs, forcing the person to move them (akathisia), muscle stiffness, tremor (especially in hands), spasms and the tendency of having the mouth open with excessive salivation.

In relation to depressive symptoms, side effects could be nausea, increased appetite causing increased weight, sexual dysfunction, fatigue, drowsiness, insomnia, dry mouth, blurred vision, constipation, dizziness, agitation, anxiety, uneasiness and even genetic variations (Clinic Mayo, 2016; Medina & García de León, 2004; Ferguson, 2001). All these side effects are mostly related to the physical health of the person with mental health challenges. We may want to consider that some of the mechanisms used by these drugs are also activated by physical activity and sports. If this is the case, could physical activity become a complement to the pharmacological interventions?

Physical activity and mental health

Historically, the importance of keeping the balance between the mind and the body and the benefits of physical activity has been highlighted. As already confirmed couple of decades ago, participating in physical activity may or may not increase life expectance, but will improve the quality of the years lived (Morgan, 1997).

Physical activity is a key aspect in the integral development of people (Holt, 2016; Richards et al., 2015). At the physiological level, it contributes to reducing the risk of suffering from cardiovascular diseases, maintains a normal blood pressure and prevents colon cancer or diabetes. On a psychological level, it improves mood, increases self-esteem and provides psychological well-being. Regarding to the social level, it may increase autonomy and social integration, which are essential for people with disabilities. In the case of people with mental health problems it becomes an essential tool to compensate, among many other things, the side effects of the pharmacological treatments mentioned above.

Many studies support the direct relationship between physical activity and the wellbeing of people with mental health challenges (Boyer, Indelicato, Richardson, Churilla & Johnson, 2017; Deslandes et al., 2009; Sosso & Raouafi, 2017; Hodgson, McCulloch & Fox, 2011). A proof of this, and coinciding with the 70th World Health Assembly of the World Health Organization in Geneva (May 22-31, 2017), was the development of a new Global Action Plan to promote physical activity, specially focused on the non-communicable diseases (NCDs) also known as chronic diseases, with the aim of reducing physical inactivity, a key risk factor for NCDs (Foster, Shilton, Westerman, Varney & Bull, 2017).

METHODS / PROCEDURE / APPROACH

The challenges that individuals with mental health illnesses are facing should be contextualized. Further, the different pharmacological treatments should be explored in an attempt to describe the side effects that they may bring. At the same time, the benefits

of physical activity and exercise to compensate these side effects should be analysed. The above issues are divided in two parts:

- The side effects of medications seeking to alleviate symptoms caused by psychosis, with special incidence in schizophrenia, and
- The side effects of pharmacological treatments in depressive and anxiety disorders.

Finally, we will focus on the importance of physical activity, exercise and sports in the recovery or improvement of the self-esteem for people with mental health illnesses, as an important factor to reach social integration.

REVIEW OF THE LITERATURE

PHYSICAL ACTIVITY AS AN ALTERNATIVE / COMPLEMENTARY TREATMENT TO MEDICATION IN PATIENTS WITH MENTAL HEALTH ISSUES.

Causes of mental health problems.

The causes that are believed to cause mental problems are extremely diverse and complex:

- Biological factors: Abnormal functions of neuronal connections, related to genetics, arising from an infection that may cause defects or brain damage, damage during the prenatal stage or due to substance abuse. In some cases, even nutritional reasons may be held responsible for the appearance of mental health problems.
- Psychosocial factors: Traumas suffered during childhood, loss of loved ones, serious negligence or a low ability to relate to others.
- Environmental factors: family situations, social or cultural expectations that do not correspond to reality. Even the use of substances by parents can cause mental health problems (Bhandari, 2016).

The above factors may contribute to the appearance of diverse types of mental diseases throughout life (Tizón et al., 2008). Our understanding however about pathological mechanisms related to mental health problems is still very limited.

There are many treatments, pharmacological or psychological based. However, we are still far from standardizing approaches of this type since the theoretical foundations are not clear enough to be able to explain with confidence their impact on these people. Psychotropic drugs offer satisfactory improvements to curb symptoms, especially the positive symptoms of most mental illnesses. Psychosocial interventions, especially some specific types of psychotherapy, including cognitive behavioural therapy and cognitive therapy through mindfulness (Blair Kennedy & Resnick, 2015) have shown satisfactory results in those who are suffering from depression. However, these successful clinical trials do not result into full recovery. Residual symptoms are quite common, and many people experience a return to symptoms after some initial success.

There is the need to explore other pathways that may increase the effectiveness of conventional treatments and also compensate their side effects. In this sense, the physical activity and exercise could be considered as one of these pathways.

Brain dysfunction as a basis for pharmacological interventions

Some theories connect mental health problems with brain dysfunctions, either caused by the environment (Tost, Champagne & Meyer-Lindenberg, 2015) or by biochemical dysfunctions. In regards to the latest, a hypothesis has been developed with respect to neurotransmitters, which may be involved in different psychiatric symptoms and disorders (Lin, Lee & Yang, 2014). This hypothesis has been considered as the basis of pharmacological interventions. Serotonin and noradrenaline are related to depression and anxiety, while dopamine and N-methyl-D-aspartate (NMDA) are associated with psychotic symptoms. Genetic studies revealed that the majority of mental disorders, psychoses, bipolar and affective disorders are associated with constitutional predispositions that increase their risks (Callado, Ortega & Horrillo, 2009; Jerónimo, Diego & Patricia, 2010). Many of the genes associated with mental problems are related to neurotransmitters and immune mechanisms (Guillin, Abi-Dargham & Laruelle, 2007; Woo, 2014).

Neuroimaging studies suggest that abnormal brain structures are found in people with mental health problems. Cerebral atrophy

and ventricular dilation are easily recognized in different forms of dementia. In recent decades, it has been shown that schizophrenia is associated with atrophy of the frontal and temporal lobes during the prior years to the development of the disease.

In the last hundred years, our concept of mental illness has evolved from the "mystical" to the psychosocial. Thanks to a greater appreciation of the neurological findings of abnormal brain function, clinicians have become more interested in developing new treatments that will alleviate the imbalances of the brain, and that will give some hope to the partial recovery of functional impairments.

Physical activity as a real treatment

The importance of exercise and physical activity for the maintenance of good physical health is a fact (World Health Organization, 2016). Physical activity and exercise are also beneficial for mental wellbeing and they may support and alleviate the symptoms of mental illnesses. Both statements are included in the global plan for the promotion of physical activity presented by the World Health Organization (Foster et al., 2017). The topic of physical activity as an ancillary treatment for mental health problems has never been formally studied; it has not been argued and justified and its conceptualization has never informed a guidelines document which could be transferred to treatment routines (Lam & Riba, 2016).

This lack of scientific basis makes the alternative of physical activity programs as a therapeutic tool to complement pharmacological treatments difficult to use by professionals from the mental health field. On the other hand, the emotional and motivational swing associated with mental health issues may be a challenge for professionals seeking to prescribe physical activity and exercise programs as a complementary treatment (Firth et al., 2016).

It is also true that in recent years, there has been a tendency among researchers to examine the association between mental health and physical activity. The neurophysiological mechanisms that arise from the practice of physical activity and the need to compensate pharmacological side effects will provide a better understanding for their potential effects.

Evidence of brain changes caused by regular physical activity is now considered from a perspective of alterations in the physiological response, such as the increase of the neurotrophic factor produced by brain (BDNF) during involvement. There is a common thought that interventions through exercise report benefits to the brain at a structural and connectivity level. New neuroscientific techniques are giving a new dimension to this topic, adding scientific rigor to proposals which consider exercise as a treatment strategy for mental illness (Lam & Riba, 2016).

The base of pharmacological treatment is to compensate imbalances in the central nervous system function: the ability to block dopamine receptors, as a high amount of this substance can produce hallucinations and delusions. In this way pharmacological treatment helps to organize thinking, prevent relapses, and acts as a filter to avoid an excess of information passing from one neuron to another in the brain. The evidence that regular physical activity may cause some changes in the brain (Clow & Edmunds, 2014) will enable it's combined use with pharmacological treatments to obtain more effective results and, what is more important, increase the quality of life of people with mental health challenges.

Before designing a physical activity programme and inform patients about it, professionals working in the mental health and social services field should be provided with some guidelines which consider the most appropriate physical activity programme in regards to the patient's symptoms and the side effects of the experienced pharmacological treatments. This information could be provided according to the patients' individual needs, producing a conceptual framework that may guide practitioners and patients alike.

Physical activity for individuals with depressive and mood disorders

Currently, the depression and anxiety disorders are very common in almost all community settings. The symptoms cause a significant psychological dysfunction and occupational limitations. In many cases, they even prevent any kind of contribution, not only being productive at work, but also in a more personal sphere as during the time of establishing personal relationships. The management of these challenges require a

multidisciplinary approach, in which physical activity has a very important role to play.

For many decades, medication and psychological interventions have gained popularity and have been recognized as the main treatment for mental health illnesses. However, there is room for improvement and there is the chance to include sport and physical activity based interventions.

After practicing physical activities, very significant anxiolytic effects can be produced (Bailey, Hetrick, Rosenbaum, Purcell & Parker, 2017; Wegner et al., 2014); they may calm anxiety through behavioural adaptations, autonomic regulations, social support and neurophysiological changes, all of these well documented in the literature (Ströhle, 2009).

The effectiveness of new physical activity modalities to treat different states of anxiety and depression is being tested, especially based on the so-called body-mind exercises (Lee, 2007) and exercises based on breathing techniques. It is wildly recognized that aerobic exercise improve the state of mind and trigger happiness as it has been supported by the evidence of neurophysiological changes (Broman-Fulks & Storey, 2008; Bailey et al., 2017). Baron and colleagues (year) have collected several case studies to illustrate how exercise can have therapeutic effects on the patients' mood and in different clinical contexts (Lam & Riba, 2016). Stilger et al (2016) also explained the results of combining pharmacological, psychotherapeutic treatments and exercise to improve the course of depressive symptoms (Stilger, Franklin, Trivax & Vanhecke, 2016).

Depression can aggravate or affect the prognosis of cardiovascular conditions. The severity of the disease worsens significantly, hinders rehabilitation and it is associated with a greater and significant mortality (Bradley & Rumsfeld, 2015). If we add to this the side effects of the medications used for treatment, the risk for patients is increased. Exercise provides a very useful therapeutic bridge so that both depression and cardiovascular diseases have a versatile treatment option.

The duration and intensity of aerobic physical exercise to produce antidepressant effects remains unclear. To explore this issue a study compared the effect of higher vs lower doses of exercise upon the depressed mood and other associated symptoms (Rethorst, Wipfli & Landers, 2009). The in-depth analysis of the different clinical results emphasized that individual characteristics, including family history of depression and physical conditions are key factors to be considered at the time to design the adequate treatment.

The treatment of Major Depressive Disorder in young people or adolescents presents even more complications. The combination of physical activity or sports with pharmacological treatment therefore may become an important asset. Firstly, for young people, exercise and sports are a more attractive option than other kind of therapies. Dopp et al (2012) for example stated that physical activity and sports foster empowerment and self-esteem, reinforcing this way comparable evidence to other kind of therapies for young people with Major Depressive Disorder (Dopp, Mooney, Armitage & King, 2012).

To summarize, there is enough evidence which start to contemplate the possibility of treating depressive symptoms and to compensate the side effects of the pharmacological treatments, through involvement in sports, physical activity and exercise.

Physical activity as an intervention in schizophrenia and related psychosis.

The schizophrenia is one of the biggest disabling diseases in adults. Positive symptoms, especially visual and auditory hallucinations (paracusia) are the main handicap symptoms and risks for the patients (Ali et al., 2011). The current pharmacological treatments for the management of positive symptoms are effective. However, they may also lead to an inability of self-regulation and cognitive problems, which in some cases, commonly in people with chronic conditions, cause the loss of willpower. This may limit their recovery process together with their social participation (Lam & Riba, 2016). Unfortunately, with the treatments that are available nowadays mostly based on medication and psychotherapy, we are not able to avoid the side effects mentioned above. Several attempts have been made to mitigate cognitive and motivational deficits in people suffering from schizophrenia, but the success has been very limited so far.

Besides the cognitive and motivational side effects, there is also the need to address metabolic effects and the weight gain of patients. The design of new and alternative treatments to mitigate side effects is increasingly becoming a priority, which may be addressed

among others, through physical activity. There is evidence suggesting that aerobic exercise in early phases of the illness can reduce side effects at the metabolic level (Aguirre-Urdaneta, Rojas-Quintero & Lima-Martinez, 2012; Mitchell et al., 2013; Yogaratnam, Biswas, Vadivel & Jacob, 2013). Aerobic exercise seems to trigger brain changes and has the power of adjusting neuroprotective responses, promoting neurogenesis in the hippocampus and recalibrates the neuroplasticity response (Clow & Edmunds, 2014). These brain changes may help the patient to manage some of the symptoms of his/her mental health status and alleviate medication side effects.

Several studies have also identified positive effects of physical activity to mitigate some symptoms of schizophrenia. These studies focus their attention on the brain changes at both the structural and functional level (Malchow et al., 2015).

As mentioned before, the combination of physical activity with other treatments to promote recovery is more effective when it is applied in the first stage of the illness, when it is not chronic, and with younger individuals. Professionals therefore working in the medical/social field may need a detailed framework providing them with the info needed to plan the programme from the very beginning and the necessary steps to follow.

Chen and Lee (2011) documented their own experiences using physical activity with young people who experienced their first psychotic episodes. They discussed the challenges of undertaking the implementation of a physical activity programme in this group with very encouraging results. They called the programme HONG KONG FITMID for people in the recovery phase from psychotic episodes. This programme provided professionals with detailed guidelines and limitations of physical activity as an alternative treatment for young people living in the community and who are recovering from a first psychotic episode (Lam & Riba, 2016).

Most researches and scientific articles explored the effects of aerobic exercise in the general wellbeing, but there is less evidence available for other kinds of exercise and very little about physical activity for people with mental health challenges. Despite their spiritual origins, yoga, tai chi and meditation have been common practices in Asian communities to improve health and manage stress. These group of activities are generally known as mind-body exercises, with three central elements: breathing, coordinated movements and meditation (Wei, Si & Tang, 2017). The mind-body exercises frequently increase one's perception of oneself and the understanding of the subtler sensations of the body (proprioception). Recent studies have added an empirical dimension to the effectiveness of these mind-body exercises to manage psychosomatic symptoms in people with mental health challenges (Wei et al, 2017). The current evidence of the effects of yoga has been reviewed from a therapeutic perspective (Varambally & Gangadhar, 2012) and the results so far showed that the practice of yoga can help to manage cognitive and mood issues associated with schizophrenia. However, the authors mentioned that yoga's meditative practices may not be generalized.

There are guidelines available about how to motivate patients to be involved into physical activities and how to make them sustainable for a long term. As professionals' interest and experience increase, they will be more able to anticipate sooner, face challenges and adjust the treatments based on the patients' needs.

CONCLUSIONS / IMPLICATIONS / RECOMMENDATIONS

It is noteworthy that the use of physical activity and exercise in combination with other kind of treatments including pharmacological or psychotherapeutic is increasingly accepted by mental health professionals. A proof of this is the numerous studies and articles which are available or will be soon available, exploring this topic and highlighting the benefits of physical activity in patients suffering from mental health challenges.

The benefits identified by these researches are:

- Physical activity helps to keep under control negative side effects of medication (e.g. obesity, metabolic syndrome, diabetes).
- Physical activity reduces anxiety and depressive behaviours, facilitates social interactions and adjustment. The reduction of negative symptoms will promote the active involvement of patients into therapy

and their respective effectiveness.

- Physical activity and sports are considered more attractive than classic treatments, more motivating and exciting, and an important factor of success when working with either young people, or adults with mental health challenges.

Physical activity and sports are socially valued which also promotes social inclusion and participation in the community. Furthermore, the access to public resources for practicing sports and physical activities is more and more extended. Access to public resources will facilitate visibility, reduce social stigma and promote the practice of a wide variety of activities at a very low cost.

When planning physical activity or sports as an alternative treatment, professionals must take into account the needs, pharmacological treatments, symptoms to address, physical condition, context, interests, environment, etc. of each individual separate. Fortunately, there is a wide variety of physical activities and sports, so adjusting the programme to the patient's needs will only depend on the knowledge, creativity and resources available of the related professional.

Unlike pharmacological therapies and psychotherapy, which often have a time-limitation -especially in mental health challenges associated with depression, anxiety and mood disorders - physical activity and exercise can become an integral component of a healthy life style, and can continue even when certain mental health issues are overcome. Physical activity could become a treatment, but it is also a way of life to keep an adequate physical and mental health.

Nevertheless, there is a need to produce, implement policies and design programmes within a common framework. This common framework may support professionals to apply, in a systematic way, physical activity and sports as an alternative or adjusted treatment for individuals with mental illness.

Furthermore, professionals with different background may act as members of an interdisciplinary team in an attempt to maximize the results of their work. The teams will incorporate a variety of experts, such as professionals from the physical activity and sports field, professionals from the social services and professionals from the mental health care field. These professionals will work on several aspects related to the promotion of personal autonomy, the adherence to pharmacological treatments and the social adjustment and integration of people living with mental health challenges.

Based on the evidences available, it becomes essential to conduct more research and produce scientific evidence for the relationship between physical activity, exercise or sports and mental health issues. The new approaches may consider the impact of physical activity on a more social sphere, which is extremely important to promote recovery, instead of just focusing on the physiological aspects of the common pharmacological interventions.

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10

PHYSICAL ACTIVITY FOR THE TREATMENT OF PATIENTS WITH MENTAL ILLNESS: TRAINING NEEDS OF PROFESSIONALS

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INTRODUCTION

The beneficial impact of exercise and physical activity (PA) on health is now widely accepted by medical authorities across the world (WHO, 1995). In fact, the positive relationship between exercise/physical activity and health in both adults and children has been well documented in a number of studies. Systematic reviews and meta-analyses have demonstrated that exercise and PA improve children's cardiovascular function, musculoskeletal development as well as mental health (Janssen & LeBlanc, 2010). The positive effects of various forms of PA on mental health issues are recognised and acknowledged, and exercise is recommended as adjunctive treatment and preventive measure against depression. Carless and Douglas (2010) argue that to date, the literature on PA and mental health has largely failed to address the potential for recovery in a broad, humanistic, and positive sense. They also claim that existing research in the field currently provides little theoretical insight into the effects of PA on mental health conditions (Carless & Douglas, 2010). Further, mental healthcare service providers have failed to integrate PA into the counselling and treatment of individuals with a variety of mental illnesses.

Even though the use of PA as a part of treatment in health care settings is of paramount importance, such practices are still overlooked and underused (Clow & Edmunds, 2014). Healthcare providers can no longer ignore the growing evidence connecting physical inactivity and poor health. In fact, they need to discuss the possibility of developing a healthcare system that supports physically active patients. Recent research and clinical

findings have proved the usefulness of PA as an alternative preventive strategy which may be used as supplementary or complementary treatment for mental illnesses (Firth et al., 2015; Rosenbaum et al., 2014). Few medical practitioners however have resisted attempts to use exercise as an alternative for medication, believing that it has no effect on the patient's behaviour (Sallis, 2011). This argument, in addition to what Clow and Edmund's, (2014) describe as a lack of knowledge, leads to the following question: how can clinicians, practitioners and researchers alike investigate and provide practical advice regarding the effect of PA on mental health treatment?

Combining knowledge-based and evidence-based findings will help trainers, coaches and practitioners understand the importance of PA and exercise as a tool in the treatment of mental health conditions.

STATEMENT OF THE PROBLEM

Scope

This policy paper will contribute and help both physical education and mental health professionals understand and comprehend the positive impact of PA on mental health. The policy paper will increase their professional's practical knowledge with respect to available practices and how to use them in practice.

There is a gap between research evidence supporting the use of physical activity in mental health settings and the inclusion of physical activity in counselling (Biddle &Mutrie, 2008). Olofsgard (2009) identified four key factors affecting the clinicians' decision to incorporate PA in counselling (1) personal level of PA, (2) knowledge of PA, (3) attitude towards the use of PA in the prevention and treatment of mental illness, (4) and frequency and behaviour associated with PA counselling. Correlations suggested that clinicians who rated high levels across the four key factors were more likely to utilise PA counselling with their patients.

In order to integrate PA in the treatment of mental illness, we need to analyse existing experiences and understand their potential. The present policy paper seeks to explore the training needs of physical education and mental health professionals, so as to allow them to address PA/exercise with their patients. Given the extent of research that proves the positive association between PA and mental well-being, it is vital that practitioners, coaches and trainers are educated and prepared to incorporate PA/exercise in the mental health treatment. Therefore, we first need to understand and gather information on such practices and describe them so as to help therapists achieve such goals.

Researchers have described ways that exercise may be used to meet the unique needs of the population suffering from mental illness. Studies with a focus on psychological outcome measures may provide greater evidence for use in therapeutic settings (Alexandratos, Barnett & Thomas, 2012). Likewise, Curran et al. (2016) claimed that a more strategic approach to working towards the mental health agenda must be adopted, to provide to those in need with access to high-quality interventions.

METHODS / PROCEDURE / APPROACH

In order to address the professionals' training needs and incorporate PA in mental health treatment, this policy paper focuses on practitioners' experiences in the field, analysing their stories and challenges. In addition, it provides descriptions of current practices and highlights ways to transfer the knowledge gathered in the field into pragmatic advice applicable in daily practice. Information and practical recommendations for arranging exercise programs targeted at improving the quality of life of people with mental health conditions are provided.

LITERATURE REVIEW

Sallis (2011) stated that we have a long way to go to develop a healthcare system that supports active patients. There is a need to better connect the fitness industry with the healthcare sector. As the burden of chronic disease associated with inactivity is growing at a staggering rate, healthcare providers can no longer ignore the relationship between physical inactivity and poor health. Sallis

(2011) stated that clinicians have a duty to assess the exercise habits of every patient and make sure they understand the health risks associated with inactivity. Therefore, clinicians are recommended to explore practical ways to help patients overcome barriers and carry out exercise prescriptions, such as referrals to fitness professionals.

Szuhany et al (2014) described exercise interventions as a novel and efficacious form of alternative treatment for individuals suffering from mood and anxiety disorders. Several reviews and meta-analyses suggested that exercise may serve as a cost-effective and accessible treatment for individuals suffering from mental health issues.

Despite the massive evidence in favour of exercise as viable treatment for mental health disorders, Walsh (2011) found that the topic of exercise is rarely broached in psychotherapy, with as few as 10% of mental health professionals recommending it. Hitschfeld (2011) identified several barriers discouraging therapists from recommending and addressing exercise with their patients. For instance, some therapists question the efficacy of exercise in practice. Others have found that even those who held a favourable attitude towards exercise may not recommend it, due to other factors such as believing that it is outside the realm of psychotherapy (Faulkner & Biddle, 2001). Some researchers have found that therapists do not talk about exercise with clients because they partly ignore the effects of exercise on psychological disorders (Faulkner & Biddle, 2001). Limited time, beliefs about psychology pertaining more to the mind than the body, and beliefs in clients' non-compliance are barriers that inhibit psychotherapists from broaching the topic of exercise in therapy (Faulkner & Biddle, 2001; McEntee &. Halgin, 1999).

Hitschfeld (2011) and Olofsgaard (2009) stated that there is a positive relationship between healthcare professionals' personal level of PA and their willingness to address exercise with patients. As a matter of fact, therapists who personally engage in more exercise will be more likely to have this conversation with their clients. In addition, therapists who have more positive attitudes towards using exercise to treat or prevent psychological disorders will be more likely to address exercise in therapy. Those who are more knowledgeable about the benefits of exercise will be more likely to address exercise with clients (Hitschfeld, 2011).

Biddle and Mutrie (2008) investigated the determinants, well-being and interventions using PA in the treatment of mental health conditions. They reported that there is a clear need for research in the area to support long-term exercise behaviour changes and specific relapse prevention strategies for exercise and PA. They described the necessity for researchers and practitioners to work together, apply evidence in practice and explore different and new media for delivering the messages such as information technology, video conferencing and telephone contact. However, the researchers suggested that they are still struggling to convince some health professionals and researchers of the PA benefits. Biddle and Mutrie (2008) claimed that more innovative and creative research questions and designs are still required, as is the need to study diverse groups, populations, and conditions.

In 2011, Carlson and Bourd deepened the concept of physical activity counselling describing the use of 5As: Assess, Advise, Agree, Assist and Arrange as the approach is meant to emphasize patient choice and autonomy. The authors reported that the steps are the following one:

Step 1: Assess patients' PA levels (including how many minutes of activity they engage in per week), patients' health risks, patients' ability to participate in PA (discussing difficulties and challenges) but also their willingness to change.

Step 2: Advice on personal health risks and benefits and the FITT principles (Frequency, intensity, type and time). This should be done with a tailored message and be adapted to the patients' stage of change, always remembering the guidelines. Besides, shorter sessions are important for previously sedentary patients.

Steep 3: Agree on goals and develop an action plan. The patients areinvolved in the process of setting specific and concrete goals. They could be provided a weekly-goal planning sheet, schedule and writing down their goals to increase the likelihood of success.

Step 4: Assist in overcoming barriers and linking with community resources by providing patients with a list of local active resources; community gyms, walking groups, parks etc.

Step 5: Arrange for follow-up assessment, feedback and support. Follow-up could take the form of a phone call, postcard or letter. The goal should be to build recommended activity levels for mental health benefits and to stress the importance of continued activity.

The following elements may constitute essentials forf a successful program of physical activity:

- Programs that deliver exercise prescriptions or motivational messages in printed form or by computer are more effective than face to face counselling alone.
- Participants need to set goals and self-monitor achievements in order to change their behaviour-using for instance daily monitoring devices such as pedometers and heart rate monitors. Feedback is a critical component of self-monitoring and self-regulation.
- Facilities need to take advantage of "opportunities for some individualized attention and recognition".
- Enthusiastic knowledgeable and supportive exercise leaders are as important as the actual exercise program
- Decreasing the perceived risk of injury can improve attendance

http://www.mindingourbodies.ca/about_the_project/literature_reviews/physical_activity_and_mental_health.

In the UK, professional football clubs are being used as settings for the delivery of interventions that promote mental health in a number of ways including (i) the delivery of PA interventions to improve the mental health of the general population, (ii) the delivery of PA interventions for people experiencing mental illness, and (iii) the delivery of community mental health services within the confines of the football club. Curran et al (2017) suggested that professional football clubs can help facilitate access to mental health services, particularly among young people, for whom accessing such services may be highly stigmatised. Their findings also highlighted that such interventions have a positive impact on health. These facilities may be perceived as major opportunities, but funding agencies and commissioners must provide appropriate resources, both human and financial, for effective delivery and evaluation. The researchers suggested that a more strategic approach to working towards the mental health agenda must be adopted. They claimed that changes in practices would allow professional football clubs to offer access to high-quality interventions to individuals with mental health illnesses.

RESULTS / FINDINGS:

In sum, research suggests that there are still barriers to incorporating exercise and PA in psychotherapy. In fact, just the 10% of mental health professionals recommend PA and exercise to their clients (Walsh 2011), as many of them believe that psychology pertains more to the mind than to the body. Physical activity, thereforeis still outside the realm of psychotherapy (Faulkner & Biddle, 2001; Mc Entee & Halgin, 1999). Moreover, there is a lack of knowledge about the effects and impact of PA on various psychological disorders (Faulkner & Biddle, 2001). At the same time, the necessity of research support has been registered amongst mental health professionals who are more knowledgeable about the benefits of PA and thus keener to address exercise with clients (Biddle & Mutrie 2008), sustain long-term exercise behaviour changes and develop specific relapse prevention strategies through exercise and PA.

CONCLUSIONS / IMPLICATIONS / RECOMMENDATIONS

During this review, two mains issues were evident regarding the training needs of professionals of physical education and mental health sectors. The first point is that as Walsh (2011) highlighted that only 10% of mental health professions recommend PA to their clients as they think that the body is not so connected to the psychology. As the importance of physical activity was addressed in this paper, and professionals seem less likely to recommend physical activity to their patients, it is of great importance to raise awareness among mental health professionals on physical activity and its benefits.

The second point we like to address is that, very few educational programs offering training to physical education and mental health sector professionals were located. This lack of educational programs and/or professional trainings offering professionals with the necessary technical and professionals' skills to work effectively with people with mental health issues, is of great importance. Therefore, this limitation should be taken into consideration from the respective field, and curriculum

programs in universities or other educational organisations in order to fill in the gap and enhance the effective treatment schemes of individuals with mental health issues.

Overall, in many ways, the connections between the healthcare system and the sport sector should be improved as it is still rarely endorsed in therapy. The main objective is to promote the use of exercise in mental health treatment as both a novel and efficacious form of treatment for individuals suffering from mood, anxiety disorders and mental health illnesses in general.

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11

SPORT AND MENTAL HEALTH WITHIN THE TYPICAL EDUCATION SYSTEMS

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INTRODUCTION

The Preamble to the Constitution of the World Health Organization (WHO,1946), signed by the representatives of 61 States, indicates that health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

The WHO (2010) has identified physical inactivity as the fourth risk factor for global mortality, provoking 6% of cases of coronary heart disease, 7% of type 2 diabetes, 10% of breast cancer, 10% of colon cancer, and thus causing an estimated 3.2 million annual deaths in the globe. Scientific evidence shows major beneficial effects of physical activity on health and psychological well-being.

Despite the evidence and knowledge about the links between physical activity and health, however, many young Europeans are inactive or insufficiently active. Specifically, recent data (Special Eurobarometer, 2014) indicate that 80% of European adolescents are insufficiently active. The results of the 2017 Eurobarometer survey on sport and physical activity confirmed the persistent high rates of physical inactivity in the European Union already mentioned in the 2014 survey. A 2015 study on the economic cost of physical inactivity (CEBR Centre for Economics and Business Research, 2015) showed that this inactivity is, in turn, responsible for over 500.000 deaths per year across Europe and accounts for economic costs amounting to €80.4 billion per year. This represents 6.2% of all European health spending and conservative estimates put the annual cost in 2030 at over €125 billion.

In this framework, a new EU Work Plan for Sport 2017-2020 came into force in July 2017, based on the Commission's evaluation and adopted in May by the EU Ministers responsible for sport at the Education, Youth, Culture and Sport Council meeting (European Union Work Plan for Sport, 2017). It sets out the key topics that EU Member States and the Commission should prioritize up to 2020:

- Integrity of sport will focus on good governance, safeguarding minors, fighting match-fixing, doping and corruption;
- The economic dimension, focusing on innovation in sport, and the links between sport and the digital single market;

- Sport and society, focusing on social inclusion, coaches, media, environment, health, education and sport diplomacy.

From the perspective of sport and physical education as elements of mental health promotion, schools are in a unique position and represent key settings. At the same time, there is an increasing body of evidence showing that time taken away from academic lessons in favor of physical activity does not come at the expense of school performance. On the contrary, research broadly supports claims of positive educational benefits from physical activity for young people (Beni, Fletcher & Chroinin, 2017).

In spite of this, as analyzed in the following pages, physical education is often given limited curriculum time, inadequate financial and human resources, and it has low subject status and esteem.

The low levels of physical activity among children and adolescents in the European Union are alarming and have become a matter of great concern for policymakers. The fact that up to 80% of the students only practice sport in school, makes it so that the educational environment on schools becomes the prime instrument in promoting physical activity and mental health.

STATEMENT OF THE PROBLEM

Physical education is defined as an educational process that uses physical activity as a means to help individuals acquire skills, fitness, knowledge, and attitudes that contribute to their optimal development and wellbeing.

Physical education at school not only contributes to pupils' immediate fitness and good health, but also helps young people to perform and understand physical activity better with positive lifelong repercussions. Moreover, physical education at school brings about transferable knowledge and skills, such as teamwork and fair play, cultivates respect, body and social awareness and provides a general understanding of the 'rules of the game', which students can readily make use of in other school subjects or life situations.

Because of its numerous benefits therefore, the promotion of physical activity has received increased attention at European level. The 2009 EU Lisbon Treaty has given the European Union a legal basis to call for action to develop the European dimension in sport and to contribute to the promotion of European sporting issues.

Encouraging sports and physical activity in school can also preserve the mental health of the students and improve the school climate for the entire school community, can reduce school dropout and can improve school performance.

Because the purpose of the position statement is to discuss the many challenges for the normal functioning of physical education in the school, some elements have to be taken into consideration in order to better positioning physical education into the European curricula:

A) The prescribed taught time of physical education varies significantly from one country to another as well as between education levels. Moreover, some countries fix the minimum hours of physical education at central level, while others leave this decision up to schools (European Commission/EACEA/Eurydice, 2013). In general, the share of taught time recommended for physical education is rather low compared to that of other subjects. This fact reveals an important question about the perception of the importance of physical education.

In view of these elements, policy developments are needed at European level. The Eurydice Report (2013), to better understand the situation of physical education in Europe today, aims at mapping the state of play of physical education and sports activities at school in 30 European countries. It can be regarded as the first attempt by the European Commission to identify key concerns and strengths regarding physical education at schools in Europe.

B) The role of the teacher is crucial for effective implementation process. Teachers' professional qualifications matter, since they are instrumental not only in increasing young people's motivation for physical activities, but also in promoting a healthy life style.

C) The need for appropriate methods of teaching and evaluation techniques is another important element to achieve the physical education objective and for this reason Indicators for Quality Physical Education (QPE) are still missing.

D) The availability of facilities and equipment: the effective classroom teaching

needs adequate amount of facilities and equipment.

And finally

E) Whilst some improvements in gender- and disability-related inclusion policies and practices supported in many countries by state legislation can be identified, barriers to equal provision and access opportunities for all still remain; for school children and young people with disabilities in particular, persistent barriers to full inclusion comprise inadequate infrastructure, insufficiencies in supply of appropriately qualified teaching personnel and support assistants, shortages in adapted facilities and equipment as well as learning and teaching materials.

BASIC DEFINITIONS

European educational systems

In Europe there are three main compulsory education systems: a single-structured type of education which provides compulsory education from the beginning to the end of the path without any distinction between primary and lower secondary level (e.g. in Denmark, Norway and Croatia); the provision of a common basic curriculum from primary to lower secondary education (Germany, Austria); and a type of diversified lower secondary education (Italy, France) (Eurydice Facts and Figures, 2017).

Mental health

Mental health is defined as a state of well-being in which every individual realizes his/her own potential, can cope with the normal stress of life, work productively and fruitfully, and is able to make a contribution to his/her community (WHO, 2004)

The positive dimension of mental health is stressed in WHO's definition of health as contained in its constitution: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Mental health is the foundation for thinking, communication, learning, resilience and self-esteem of an individual. Mental health is also the key to relationships, personal and emotional wellbeing and contribution to community or society.

Mental health involves effective functioning in daily activities resulting in productive activities (work, school, care giving), healthy relationships and ability to adapt to change and cope with adversity.

Physical activity - Physical exercise

WHO defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure – including activities undertaken while working, playing, carrying out household chores, travelling, and engaging in recreational pursuits. Regular moderate intensity physical activity – such as walking, cycling, or participating in sports - has significant benefits for health (WHO, 2017).

Sport

An activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment. An occasion in which people compete in various athletic activities (Oxford Living Dictionary).

METHODS / PROCEDURE / APPROACH

This paper reviews current documentation around sport and mental health within the typical education systems in Europe. It also tries to discuss alternative strategies that have been implemented or could be implemented to foster sport activities in schools and to analyze what actions are being taken in Europe to promote sport in the educative system and the subsequent results.

In order to conform with accepted practice in fitting methodological procedure to the purpose(s) of this paper, a multi-method/pluralistic approach was adopted. This approach embraces data generated by a range of sources including information derived from recent and current international, European and national physical education - related studies, European studies and policy papers, systematic reviews, reference searching, local service surveys, and WHO action plans. The paper is thus underpinned by a comprehensive literature review and analysis of case studies around sport and mental health within the education systems and what approaches/policies can

have a positive impact.

The main exploring topics were:

- How is physical education structured in the EU school system and what are the main differences from country to country?
- How physical education is organized form a methodological point of view?
- What are the various characteristics of the physical education curricula?
- What are the main problems related to the physical education in the EU schools?
- What makes a physical activity program at school effective?
- How sport and school health promotion can be embedded in a whole-school approach?
- What actions are recommended by EU and what actions are being taken so far?

All the above mentioned questions are analyzed through the main types of literature reviews: evaluative, exploratory, and instrumental, including recognition, retrieval and recollection of the relevant literature and European policy papers and other related documents.

The analyzed topics are divided in 4 main blocks of analysis:

- Benefit of physical education on mental health at school
- The physical education curriculum (aims, themes, content activity areas, relevance and delivery quality issues, monitoring and assessment methods)
- Teaching personnel and Quality Physical Education Teacher
- Resources, facilities and equipment

REVIEW OF THE LITERATURE

Benefit of physical education on mental health at school – Research evidence

Without doubt, there is a broad understanding (and lot of studies provide support to that) of the benefits of physical education in children and adolescents on executive function, brain activity, and depressive symptoms. The importance of physical activity should be promoted in the school setting as well as in after school activities.

Hillman and colleagues (2014) examined the effects of physical activity on brain function, and cognitive function in 221 children aged 7 to 9 years. The children were randomly assigned to either a 9-month after school physical activity program or a wait-list control group. The physical activity intervention was based on the improvement of aerobic fitness by engaging in physical activities. Cognitive functioning was evaluated through tasks that assessed attention inhibition and cognitive flexibility. At the end of the 9-month intervention, the physical activity group demonstrated greater attention inhibition and cognitive flexibility. Children who attended a greater number of the physical activity sessions had more changes in the brain activity measurements.

Given these findings of improved attention for children who engage in a physical activity program, it would be important to know whether children with attention deficit hyperactivity disorder (ADHD) would exhibit improved attention with exercise. Pontifex and colleagues (2013) assessed the effect of a single bout of moderate-intensity aerobic exercise on children with ADHD. Twenty children aged 8 to 10 years with ADHD and a healthy matched control group participated in the study. In this within-participants design, children participated in a 20-minute session of either aerobic exercise or seated reading on a motor-driven treadmill. Measures of event-related brain potentials and cognitive tasks were assessed during both of these conditions. The children showed greater response accuracy on attention control tasks, greater improvement on tests of reading comprehension and arithmetic.

Finally the relationship between depression and physical education in children and adolescents has received recent attention. A study by Kremer et al. (2014) investigated the associations between physical and depressive symptoms. A cross sectional survey of 8256 children and adolescents completed an online a self-report instrument. Students were asked a number of questions about their physical activity behavior, including number of days attending physical education classes; degree of activity during these classes; number of days of being very active after school; involvement in sports or other activities in school and outside

of school; opportunities to be involved in sports, clubs, organizations, or other activities at school. Depressive symptoms were assessed using the Mood and Feelings Questionnaire. Moderate to high depressive symptoms were reported by 33% of these youths. The odds of depressive symptoms were lower when there were greater opportunities for the youths to be involved in a sport or other activities at school or outside of class, to be very active during physical education classes, and to play sports both at school and outside of school.

There are also several studies that have examined other aspects of the association between student's physical activity level and their mental well - being, putting in evidence that exercise leads to better thinking and problem-solving, stronger attention skills and improved learning. Not surprisingly, these all combine to benefit school performance. According to a study by the Delaware Department of Education, "students who are physically fit are more likely to perform well and to behave well in school - regardless of their gender, race, family income or school district." Ratey (2013) explained that during physical activity, the brain produces a protein called BDNF, or brain-derived neurotropic factor, that builds nerve-cell connections. The stronger these connections become, as a result of continued physical activity, the easier it is for children to understand as well as retain information.

Other than this, the endorphins that the brain releases during exercise help to improve mood, energy levels and even sleep. Most students report that they feel calm and have a sense of well-being after they exercise. Together, these positive effects help to improve self-confidence and resilience, thus reducing anxiety, improving relationships and the self-perception of body image.

In relation to what was analyzed so far, given the fact that 1) up to 80 % of students practice sports only at school and 2) the limited number of hours children spend in physical education classes, led to the speculation that schools are instrumental in promoting physical activity and mental health.

The physical education curriculum (aims, themes, content activity areas, relevance and delivery quality issues, monitoring and assessment methods) – Research evidence

The already mentioned Eurydice Report (2013) of the European Commission on "Physical Education and Sport at School in Europe" states that all the European countries recognize the importance of physical education at school. Further, the European countries agree that there is an important link between health and sport. Despite this consensus, lesser importance is provided upon the physical education compared to other subjects in all the EU countries. This argument stems from the comparison between the time allocated to physical education and that for other subjects.

In the EU, physical education is a mandatory subject throughout full-time compulsory general education. Nevertheless, the prescribed taught time differs significantly from one country to another. In primary education in 2011-2012, the average taught time per school year varied between 37 hours in Ireland and 108 in France. At secondary level, the figures range from 31 hours in Malta to 108 hours in France. These results show that without practicing an intense physical activity outside school, children in the EU are far from reaching the WHO recommendations on physical activity.

This difference, in relation to what stated by the Eurydice Report (2013), is especially striking during primary education were the proportion of taught time devoted to physical education is only around half of that dedicated to mathematics. Overall, the European time dedicated to the subject of physical education is just under 70 hours per year, around one third of the time dedicated to the instruction of language and around half of that for mathematics. Funding for physical education in schools is inadequate as well, which, in turn, is reflected in the often poor quality and lack of equipment at primary and secondary levels in 26% and 38% of the EU countries respectively.

As far as recommendations on minimum taught time in physical education are concerned, big differences exist between countries. Generally, taught time changes little throughout compulsory education and corresponds to 50-80 hours a year, an allocation which has remained roughly the same in the

last five years. However, compared to other subjects, this allocation is still relatively low. In general, it corresponds to less than 10% of total taught time. In primary education, in most EU countries, the amount of time assigned to physical education is slightly higher than that for natural sciences or for foreign languages, and similar to the amount of time earmarked for artistic activities. In secondary education, the trends remain the same with respect to the language of instruction, mathematics and the arts. However, the time dedicated to physical education is less than to natural sciences and foreign languages.

In most EU countries, national governments have at least some responsibility for the curriculum. Where decentralized forms of government exist, responsibility is shared but usually lies essentially at regional level as in Belgium, Germany and Spain, for example.

Research by Eurydice (2013) shows that half of EU countries adopt national strategies for the promotion and development of physical education and physical activity at school. Some strategies are designed specifically for physical education, such as in Bulgaria, Spain and Croatia. Others target physical education within a general strategy covering broader sections of the population, as in Latvia and Slovenia. Still others focus more directly on young people, as in Italy.

The same report underlines that around half of the education systems in the EU member states have their own national plans to promote the development of physical education, sports and physical activity, while two-thirds devote large-scale initiatives for sports.

In some countries, centrally coordinated large-scale initiatives replace or complement national strategies. The former is typical for Germany, Italy, and Finland, whereas the latter can be found in Spain, Portugal, Poland and Romania. In general, schools are granted funds in the framework of such initiatives and their implementation is supported by specifically designated coordinators.

The above evidence clearly reflects a political will to develop and encourage such activities as a determinant of social well-being and health. Health and a healthy lifestyle are often emphasized in the national aims and learning outcomes of physical education, while health education in a few countries is a stand-alone subject. In some countries, certain physical education activities are mandatory while, in others, schools themselves are free to choose their activities. In a few countries, mandatory activities and school autonomy coexist.

Other than this, central authorities of many countries include basic motor activities such as walking, running, jumping and throwing in their curricula in the first years of primary education. Gradually, curricula build on these basic skills and enlarge their scope to cover more complex sports disciplines.

As we can see, unfortunately in EU the countries opt for various ways of defining strategies and learning outcomes in physical education at school. The difference between national aims and learning outcomes in physical education is not very clear-cut and distinguishing between them can be difficult.

Anyway, it's worth to be mentioned that there are also some common focus areas encouraging inter-sectorial cooperation, such as activating disadvantaged groups, combating inequalities through participation in sport and physical activity, and supporting the prevention of physical and mental illness. Almost all EU countries identify the physical, personal and social development of young people as the main goals of physical education. However, the nature of physical education is such that top priority is usually given to the development of physical and motor skills.

An additional common challenge for physical education is to offset the hours spent sitting during other classroom activities and, generally speaking, to discourage a sedentary lifestyle.

Almost all countries assess personal progress and achievements in physical education, although in the first years at school this assessment is not formally graded. Both formative and summative assessment are used in primary and lower secondary education, with summative assessment being slightly more common. The grading system is usually the same as in other compulsory subjects. Malta, Romania, Slovenia, Sweden, the United Kingdom (England and Wales) and Iceland have created progression scales for national-level assessment of attainment in physical education. In France, an updated national assessment scale is being tested for the first time since 2013. This kind of standardized tool has a twofold purpose in that it both supports the assessment performed by teachers and establishes a framework for national comparison of learning outcomes.

Only a few countries do not assess pupil's physical education skills in a formal way. This

is the case in Malta and Norway at primary level and in Ireland at both primary and lower secondary level.

Most European countries issue clear recommendations on which assessment methods to use. Only in Belgium and Iceland are educational institutions free to choose their own assessment methods. Most countries issue a final report at the end of each year which contains results of physical education along with those of other subjects.

Some countries have developed central assessment scales in order to provide teachers with harmonized tools to assess pupils' achievement within a country. These scales, in turn, also allow for national level comparisons of learning outcomes.

It may be concluded that formative and summative assessment is present in the European practice and is also used by the teachers. However, depending on the contents, both types of assessment are used primarily for the assessment of psychomotor domain and the assessment system affecting the full dimension of the personality hardly appears in practice.

It can also be stated that in summative assessment the teacher has a great deal of freedom, which also makes the objective assessment and measurement of the student's performance subjective both within the Member State and also internationally.

More specifically, this means that it is very difficult to compare or establish the actual student performance behind a particular mark.

It can also be stated that it is not clear whether the output contents reflected in the physical education regulations are minimum or optimum requirements and that there is no complex overview of the fitness assessment systems either.

Consequently, it may be underlined that a framework would be capable of classifying and presenting the learning outcomes in a structured manner and would provide an opportunity to give objective and accurate feedback and assessment in physical education.

The idea to use the European Qualification Framework, determining standards and learning outcomes in order to develop national curricula in physical education, can be a strong support for the implementation of standard-based quality curricula in physical education at EU level.

Teaching personnel and Quality Physical Education Teacher – Research evidence

The societal changes, developments and trends invoke demands for appropriate innovative approaches to teacher training. The demands of physical education in contemporary and ever changing school and wider community settings pose a challenge to teacher education institutions in equipping teachers, responsible for physical education, with the necessary competence to deliver relevant, quality physical education programmes. These programmes will provide meaningful experiences, attract young people to the joy and pleasure of physical activity and foster an 'active life-style' philosophy with a focus on relevance and understanding.

Teachers' professional qualifications matter, since they are instrumental not only in increasing young people's motivation for physical activities, but also in promoting a healthy life style.

At primary level, physical education is taught either by general teachers, by specialist teachers or by both, depending on the school's autonomy and resources. General teachers may be assisted by a sports coach or advisor. However, this practice raises concerns about quality of teaching. It has been argued that often such teachers do not have the necessary skills and therefore jeopardize the learning outcomes.

At secondary level, physical education teachers are usually specialists. Regarding qualification requirements, specialist teachers at primary level generally hold a Bachelor's degree. At secondary level, however, teachers either hold a Bachelor's degree, or, as is already the case in 15 countries, a Master's degree. Continuing professional development opportunities are offered to both general and specialist teachers throughout their careers (Holzweg, Onofre, Repond & Scheuer, 2013).

The scope of a school's physical education program is greatly impacted by the kind(s) of physical education teachers they hire. Knowing what is developmentally appropriate for students in each grade level is important for encouraging healthy (and safe) development. Certain strength exercises, for example, may not be helpful to certain ages and individuals involved (and even harmful).

A single-subject credential to teach at the middle- or high-school level will involve more in the way of movement anatomy and physiology than a multiple - subject elementary credential. This knowledge base will be important for assessing students' skills and needs, and for adapting activities to better suit particular situations or groups of students. Additionally, the teacher's expertise will be of great use in encouraging students who are genuinely interested in learning about wellness, mental health and the human body. Middle schools have no "pre-med" program, but middle-school students may already look to their physical education teacher for guidance in this perspective.

Some of the EU countries, in their physical education programs, also include some psychology and sociology. Sports are, after all, a social event; and you'll need to be prepared for guiding students' socialization, and correcting harmful patterns (for example, when students reject someone because they fear that person's poor performance will make them lose a game). In addition, children's mental and emotional responses to sports and physical activity are different than their responses to classroom environments, so the teacher's training has to include the psychology necessary to deal with their issues of stress, fear, lack of confidence, achievement motivation, self-concept, and self-evaluation.

So, not all of a physical education teacher's time is spent in the gym or on the field. For some units (such as when teaching about health concepts) the teacher has to be in the classroom (McLennan & Thompson, 2015).

Extracurricular physical activities offered outside of school time, such as competitions or health-related activities, are designed to make physical activities even more accessible and attractive to young people. Their main purpose is to broaden or complement activities undertaken during school time. Extracurricular physical activities are organized at national, regional, local and very often at school levels.

While extracurricular activities are available for all pupils, they also target children with disabilities or special educational needs. Some extracurricular activities even take place during the school day. Indeed, in some countries physical education is not limited to physical education classes, but is integrated into the daily school routine. In many Danish schools, for example, students practice 'morning running' before school starts. Other countries use extended school breaks to include physical activities on the playground or in the gym.

All in all, a teacher would have to foster the student's physical literacy that means, in accordance with the current physical education scientific literature, "...the ability, confidence, and desire to be physically active for life" (Whitehead, 2016).

Some literature gives considerable thought to the difficult task of determining what content should be taught in physical education to help students become physically literate. For instance Roetert and MacDonald (2015) identified the following elements as critical to developing students' physical literacy in sport programs at school:

1. A positive attitude toward physical activity through having experienced a sense of achievement and enjoyment in the subject;
2. The motivation and confidence to continue active participation in physical activity;
3. Movement competence, commensurate with their physical potential;
4. Experience of a range of movement activities;
5. Realistic self-knowledge and self-awareness enabling them to set appropriate personal goals in respect of physical activity;
6. An understanding of the nature of movement and of the importance and value of physical activity as contributing to a physically active lifestyle;
7. An understanding of how to access physical activity beyond the school.

In order to reach these ambitious objectives, most of the European countries offer their teachers opportunities for continuing professional development (CPD). In some of them, CPD is a compulsory condition of service for all teachers in primary and lower secondary education, including those who teach physical education.

In most cases, countries have general strategies which include CPD programs or courses designed for all teachers. In several countries, various forms of CPD focusing on physical education are available to specialist teachers, but also to generalists willing to improve their skills in the subject. The organization of such courses and their providers vary from one country to another. CPD courses differ in their duration, aims and content. In some countries, this provision is entirely decentralized and no information is available.

Several countries report the existence of CPD activities targeted specifically at teachers of physical education. Their aim is to improve the quality of teaching and learning processes, update the skills of teachers, and introduce them to new techniques and trends in the methodology of teaching physical education at school. These activities also include strategies to motivate pupils for active involvement in sport. National CPD programs in some countries are also linked to the implementation of new curricula or the adoption of new educational programs. They are intended to support teachers in certain tasks related to these changes, but there are substantial variations in the frequency of provision which ranges from free choice through nothing specifically designated to every one, two, three or five years.

Finally we can affirm that a good and effective teacher is a teacher who is able to make the teaching continually interesting and give perception as well as high impact in terms of the development of the psychomotor, cognitive and affective domains.

Resources, facilities and equipment– Research evidence

Studies and analyses of national and international documentation regularly reported by Hardman (2003) reported that "...Quality of fa¬cilities is below average and quantity of equipment is limited" and "...Quantity and quality of equipment is very poor. ... Damaged equipment is used frequently; ... and facili¬ties inadequate or poorly maintained".

With increasing demands by a range of social insti¬tutions and services for financial support, prioritization of government financial resource investment occurs and PE with its initial high capital costs of facilities and recurrent maintenance, apparatus and equipment costs can be an expensive enterprise.

The complexities of funding in education with national budgets and devolvement variously to regional, local and even individual schools together with the add¬ed problems of disaggregating amounts invested in, or expended on, physical education and school sport render it difficult to provide any definitive information on the financial re¬sources.

Funding for physical education in schools is channeled through several sources including national government, regional/local government and other mainly private/commercial sectors. The complex process of devolving national education budgets to regional and local authorities makes it difficult to provide specific figures. However, research aggregating survey-generated data suggests that over half of European countries registered reductions in financial support in recent years.

Reasons given for this situation include low status in relation to other subjects, diversion of financial resources to other subjects and areas of the school, ex¬pensive maintenance, low societal value in personal and national development and perceived lack of academic value of the subject, often linking this to the belief that the subject is just another "play time" or recreational experience.

The quality and quantity of provision of facilities and equipment matter because they have a negative impact on the quality of physical education. Europe - wide research shows that over a quarter of countries (26%) indicate below average or inadequate quality of equipment and facilities. Similarly, more than a quarter of countries (26%) have limited or insufficient quantity of facilities and over a third of countries (38%) have limited or insufficient quantity of equipment. Even though experts claim that the differentiation in quality and quantity of facilities and equipment is geographically tinted – in other words it is more heavily marked in eastern and central Europe than in western Europe – they still acknowledge that 67% of EU countries are faced with low levels of maintenance of existing physical education sites.

Around one-third of countries indicate below average/inadequate quality of facility and equipment provision.

Additionally, nearly half of countries have limited/insufficient quantity of facilities and two-fifths of countries have limited/insufficient quantity of equipment.

Reportedly, swimming facilities suffer the heaviest impact, given the substantial financial investment necessary for maintaining or gaining access to them, which, in turn, leads to cancellation of lessons or even omission from curricula in many countries. Wider sharing of community resources could, in part, provide a solution to inadequacies in physical equipment.

Other than this it's very important that the policymakers at local and regional level should make frantic and sincere effort towards provision of funds for effective physical education facilities and equipment in schools.

CONCLUSIONS / IMPLICATIONS / RECOMMENDATIONS

The perceived role of sport and physical education has expanded in recent years and it is now more widely appreciated as playing an important role in achieving broader educational objectives such as whole school improvement, community development and effecting personal, behavioral and attitudinal change among pupils (Houlihan & Green, 2006). Physical education is no longer seen as being merely part of the curriculum rather it's unique contribution to lifelong learning and education is also increasingly acknowledged and more and more various groups join forces to promote sport through multiple competing discourses

For example, the sport discourse competes with discourses surrounding the purpose of physical education within schools, such as physical activity for the purposes of health and issues surrounding the discourse of healthism (Evans, Rich & Davies, 2008) as well as competing with discourses of education surrounding issues related to the content of sport in the school curriculum (i.e. sport vs. dance or other forms of physical activity) and their educational objectives.

This overview demonstrates some important con¬siderations that have had a number of impacts on school physical education/sport in Europe. It can be seen as a 'reality checks' that reveals several areas of unease: deficiencies in curriculum time allocation; inadequacies in facility and equipment supply (a related issue in the facility - equipment concern is insufficient funding); personnel supply embracing insufficiency in numbers and inadequacy of appropriately qualified physical education/sport teachers; quality and relevance of the physical education curriculum, which have particular resonance because of accrued potential negative consequences; perceived inferior subject status; barriers to equal provision and access opportunities for all remain despite some recent improvements in inclusion (related to gender and disability) policy and practice; falling fitness standards of young people; and high youth drop - out rates from physical/ sporting activity engagement, exacerbated in some countries by insufficient and/or inadequate school - community coordination physical activity participation pathway links.

Arguably, the data provide a varied, but anyway difficult, picture of sport in schools.

Thus, the review of the current situation of physical education in Europe is marked by "mixed messages" with indicators of stabilization in some countries juxtaposed between positive, effective policy initiatives in other countries and reticence or lit¬tle political will to act and continuing concerns in others. Many governments have committed themselves through legislation to making provision for physical education but they have been (or are being) slow in translating this into ac¬tion.

Countries, via the relevant agency authorities, should identify existing areas of inadequacies and should strive to develop a basic needs model in which physical education activity has an essential presence and is integrated with educational policies supported by governmental and non - governmental agencies working co-operatively in partnership(s). Satisfaction of these basic needs re¬quires high quality conceptually and contextually ad¬justed physical education curricular programs, provision of equip¬ment and basic facilities, safe environments and appropriately qualified/experienced personnel, necessary relevant knowledge, skills, general and specific competences according to the level and stage of involvement together with opportunities for enrichment through continuing professional development.

As a school's role extends to encouraging young people to continue participation in physical activity, through the provision of links and coordinated oppor¬tunities for all and by develop¬ing partnerships with the wider community to extend and improve the opportunities available to re¬main physically active, there is a need for wider community - based partnerships, for which physical education should be seen as the cornerstone of systematic physical activity. Participation Pathway Partnerships can be a key term for future direc¬tions in the best interests of physical education and sporting activity in and out of schools. If students are to be moved from "play stations" to "play-grounds", bridges and pathways to community provision need to be constructed, especially to stimulate young people to participate in physical activi-ty during their leisure time. Support for the realization of such ideals can be achieved through collaborative, cooperative partnership approaches.

Other than this, the gap between "promise" and "reality" has to be covered. There is a real danger that the well intentioned initiatives will remain more "promise" than "reality" in too many countries. Despite a range of intergovernmental, governmental and non-governmental actions and initiatives, as well as national educational reforms of systems and curricula to improve provision in and for physical education in schools over the last decade, there is a 'mixed message' scenario: hope for a secure and positive future of this unique school subject is juxtaposed with continuing disquiet and widespread concern about its current situation and future sustainability.

In this framework, the main **policy recommendations** are:

- There is a great opportunity for the health and sport sectors to work together to promote health - enhancing physical activity in the EU school systems. Sport in schools can play a crucial role in the prevention of mental diseases. At this point, we need to identify what kind of new national strategies and large-scale initiatives are needed to promote the mental health of the students involved.
- Around a third of European countries are now engaged in national reforms or debates directly linked to sport practiced at school. As we have seen so far, the EU countries opt for various ways of defining strategies and learning outcomes in physical education at school. The difference between national aims and learning outcomes in physical education is not very clear - cut and distinguishing between them can be difficult. Based on that, the idea to determine physical education standards, learning domains, learning outcomes according to European Qualification Framework, provide an objective, adaptable framework for developing national curricula in physical education may be a strong support in order to implement standard - based quality curricula in physical education at EU level.
- Initial and in - service training/further professional development is needed and it should properly address pedagogical and didactical developments, social and cultural shifts, help to enhance the physical education experience of students and consequently contribute to the development of physically educated persons. For this reason a harmonization of the continuing professional development (CPD) courses around Europe is needed. This coordination of the professional courses has to be seen in terms of programs or the courses, their duration, aims and contents in order to improve the quality of teaching and learning processes, update the skills of teachers, and introduce them to new techniques and trends in the methodology of teaching physical education at school.
- Intersectoral collaboration is an important element of successful sport and physical activity promotion strategies. It is therefore important to include all stakeholders in a consultation process to support coordinated efforts to promote sport and mental health in schools and to capitalize on synergies with other public health efforts. The role of the local environments and settings in promoting sport and physical activity inside and outside the school is strategic.
- It is important to provide an overview of financial resources to implement and monitor the sport and physical activity policies in order to ensure the creation of a solid basis for action.
- A frantic and sincere effort towards provision of funds for effective physical education facilities and equipment in schools is also an element worth to be mentioned.

Finally

- Whilst some improvements in gender - and disability - related inclusion policies and practices supported in many countries by state legislation can be identified, barriers to equal provision and access opportunities for all still remain; for school children and young people with disabilities in particular, persistent barriers to full inclusion comprise inadequate infrastructure, insufficiencies in supply of appropriately qualified teaching personnel and support assistants, shortages in adapted facilities and equipment as well as learning and teaching materials.

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COMPARATIVE APPROACH ON SPORTS FOR MENTAL HEALTH AND SPORTS FOR PHYSICAL OR INTELLECTUAL DISABILITIES

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INTRODUCTION

Sport and physical activity have been recognized as an important catalyst for both mental and physical health. The variety of studies and showcases about the synergy and benefits of sports and physical activity are clearly showing that there is an important connection between those two. These studies confirm the positive direct and/or indirect effect of sports on mental health problems and physical well-being.

Whilst these findings underpin the benefits of sports, it is also important that in the future even more detailed and controlled studies will still have to be carried out to find the potential benefits for different population.

The policy paper aimed to compare different approaches and studies, and lead to a "collective" action that may be tracked down by societies in general.

STATEMENT OF THE PROBLEM

The policy paper is addressing the impact of sport and/or physical activities (PA) on mental health in general and for individuals with physical and intellectual disabilities. The focus has been set on the comparative approach through:

- the question of health/mental health in general and in combination with physical activation;
- overview of accessible studies in the field.

The preliminary research showed the dispersion of different views on benefits of sports. The policy paper therefore draws conclusions by comparing the existing professionally supported knowledge and literature on:

1. The Psychopathology of mental health in late modernity.
2. Association between physical activity with physical and mental health.
3. Benefits of sports/physical activities for people with mental health problems and physical or intellectual disabilities.
4. Social inclusion and sports.

This paper reflects the common effort of 4 partner organisations (Croatia, Lithuania, Slovenia and Turkey), bringing together different researchers and reflecting their own professional views and experience upon the subject of the policy paper.

BASIC DEFINITIONS

Mental health

World health organization imbedded the term mental health in the overall definition of health, recognizing it as an integral part of health in general. Its definition as a state of well-being summarizes the effort of each individual to be able to realize his or her own abilities, cope with the normal stresses of life, work productively and fruitfully, and make a contribution to his or her community (WHO 2004).

Sport

Sport as a term refers to Sport in British English or sports in American English; it includes all forms of competitive physical activity or games which, through casual or organized participation, aim to use, maintain or improve physical ability and skills while providing enjoyment to participants, and in some cases, entertainment for spectators. (Wikipedia). In this policy paper, the term "sport" is used together with physical activity (PA) and exercise as subcategory of physical activity that is planned, structured, repetitive, and aims to improve or maintain one or more components of physical fitness (WHO, 2017).

Prevention

This general term appears in many different settings of its use. In the scope of this policy paper it mainly refers to the health and medical sector. Within the scope of different studies and showcases of this policy paper, it appears as a major factor underlying the benefits of sports and physical activity. Dealing with mental health and the challenges it brings for finding the best possible solution, prevention seems to be at the stake of concrete actions in society. Many studies confirm the benefits of physical activity and are inevitably connected with prevention. As the prevention itself is quite a general term, it is important because improvements of mental health in society are to be considered as a collective action, bringing together governments, business sector, education, labour justice and other (WHO, 2004).

METHODS/PROCEDURE/ APPROACH

The present article used and combined social science research approaches/methods to establish a thorough knowledge base and map existing, recent and most important findings in terms of the subject. The methods and approaches mainly used were:

- Comparative method (combining studies, researches and professional articles)
- Synthesis of general findings that address the research topic.
- Combining qualitative and quantitative data to address the research topic.

REVIEW OF THE LITERATURE

The Psychopathology of mental health in late modernity. Association between physical activity, physical and mental health.

Health is defined as a general value that ensures productive and quality life for every individual and community. It represents psychophysical and social well-being, since it is significantly influenced by economic and social factors. The dynamic balance of the

body's, mental, emotional and social contents in an individual is reflected in its adaptive ability in the environment and in performing (all) life functions. Health is therefore not only described as the absence of disease, but also as well-being, satisfaction, successful coping with problems, effective problem-solving and inclusive welfare (WHO, 2008).

In addition to physical health, mental health is important for human development and life. Various studies confirm the importance of good mental health and functioning as well as the absence of pathologies in determining the quality of life, cognitive capacities, physical health and social productivity (Huppert, 2005; Linley & Joseph, 2004; Davydov, Stewart, Ritchie & Chaudieu, 2010 in: Koželj, 2014). The deterioration of mental health generates mental disorders, which, like somatic illnesses, involve daily difficulties and distress.

Preservation and/ or maintaining physical/ mental health is associated with the individual's way of life, compliance with his/her physical needs, emotional aspirations and socio-cultural values. One of the most effective methods to enhance well-being is through physical activity (PA). There is increasing evidence that straight physical inactivity and sedentary lifestyles are a direct cause of many chronic diseases. On the other hand, numerous studies speak of the positive effects of regular exercise for the prevention and treatment of metabolic and mental disorders, which are often induced by the chronic stress of postmodern lifestyle. These positive effects are, on the one hand, the result of central neuroendocrine effects of exercise, which help to reduce stress sensitivity and, on the other hand, peripheral metabolic effects (increase in insulin sensitivity). The adoption of lifelong regular PA therefore is both preventive and therapeutic, which in turn improves the quality of life. The important factors are the type, amount and intensity of PA that are dependent on the individual's health, capacity, desires and goals. 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. PA 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). Aerobic exercise typically lessens the symptoms of anxiety and depression (Mikša, 2015).

Regular sports involvement, in accordance with a relatively high level of physical fitness, reduces the negative effects of stress, reduce anxiety, while increase the individual's mood and ability to more effectively tackle the causes of anxiety and feelings of depression (Burnik, Potočnik & Skočić, 2003). Those who practice regularly also feel psychologically better, cognitively more capable - especially in frontal enforcement functions – and exhibit lower incidence of depression and anxiety (Koželj, 2014). High intensity physical activity can be additional therapy in the occurrence of pathopsychological disorders (Mišigoj et al, 2003) and is associated with reduced interpersonal problems and aggressive acts (Koželj, 2014). Participation in various sports activities further contributes to the well-being, raising the level of self-confidence, emotional perception and expression. Increasing PA enhances perception of competence and may be useful to develop general self-esteem in adolescents. The results of the research also showed that leisure activity is associated even with a lower prevalence of mental disorders, especially mood disorders and anxiety, while mental health improvement has also been documented (Koželj, 2014).

The functioning of people with mental disorders does not depend solely on disease symptomatology, but also on their active participation and fulfilment of life roles and tasks. Many functional abilities, cognitive functions and symptoms can be influenced by a regular, personalized, involvement in PA. Several studies, backed up with evidence of adverse effects of drugs that restrict motor activity and elevated physical well-being, speak of the positive effects of PA on the brain structure and functioning, health and well-being of people with mental disorders (Švab, 2016).

In the context of mental health, sports and PA have the potential to develop social contacts, self-esteem and future planning. Epidemiological studies prove that PA can have a positive effect on mental health, while therapeutic effects on the clinical and non-clinical population have been demonstrated. Some studies even associated the PA with the possibility of developing mental pathologies. Despite these studies, the exact mechanism of the influence of PA on mental health has not yet been proved (Koželj, 2014). In any case, a well-psycho-physically prepared individual is much more qualified to overcome the stress factors during the biographical course and thus

maintain his / her health (physical and mental).

A very important aspect of contemporary understanding of all positive effects and functions of sport is the question of inclusion. Firstly, definitions and explanations about terms such as mental health, physical and intellectual disability are an important factor when observing the role of sport in the latter and even more – comparative overview of benefits for all, mind and physical state, is therefore to be observed also within the societal and scientific recognition and/or consensus about the general terminology. Conceptualizing mental health and mental illness is in the focus of many researches, various authors are warning to be cautious when using terms (mental) illness and (severe and enduring) mental illness because of the labelling effects that the latter can have on individuals (Carless & Douglas, 2010). In the policy paper the partnership therefore does not define the "stage" or even "scale" of each of the mental health problems as "more" or "less" important. However, a general distinction is represented in terms of knowing the difference between (Zveza Sožitje, 2018):

- Mental illness (without mind impairments – ability of independent living and having control of the illnesses like depression, anxiety, schizophrenia - individuals may suffer from different levels of it).
- Mental disorders (the term refers to mind impairment, difficulties within the spectrum of intellectual malfunctioning – processes of learning, motoric and social capacity).

Another interesting perspective is the comparison between benefits of PA for physical and intellectual disability. The connectivity is crucial for comparative approach to benefits of PA to different individuals. Individuals with mind impairment were often diagnosed with different physical health problems like obesity, chronic disease i.e. high blood pressure, cholesterol levels and diabetes (Temple, Frey in Stanish in: Papež, 2010). The latter emphasises the importance of specifically adjusted PA even more.

On the other hand, looking from the perspective of benefits of PA for individuals with physical impairments, the following understanding of benefits is crucial (Disabled world, 2017):

- Less stress
- More independence
- Higher achievement in education and employment
- Reduced dependency on pain and depression medication
- Fewer secondary medical conditions (i.e., diabetes, hypertension)

Within the above defined terms, two key factors are important when talking about contribution and benefits of PA for individuals with physical and intellectual disabilities (Papež, 2010):

- Equal opportunities: special Olympics, Paralympics
- The nature of organizing PA for different individuals (individual vs team sports – finding balance, controlled and organized PA that build on personal contempt, sense of belonging, social inclusion like hiking, camping, canoeing, riding a bike, etc.)

Finally – mental health as a state of well – being that does not include any of the mentioned categorisation is at the crossroad when addressing the general positive effects of PA. Mental health is an essential part of public health and therefore at the junction of different intersectoral policies as sports in general empowers solidarity, tolerance, responsibility and positive social values (ReNPŠ14–23, 2014).

SOCIAL INCLUSION AND SPORTS

Sports for mental health

Playing sports provides many mental benefits, including a momre positive mood and improved self-esteem (Miller, 2017). Sports improve security, serenity and mood, and through sports people improve social and psycho-physical abilities. Through PA and sport individuals acquire self - confidence and security in relation to him/ her self and the society. Sports may be a form of mental therapy for people with psychological disorders and depression, promote self-esteem in the form of positive perception of body image and self-worth. By participating with others, people can also enter in positive social environments to promote psychological health. Physical activity may also decrease the risk of cognitive decline that comes with aging and may reduce anxiety in adolescents (Cohen, 2017). Positive characteristics are enhanced, such as attitudes towards people, towards obligations, emotions

such as satisfaction, happiness, and reduction of sadness that the athletes experience through sports. Children learn to experience win and loss, as parts of their daily lives and can better deal with all the associated emotions, either in a positive or negative sense.

Exercise stimulates the production of mood-enhancing neurotransmitters and brain chemicals like endorphins. Endorphins are pain-relieving, opiate-like chemicals that make you feel good (Miller, 2017).

Individuals who participate in sports tend to perform better at school (Rush, 2017b). Student athletes earn higher grades and earn higher test scores on standardized tests. They also have lower dropout rates and a better chance of getting into college. Sports and physical activities have positive effects on mental health by reducing depression and improving cognitive function, (Cohen, 2017). Following Scottsdale (2017) and other scholars in the field it is therefore suggested that if you want to feel less anxious, try participating in sports.

Cohen (2017) claimed that sports may promote long-term weight loss and avoid weight gain. Sports increase metabolic rates and can help increase lean body mass while burning calories and getting rid of excess fat. Although the amount of physical activity needed varies by body type and caloric intake, sports can help a person maintain a healthy weight.

Sports can help people of all ages maintain and improve the cardiovascular health (heart, lungs and blood vessels). Physical activity can significantly reduce the risk of coronary disease and stroke since training reduces cholesterol which leads to diseases of blood vessels. According to the British Parliamentary Office of Science and Technology, approximately 40 percent of deaths related to coronary heart disease are related to inadequate physical activity, obesity, stress and raised blood pressure. Sports can help with all of these physical issues, decreasing the risk of coronary disease by about 50 percent, (Cohen, 2017). It is normal to control body weight by training, and thus to bring the body to balance and develop healthcare security with blood flow and blood vessels.

Sports as a complimentary treatment

Playing sports can make you stronger and healthier, contributing to lower obesity rates, (Rush, 2017b). Active people tend to have lower rates of diabetes and high blood pressure. Exercising regularly through sport programs could contribute to better heart and lung function. One of the physical benefits is that people tend to lose weight and gain muscle, making themselves look better and improving their self-perception (Scottsdale, 2017).

Sports contribute to muscle development, coordination, cardiovascular health and numerous other benefits associated with disease prevention; physical activity can help ward of chronic diseases including cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis (Rush, 2017a). The fact is that through sport and training, there is a lower risk of all mentioned diseases. Sports can decrease the risk of colon cancer by as much as 300 percent, according to the British Parliamentary Office of Science and Technology. It can also significantly decrease the risk of breast cancer and might decrease the risk of endometrial and lung cancer (Cohen, 2017). In general, sport improves and acts on health and better functioning of the organism in all segments, but doctoral advice is a necessity. Engagement in any type of physical activity doesn't only provide physical benefits like weight control. It also helps prevent diseases like heart disease, Type 2 diabetes and some forms of cancer, while improving sleep and increasing energy (Miller, 2017).

Further, athletes are regularly inspected by a sports doctor and the chance to detect all various diseases at an earlier stage is wider.

Sports and other physical activities have innumerable physical health benefits, including improved cardiorespiratory and muscular fitness, bone health, increased life expectancy, and coronary health. Sports can also help prevent various types of cancer and weight gain (Cohen, 2017) and may help children develop healthy bones, stronger cardiovascular systems and powerful lungs (Rush, 2017a).

Social inclusion

Playing team sports is a social activity. Sports can positively impact both children and adults, providing opportunities to get exercise and spend time with peers in a healthy environment (Rush, 2017b). By interacting with others, individuals experience the benefits of social interaction. The social interaction may reduce stress and enhance mood, reduce social

isolation and allow an opportunity to make new friends and forget worries while having fun with others (Miller, 2017).

Sport is absolutely an element that affects a person to integrate easily and quickly into the social sphere and may affect a person to fulfil easier and more thorough all obligations in society.Sport is a medium of early integration, especially for children who develop a sense of acceptance and value of each other. For children, playing sports can help develop friendships cantered on healthy, safe and enjoyable activities. Adults who play sports also have the opportunity to develop friendships cantered around an active lifestyle (Rush, 2017b). People through sport socialize, connect, collaborate and thus develop various social elements which are of high quality in communication and socializing with others in their daily lives.

Team practice and competitions provide socializing options that are healthier and more active compared with regular sedentary activities (Rush, 2017b). Sports, especially team sports, may develop positive relationships to all participants, a sense of sharing emotions and helping each other.

Sports may also play an important role in developing values, such as honesty, teamwork and fair play (Rush,2017b). Through sports people develop a sense of fairness, cooperation with other teammates, sense of sharing, distinguish right from wrong etc.

ASSOCIATION BETWEEN PHYSICAL ACTIVITIES, PHYSICAL AND MENTAL HEALTH

Regular PA is thought to be associated with enhanced mental health (Hamer & Chida, 2009). Physical activity may play an important role in the management of mild-to-moderate mental health diseases, especially depression and anxiety. Individuals with depression tend to be less physically active than non-depressed counterparts. Research evidence however suggests that involvement in aerobic exercise or strength training may reduce depressive symptoms significantly. However, habitual PA has not been shown to prevent the onset of depression. Anxiety symptoms and panic disorders also improve with regular exercise, and beneficial effects appear to equal meditation or relaxation. In general, acute anxiety responds better to exercise than chronic anxiety. Studies of older adults and adolescents with depression or anxiety have been limited, but PA appears beneficial to these populations as well. Excessive PA however may lead to overtraining and generate psychological symptoms that mimic depression. Several differing psychological and physiological mechanisms have been proposed to explain the effect of PA on mental health disorders. Well controlled studies are needed in the future to clarify the mental health benefits of exercise among various populations and to address directly processes underlying the benefits of exercise on mental health (Aluska, 2000).

Exercise improves mental health by reducing anxiety, depression, and negative mood and by improving self-esteem and cognitive function. Exercise has also been found to alleviate symptoms such as low self-esteem and social withdrawal. Exercise is especially important in patients with schizophrenia since these patients are already vulnerable to obesity and because of the additional risk of weight gain associated with antipsychotic treatment, especially with the atypical antipsychotics. Patients suffering from schizophrenia who participated in a 3-month physical conditioning program showed improvements in weight control and reported increased fitness levels, exercise tolerance, reduced blood pressure levels, increased perceived energy levels, and increased upper body and hand grip strength. Thirty minutes of exercise of moderate intensity, such as brisk walking for 3 days a week, is sufficient for these health benefits. Moreover, these 30 minutes need not to be continuous; three 10-minute walks are believed to be as equally useful as one 30-minute walk (Fogarty, Happell & Pinikahana, 2004).

Health benefits from regular exercise that should be emphasized and reinforced by every mental health professional may include the following (Fogarty, Happell & Pinikahana, 2004):

1. Improved sleep
2. Increased interest in sex
3. Improved endurance
4. Stress relief
5. Enhanced mood
6. Increased energy and stamina

7. Reduced fatigue and increased mental alertness
8. Weight reduction
9. Reduced cholesterol and improved cardiovascular fitness.

Mental health service providers can thus provide effective, evidence-based physical activity interventions for individuals suffering from serious mental illness. For this reason, well-controlled studies are needed to clarify the exact mental health benefits of exercise among various populations and to address directly processes underlying the benefits of exercise on mental health.

The association between mental health and physical activity was examined among a representative sample of men and women from the Scottish Health Surveys (Hamer, Stamatakis & Steptoe, 2009). Self-reported physical activity was measured and the General Health Questionnaire (GHQ-12) was administered to obtain information on current mental health. Participants were 19.842 men and women. Risk estimates per category of physical activity sessions per week were calculated using logistic regression models. The researchers stated that psychological distress (based on a score of 4 or more on the GHQ-12) was evident in 3200 participants. Any form of daily physical activity was associated with a lower risk of psychological distress after adjustment for age, gender, social economic group, marital status, body mass index, long-standing illness, smoking and survey year. A dose-response relationship was apparent, with moderate reductions in psychological distress with physical activity. Different types of activities including domestic (housework and gardening), walking and sports were all independently associated with lower odds of psychological distress, although the strongest effects were observed for sports.

Kirkcaldy et al. (2002) examined the associations between the participation in endurance sport, self-image, physical and psychological health and overall lifestyle in a large representative sample of German high-school students. Almost 1000 German adolescents (aged 14–18 years) were administered a comprehensive series of questionnaires aimed at assessing anxiety - depression, trait addiction, smoking and drinking behaviour, physical ill - health reports, self - perception of self - image, parental acceptance and educational attainment. The researchers reported that regular practice of endurance exercise was related to a more favourable self - image. There was a strong association between participation in sports and the type of personality that tends to be resistant to drug and alcohol addiction. Exercise was related to scores for physical and psychological well - being. Adolescents who engaged regularly in physical activity were characterised by lower anxiety - depression scores and displayed much less social behavioural inhibition than their less active counterparts. The researchers concluded that recreational or exercise involvement may facilitate concerns relating to body image and self - esteem. In terms of psychotherapeutic applications, physical activity has many additional rewards for adolescents. It is probable that by promoting physical fitness, increased physical performance, lessening body mass and promoting a more favourable body shape and structure, exercise will provide more positive social feedback and recognition from peer groups, and this will subsequently lead to improvement in an individual's self-image (Kirkcaldy et al, 2002).

Researchers in Finland examined the psychological and physiological benefits of regular involvement in physical activities. The study explored the association between frequency of exercise and a number of psychological well-being measures in a large population - based sample. A total of 3403 participants (1856 women and 1547 men) of the Finnish cardiovascular risk factor survey, ranging in age between 25 and 64, were involved. Besides answering questions concerning their exercise habits and perceived health and fitness, the participants also completed the Beck Depression Inventory, the State–Trait Anger Scale, the Cynical Distrust Scale, and the Sense of Coherence inventory. The results suggested that individuals who exercised at least two to three times a week experienced significantly less depression, anger, cynical distrust and stress than those exercising less frequently or not at all. Furthermore, regular exercisers perceived their health and fitness to be better than less frequent exercisers did. Finally, those who exercised at least twice a week reported higher levels of coherence and a stronger feeling of social integration than their less frequently exercising counterparts. The results indicated a consistent association between enhanced psychological well - being and regular involvement in physical activities (Hassmén, Koivula & Uutela, 2000).

Another study was conducted in Belgium

(Asztalos, De Bourdeaudhuij & Cardon, 2009) with a sample of 6803 adults aged 25–64 years from the Belgian National Health Interview Survey. Multiple logistic regression analyses showed that clearly different intensity levels characterised the PA associated with mental health in women and men. In men, inverse associations existed between participation in vigorous - intensity PA and feelings of depression, anxiety and symptoms of somatisation. In women, positive associations existed between walking and emotional well - being and inverse associations between participation in moderate - intensity PA and symptoms of somatisation. Secondary analyses confirmed that differences in psychological complaints were significant for vigorous PA in men, and for moderate PA in women, whereas differences in emotional well - being were significant for walking exclusively in women. In the general population, the PA – mental health relationship is always positive, regardless of activity intensity. In men, it addresses complaints (symptoms, palpable discomfort) and the optimal PA intensity is high. In women, it addresses complaints, distress (lowered mood, disturbing anxiety, altered well-being) and the optimal PA intensity is mild.

The study of Babyak et al (2000) showed that among individuals with major depressive disorder (MDD), exercise therapy is feasible and is associated with significant therapeutic benefit, especially if exercise is continued over time. The study assessed the status of 156 adult volunteers with MDD, 6 months after completion of a 4-month course of aerobic exercise, sertraline therapy, or a combination of exercise and sertraline. The presence and severity of depression were assessed by clinical interview using the Diagnostic Interview Schedule, the Hamilton Rating Scale for Depression (HRSD) and the Beck Depression Inventory. Assessments were performed at baseline, after 4 months of treatment, and 6 months after treatment was concluded (i.e., after 10 months). The researchers found that patients in all three groups exhibited significant improvement after 4 months. The proportion of remitted participants (i.e., those who no longer met diagnostic criteria for MDD and had an HRSD score <8) was comparable across the three treatment conditions. After 10 months, however, remitted subjects in the exercise group had significantly lower relapse rates (p= .01) than subjects in the medication group. Exercising on one's own during the follow - up period was associated with a reduced probability of depression diagnosis at the end of that period (Babyak et al, 2000).

Previous research findings confirm that physical activity has well-known benefits for several chronic disorders, including coronary artery disease, stroke, diabetes mellitus, and osteoporosis (Laurin, Verreault & Lindsay, 2001). Evidence that physical activity may delay cognitive loss and impairment is well established as well. In clinical settings, beneficial effects of physical fitness interventions on memory and other aspects of cognition have been documented in elderly persons, although inconsistently. Few epidemiological studies have examined the role of physical activity on the risk of cognitive impairment and dementia in elderly persons. Suggestions that exercise may be protective for dementia and for Alzheimer disease, have been made in some case - control studies using prevalent cases (Laurin, Verreault & Lindsay, 2001).

The above studies may convince people that involvement in regular PA and exercise is necessary for a fruitful life and a way to live. In addition to the physical benefits, exercise may deal effectively with mental and psychosocial problems. People who regularly exercise are well coordinated to prevent many ailments and deficiencies, are more efficient, joyful, enjoy life, enjoy more social relationships, etc, (Lawrence, Segal & Smith, 2016). As such, many of today's psychologists recommend engagement in physical activity as a factor to overcome anxiety, depression, irritability and daily stresses.

BENEFITS OF SPORTS/ PHYSICAL ACTIVITIES FOR PEOPLE WITH MENTAL DISORDERS

Human organism is inclined to action. Sports contribute to the objectives of general education with action. When looked within this scope, sports are dealt as a whole of the physical activities which are organized for the purpose of contribution to the development of physical, psychomotor, mental, emotional and social development of the individuals involved.

Keeping these in mind, one may expect physical activities to take an enormous part in

human's life. However, recent researches show that this is not the case. For example, studies conducted in the UK state that only one third of the population meets the necessary level of physical activities to sustain a healthy life (Edmuds et al, 2013).

The terms for spots to be beneficial to human health extends beyond the physical arena, towards the psychological one. As Kaoukis and Duhamel (2013) suggested, insufficient physical activity may lead to depression, stress and smoking apart from obesity, high blood pressure, insulin resistance etc. However, these findings are related to people who are perceived as "healthy" in terms of mental and physical well-being. So, what are the effects of physical activities on mental health for individuals with physical or mental disorders? The rest of this section will attempt to cover these issues.

Sports and Physical Impairments

Sports during childhood contribute to mental and physical development (Chhun, 2012). In adults, sports are effective especially in defence to cardiovascular diseases, in digestion, respiration, muscular force, endurance, power, flexibility, balance and coordination (Kaukois, Duhamel & 2013).

The benefits of sports, however, are not limited to the ones for healthy individuals. Sports are also used in the treatment of physical impairments. Sports have shown that one's life is not over when s/he is discharged from the hospital in a wheel chair, or is born with a disability. Through rehabilitation, the individual may adapt to their new life, or may build a life of their own (Rohwer, 2013).

The benefits of sports like proper blood pressure, strengthened muscles and co-ordination facilitate physical improvement and functionality of the individuals involved (Rohwer, 2013). Parallel to that, physical activities support individuals with disabilities the same way as they do with their non disabled counterparts (Jearsma, 2014).

When it comes to the movements about sports for physically impaired people, the Paralympic Movement would pose a great example. Governed by the International Paralympic Committee (IPC), it provides the necessary conditions for athlete empowerment in the way of creating a more equal society, as stated in the respective IPC website. Paralympics enable psychically disabled individuals to be a part according to their personal functionality and body impairment through a classification system.

Therefore, everyone with a physical disability may be provided with a branch of sports which is suitable for her/him. Furthermore, the branch of sports or the sports activities fulfilled in the scope of Paralympics do not have the remain as a free-time activity, as they can turn into paying jobs for these people. So it should be stated that, IPC enables physically disabled people to both do sports and get paid for it, which will help them be a an active part of the society and support themselves.

Sports and Mental Disorders

There has always been a link between physical activity and human psychology, aka mental health, according to the researches (Biddle, Fox & Boutcher, 2000). Hereby, a look at the definition of mental health provided by WHO (2014) and Lök and Lök (2015) is necessary to look at. The aforementioned defined mental health as the state where individuals exhibit their psychological well-being; sustain their daily lives no matter what their physical health or impairment is. It is the state where one can intellectually function according to his/ her daily demands (WHO, 2014; Lök & Lök, 2015).

The first and best known psychological effect of sports is the one on depression. Clinical and epidemiological studies have shown that there is a link between physical activities and the decrease in anxiety and depressive symptoms. In accordance, aerobic exercises have been found to have an effect in decreasing the depressive symptoms. Therefore, we may follow relevant evidence and claim that sports have a direct relationship with the treatment of depression (Karatosun, 2010) (Otto & Smiths, 2011).

The positive effects of sports on mental health may be perceived on harsh mental impairments and societal problems. For example, according to Cameron and MacDougall (2000), sports have an impact on diminishing crime rates in society.

Overall, sports may support individuals to improve their mental health, boosting self - confidence and contributing to positive personality development, enhance communication and sharing. As a result, life motivation, gain of positive personality characteristics like honesty, tolerance and

cooperation are supported. These functions provide a more balanced social life and a place in society for the individuals with mental health issues. When it comes to the influences of being active on physically disabled people, it should be said that sports help them both in terms of improving their body strength and psychological well-being, just like it does with people who have mental health issues. Besides that, sports helps them, just as it does for all of us, to have a good blood circulation, stronger muscles, a better coordination, less risk of cardiovascular diseases. Furthermore, it plays a good role in "acquiring life skills" (Hilary Beeton, in Rohwer, 2013).

BENEFITS OF SPORTS FOR THE TREATMENT OF INDIVIDUALS WITH PHYSICAL AND MENTAL DISORDERS

Participation of individuals with mental disorders in sports and free-time activities has mental, social, psychological and physical benefits. Sports are known to have an impact on mental and physical development of human beings; however, this is not the only function of physical activities. They are also proven to be beneficial as a medium in the treatment and rehabilitation method for individuals with physical and mental disorders.

Several sports activities are used in the rehabilitation and recreation of individuals with disabilities. Sports are used even more prevalently as a supplementary treatment of conventional physical therapy methods.

A comparison between benefits on psychically disabled people and people with mental health problems

Another important side is that sports ensure social relations to occur. Participating in sports activities supports newly handicapped people to gain self - awareness, to be integrated in social life and to develop positive social behaviours. Moreover, if individuals with disabilities who experience depressive mood participate in sports, their mood is enhanced. However, the social benefits of sports on mental health and physically disabled people vary.

According to the researches, sports help people to improve mood by making the body release endorphin. This way, people with mental health problems may find a relaxation with their reduced stress and anxiety level. It also keeps the mental skills sharp, therefore helps people concentrate which is why it is highly recommended for the inclusion of students with Attention Deficit and Hyperactivity Disorder (ADHD). However, the benefits are not limited to self-wellbeing. Especially the team sports help people to be more included in the society and get rid of social stigmata.

When it comes to its social benefits for physically disabled people, we should say that the team sports boost the feeling of collaboration and competition, which provides these people with the opportunity of being around other people, being an active member of society.

COMPARISON AND RECOMMENDATIONS

Within the scope of this policy paper, a simplified analysis of the provided information from the research was done. The main aim was to establish whether a cross cutting of benefits from sports between different (health) categories may be established.

The comparison of benefits and possible overlaps is shown in the following table:

Categories of observation	**1. Physical health**	**2. Mental illness/Mental health in general**	**3. Mental disorder**	**4. Physical impairment**
Overview of benefits (positive effects of PA)	o Increase in production of mood-enhancing neurotransmitters and brain chemicals (endorphin) o Weight loss o Reduction of anxiety and stress o Improvement of cardiovascular health reducing the risk of: coronary disease and stroke, reducing the levels of cholesterol o Improved endurance, muscular force, flexibility, power, balance o Lower obesity rates o Risk of cancer o Less depression, anger cynical distrust o Social integration o Diminishing the risk of cognitive impairment, dementia	o Positive mood o Improved self-esteem o Positive perception of body image and self-worth o Decrease in risk of cognitive decline o Reduction of anxiety, depression o Increase in social interaction to reduce stress and enhance mood o Wight control o Reduced blood pressure	o Improvement of coordination o Weight control o Improvement of chronical states (blood pressure, etc.) o Positive effects when included in PA without "competition" o Building on personal contempt, sense of belonging, social inclusion	o Important factor of rehabilitation process o Similar/equal positive effects as in 1st and 2nd category: o • *Less stress* • *More independence* • *Higher achievement in education and employment* • *Reduced dependency on pain and depression medication* • *Fewer secondary medical conditions (i.e., diabetes, hypertension)*

Final conclusions and recommendation are therefore based on the comparison of data and are stated below:

1. Regular sports involvement, in accordance with a relatively high level of physical fitness, reduces the negative effects of stress, reduce anxiety, while increase the individual's mood and ability to more effectively tackle the causes of anxiety and feelings of depression (Burnik, Potočnik & Skočić, 2003). For this reason, group activities are recommended. During group sessions, the person is more relaxed, communicating with other people more appropriately fulfils the tasks that are being asked, increases the duration of training and achieves higher results.
2. The important factors are the type, amount and intensity of PA that are dependent on the individual's health, capacity, desires and goals. People with mental or physical impairments, who are able to, should get at least 150 minutes a week of moderate-intensity, or 75 minutes a week of vigorous-intensity aerobic activity, or an equivalent combination of moderate and vigorous-intensity aerobic activity.
3. Individuals with depression tend to be less physically active than non-depressed counterparts. Research evidence however suggests that involvement in aerobic exercise or strength training may reduce depressive symptoms significantly. Vigorous-intensity aerobic activity means you're breathing hard and fast, and your heart rate has gone up quite a bit. If you're working at this level, you won't be able to say more than a few words without pausing for a breath, and you should stop if you feel unwell. Recommended to choose is moderate-intensity. Moderate-intensity aerobic activity means you're working hard enough to raise your heart rate and break a sweat. One way to tell if you're working at a moderate intensity is if you can still talk but you can't sing the words of a song. Examples of activities that require moderate effort for most people include:
    - walking fast
    - doing water aerobics
    - ballroom and line dancing
    - riding a bike on level ground or with a few hills
    - playing double tennis
    - pushing a lawn mower
    - canoeing
    - volleyball.
4. Physical activity can significantly reduce the risk of coronary disease and stroke since training reduces cholesterol which leads to diseases of blood vessels. According to the British Parliamentary Office of Science and Technology, approximately 40 percent of deaths related to coronary heart disease are related to inadequate physical activity, obesity, stress and raised blood pressure. Sports can help with all of these physical issues, decreasing the risk of coronary disease by about 50 percent, (Cohen, 2017). Adults with disabilities should consult their healthcare provider about the amounts and types of physical activity that are appropriate for their abilities.
5. For individuals with mental or physical impairments it is recommended to protect them by using appropriate gear and sports equipment, looking for safe environments, safe place and enough space to do exercises.

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