

Exercise Medicine

Tipping the scales towards community based chronic disease detection, management and prevention

Katie Stewart & Courtnee Dewhurst



Introduction

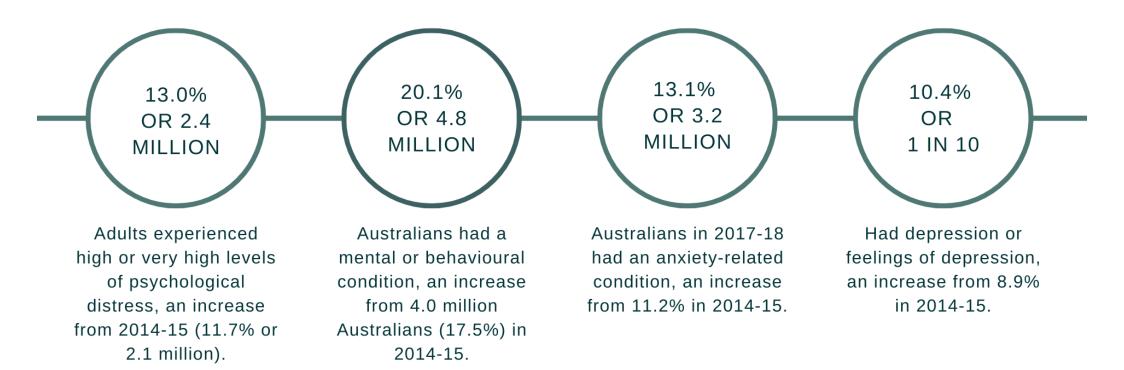
- Exercise Physiology clinic in Mosman Park, Western Australia
- Our vision is to provide healthcare solutions for all Australians suffering from mental and physical chronic conditions. At Chronic Care Australia we are committed to reducing the burden of chronic disease in our metro, remote and regional communities by delivering face to face, virtual and home based programs and services.
- Over the past three years we have developed and validated an exercise medicine delivery and prescription system that successfully treats, manages and prevents mental and physical illnesses concurrently. We triage the whole person so that all aspects of health are considered in our treatment plans.





MENTAL HEALTH STATISTICS

National Health Survey (ABS, 2018). A comparison and alarming increase from 2014-15 to 2017-18





PHYSICAL HEALTH STATISTICS

National Health Survey (ABS, 2018). A comparison from 2014-15 to 2017-18



were overweight or obese (12.5 million people), an increase from 63.4% in 2014-15.

Australians aged 18
years and over had a
measured high blood
pressure reading. This
has remained
unchanged since 201415 (23.0%).

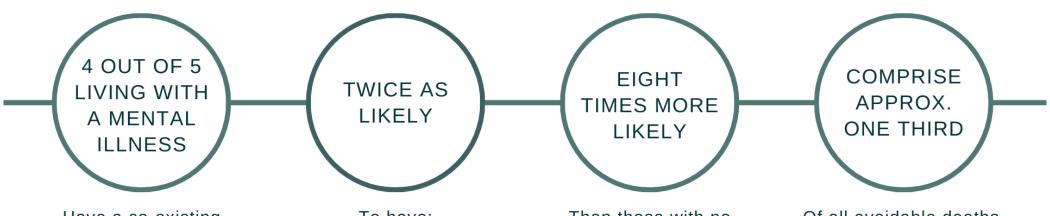
Average daily exercise duration, the largest part of which consisted of walking for transport and walking for exercise (24.6 minutes).

Met the physical activity guidelines, with 1.9% of 15-17 year olds, 15.0% of 18-64 year olds and 17.2% of 65+ year-olds.



THE COMBINED MENTAL & PHYSICAL HEALTH IMPACT

Equally Well Consensus Statement (2016)



Have a co-existing physical illness. They are twice as likely to struggle with regular activities, compared to those with only one mental or physical condition.

To have:

- cardiovascular disease
 - respiratory disease
 - metabolic syndrome
 - diabetes
 - osteoporosis

Than those with no mental or physical illness to struggle with regular activities.

Of all avoidable deaths.



What we know

- We need to develop more prevention strategies that can be actioned and implemented in early detection phases in primary care, that are focused on self-care
- Break the cycle of poor physical self-care:
 - 1. Consumption of alcohol and stimulants
 - 2. Processed carbohydrates
 - 3. Quality of sleep
 - 4. Cardiovascular and muscle system stimulation and conditioning



Theme: Supporting healthy lifestyles - diet and exercise

Exercise medicine: Improving the physical health of people living with mental illness

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We would like to thank **Equally Well** for their ongoing support and assistance with publication

Improving the physical health of people living with mental illness

equallywell.org.au
You can access via our website chroniccare.com.au





Evidence to support the application of systemised and prescriptive exercise medicine to treat both mental & physical symptoms

- This initial efficacy research showed that with one simple, repeatable and measurable exercise intervention:
 - 1. We have worked out a way to significantly improve peoples motivation to exercise
 - 2. We can significantly improve their adherence to exercise
 - 85.35% completed at least one eight/twelve week program, with 60.36% electing to repeat another program while the other 39.64% returned to independent physical activity
 - 3. We can significantly improve their capacity for work once engaged in exercise
 - 4. We can effectively **treat multiple chronic conditions**, including mental health with one exercise intervention

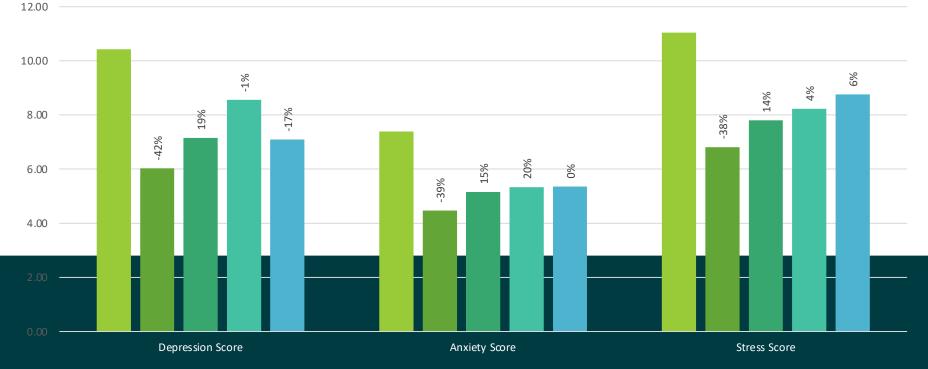


Average Questionnaire Responses of Mental Health Client Population (DASS-21)



Of 70 clients (2 year period) referred for mental health management (31% were DVA), 69% had a secondary chronic condition, with 24% (29% were DVA) having more than one secondary chronic condition.

- 40% musculoskeletal-related (36% were DVA)
- 16% neurological/pain-related (27% were DVA)
- 27% metabolic-related (37% were DVA)
- 11% cardiovascular-related (13% were DVA)



Initial

■ 4-6wk post initial

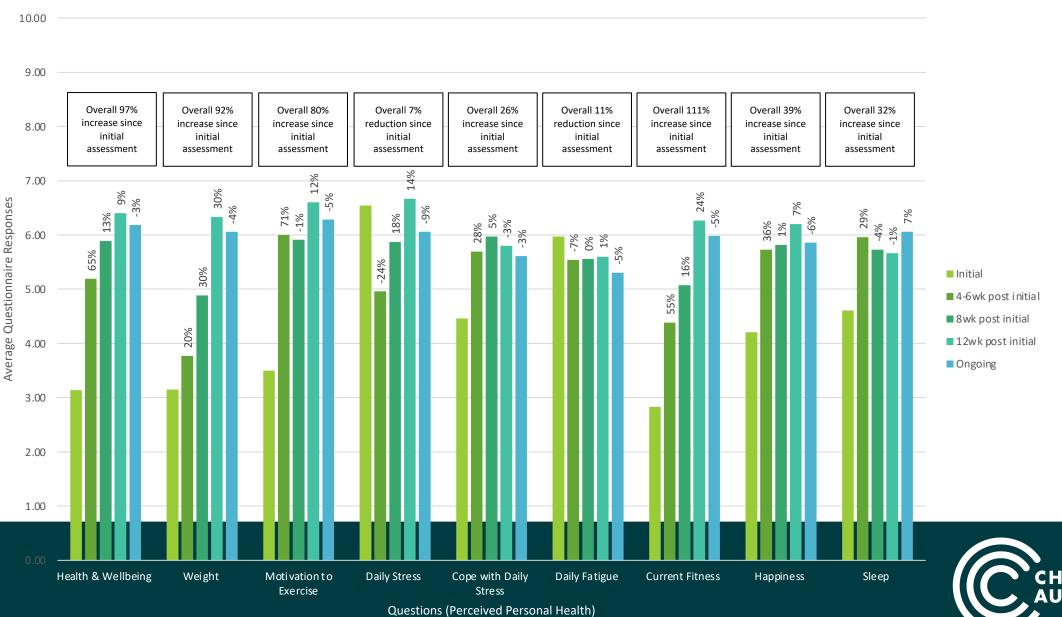
■8wk post initial

■ 12wk post initial

Ongoing



Average Questionnaire Responses of Mental Health Client Population (Perceived Personal Health Assessment)





Case Study

- 58yo male
- Depression, lower back pain, high cholesterol
- Presented to clinic while undergoing TMS treatment
- Gradual introduction to exercise medicine protocol
 - Priorities of high intensity interval training (HIIT) and mindfulness practice daily for 10 days,
 - Then consistent routine of 3x sessions per week,
 - Followed by the addition of mobility and functional-strength exercises



Case Study

- Returned to work end March (approx. 8 weeks since initial appointment)
- As baseline fitness and motivation increased and maintained, returned to twice weekly cycling groups, as well as maintaining 3x exercise medicine sessions in-clinic
- Weight reduction and stable blood pressure
- Has developed an understanding of how to adapt exercise medicine prescription based on his daily presentation improved self-awareness and perceived capacity to work during exercise

| Date | Perceived Personal Health Assessment | DASS-21 |
|----------------------|--------------------------------------|----------------------|
| Initial – 08/02/2020 | 37/90 | |
| 18/02/2020 | 47/90 | In-patient TMS |
| 10/03/2020 | 48/90 | |
| 21/07/2020 | 65/90 | 4 (D), 4 (A), 13 (S) |
| 22/09/2020 | 63/90 | 1 (D), 2 (A), 8 (S) |



Outcomes: Where to from here

- The efficiencies and effectiveness from both a cost point of view and patient outcome of combined mental and physical concurrent treatment is significant.
- Patient-centred reporting
 - Being able to measure and report on the progressive outcomes in each space for patients is an essential outtake from these findings and this presentation





Reducing the burden of chronic conditions so all Australians can live well for longer.

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Reducing the burden of chronic conditions so all Australians can live well for longer.

CHRONIC DISEASE TRIAGE & PATIENT CENTRED HEALTHCARE

This self-paced online PD will make you feel more confident about dealing with patients with combined mental and physical chronic conditions.

Gain a greater understanding of chronic disease triage and your priorities as an allied health professional to manage multimorbidity.

EXERCISE PHYSIOLOGY / PHYSIOTHERAPY / PSYCHOLOGY NURSE PRACTITIONER / GP & MEDICAL SPECIALISTS

RECEIVE THE FOLLOWING PROFESSIONAL TOOLS

- + MENTAL HEALTH WELLBEING CONTINUUM MODEL
- + EXERCISE MEDICINE TRIAGE MODEL
- ♣ RECOGNISED CHRONIC CARE AUSTRALIA ALLIED HEALTH PROFESSIONAL, CERTIFIED IN MULTIMORBIDITY MANAGEMENT



