

Yoga for People with Intellectual Disability: Reflections on a Pilot Intervention to Improve Physical Health on an Inpatient Ward

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Background

People with intellectual disability (ID) have poorer physical health outcomes than those without intellectual disability; there is higher prevalence of obesity, constipation and diabetes in this group of the population, and consistent evidence of premature mortality.^{1,2,3,4} People with severe mental illness are also more likely to be obese², and are at especially high risk of poor physical health due to side effects of psychotropic medication.

NICE Guidelines recommend an increase in physical activity and change to diet as treatment of choice for the management of obesity⁵. Supported self-management, and empowering people with skills and confidence to take an active role in their care, is included as part of the NHS Long-Term Plan. People with ID are less likely to be engaged in regular physical exercise compared to the general population⁶.

Yoga is a physical practice that serves as a form of exercise. 'Hatha yoga' involves low-impact stretching; a person weighing 84kg is estimated to 'burn' approximately 178 calories in a 30 minute session⁷. Yoga is also popular in the general population to aid relaxation & sleep.

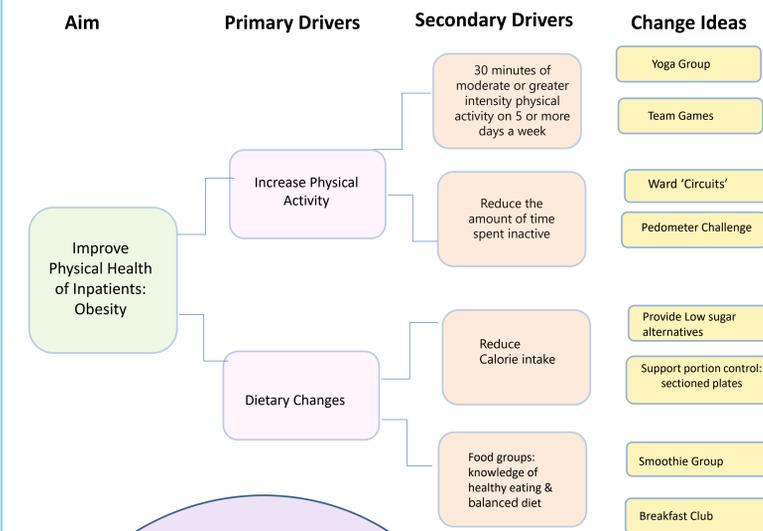
Aims

The aim of this pilot study was to implement a physical activity intervention on a **low-secure ward for males** with intellectual disability, in the form of an outdoor yoga class.

Further objectives:

- ☐ Consider the 'usefulness' of delivering the intervention regularly based on
 - the evidence supporting a need for this intervention in this group
 - the experiences of participants
 - the feedback of the multi-disciplinary team (MDT) & reflections of group organiser
- ☐ Consider the feasibility of delivering the intervention regularly based on
 - barriers encountered in the PDSA cycle &
 - MDT & participant feedback
- ☐ Consider what outcomes might be measured for participants in the group

Driver Diagram:



Results:

9 of the 13 inpatients engage in less than 30 minutes of activity a week. Patients did not regularly use 'fresh air breaks'.

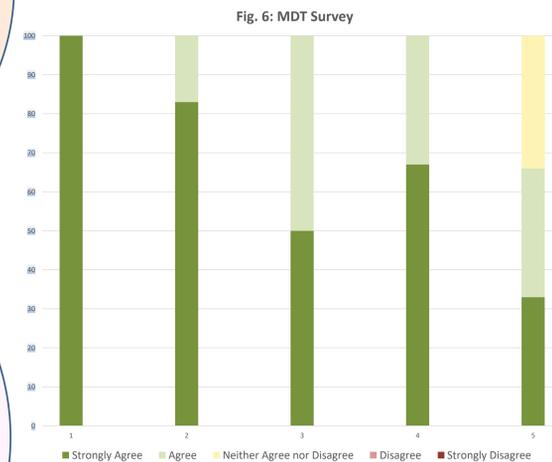
Qualitative Themes included 'perception of yoga', and 'reasons for enjoyment of the session'. Participants reported high satisfaction with the session but disappointment in the short duration. Persons who did not attend the yoga group were approached to explore barriers in participation. These responses were more limited, but included subject's perception that they were not physically able to participate due to age or level of fitness.

Results: Written Feedback from MDT

- "There's a growing evidence base for use of yoga in trauma. Lots of our patients have experienced trauma and victimisation"
- "The patients really enjoy the yoga sessions & seem really calm after. They also report it helps them feel relaxed"
- "A mix of activities is good for the various interests and different exercise types for the patients"

MDT Feedback: Survey

- Q1. I feel yoga may be beneficial for improving physical health outcomes
- Q2. I feel yoga may be beneficial for improving mental health outcomes such as feelings of low mood and/or anxiety
- Q3. I feel yoga may be beneficial in improving Sleep pattern/duration
- Q4. I feel yoga may be beneficial in improving social/behavioural outcomes
- Q5. I feel yoga might be more beneficial, or more advantageous, than another physical intervention in this patient group



Discussion: Challenges

- Site security restrictions & timetabling of activity
- Infection control measures during Covid-19
- Availability of resources: nursing staff & yoga mats
- Enhanced risk observations may be required depending on the participants & teacher

Discussion: Next Steps

- Acting on patient feedback, longer sessions have been booked for the next round of the PDSA cycle.
- A motivational interviewing approach may be useful given that service users show different stages of 'readiness to change'.
- Develop a larger project around physical activity and diet intervention. will include joint-working with Occupational Therapy, Sports team & Clinical Director.
- Evaluate the impact of the intervention: future outcomes to measure may include BMI, waist circumference, resting heart rate, Hba1c.

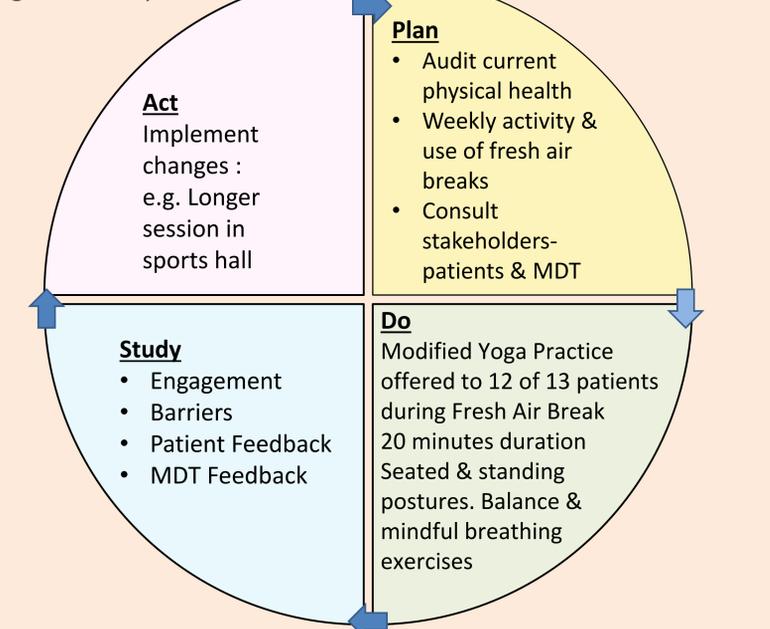
Key Points:

- Obesity is common in people with ID & severe mental illness.
- Yoga is a low-impact activity that may be especially suitable for persons with ID & physical health problems.
- Participants in a yoga group for male adults with ID & mental illness reported high satisfaction with the intervention. Engagement was better than expected.
- MDT members feel the intervention is beneficial for patients and do not report any concerns.
- Results of this small pilot suggest further work in this area has scope to improve quality of life for inpatients

Methods (Fig. 1 First PDSA Cycle)

The pilot served as a 'first round' of a PDSA cycle:

Fig. 1 PDSA Cycle



Current Physical Health of Inpatients

Fig. 3. Smoking Status

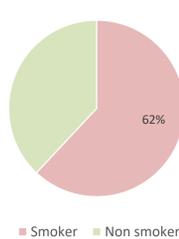


Fig. 4. BMI (before Intervention)

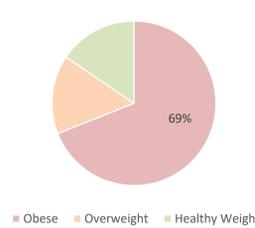
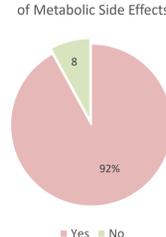


Fig.5. Prescribed Psychotropic Medication with Risk of Metabolic Side Effects?



13 current inpatients:

- 3 patients have Type 2 Diabetes Mellitus.
- The BMI of 9 patients is in the obese range (fig 3): only 2 patients (15%) have a healthy weight. The average BMI is 32.1. All but one of the patients are prescribed a psychotropic medication with metabolic side effects (fig.4).
- 8 of 13 inpatients (62%) are smokers (fig 5).

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