



EQUALLYWELL

2023 Symposium

Thank you to our wonderful sponsors.



Australian Government
**Department of Health
and Aged Care**



**Queensland
Government**



**Queensland
Mental Health
Commission**

Supported by the



Australian Government
National Mental Health Commission



wellways



www.equallywell.org.au

Exercise intervention and service improvement to improve physical health outcomes of people with mental illnesses

Dr Justin Chapman

Recommendation 2:

Behavioural lifestyle interventions should be considered for all people with severe mental disorders and diabetes mellitus. These interventions should be appropriate and tailored to the needs of this population.

(Strength of recommendation: Strong; Quality of evidence: Very low).

Exercise and nutrition interventions are recommended; however, quality of evidence is low..... *More high quality RCTs into lifestyle interventions for people with SMI and systematic reviews needed to inform policy.*

Implementation considerations

1. Individual-focused, **person-centred strategies** to improve screening and intervention on physical health risk factors.
2. **Health systems strategies** to improve integration, collaborative care, workforce capacity, information processes, and leadership and governance.

Management of physical health conditions in adults with severe mental disorders

WHO GUIDELINES

Exercise and healthy diet can:

- ↑ Health and wellbeing
- ↑ Quality of life
- ↑ Cognition
- ↓ Disease risk
- ↓ Depression
- ↓ Anxiety
- ↓ Psychotic disorders

People with mental illness have:

- ↓ Physical activity
- ↑ Sedentary behaviour
- ↓ Fitness
- ↓ Diet quality: ↑ *proinflammatory foods*, ↓ *intake of fibre, vegetables, fruit, vitamins and minerals.*



People with mental illness want support:

- Good adherence to exercise and nutrition programs
- Numerous barriers hinder maintenance of healthy lifestyle

Research translation



- *Began as 8-week programs* delivered by personal trainers and chefs.
- *Progressed to Allied Health* (exercise physiologists and dietitians) with subsequent funding.
- *Diverse funding support:* Government funding (PiR, QMHC, PHNs), Research grants (Metro South), Philanthropic (RL Cooper), NDIS.
- *Award winning:* Two awards at 2018 Open Minds Mental Health Week Achievement Awards and 2020 Aus Rotary Health Impact award.
- Informed MSAMHS physical health clinic design.
- Is now a service model in partnership with Hospital Health Services and community organisations (Cairns & Hinterland HHS, MIND Aus., Neami National).
- **Commissioned by NQPHN 218-2025 (>\$1M of investment).**

Motivation and physical activity

Median attendance

All participants
63% (IQR=25% to 75%)

'Completers' only
75% (IQR= 50% to 88%)

Attendance to gym outside supervised sessions was low

Motivation which is more *self-determined* is related to longer term maintenance of physical activity.



Intrinsic
Integrated
Identified
Introjected
External

Few studies have investigated the impact of such interventions on self-determined motivation.

Physically active one way or another

Group 1: Supervised exercise + gym membership



Group 2: Motivational coaching + Fitness tracker

Chapman J., Suetani S., Siskind D., Kisely S., Breakspear M., Byrne J., Patterson, S. 2018. *Protocol for a randomised controlled trial of interventions to promote adoption and maintenance of physical activity in adults with mental illness.* BMJ open.

Week 5: Barriers and Enablers



Our physical activity motivators and barriers are always competing. When our motivation is strong, we do physical activity. When our barriers are stronger, we don't do activity.

An **enabler** can tip the scales in your favour. Enablers make it easier to do physical activity by reducing barriers. Enablers can be strategies (e.g. get your exercise clothes ready the day before), a peer (exercise buddy), support (group, Brainstorm some enablers – think with your internal and external barriers)

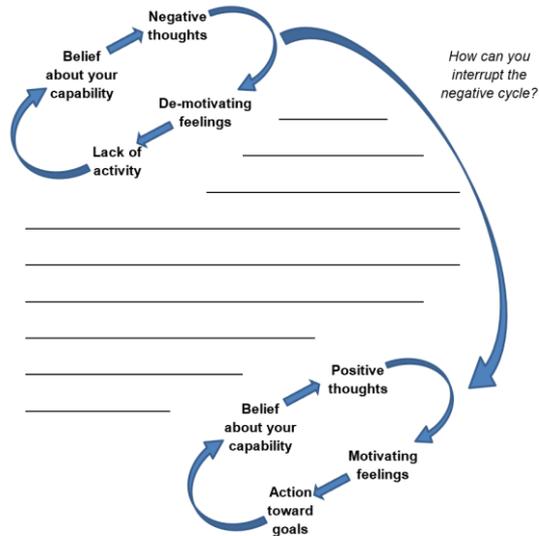


Week 3: When and how

Daily activities are done in different domains:



Thinking of an average day, record how much time you spend in each domain, and *what* you typically do (it doesn't have to be physical activity, just record what you typically do).



Leisure

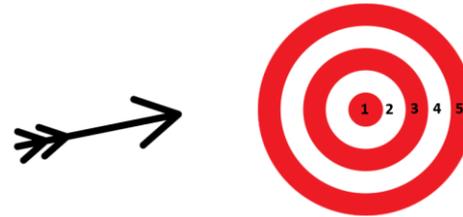
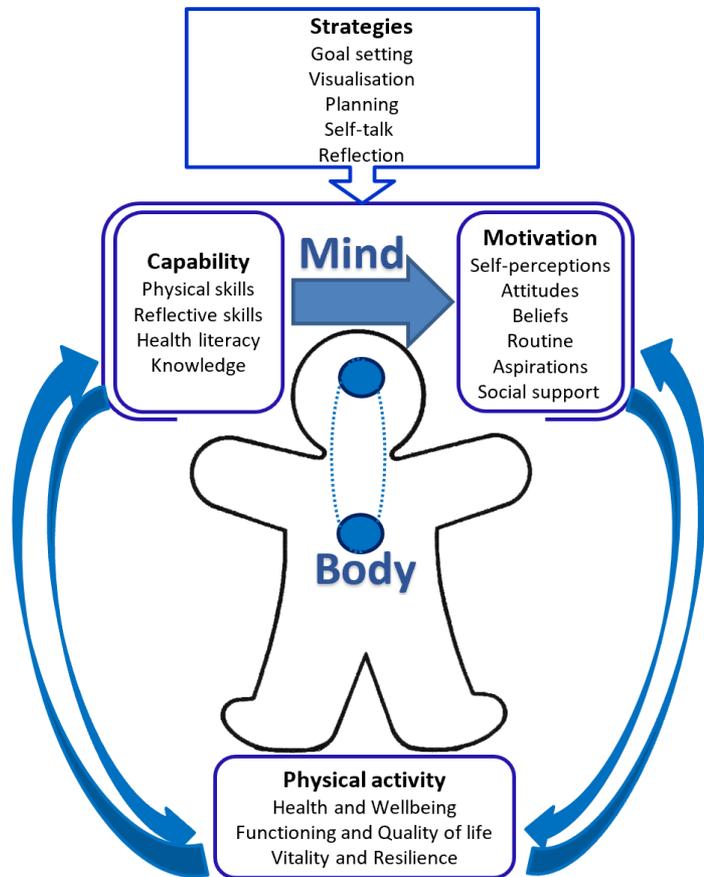
(anything you do in spare time)

Incidental

(Shopping, cleaning, gardening, child-minding, appointments etc)

Transport

(bus, train, driving, walking, cycling)



Will you set different goals than in Week 1, or similar?

		My own SMART goals
S	Specific	
M	Measurable	
A	Achievable	
R	Rewarding	
T	Realistic Timeline	

You'll start using some of the cardio equipment to see which ones you like.

Treadmill



Stationary bike



Cable high row



This one is too!

Weight _____

Reps _____

Sets _____



Lunge



Travelling, holding a weight if required.

Weight _____

Reps _____

Sets _____

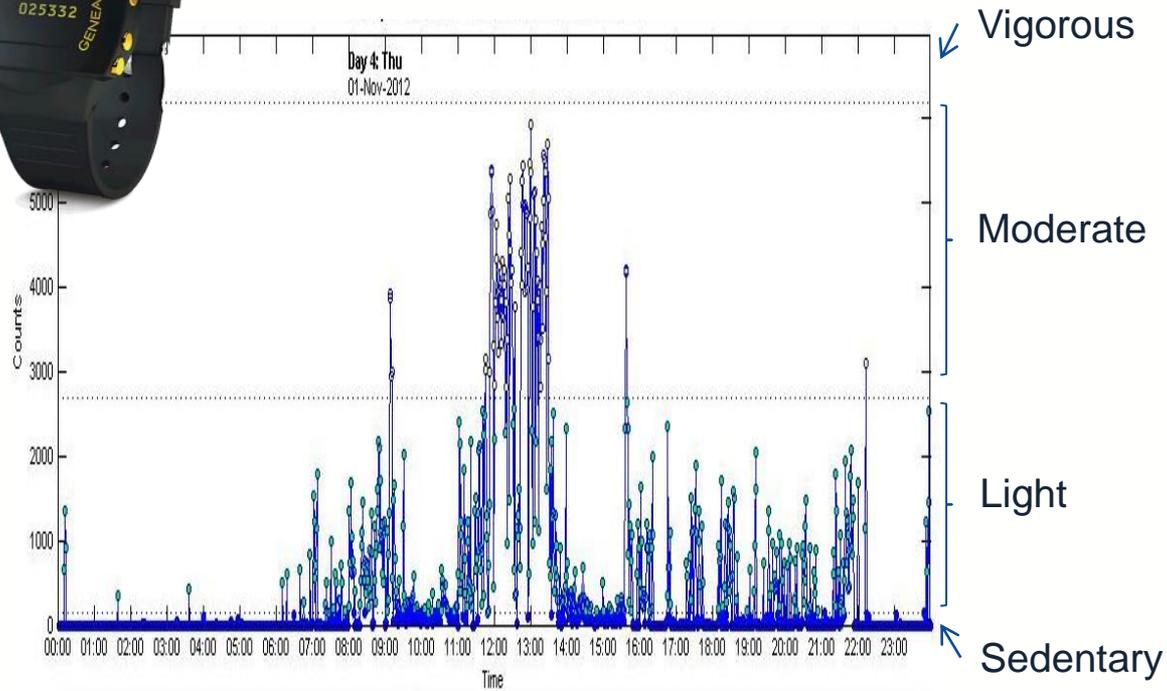
Week 8: Make your own program

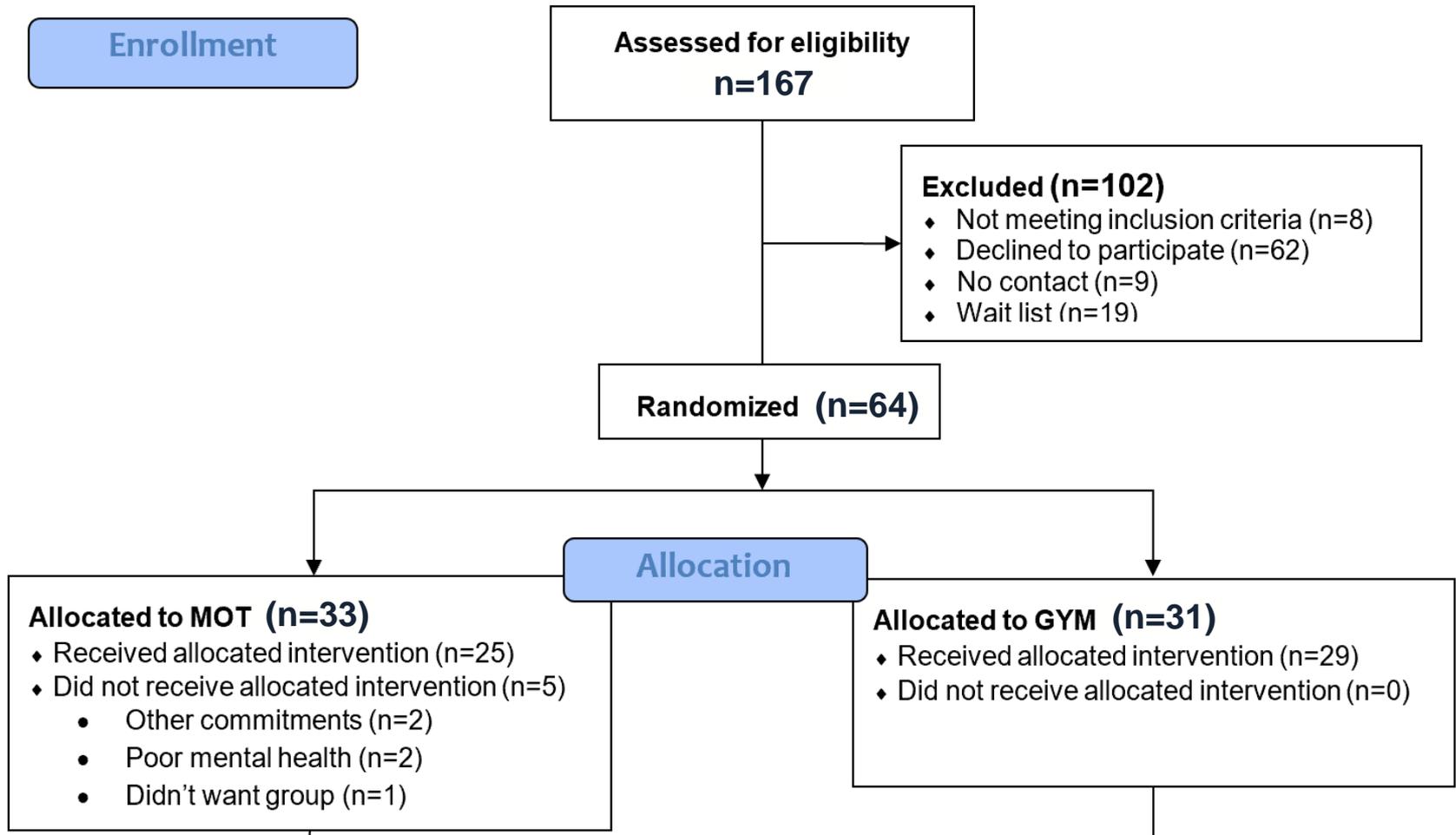
There are thousands of different exercises and lots of variations of each.

Look back through your exercise diary and see which ones you rated smiley. Choose your favourite 6-8 exercises. Now you can create your own program in the space provided.

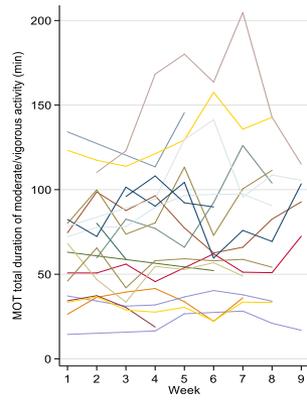
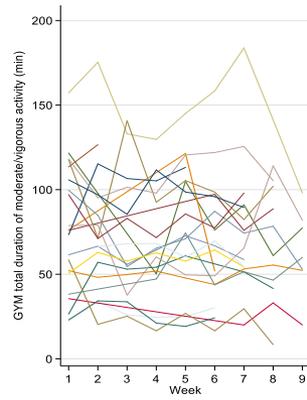
Cardio
Upper body
Legs
Core

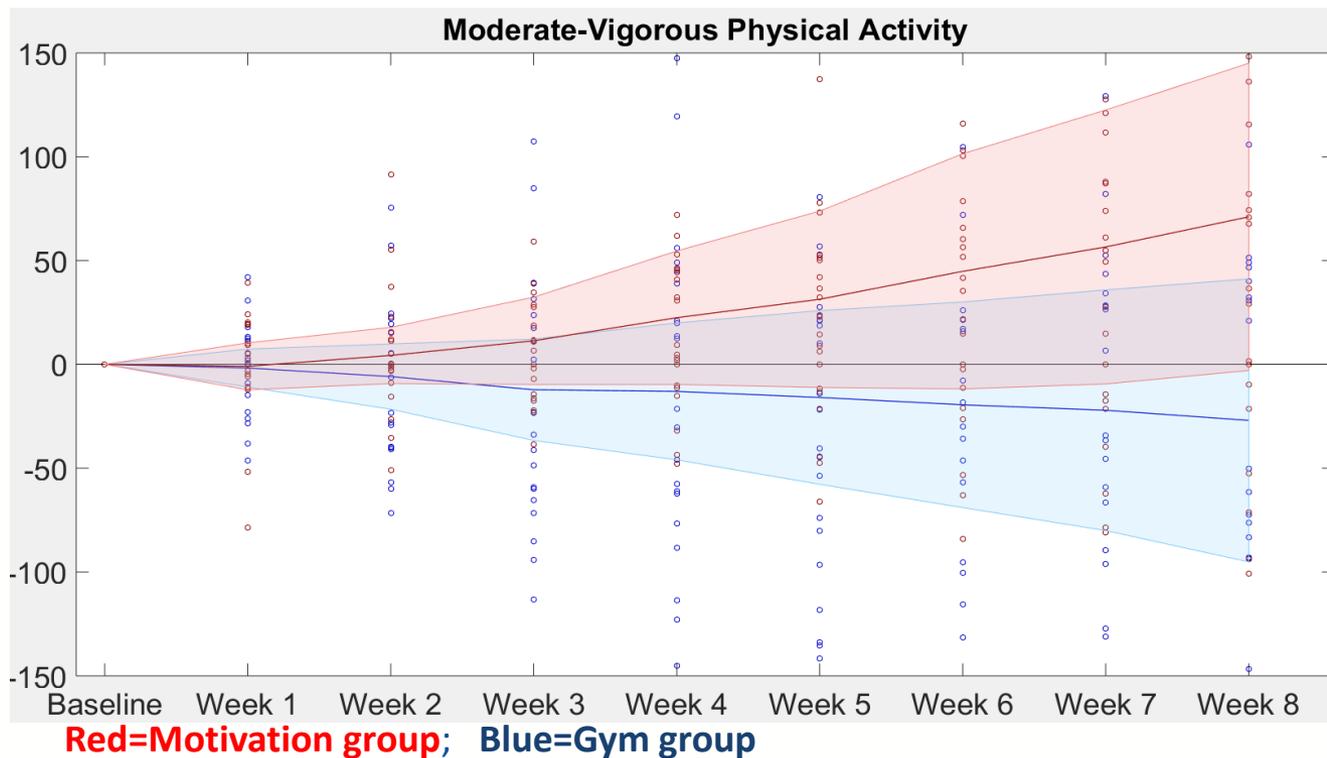
Primary outcome: objectively measured physical activity using accelerometers over the duration of the programs





Results





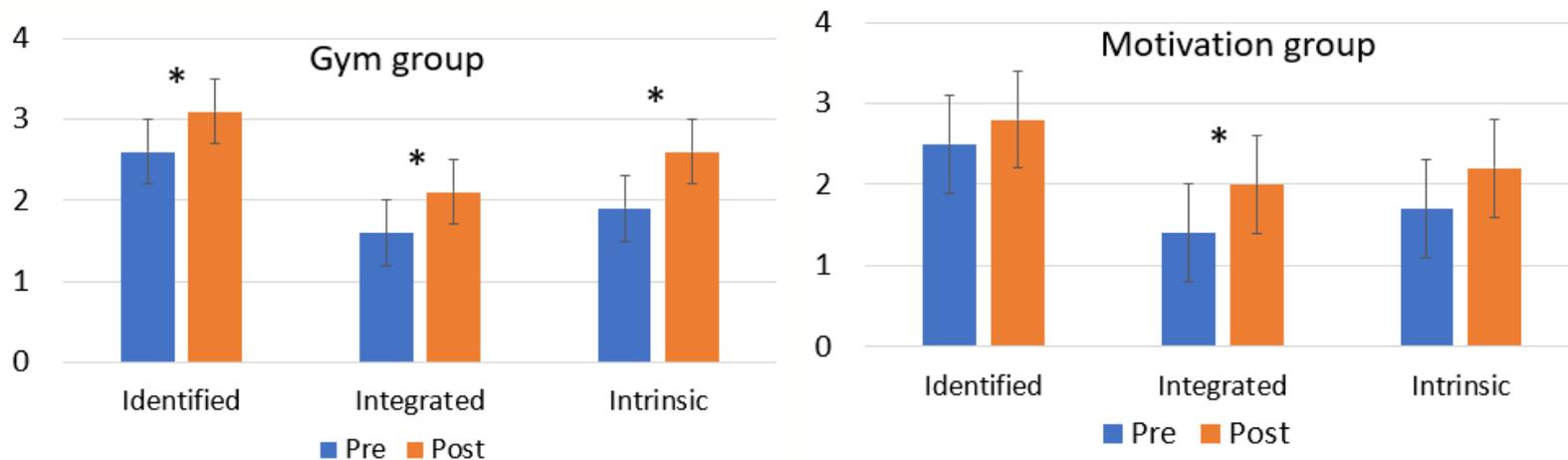
Motivation group had 2 mi... an

Gym

No change in self-determined motivation, psychological distress, or self-reported physical activity.

How does this work in the 'real world'?

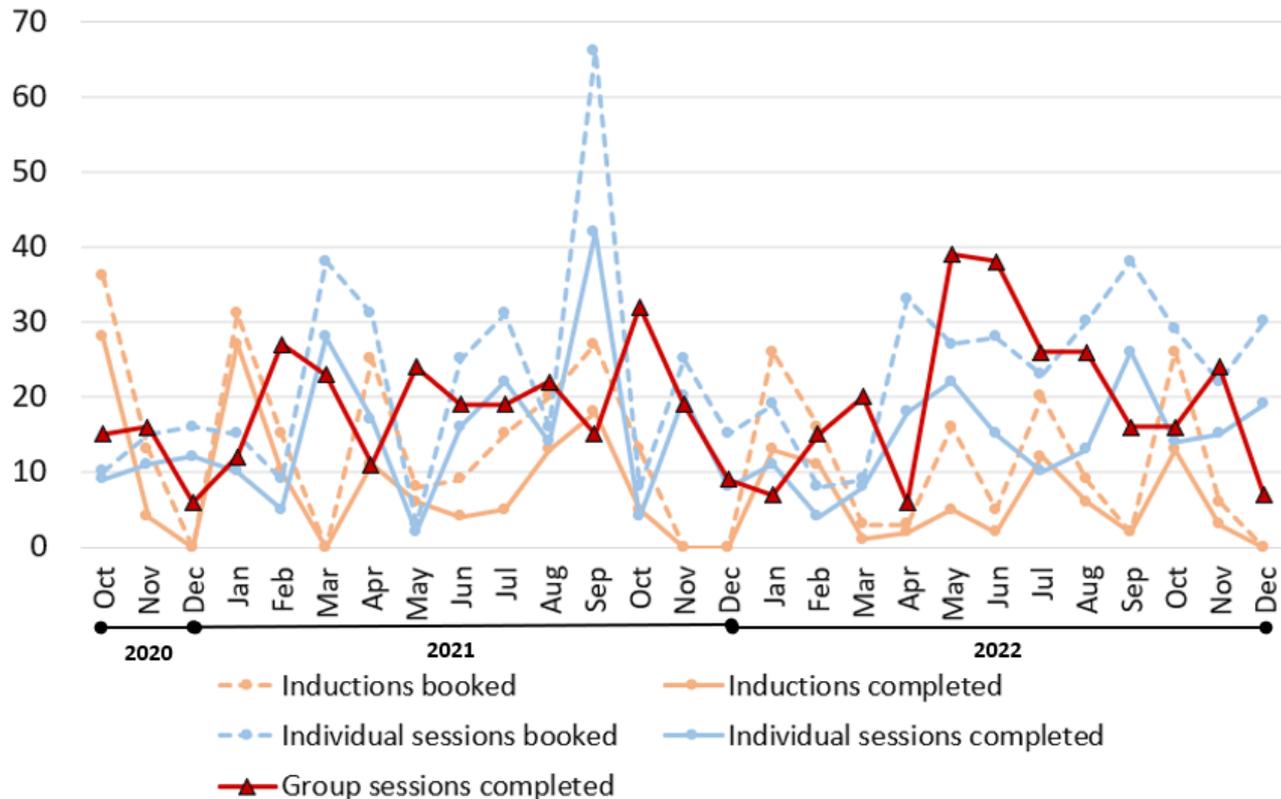
- These same interventions were implemented in North Queensland (Cairns, Edmonton and Mareeba)
 - However, participants had the choice of programs.
- 60 people chose GYM, 35 people chose MOT



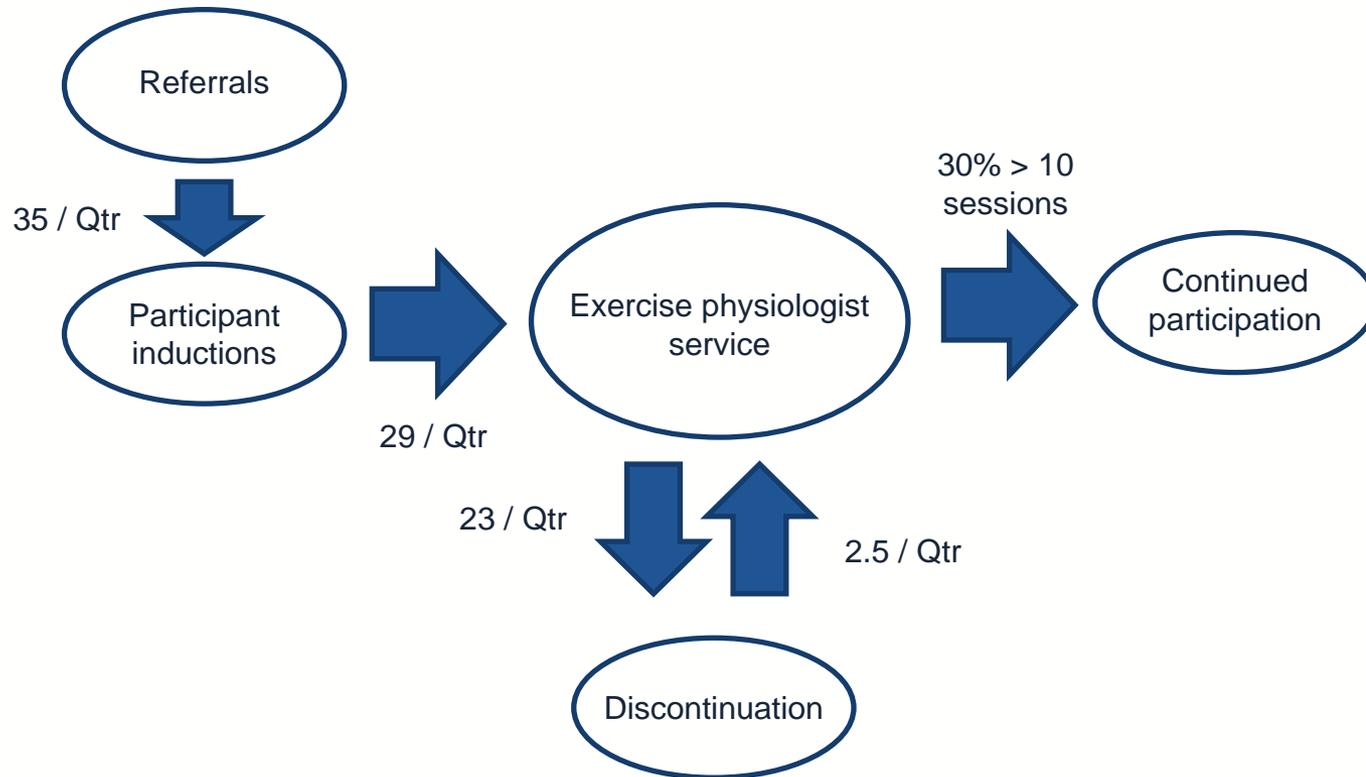
Seymour, J., Pratt, G., Patterson, S., Korman, N., Rebar, A., Tillston, S., & Chapman, J. (2021). Changes in self-determined motivation for exercise in people with mental illness participating in a community-based exercise service in Australia. *Health & Social Care in the Community*

How does this work in the 'real world'?

- 316 participants in the previous 24 months
- 537 group sessions provided (average group size = 5)
- Attendance mean=7 sessions/ participant, with a core group attending >15 sessions

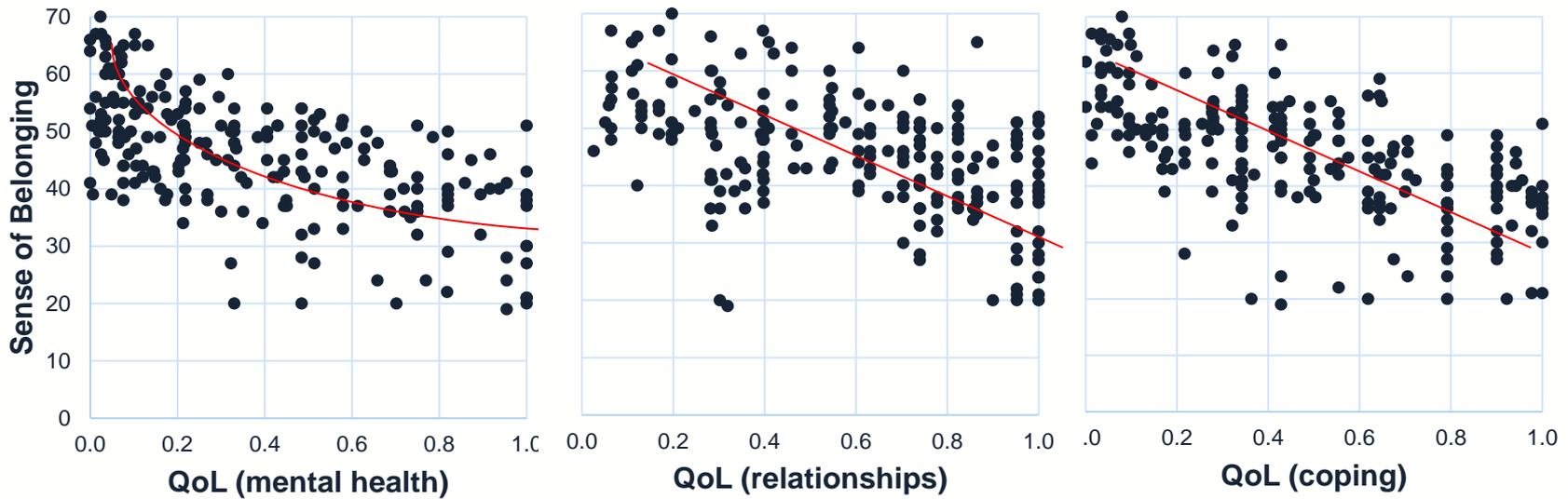


How does this work in the 'real world'?



How does this work in the 'real world'?

- 225 participants completed baseline measures



- Sense of belonging strongly associated with QoL domains

How does this work in the ‘real world’?

- 59 participants with at least three measurement points

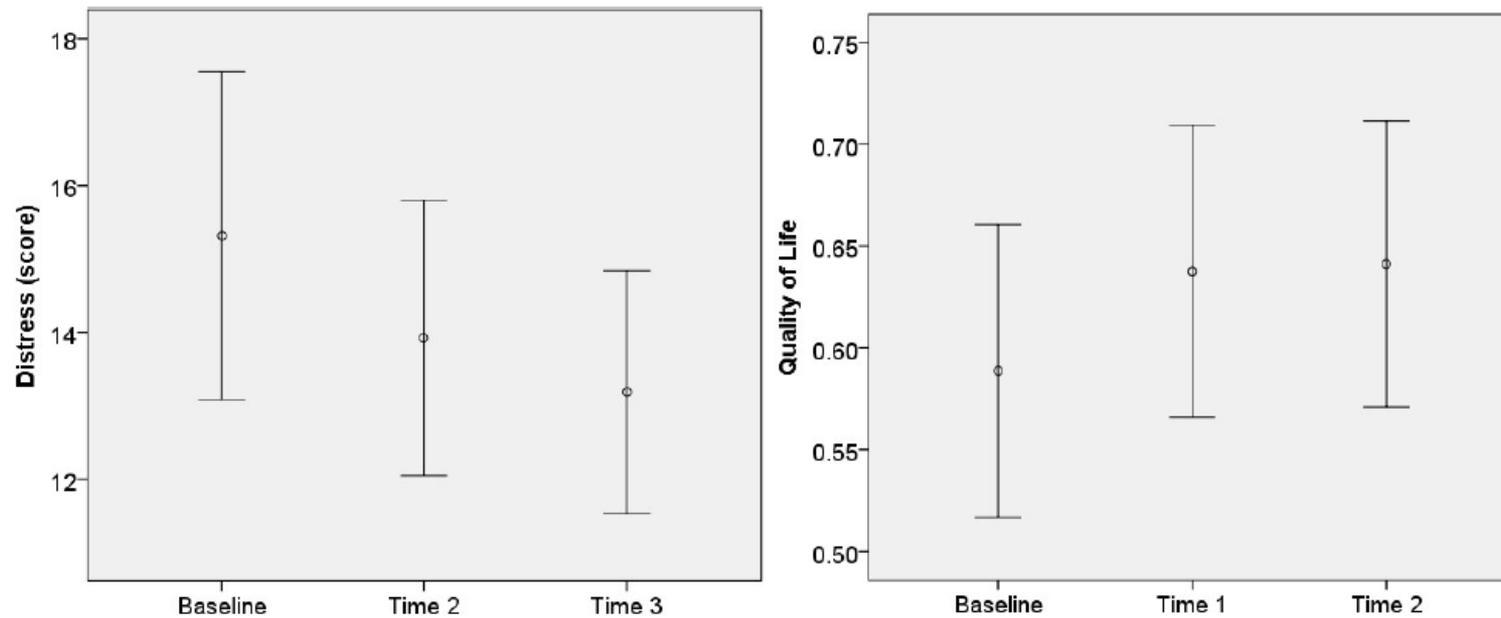
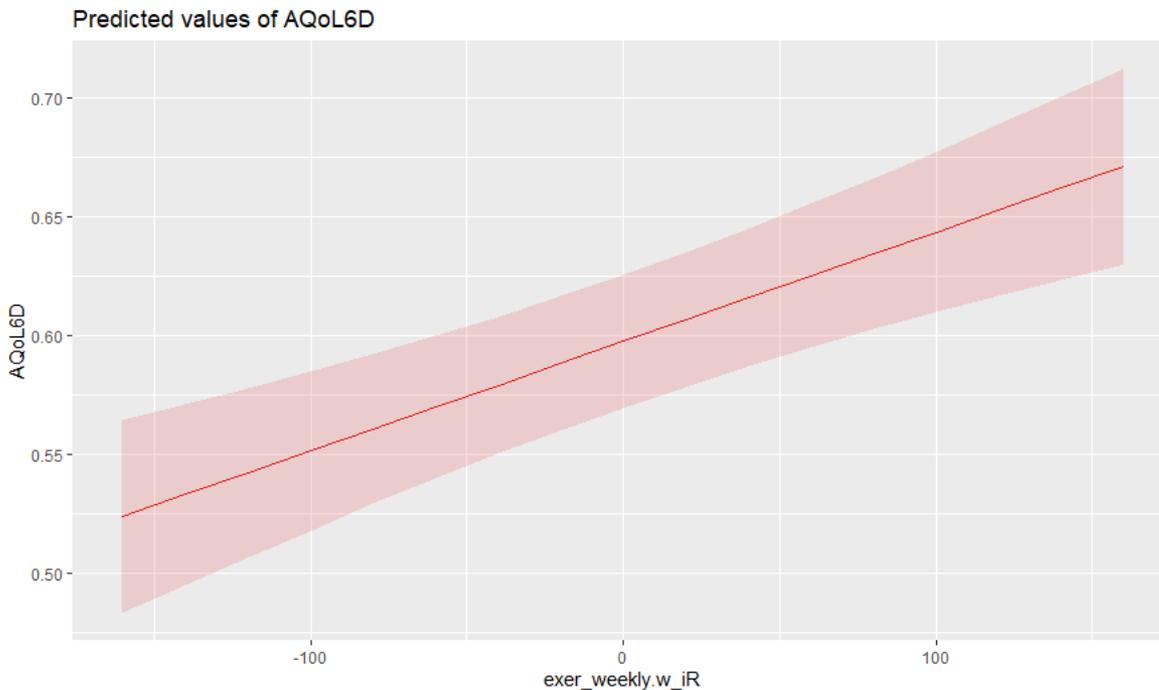


TABLE 8: Mental health outcomes over three measurement points (n=59)

	T1	T2	T3	Test statistics
Quality of life	0.58 (0.22)	0.63 (0.22)	0.64 (0.22)	$F(2,114)=5.923, p=0.004$
Psychological distress	15.6 (6.5)	14 (5.4)	13.6 (5.4)	$F(1.69,96.14)=8.269, p=0.001$
Wellbeing	38.4 (24.8)	45.6 (23.5)	47.7 (23.8)	$F(2,114)=7.05, p=0.001$

Multilevel modelling was used to assess between-person or within-person associations between exercise and quality of life.

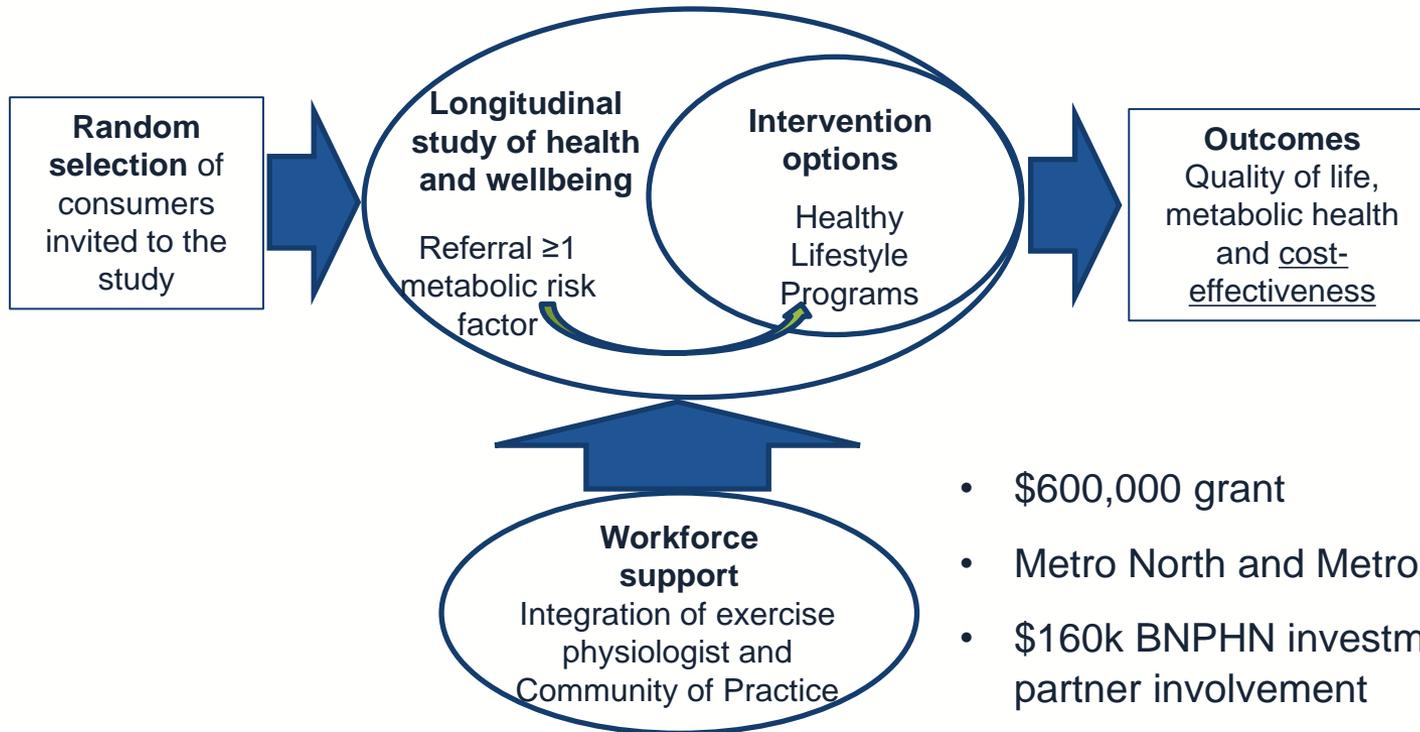


 **Dr. Amanda Rebar**



The effect washes-out when exercise self-efficacy is included in the model, which may suggest that the impact of exercise on quality of life is driven by enhancements of self-efficacy.

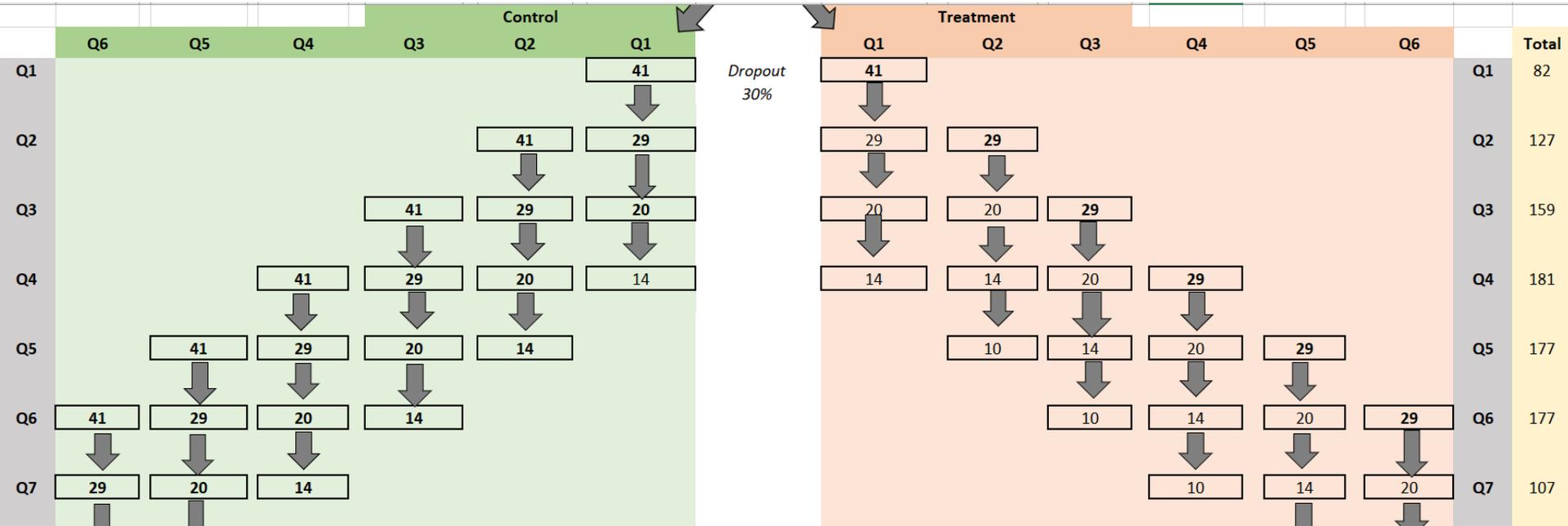
MRFF: Effective Treatments and Therapies



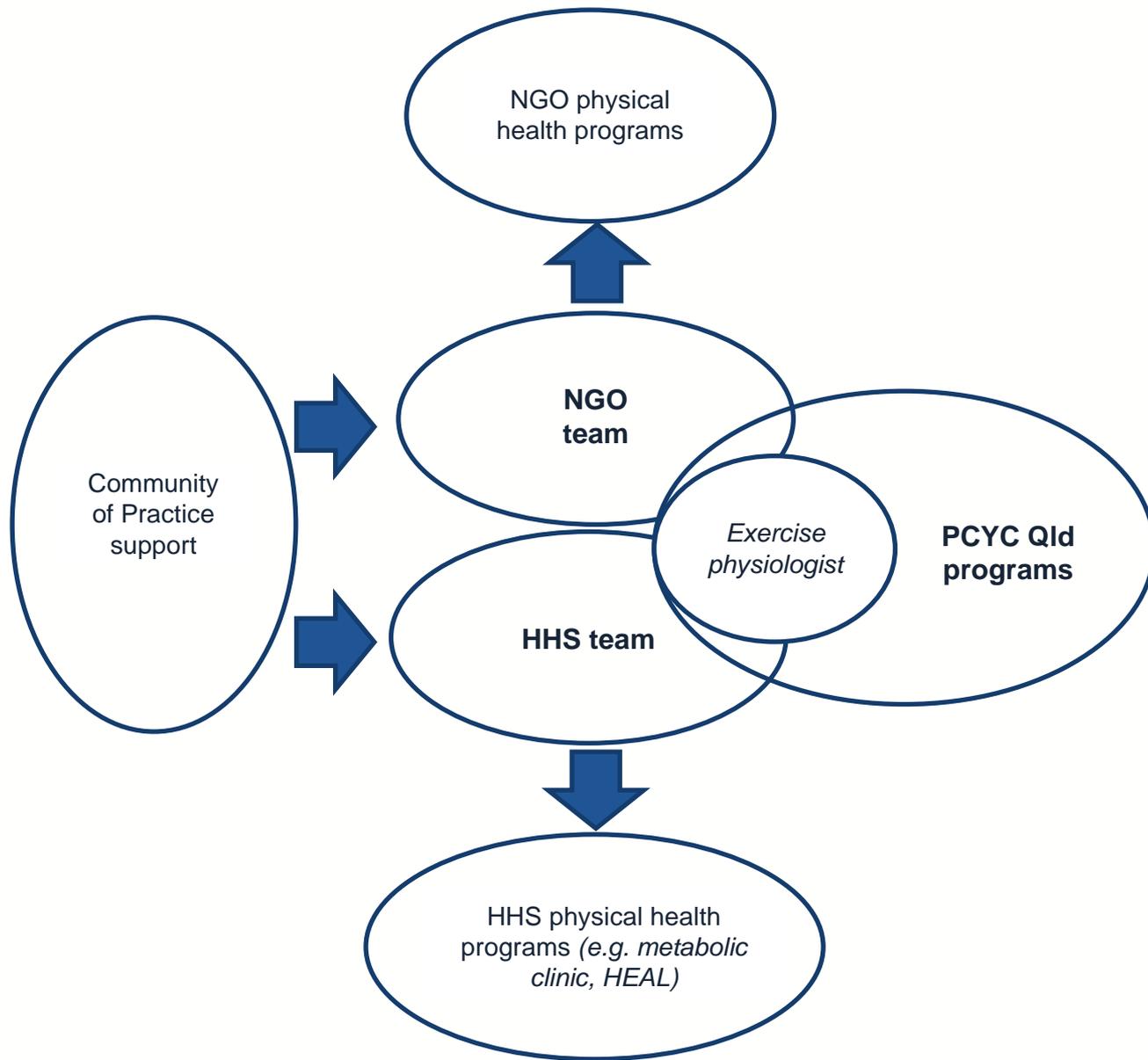
- \$600,000 grant
- Metro North and Metro South regions;
- \$160k BNPHN investment for NGO partner involvement
- Implementation intended for mid-2024 to mid-2027
- Routine care and MBS/PBS data

Estimate of potentially eligible patient cohort

Areas	Sites	<i>Potentially eligible</i>	<i>20% randomised to screening</i>
1. Inner City	Metro North	265	53
	Metro South	262	52



247	<i>ITT sample (missing data imputed)</i>	247
173	<i>Participants with at least 2 assessment</i>	173
121	<i>Participants with at least 3 assessment</i>	121
85	<i>Participants with 4 assessment points</i>	85



Acknowledgements

Amanda Wheeler

Dan Siskind

Geoff Lau

Kylie Burke

James Scott

Nicky Korman

Marianne Wyder

Urska Arnautovska

Simon Rosenbaum

Jackie Curtis

Alison Yung

Yong Yi Lee

Eva Malacova

Mary Lou Chatterton

Lisa Simmons

Greg Pratt



Evaluation of a national mental health initiative



The survey includes a maximum of 5 questions and is expected to take **one (1) minute** to complete.

Everyone who completes the survey can enter a prize draw for one \$100 JB HiFi gift card.