Adelaide University



Clinicians' Views on Prehabilitation Exercise Programs for Peritoneal Dialysis: A Multinational Qualitative Study

Brett Tarca PhD

Exercise Physiologist



Agenda

- Background / Aims
- Method
- Results
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Agenda

- **Background / Aims**
- Method
- Results
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Background

- Physical Function – the ability to do usual activities
- Physical function required to complete peritoneal dialysis

↓ Life Participation

↓ Independence

↓ Quality of Life

PD drop out (emerging)

- Global shift to home-first dialysis

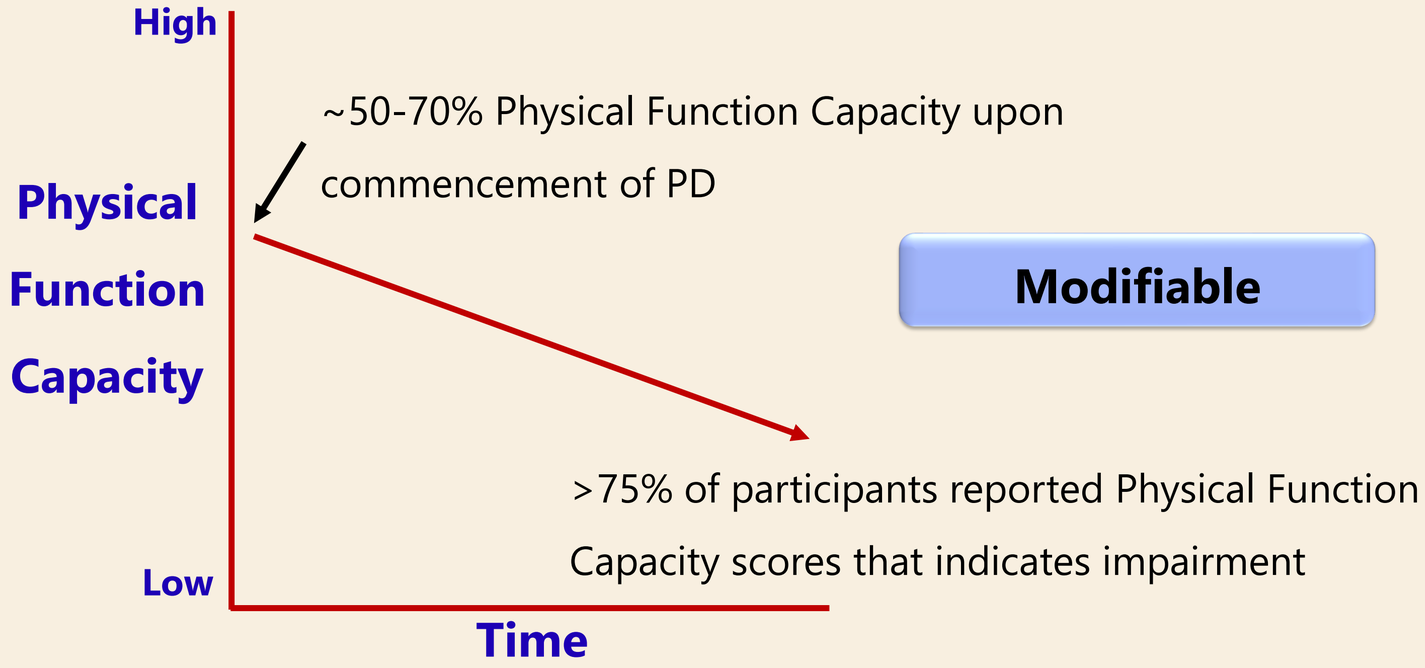


Jain et al. 2012
Liu et al. 2015
She et al. 2017

Adelaide University

Background

- Physical Function – what do we know?





Adelaide University

Tarca et al. 2024
Painter et al. 2017

Background

Prehabilitation

noun

‘A process of improving the functional capability of a person **prior to** a surgical procedure or medical treatment’

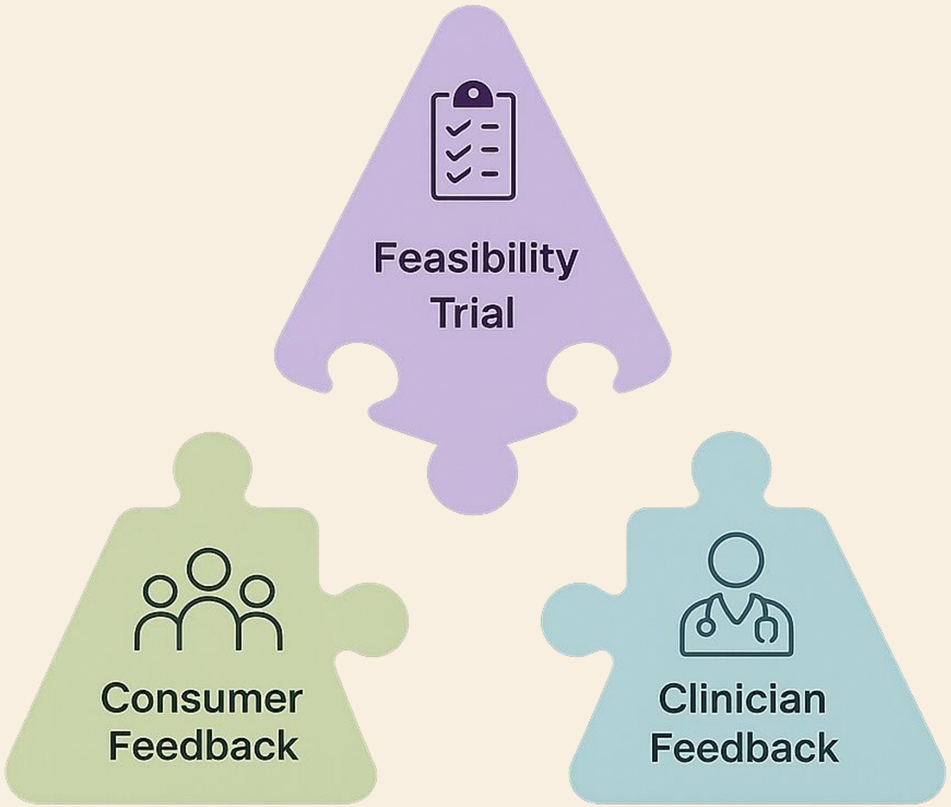
What does this look like in a peritoneal dialysis context?

What do we need to get a trial off the ground?



Adelaide University

Background





Adelaide University

Background





Adelaide University

Background

*"Patients **more inclined** to participate if they are **aware their nephrologist supports it…**"*

(Natale et al. 2020)

*"If you have got the **confidence** in anybody that is **advising you no matter what it is,** but particularly a **doctor or nurse,** it makes a **massive difference…**"*

(Clarke et al. 2015)

*"Several participants only **agreed to participate** due to their **trust and the encouragement received from nursing staff**…"*

(Tarca et al. 2022)



Adelaide University

Research Aim

Explore the **perceptions**, **attitudes** and **opinions** of kidney care clinicians towards a prehabilitation exercise program for people commencing peritoneal dialysis.



Adelaide University

Agenda

- **Background / Aims**
- Method
- Results
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Agenda

- Background / Aims
- **Method**
- Results
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Method

- Kidney care clinicians involved in

  pre- and/or post-catheter insertion phases

- No restrictions on country, practicing location or experience

- Semi-structured interviews via Zoom/Teams

Twelve guiding questions addressing

- **Perceptions** and **attitudes** towards prehabilitation
- **Preferences** and **needs** of a program
- **Concerns** and **reservations** for participation
- Program **implementation** and **support** required



Adelaide University

Agenda

- Background / Aims
- **Method**
- Results
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Agenda

- Background / Aims
- Method
- **Results**
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Participants

19
Clinicians

Renal physician (9)
Renal nurse (5)
Renal dietician (4)
Occupational therapist (1)

74%
Female

89%
>5yrs experience

4
Countries

Australia (15)
United Kingdom (2)
Canada (1)
Portugal (1)



Adelaide University

High Level Themes





Adelaide University

High Level Theme 1

Strongly recognised clinical value

- Optimising readiness, resilience and long-term treatment success
- Initiate exercise early and gradually

> “It’s difficult to predict which patients will do well on PD, but it’s logical to think that those completing regular exercise will do well and possibly survive longer. … overall the fitter the patient, the better the outcomes tend to be.”
>
> — Renal Physician





Adelaide University

High Level Theme 2

Empowering safe and personalised exercise participation through expertise

- Exercise expertise in-unit and practically designed
- Safe participation through timing and progressive re-introduction
- Programming tailored around patient preferences

> "Practically speaking, something accessible online with clear instractions, ideally paired with continual guidance from an exercise physiologist to ensure proper technique would probably wort. best."
>
> – Renal Physician





Adelaide University

High Level Theme 3

Limited patient engagement and support

- Patient engagement and health status
- Limited exercise literacy

> “Along with receiving a lot of information about dialysis and how to do it, and the different appointments they might have, new medications, new diet.... there's a lot happening in those early stages.”
>
> – Renal Nurse





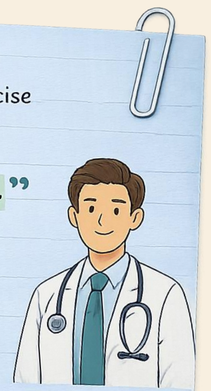
Adelaide University

High Level Theme 4

Integration into clinical care through advocacy and cultural change

- Integration into standard care pathways
- Maximising engagement through advocacy and support

> “I think it’s about encouraging and offering exercise from the very start, making it an integral part of the patient journey.”
>
> – Renal Physician





Adelaide University

Agenda

- Background / Aims
- Method
- **Results**
- Take-home Messages
- Practical Application: The CORE-PD Trial



Adelaide University

Agenda

- Background / Aims
- Method
- Results
- **Take-home Messages**
- Practical Application: The CORE-PD Trial

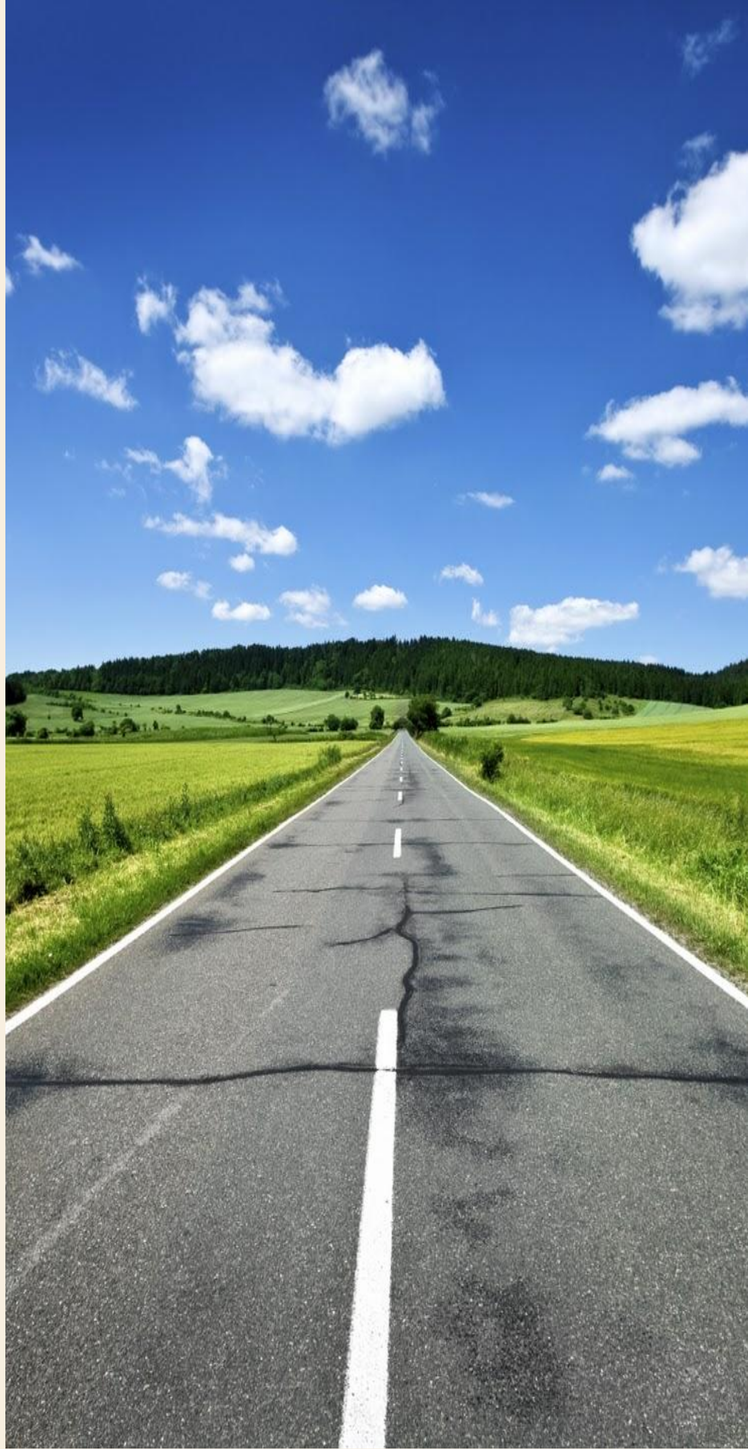


Adelaide University

Take-home Messages

- Positive views towards prehabilitation
- Hybrid delivery model (in-person and remote)
- Exercise professionals required to deliver
- Embedded in treatment pathways
- Support from renal unit essential





Adelaide University

Agenda

- Background / Aims
- Method
- Results
- **Take-home Messages**
- Practical Application: The CORE-PD Trial



Adelaide University

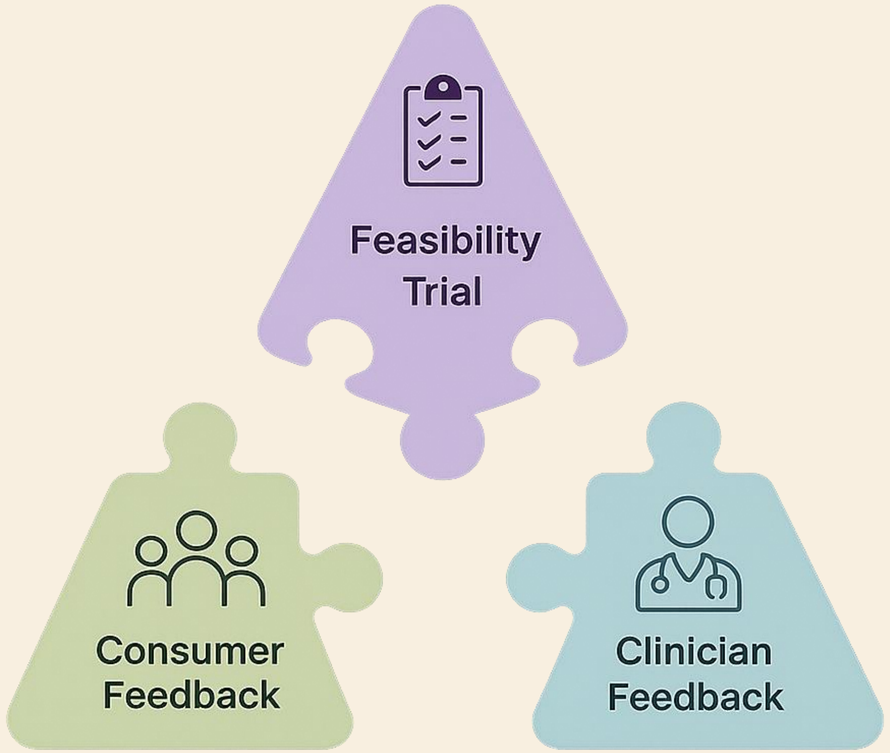
Agenda

- Background / Aims
- Method
- Results
- Take-home Messages
- **Practical Application: The CORE-PD Trial**



Adelaide University

Background





Adelaide University

Background





Adelaide University

Adelaide University



Effect of a Prehabilitation Exercise Program on Peritoneal Dialysis Outcomes (CORE-PD): A Feasibility Study

the hospital research foundation
finding cures improving care

SA Health



Peritoneal Dialysis Prehabilitation Program

PHASE 1

Pre-Catheter Intervention

PHASE 2

Cease program for minimum 4-weeks before re-commence

PHASE 3

Post-Catheter Intervention (8-weeks)

Identify patients who elect to receive peritoneal dialysis

Meet with exercise professional to prescribe a home-based program

Providing equipment such as resistance bands and gym ball





Approval required by member/s of treating care team to resume exercise

Exercise professional re-designs program ensuring safe participation with catheter

Ongoing support Written/video resources and telehealth consults provided throughout to ensure safe and independent exercise participation



Adelaide University

Primary Outcome – Feasibility

Adherence

Adverse Events

Participant Satisfaction

Secondary Outcome – Efficacy

Physical Function

Physical Activity

Abdominal Muscle Strength

Independence

Life Participation

Bowel Health

Infection Rate

Drop Out



Adelaide University

Peritoneal Dialysis Prehabilitation Program

STUDY UPDATE

COMMENCED
April 2025

17
Participants enrolled
(intervention n=6)

3
Adverse events reported
(musculoskeletal pain)

27 days
the average intervention length pre-catheter



PARTICIPANT FEEDBACK

> *"I wish I did it for longer before starting PD"*

> *"I don't want the support to stop.....it gave me confidence to exercise with the catheter"*



Adelaide University

Acknowledgements

Funding

The Hospital Research Foundation – Kidney Transplant Diabetes Research Australia, CNARTS Research Project Grants 2024

Research Team

Prof Shilpa Jesudason

Prof Paul Bennett

Michelle Ovenden

Monique Borlace

Anthony Meade

Dr Richard Le Leu

Dr Nicole Scholes-Robertson

Dr Terry Boyle

Prof Josh Byrnes

Adelaide University



Acknowledgements

Supports

Central Northern Adelaide Renal Transplantation Service

Adelaide University - Allied Health and Human Performance Program

Clinicians and patients who participate and continue to engage in this research!



Adelaide University

Thank you!

Questions?



Adelaide University