Physical activity and musculoskeletal health

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Exercise is key to living with arthritis

- My experience
- What challenges do people with musculoskeletal conditions face in exercising?
- What training and information do staff at leisure facilities need to support people with musculoskeletal conditions to exercise?
- Advice for others
Musculoskeletal health

Recognising the impact

• Musculoskeletal conditions are the largest contributor to the burden of disability in the UK, and accounted for 30.5% of years lost due to disability in 2010.

• Musculoskeletal conditions account for the third largest area of NHS spending, with a programme budget of £4.7 billion in 2013/14.

• Only 59.4% of people of working age with a musculoskeletal condition are in work.

• Nearly three-quarters of people with osteoarthritis report constant pain, with one in eight describing the pain they experience as ‘often unbearable’

The pain and disability musculoskeletal conditions cause can limit independence and the ability to participate across many aspects of family, social and working life.
Musculoskeletal health

Benefits of physical activity

• Women aged 73-78 who exercised regularly were around 20% less likely to report being diagnosed with arthritis over a six year period.

• Walking >6,000 steps/day provides appear to be the level of walking activity to protect against developing functional limitation in people with or at risk of knee OA.

• Women (mean age 59) who were physically active (walking, bicycling, using stairs, and gardening) were about a third less likely to need a hip replacement over an 11 year period.

• Physically active older people are around a third less likely to have impaired walking or their daily living activities restricted.

Heesch KC. J Epidemiol Community Health. 2008;62:1086-1091
Commissioning physical activity provision for people with musculoskeletal conditions

Underpinned by support for behaviour change

Tier 1: Accessible community facilities
- e.g. Parks, cycle paths, outdoor gyms, swimming pools, leisure facilities

Tier 2: Supervised physical activity
- e.g. Walking clubs, aqua aerobics, dance clubs, Tai Chi groups

Tier 3: Structured community rehabilitation programmes
- e.g. ESCAPE-pain

Tier 4: Individualised support

Physical activity interventions proceed alongside appropriate medical interventions, including medication and surgery where clinically indicated

Continuum of appropriate level of MSK knowledge and skill

Self-directed

Trained peers, fitness professional

Fitness professional, physiotherapist

Physiotherapist, sports and exercise medicine

Person characteristics
People’s needs vary over time, depending on severity of MSK condition, degree of comorbidity, personal preferences and motivation

Local authority commissions

CCG commissions
A group rehabilitation programme for chronic hip or knee pain, integrating:

 ✓ **Patient information**  
 *Tailored advice on their condition, self-management, pain coping strategies, weight control;* 

 ✓ **Personalised Exercise regimen**  
 *Individualised, progressive, challenging*

- 10 -12 sessions
- Supervised by physiotherapist, fitness instructor
- Clinically and cost-effective
- Requires a large room and simple equipment

Research evidence shows that ESCAPE-pain:

- Reduces pain
- Improves physical function
- Improves mental wellbeing
- Reduces healthcare and utilisation costs (estimated annual saving of £1,417 per person)
- Creates benefits that can be sustained for up to 30 months after the end of the programme

*Endorsed by the National Institute for Health and Care Excellence, British Society of Rheumatology and Royal Society of Public Health.*
A life course approach

"Those who think they have no time for bodily exercise will sooner or later have to find time for illness." Edward Stanley (1826-1893)"

healthy ageing

feeding  language  activity  adequate nutrition  frailty  functional support  care
Everybody needs to be more active every day

33% of men and 45% of women do not reach CMO recommendations for physical activity (HSE)

18% of disabled adults regularly take part in sport compared to 39% of non-disabled adults (APS)

23% of girls aged 5-7 meet the recommended levels of daily physical activity, by ages 13-15 only 8% do (HSE)

19% of men and 26% of women are ‘physically inactive’ (HSE)

21% of boys and 16% of girls aged 5-15 meet the CMO recommendations for activity for children

But...

47% of boys and 49% of girls in the lowest economic group are ‘inactive’ compared to 26% of boys and 35% of girls in the highest (HSE)
A Public Health Approach: Reducing the risk of Physical Activity

- PA NICE Guidance:
- Strengthening Bones & Muscles
- Improving balance and dexterity
- Improving Functionality
- Improving Mental wellbeing
- Self Management - Education
- Peer Support
- Assisted PA Programmes
- Community Led: ABC Model
Inequalities: closing the gap

Across socioeconomic & most equality characteristics, e.g.:

• *Geography* – People living in least prosperous areas twice as likely to be physically inactive

• *Age* – By 75 years, only 1 in 10 men and 1 in 20 women are sufficiently active for good health

• *Disability* – Disabled people are half as likely to be active

• *Race* – Only 11% / 26% Bangladeshi women and men sufficiently active for good health
Moving at scale – Making us active every day

• Positive change must happen at every level and must be measurable, permanent and consistent

• Implement ‘what works’ at scale (e.g. NICE guidance)

• Maximise existing assets:
  o People
  o Leisure facilities
  o Parks
  o Community spaces
  o Workspaces and workplaces
Musculoskeletal health in Greenwich

<table>
<thead>
<tr>
<th>Joint affected by OA</th>
<th>Total number of people</th>
<th>Percentage *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hip</td>
<td>8936</td>
<td>11.06%</td>
</tr>
<tr>
<td>Knee</td>
<td>14751</td>
<td>28.26%</td>
</tr>
</tbody>
</table>

- 72% of people with Hip OA are overweight or obese
- 76% of people with Knee OA are overweight or obese
- 45% of people with hip or knee OA are sedentary
- 20% of primary care workload

Arthritis Research UK MSK calculator
What are we proposing?

- Set up ‘Managing Your Joint Pain’ clinics
- Referral routes
- Hip, knee and back pain
- 4 appointments over 6 months
- Collect clinical outcome data
- Focus on physical activity and self-management
- Sign post to local partners including Healthwise and Active for Health
The Model

Referral
Self
Primary care
GHLL
Health Check
NDPP
Vol sector

Assessment face to face
45 minutes
MI and clinical outcomes

3 week Telephone
30 minutes
MI, waist circumference and days active

6 week face to face
45 minutes
MI and re-measure clinical outcomes

6 month face to face
30 minutes
Review goals
Re-measure clinical outcomes
Signpost to further opportunities

Referral and recommendation to PA opportunities
Take home messages

- Physical activity is a key public health intervention for people with musculoskeletal conditions.
- A cross-planning approach is required to use existing resources and assets more effectively.
- Existing programmes can be used to embed musculoskeletal health across the public health system.
Questions?