Sport and Psychiatry

Why exercising is good for your mental health but being an athlete isn’t
What is Sport & Exercise medicine (SEM)?

• Sport medicine
  – Specialist treatment for medical problems related to sport

• Exercise medicine
  – Sport/exercise as an intervention to improve health outcomes
How inactive are we?

International comparison of physical inactivity (at ages 15 and over)

Note: Comparator = Not meeting any of the following per week: (a) 5 x 30 mins moderate-intensity activity; (b) 3 x 20 mins vigorous-intensity activity; (c) equivalent combination achieving 600 metabolic equivalent-min.

Exercise medicine: Sport/exercise as an intervention

• Mild subclinical disorders
• Common mental illness
  – Depression, anxiety
• More severe mental illness
  – Chronic psychosis (‘SMI’)

Mild subclinical disorders

• Self evident but hard to prove
  – Anxiety
  – Depression
  – Self esteem
  – Cognitive function

• Anti-exercise
  – Screen-time and poorer mental health
Exercise Intervention – mode of action

- Psychological
  - Self esteem
  - Mastery
  - Mindful

- Social
  - Confidence
  - Social skills
  - Networks and support

- Biological
  - Endorphins
  - Stress hormone regulation
  - Cytokines
  - BDNF and neuroplasticity
Common mental illness

Effect Size (ES) in MDD

All studies = 1.14

Adjusted for publication bias = 1.11

High quality studies only = 0.88

Nice threshold = 0.70

Std diff in means = standardized differences in means, CI = Confidence Interval

Schuch et al, 2016
What we don’t know

- How much?
- What type?
- What intensity?
- Who with?
Metabolic syndrome & severe mental illness – where might sport help?

• Lethal association

• Contributed to by
  – Genetics
  – Inflammatory molecules
  – Hypothalamic-pituitary adrenal axis abnormalities
  – Drug effects on sedation and metabolism
  – Lifestyle
Sport & Social Inclusion

• Socialisation
  – Informal
  – Co-operation in team games

• Confidence

• Self-management skills

• Peer support

• ‘Normalised’ interactions
# Mental health problems in sports

<table>
<thead>
<tr>
<th></th>
<th>General population</th>
<th>Sports</th>
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</thead>
<tbody>
<tr>
<td>Depression</td>
<td>2% of adults</td>
<td>About the same or higher</td>
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<tr>
<td></td>
<td></td>
<td>Lower in school athletes</td>
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<tr>
<td>Bipolar Disorder</td>
<td>0.5% of adults</td>
<td>Unknown</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>0.5% of adults</td>
<td>Lower</td>
</tr>
<tr>
<td>ADHD (adolescents)</td>
<td>3.6% for boys</td>
<td>A bit higher</td>
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<td></td>
<td>0.9% for girls</td>
<td></td>
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<tr>
<td>Eating disorders – anorexia and bulimia nervosa</td>
<td>5%</td>
<td>13.5% overall</td>
</tr>
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<td></td>
<td>Higher still in lean sports</td>
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<tr>
<td>Substance misuse</td>
<td>Don’t forget PEDs</td>
<td>Different pattern. Binges, PEDs, cannabis</td>
</tr>
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Psychiatric disorders and sport

• Athletes attain high levels of success in spite of a co-existing primary psychiatric disorder

• Athletes chose the athletic arena as a means of coping with disorder

• Athletes have a psychiatric illness precipitated or exacerbated by sport

Baum, 2003
Risks within sport

• Stigma and denial
  – Weakness to discuss or acknowledge emotions
  – Taking good mental health for granted

• Exercise may be protective
  – But wealth and fame are not
  – Athletes don’t exercise for health reasons
Risks within sport

• Injuries

• Transitions
  – Retirement
  – De-selection
Risks within sport

• Lifestyle
  – Esp. travel and sleep disturbance
• Emotional support only provided when not needed
• Mental skills manage and suppress emotions
  – and can be misinterpreted
Risks within sport

• Perfectionism
  – High standards
  – Self criticism

• Success is not a treatment
Fatigue syndromes in sport and depression

- High training load and psychosocial stressors
  - Fatigue syndrome is more likely
- Fatigue syndromes a risk factor for depression

- Diagnosis depends on diagnostician
  - Mainstream medicine diagnoses depression
  - Sports medicine diagnoses fatigue syndrome (OTS/UPS)

Kuipers, 1998; Markser, 2011; Schwenk, 2000
Eating disorder spectrum

Normal eating  ‘Athletic’ eating  Disordered eating  Atypical/EDNOS  Eating disorder

Sports specific syndromes
Risks

• Within sport
  – Early specialisation
  – Comments from coaches
  – Losing weight to improve
  – Losing weight > getting better then worse
  – Revealing clothing
  – Identification difficulties

• Within the athlete – personality traits
  – Driven & determined
  – Obedient/compliant
Child protection in sport

• Emotional abuse
  – E.g. selection threats
• Subtle violence
  – E.g. forced physical exertion
• Pressure to compete if injured
• Doping
• Age cheating
• Medical mismanagement
  – Painkillers
  – Insufficient medical cover
  – Making weight
SEPSIG

http://www.rcpsych.ac.uk/workinpsychiatry/specialinterestgroups/sportandexercise.aspx

https://sportandexercisepsychiatry.co.uk/
Sports Psychiatry


References


