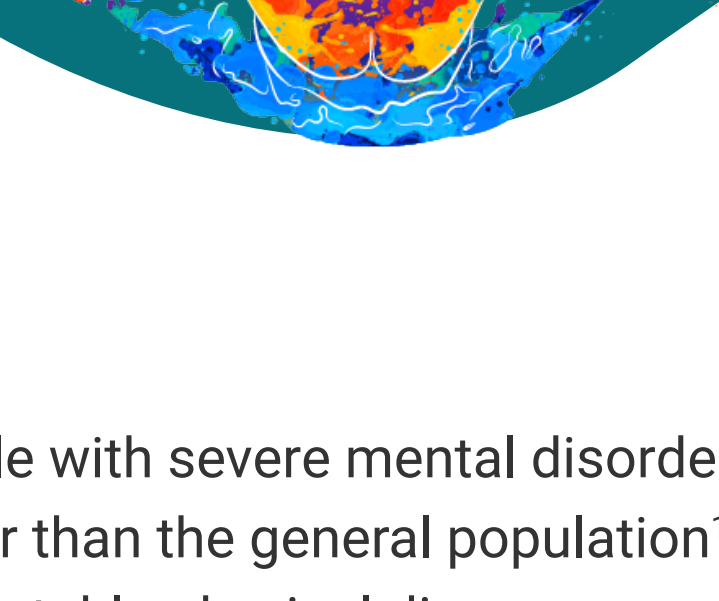


# PHYSICAL ACTIVITY IN PEOPLE WITH SEVERE MENTAL DISORDERS: MYTH OR REALITY?



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People with severe mental disorders die 10 to 20 years earlier than the general population<sup>1</sup>, due primarily to preventable physical diseases, such as cardiovascular disease. Furthermore, unhealthy lifestyle and lack of physical activity are also well-documented in these populations<sup>2</sup>. At the same time, a growing body of research evidence supports the importance of exercise and sport not only for good physical health, but also for mental health<sup>3</sup>. The following four workshops presented at the 31st European Congress of Psychiatry in Paris, France, reviewed and discussed the effectiveness and feasibility of utilising exercise as a therapeutic tool to improve treatment outcomes and promote the individual mental wellbeing of people with severe mental illnesses.

## Index

### 1 The EASMH project – background and rationale to establish sport practices in mental health – Francesca Cirulli

### 2 Role of sport and physical exercise in cognitive performance and stress reduction - Martina Rojnic Kuzman

### 3 Levels of physical activity in patients with severe mental disorders: results from an Italian multicentric study - Gaia Sampogna

### 4 Can football be considered an effective rehabilitative intervention? – Johnathan Garside

#### 1 The EASMH project – background and rationale to establish sport practices in mental health

In the first talk of the afternoon, Francesca Cirulli, PhD, Research Director at the Centre for Behavioural Sciences and Mental Health, Istituto Superiore di Sanità [National Institute of Health], Italy presented the ongoing project “European Alliance for Sport and Mental Health (EASMH)”, which aims to bring together mental health professionals and sport professionals in order to support people with mental disorders.

- Sport can have beneficial effects on both psychological and physical health, two aspects that are severely affected by psychiatric medication, as well as helping to reduce stigma by improving patients’ ability to interact with others.
- The main challenges in offering sports as complimentary treatment in mental health settings are lack of awareness, difficulty of incorporating this activity into routine clinical practice, lack of connection between mental health centres and sport facilities, and the lack of knowledge among sports professionals regarding mental health.
- Survey results showed that although sport-based interventions are offered in multiple European countries, very few offer structured physical exercise, with an overwhelming majority only offering walking (94%)<sup>4</sup>.
- The aims of the EASMH are threefold<sup>5</sup>: 1) increase the skill and expertise of sports instructors, 2) promote the creation of specific training materials, and 3) make qualified sports instructors available in mental health facilities and residential settings. This programme is ongoing: eight sports instructors are currently creating specific training materials based on the training they have received regarding mental disorders.
- Dr. Cirulli encouraged attendees to join a recently-formed permanent working group in which mental health professionals and representatives of the sports sector join forces to discuss and provide training and information regarding the use of sport for mental health and psychiatric rehabilitation.

[BACK](#)

#### 2 Role of sport and physical exercise in cognitive performance and stress reduction

Martina Rojnic Kuzman, M.D., Ph.D., Associate Professor of Medicine at Zagreb School of Medicine and Zagreb University Hospital, Croatia reviewed the role of sport and physical exercise in cognitive performance and stress reduction. The key points raised during her presentation were:

- Research evidence shows there is a positive correlation between sports and physical health (e.g., muscle tone, healthy lifestyle, brain development), psychosocial health (teamwork, peer group) and mental health (coping styles, stress reduction, protection against mental illness)<sup>6–8</sup>.
- There are several hypothesised pathways through which physical activity may influence mental health. For instance, exercise can increase anti-inflammatory indicators, therefore reducing inflammation<sup>9</sup>; it can increase brain-derived neurotrophic factor (BDNF), thus supporting neurogenesis<sup>10</sup>; and it can improve cardiovascular and metabolic functions, such as glucose metabolism.
- Professor Kuzman provided an overview of studies investigating the effects of physical activity on cognition. In short, exercise has been associated with increases in processing speed, executive functions, social cognition and working memory<sup>10–13</sup>.
- Based on these findings, Professor Kuzman reviewed the three ways in which exercise could be used to promote mental health. Firstly, it can be used as part of the general prevention strategy, by offering psychoeducation and promoting a healthy lifestyle in schools and other community settings. Secondly, exercise can be included as an aspect of selective prevention, using motivational interviewing to target at-risk individuals (e.g., those with obesity or behavioural problems or other vulnerable groups). Finally, it can be offered as an add-on treatment for mental health disorders, although there is still a lack of data supporting the effectiveness of these programmes.

[BACK](#)

#### 3 Levels of physical activity in patients with severe mental disorders: results from an Italian multicentric study

Following on from Professor Kuzman’s presentation, Gaia Sampogna, Associate Professor at Luigi Vanvitelli University of Campania presented the results of an Italian multicentre study on physical activity levels in subjects with severe mental illness<sup>14</sup>.

- A systematic review and meta-analysis<sup>12</sup> revealed that people with severe mental disorders have a more sedentary lifestyle than the general population, spending an average of 476 minutes on sedentary behaviour and only 38.4 minutes a day engaged in moderate to intense physical exercise. The World Health Organisation has highlighted that overcoming this gap in physical activity is important for reducing the mortality gap and the comorbidity burden in individuals with severe mental disorders<sup>1</sup>.
- Six university centres around Italy were involved in the multicentric study described below (“Lifestyle project”)<sup>4,5,14,15</sup>. The aim of the study was to develop a new psychosocial intervention focusing on improving lifestyle behaviour in people with severe mental illness.
- Patients were recruited from university hospitals and were assessed using questionnaires, laboratory tests and cardio-metabolic risk assessments. Findings showed that the sample had low physical activity levels and high unhealthy behaviour levels<sup>2</sup>, and that increased anxiety and depression symptoms were associated with lower exercise levels<sup>16</sup>.
- Following these initial assessments, patients were offered psychoeducational interventions on healthy lifestyle<sup>15</sup>, ending each session with physical exercise, mainly walking.
- The results of this intervention show that, after 6 months, participants had achieved significant decreases in their body mass index and body weight and increased exercise levels, suggesting that this is an effective and feasible intervention<sup>5</sup>. As one of the main barriers to physical exercise for people with severe mental illness is a lack of motivation and fatigue<sup>17</sup>, one component of the intervention focussed specifically on motivational interviews in order to promote these aspects.

[BACK](#)

#### 4 Can football be considered an effective rehabilitative intervention?

In the final talk of the workshop, Jonathan Garside, Health and Wellbeing Manager at Everton Football Club, shared the results of a pilot edition of the ‘Imagine Your Goals’ programme, organised jointly by the EASMH, Mersey Care NHS Trust and Everton in the Community, Everton Football Club’s charity organisation<sup>18</sup>. This programme used football as a therapeutic tool to build resilience, self-efficacy, and self-esteem in people with a range of psychiatric disorders.

- 15 adults with a range of psychiatric disorders took part in the programme. The two-hour training sessions were held in the afternoon, twice a week, over a period of 12 weeks and consisted of three parts:
- First half: exploration of and familiarisation with the environment, warm-up, playing the first half of the practice match.
- Half-time: psychoeducational intervention using ‘Team Talk’, in which players can learn social skills by analysing the experiences gained from the first half (successes, failures, teamwork). This talk was delivered by either coaches or clinicians.
- Second half: implementation of what was discussed at half-time during the second half of the practice match, followed by de-briefing and cool-down.
- Supporting participants’ self-actualisation<sup>19</sup> was identified as the main goal. To achieve this, the coaches used empathy as the foundation on which to build rapport, influence, and ultimately, behavioural changes.
- The results showed an improvement in physical exercise levels (64%). In addition, there were significant improvements in mental wellbeing as rated by the Warwick Edinburgh Mental Wellbeing Scale for the items “I’ve been feeling optimistic about the future” (38.4%) and “I’ve been interested in new things” (42.8%).
- Mr. Garside went on to list the challenges encountered during the pilot project. These included a lack of understanding amongst coaches of the effects of medication (drowsiness, lethargy) and the need to adjust the timing of the sessions accordingly (moving sessions from the morning to the afternoon); stigma; transportation difficulties (offering a travel scheme and travel buddy system); and initial service user apprehension and anxiety, which was resolved by personally visiting participants with a mental health professional to provide a more complete understanding of the programme.
- Mr. Garside concluded his presentation by reflecting on some of the lessons learnt from the programme. He highlighted the role of brand power and discussed how people who are reluctant to engage with medical interventions may be more willing to engage with community-based interventions. He also discussed the importance of partnership work and the recruitment of staff with personal experience who can genuinely relate to participants.

[BACK](#)

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