

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



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Overview

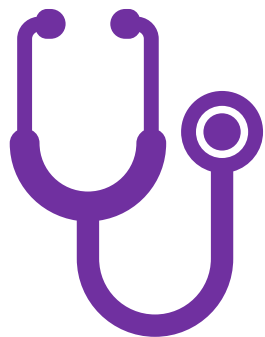
- Background
- Aims
- Methods
- Results
- Challenges & Successes
- Limitations
- Next Steps





Background

- Personal motivation
- ID: Obesity, constipation and diabetes, premature mortality^{1,2,3,4}
- People with severe mental illness: more likely to be obese²
- Management of obesity⁵
- Regular exercise less likely in ID⁶
- Patient Activation: supported self-management⁷





Physical Activity



- Weight loss: Cardiovascular risk, exercise tolerance, asthma management, reflux, apnoea, mood



- ‘Hatha yoga’ Low-impact stretching
- 84kg person expends approx. 178 calories in a 30 minute session⁸



Yoga: “The Wonder Drug”?



- Has become popular in general population: physical activity & relaxation
- NICE Back pain recommendation



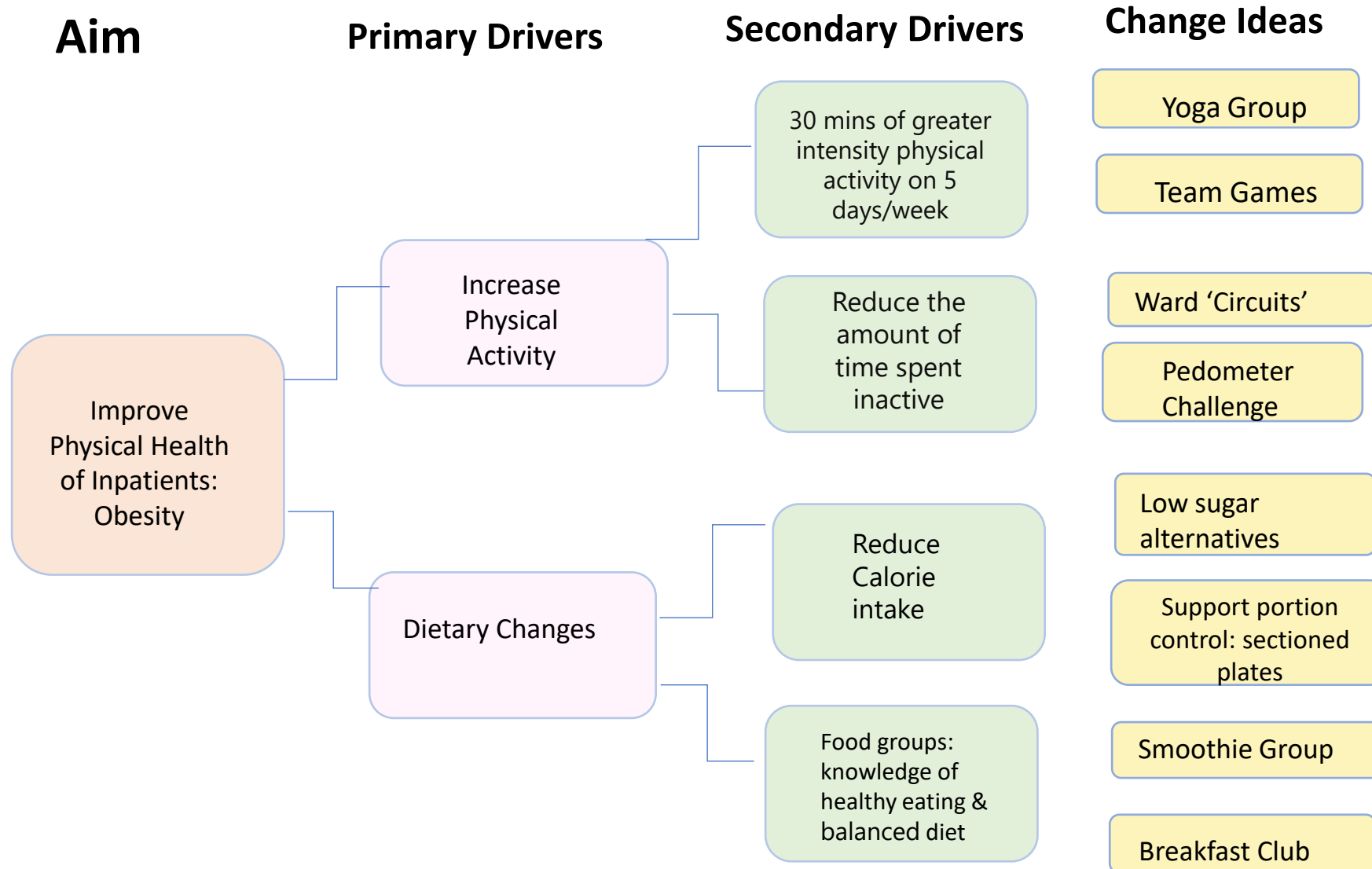
- Mood & Anxiety: impact on behaviour
- Insomnia: relaxation + exercise + daylight



- Social Connection



Aim: “Improve Physical Health”: Obesity





Aim & Objectives

Pilot: Implement physical activity intervention on a **low-secure ward for males** with ID, in the form of an outdoor yoga class

Further objectives:

- Consider 'usefulness' of delivering the intervention regularly based on
 - evidence supporting a need for intervention in this group
 - experiences of participants
 - feedback of the multi-disciplinary team (MDT) & reflections of group organiser

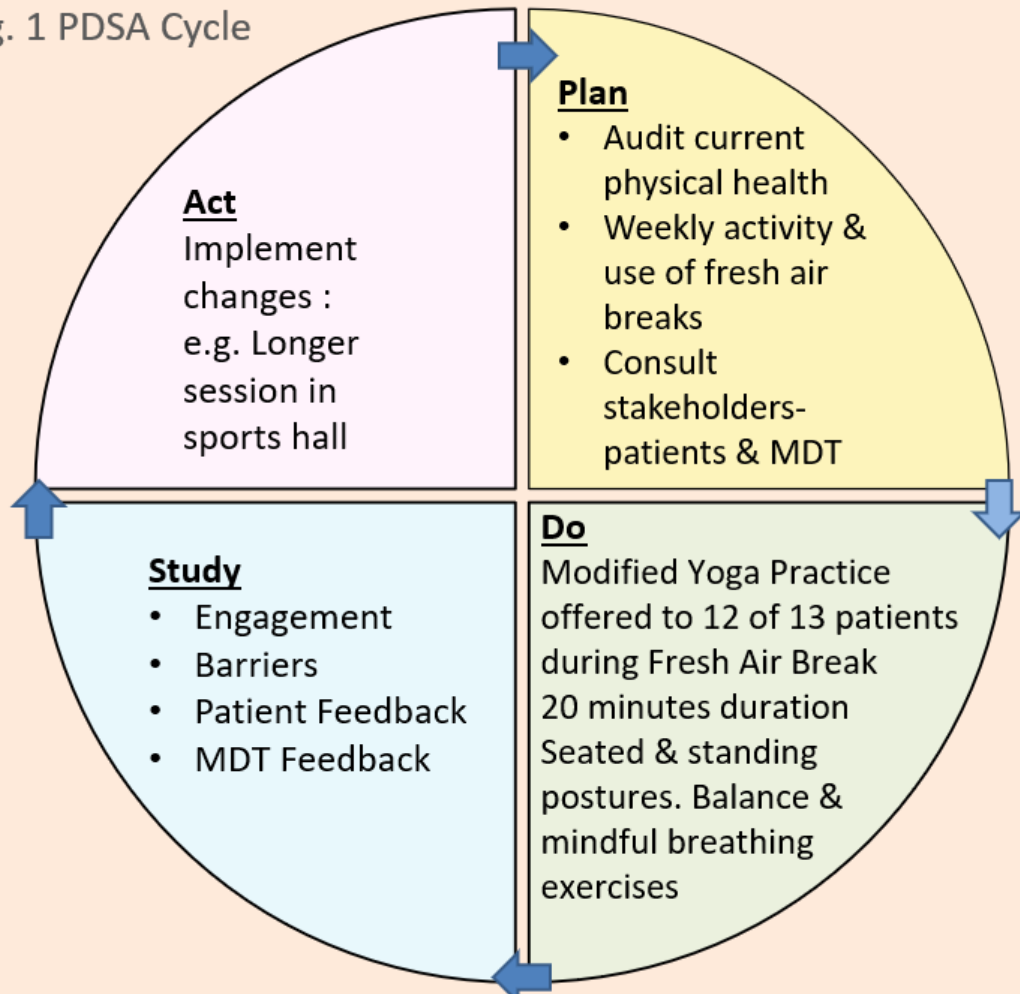
- Consider feasibility of delivering the intervention regularly based on
 - barriers encountered in the PDSA cycle &
 - MDT & participant feedback

- Consider what outcomes might be measured



Methods

Fig. 1 PDSA Cycle



Do: Simplified sequence of sitting and standing postures & mindful breathing. 4 weekly sessions of 20 minutes during fresh air break.

Study: Post-intervention:

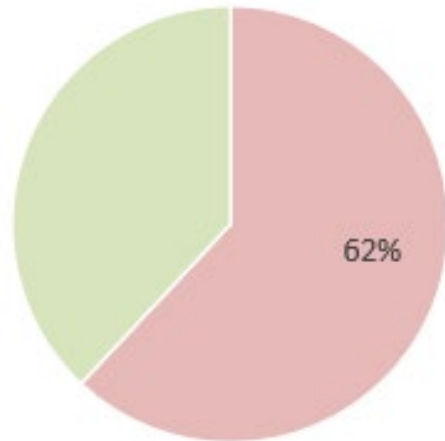
- MDT feedback
- Participant Semi-structured interviews, non-leading questions
 - “What do you like or dislike about yoga?”
 - “How does yoga make you feel?”
 - “What would you like to change about the sessions?”



Results (1): Audit

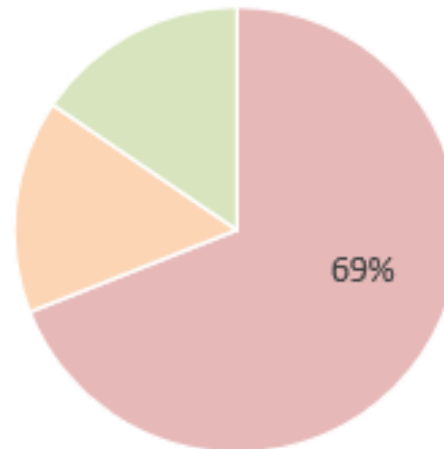
13 current inpatients

Smoking Status



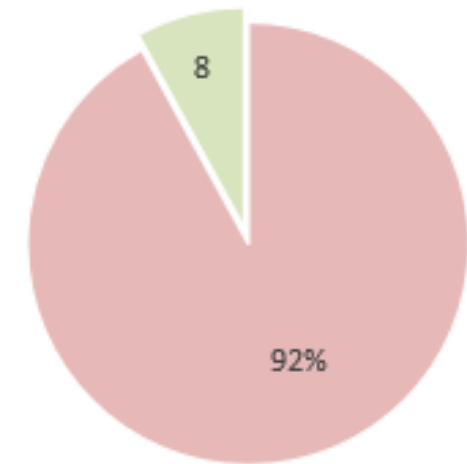
Smoker Non smoker

BMI at baseline



Obese Overweight Healthy Weight

Psychotropic Medication with metabolic side effects?



Yes No

- 3 patients have Type 2 Diabetes Mellitus.
- Only 2 patients (15%) have a healthy weight. Average BMI is 32.1.
- 12 patients are prescribed a psychotropic medication with metabolic side effects
- **Review of use of fresh air breaks over 2 months (100 breaks) & weekly activity. All patients classed as 'inactive'. Used 0-23 out of 100 breaks.**



Results (2): Patient Interviews





Results (3): MDT Feedback

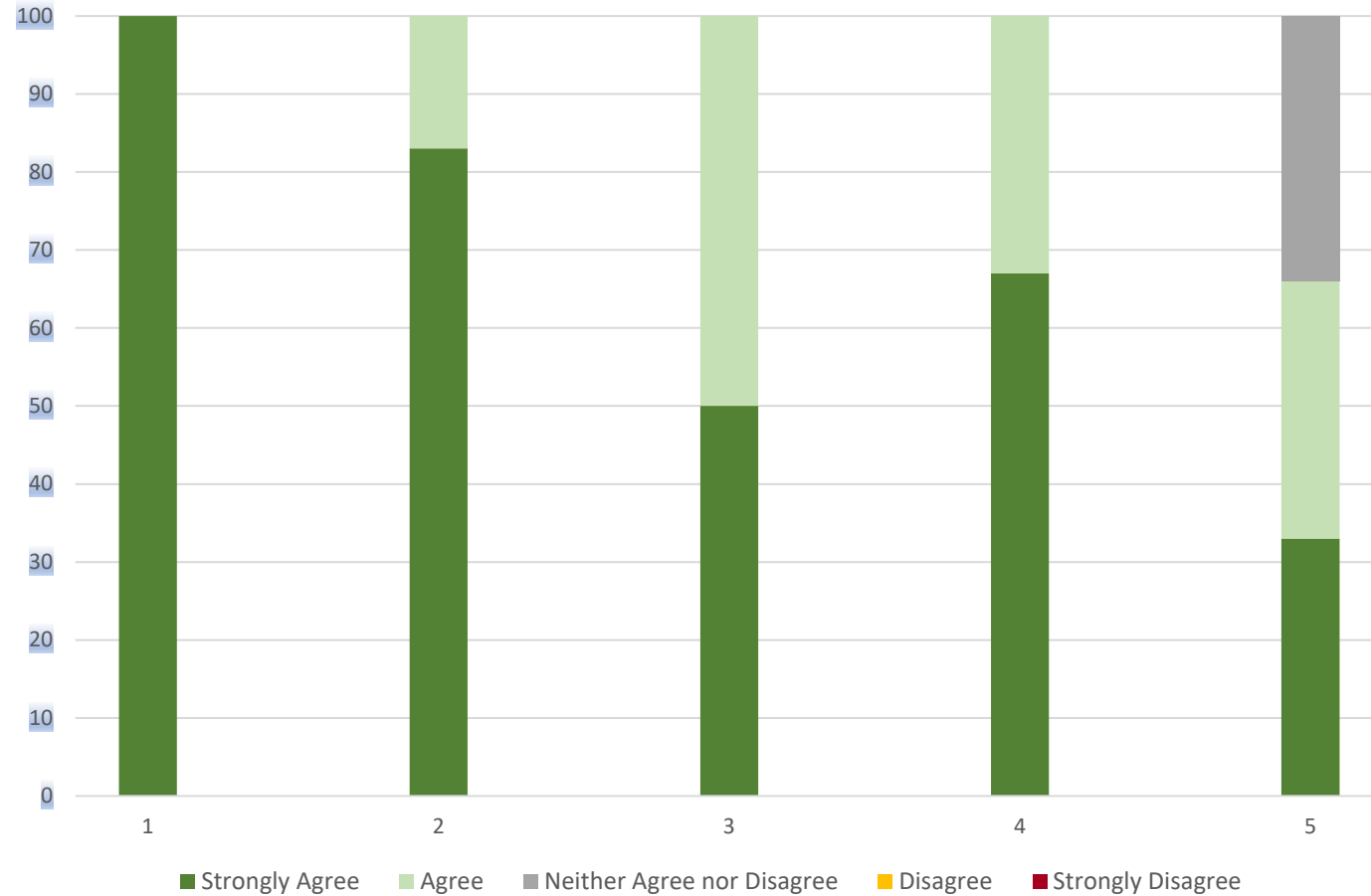
Q1. I feel yoga may be beneficial for improving physical health outcomes

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





Successes

- Good patient feedback
- Increase in physical activity
- Good MDT feedback

- “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”



Challenges: Hip-Hop & Datixes



- Practical challenges running the group
- Infection control measures during Covid-19
- Site security restrictions & timetabling of activity
- Availability of resources: nursing staff & yoga mats
- Enhanced risk observations may be required depending on the participants & teacher
- Complex patient-staff dynamic
- Limitations of Project



Next Steps

- Set SMART goals & target strategies around stages of 'readiness to change'
- Sustainability of project: have liaised with OT
- Develop a larger project around physical activity & diet intervention: joint-working with service users, full MDT, Sports team, Clinical Director
- Evaluate the long-term impact of the intervention: future outcomes to measure may include BMI, waist circumference, resting heart rate, Hba1c.
- Use of Patient Activation Measure (PAM) questions
- Outpatient Project in Community ID Team?

STAGE	CHARACTERISTICS	STRATEGIES
Precontemplation	The person is not even considering changing. They may be "in denial" about their health problem, or not consider it serious. They may have tried unsuccessfully to change so many times that they have given up.	Educate on risks versus benefits and positive outcomes related to change
Contemplation	The person is ambivalent about changing. During this stage, the person weighs benefits versus costs or barriers (e.g., time, expense, bother, fear).	Identify barriers and misconceptions Address concerns Identify support systems
Preparation	The person is prepared to experiment with small changes.	Develop realistic goals and timeline for change Provide positive reinforcement
Action	The person takes definitive action to change behavior.	Provide positive reinforcement
Maintenance and Relapse Prevention	The person strives to maintain the new behavior over the long term.	Provide encouragement and support

Source: Zimmerman et al., 2000; Tabor and Lopez, 2004

<http://adultmeducation.com/FacilitatingBehaviorChange.html>

Summary: Learning Points

- Obesity is common in people with ID & severe mental illness.
- Yoga 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



References

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8. <https://www.health.harvard.edu/diet-and-weight-loss/calories-burned-in-30-minutes-of-leisure-and-routine-activities>
9. <http://adultmeducation.com/FacilitatingBehaviorChange.html>

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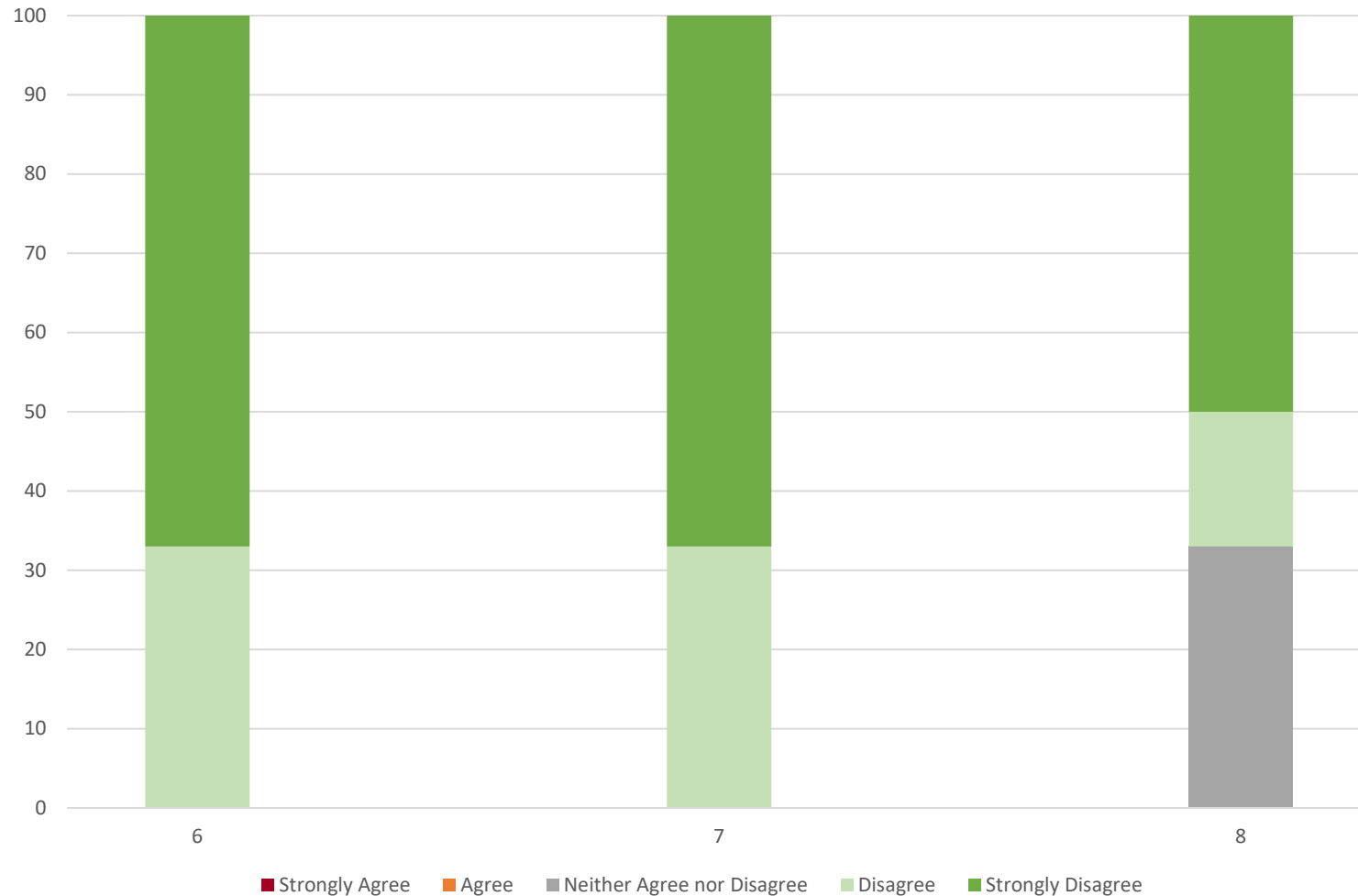
Questions

Appendix

- Yoga evidence: calorie expenditure is well-established, evidence around increased movement being beneficial for health is not in question
- NICE recommends yoga for back pain. Strong evidence long & short term:
https://journals.lww.com/clinicalpain/Abstract/2013/05000/A_Systematic_Review_and_Meta_analysis_of_Yoga_for.10.aspx
- Depression & exercise: numerous studies
- Depression & Yoga: <https://bjsm.bmj.com/content/early/2020/04/05/bjsports-2019-101242>
- Evidence for benefits of yoga for anxiety, sleep is less robust: quality of study designs is variable e.g. Anxiety
<https://pubmed.ncbi.nlm.nih.gov/29697885/>
- Low risk, no adverse side effects
- <https://www.cochrane.org/news/cochrane-library-special-collection-yoga-improving-health-and-well-being>
- Governments have widely endorsed strategies such as 5 ways of wellbeing, advice on Every Mind Matters website: 'Move, Take Notice, Connect, Learn'. Yoga potentially covers several domains of wellbeing.
- Yoga4Health study: nb has not involved Mental Health or ID population. Have done training and will liaise with them about this. Useful study because it looks at previously unfit groups
- https://westminsterresearch.westminster.ac.uk/download/412de393323618968f8d383a628d5e1521c2ae38eb3ba9e717015ca12c4c96c9/728208/Yoga4Health%20UoW%20report%20with%20ROI_final_.pdf
- For our patient group: low impact, adaptable, accessible, sensory benefits? Mindfulness of the body.

MDT Feedback (2)

MDT Feedback: Concerns and/or Barriers



Q6. "I am concerned about the risks and/or side effects of offering yoga to this patient group"

Q7. "I do NOT feel yoga is suitable and/or useful for this patient group"

Q8. "I do NOT feel it is feasible to continue, or I feel there are many barriers to providing yoga sessions to this patient group"

Relevant Guidelines/Reports

- NHS Long-term plan: Patient Activation

<https://www.england.nhs.uk/personalisedcare/supported-self-management/patient-activation/>

- Make every contact count + NHS workforce as role models:

<https://www.gov.uk/government/publications/nhs-future-forum-recommendations-to-government-second-phase>

Outpatient Yoga Ideas

- Active role in empowering patients to improve their health and **active role in managing metabolic side effects**
- Service users could contribute nominal amount e.g. £4 includes mat hire (London classes at a studio usually at least £10/session and cost of yoga is a barrier for any member of the population)
- Use of Trust/Council rooms offers a saving- instructor hire
- LD Physio or LD sports teachers are ideal: could be a Movement Group rather than formal yoga: any activity is helpful if outcomes are BMI. E.g. Chair aerobics.
- Benefit of yoga: breathing exercises
- More experienced yoga teacher- ideally yoga therapist- needed for Yoga with Serious mental illness and Yoga with LD
- Accessible: no need to use Sanskrit terminology or chanting