

# Mechanisms of change in group ACT for psychosis: the ACT for Recovery trial (ACTfR)

**Eric Morris, PhD**  
**La Trobe University**  
**Melbourne, Australia**

**Dr Emma O'Donoghue**  
**South London and Maudsley NHS**  
**Foundation Trust, UK**

# Acknowledgements



- **ACTfR Team:** Emma O'Donoghue, Suzanne Jolley, Louise Johns, Eric Morris, Joe Oliver, Mizan Khondoker
- **Service User Lead:** Carmine Derosa
- **Research Assistants:** Lucy Butler, Faye Sim, Valeria Souza
- **MSc Students:** Hernika Amisten, Shirley Serfaty
- **Staff Co-facilitators:** Craig Milosh, Harriet Humfress, Marina Bulgarelli, Blaithin O'Dea, Matt Watts, Tom Payne, Cindy Marie-Jeanne, Sunil Nandha, Helen Waller, Cathy Gingell, Monique Wisdom, Rachel Chater, Anna Ruddle, Rumina Taylor, Nosheen Akram, Hanne Jacobsen
- **Service User Co-facilitators**
- **Workshop Participants**
- **Study generously funded by:** Maudsley Charity

# Aims



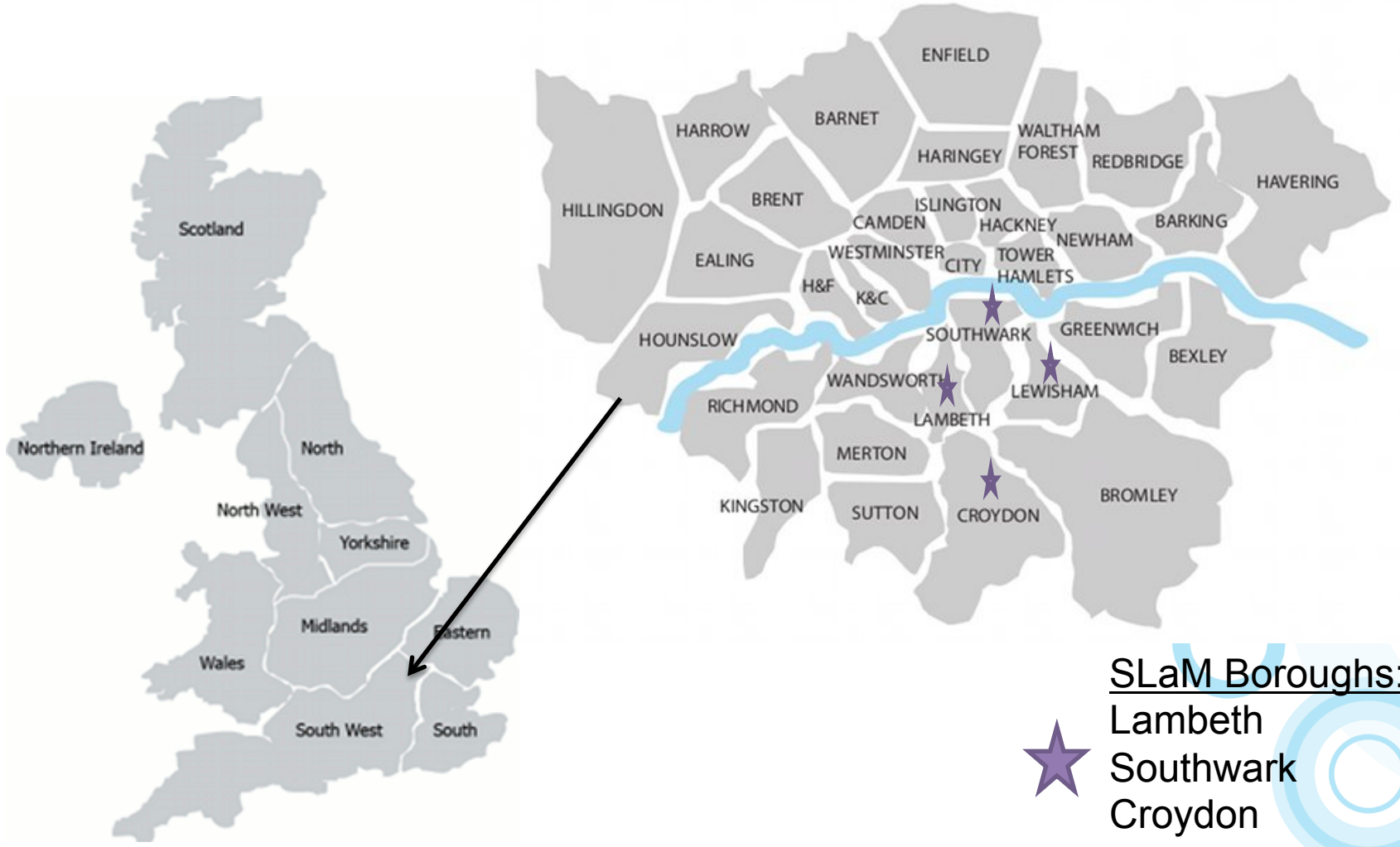
1. Introduce the ACT for Recovery study
2. Present the main outcome findings of the study
3. Present data on mechanisms of change



# South London and Maudsley



NHS Foundation Trust



## SLaM Boroughs:


- ★ Lambeth
- ★ Southwark
- ★ Croydon
- ★ Lewisham

# ACT in South London

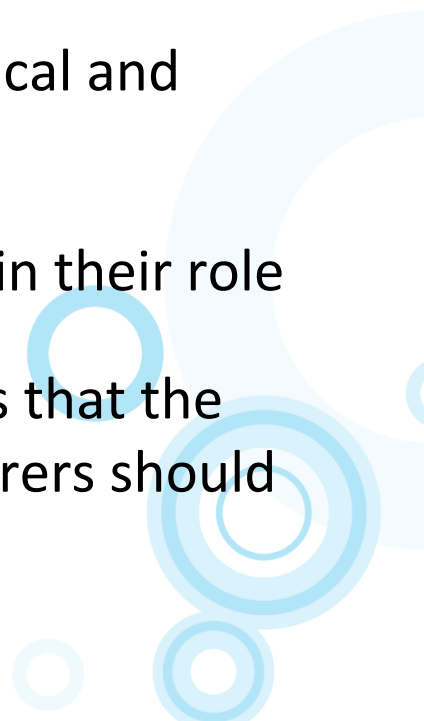
- We have been working on brief ACT that would “fit” for the folk in an inner-city, diverse borough (cultural, socioeconomic, ethnic)
- About providing choice and access. Co-led with peer facilitators (ACT for Recovery)
- ACT: seems a good fit for people from minority backgrounds (no implicit values beyond liberation from aversive control and response-ability).



# Why ACT in Groups?

- Increasing access (delivery, training)
  - Many ACT metaphors are interactive and benefit from more people
  - Listening to reactions and responses of others can increase learning
  - Making public commitments likely to strengthen action
  - Observing others being present and willing can promote these processes in self
  - Reduce stigma and increase self compassion
- 

# Why ACT for Caregivers?

- Informal caregivers play a key role in service user care and recovery
  - Service users with carer support can experience fewer admissions, shorter inpatient stays, and improved quality of life
  - Negative impact of the caregiving role on carer physical and mental wellbeing
  - 80% of carers report feelings of burden and distress in their role
  - 2014 NICE Guidelines for schizophrenia recommends that the needs of carers be addressed by services and that carers should be offered a carer-focused intervention
- 

# ACT for Life Project (Johns et al., submitted.)

N= 69 (early or established psychosis)

4 week ACT group ; Measures pre, post , 3-month follow-up: within-subject design.

Participants found the intervention acceptable, with high satisfaction ratings

Outcome	Immediate Post -Group		3 months after group	
	z	p value	z	p value
Interference with Functioning	-1.75	.08	-2.9	.004
Mood	-2.9	.004	-3.5	.001
Experiential Avoidance	-4.1	<.001	-3.4	.001
Cognitive Fusion	-3.0	.003	-3.1	.002
Mindfulness	4.6	<.001	4.7	<.001

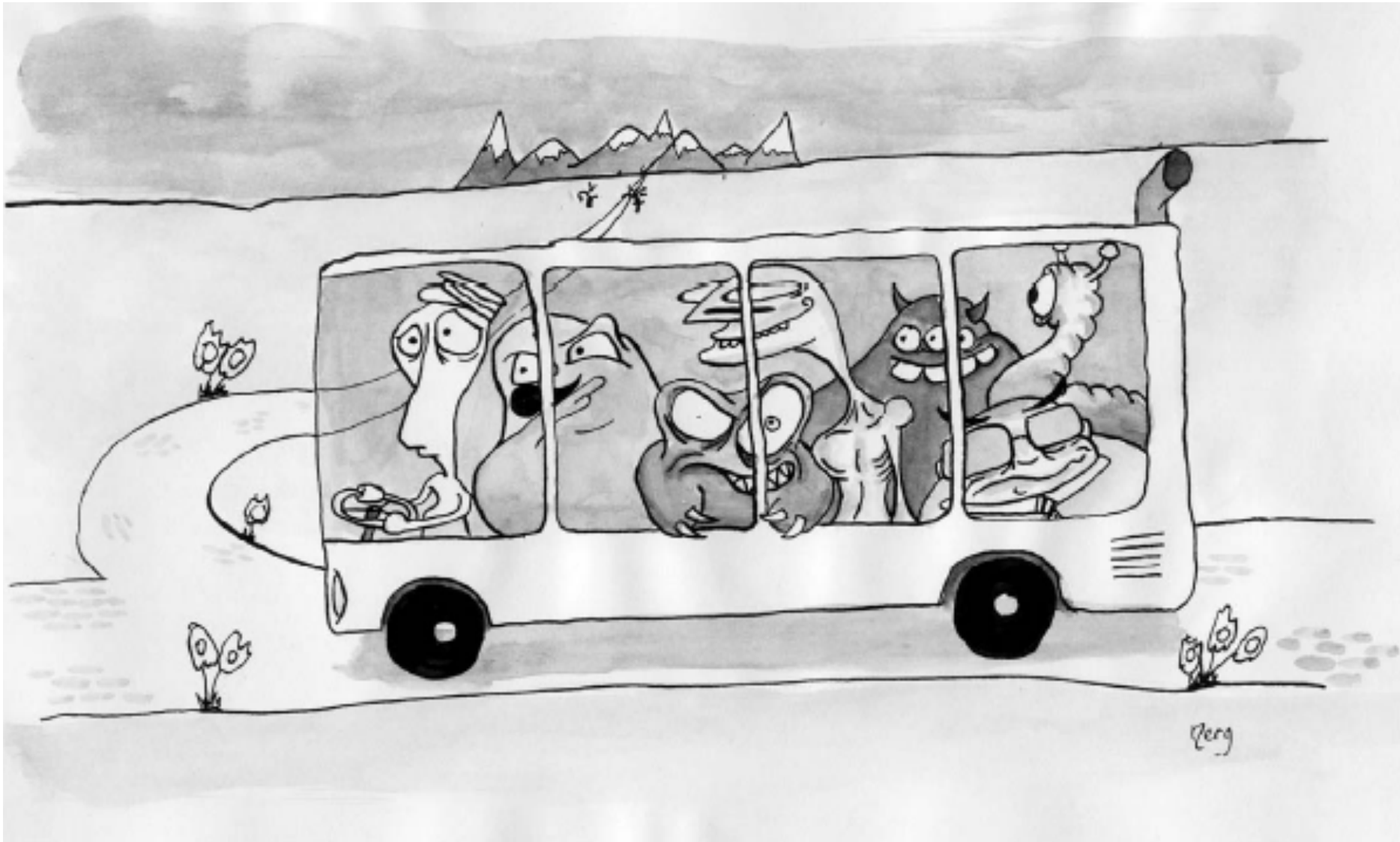
Overall - small effect size; group valued but possibly too brief; need for longer, controlled investigation



# Group ACT for Psychosis

- Evaluation of group based ACT intervention for people with psychosis and their carers
  - Are the interventions acceptable/feasible?
  - Do the interventions promote recovery?
  - What processes mediate any change?
- **ACT for Life:** Pilot of ACT groups, clients with at-risk/prodromal, early and established psychosis (N=69)
- Measures at baseline and follow-up measures **PI: Louise Johns**
- **ACT for Recovery:** RCT of ACT vs wait-list control, clients with established psychosis (N=51) & caregivers (N=52)
- Measures at pre-, post- and at follow-up **PI: Suzanne Jolley**

# ACT for Recovery Study



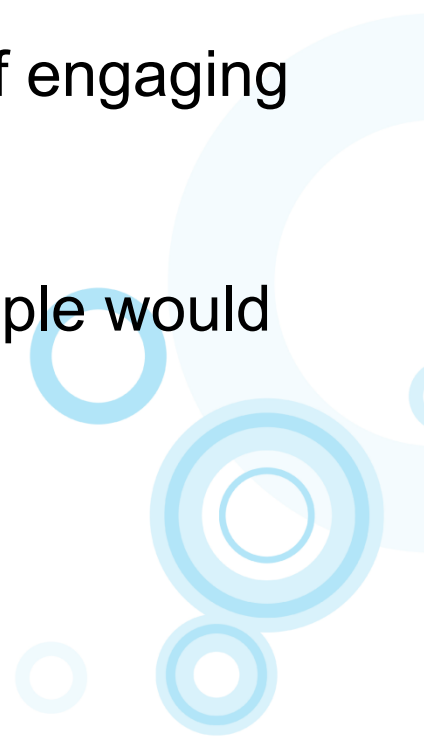
# ACT for Recovery

A little further down the road....

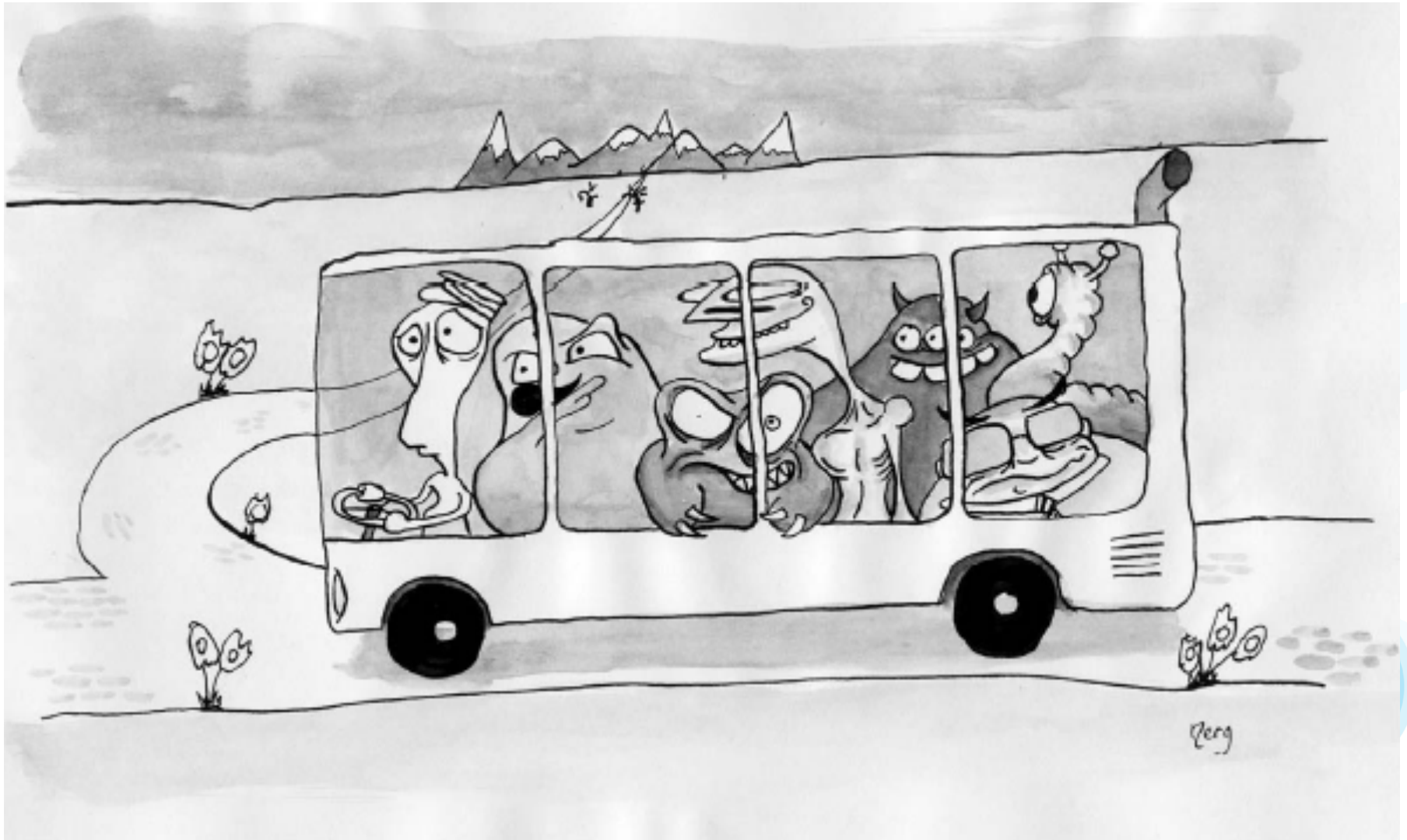
Acceptance and Commitment Therapy

- a model for all
- involve peer group facilitators
- help service users and carers
- have an “ice-breaker” intro to groups
- have 2 booster sessions

# ACT4R: The wisdom of Peers

- Recovery orientated services emphasise 'expertise by experience' along with evidence based practice
  - We wanted an additional perspective in the workshops
  - Value in having peers model lived experience of engaging in willingness and mindfulness
  - We wanted to create an atmosphere where people would feel comfortable sharing their experiences
- 

# Study Design



# Participants

- Over 2013 we aimed to recruit
  - 48 service user participants with established psychosis
  - 48 caregiver participants
- Actual numbers recruited
  - 51 service users
  - 52 caregivers



# Demographics

## Service Users

- N = 51 (26 ACT vs 25 WL)
- 49% Female
- Mean age = 43 years
- Ethnicity
  - 61% BME
  - 39% Non BME
  - 0% Other

## Carers

- N = 52 (29 ACT vs 23 WL)
- 90% Female
- Mean age = 54 years
- Ethnicity
  - 50% BME
  - 48% Non BME
  - 2% Other
- 50% parents of an adult child in services

# Design

- Randomized Controlled Trial
  - Introduction/taster session
  - Opt into the study
  - ACT Intervention immediate vs Wait-list control
  - Wait-list cohort offered ACT intervention 4 months later
- Four measurement points
  - 1 - 0 weeks (baseline)
  - 2 - 4 weeks (post intervention)
  - 3 - 12 weeks (post booster sessions)
  - 4 - 36 weeks (extended follow-up) (*uncontrolled. To assess longevity of effect*)





# Measures

**Warwick-Edinburgh Wellbeing Scale (Tennant et al., 2007)**

**CORE-10 (Barkham et al., 2008)**

**Interference Measure (adapted from Sheehan, 1983)**

**Time Budget (Jolley et al., 2005; 2006)**

**Valuing Questionnaire (Smout et al., submitted)**

**Acceptance and Action Questionnaire-II (Bond et al., 2011)**

**Southampton Mindfulness Questionnaire (Chadwick et al., 2008)**

**EQ5D (EuroQuol group, 1990)**

**Satisfaction Questionnaire (adapted from Attkisson, & Zwick, 1982)**

**Subjective impact on service user recovery & caregiving relationship**

**Service user only measure**

**Questionnaire about Process of Recovery (Neil et al., 2009)**

**Adapted PSYRATS (including VAS-ratings of voice power; belief flexibility; Haddock et al., 1999)**

# Protocol

- Four, 2-hour weekly sessions
- 4-8 participants in each group, 2-3 facilitators
- Session content based around one metaphor (Passengers on the Bus)
- Use of actor-video to allow participants to approach content at their own pace
- Main components include:
  - Values clarification
  - Mindfulness / noticing exercises
  - Willingness
  - Defusion
  - Committed action – out of session planning

# Values Worksheet

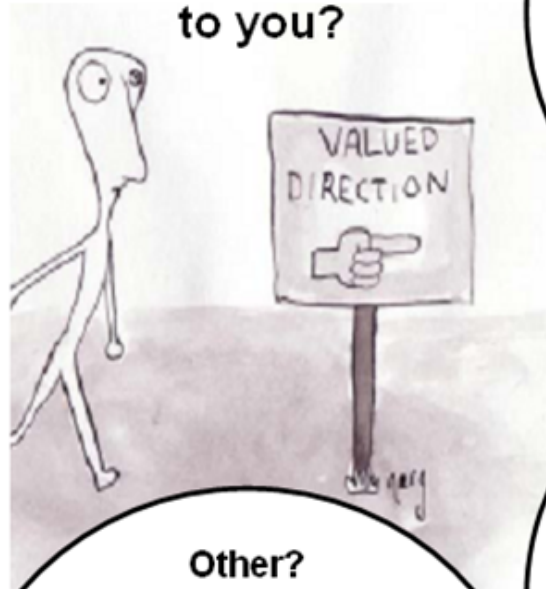
## Work/Education

Work, career, education, skills development.

## Leisure

How you play, relax or enjoy yourself.

What is important to you?



## Relationships

With your partner, family, friends, co-workers.

## Personal growth/health

May include religion, spirituality, creativity, physical health.

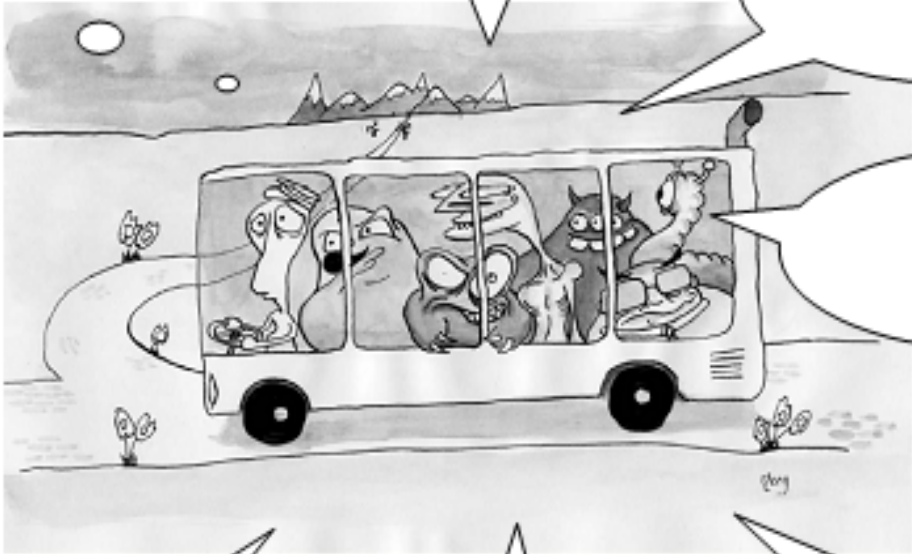
## Other?

Anything else that is important to you.



# Passengers on the Bus Worksheet

Value:



# Out of Session planning Worksheet

**My goal is to (be specific):**

---

---

---

**My values guiding this goal:**

---

---

---

**My action for this week to move me closer to my goals:**

---

---

---

---

---

---



**Passengers that might show up as I work towards my goal.**

---

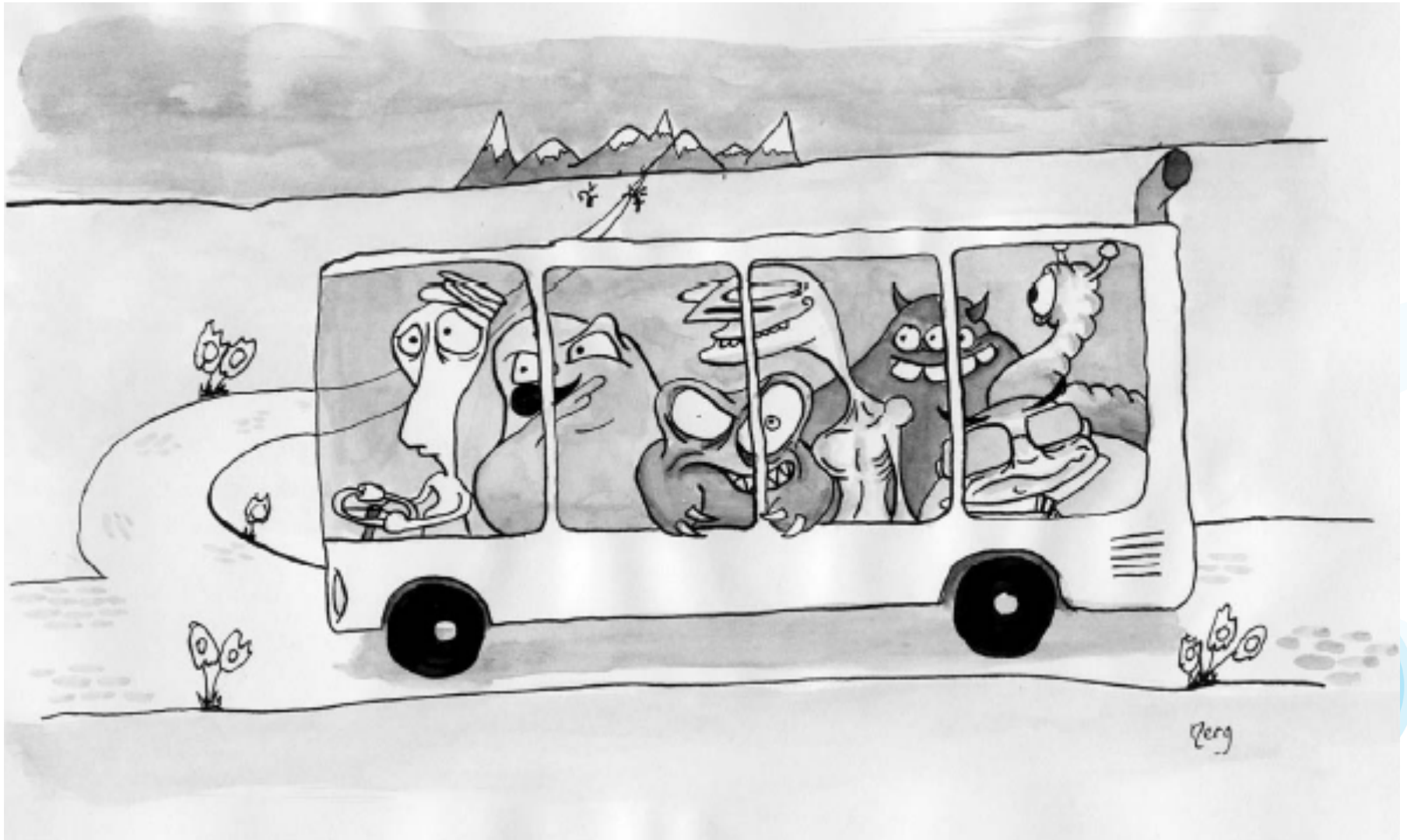
---

---

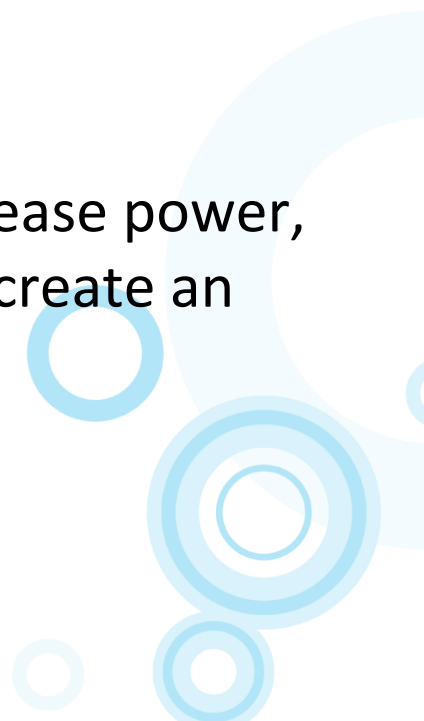
---

---

# Study Results

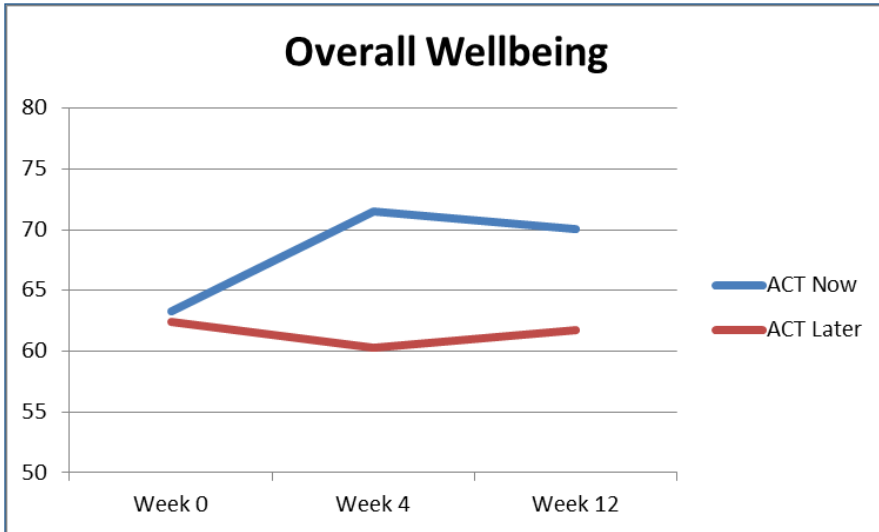


# Main Outcome – Overall Wellbeing

- Wellbeing (Warwick-Edinburgh Mental Wellbeing Scale, WEMWBS, Tennant et al., 2007)
  - Distress (Clinical Outcomes in Routine Evaluation measure, CORE-10, Barkham et al., 2013)
  - To create a single primary outcome index and increase power, WEMWBS and CORE-10 scores were combined to create an Overall Wellbeing (OW) score
- 



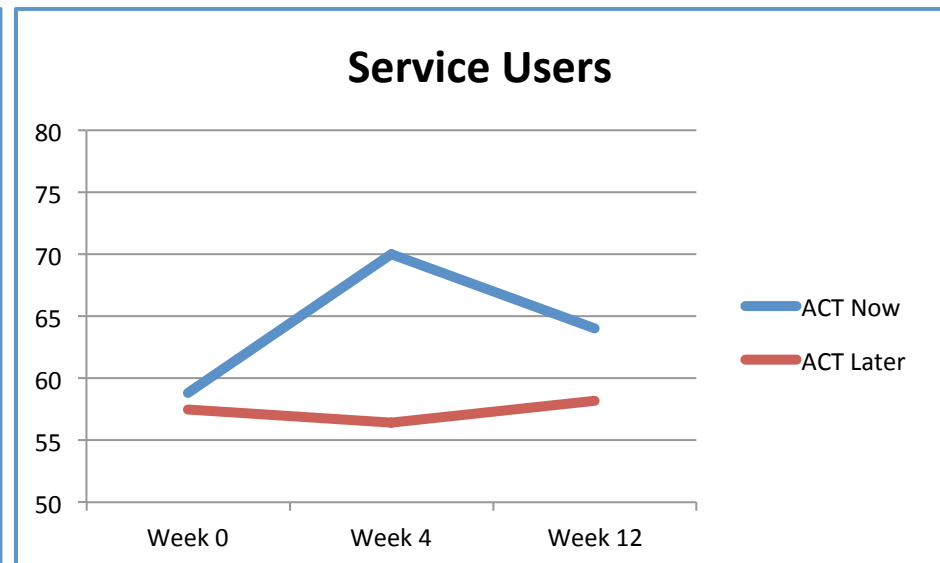
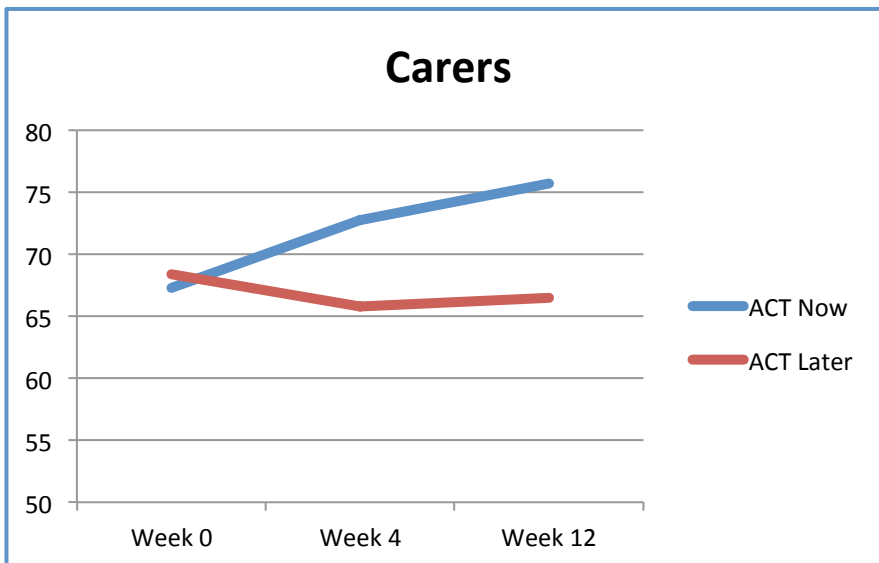
# Main Outcome - Wellbeing



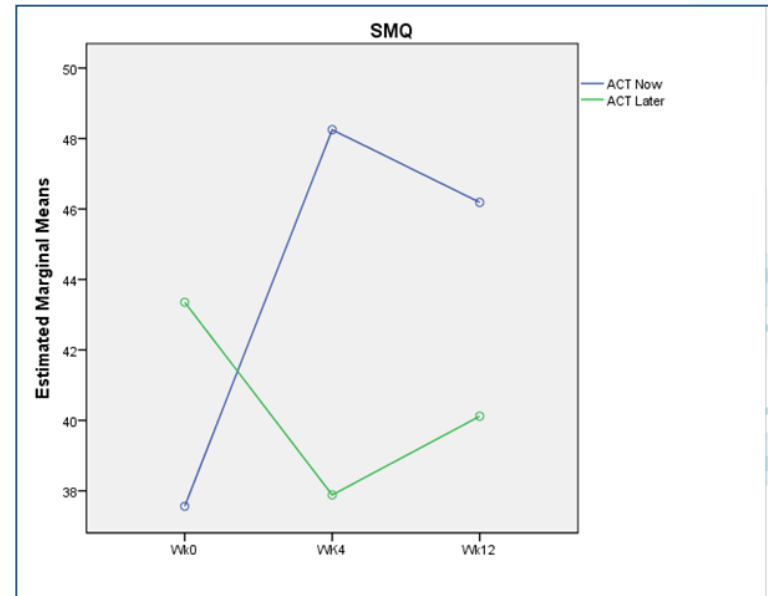
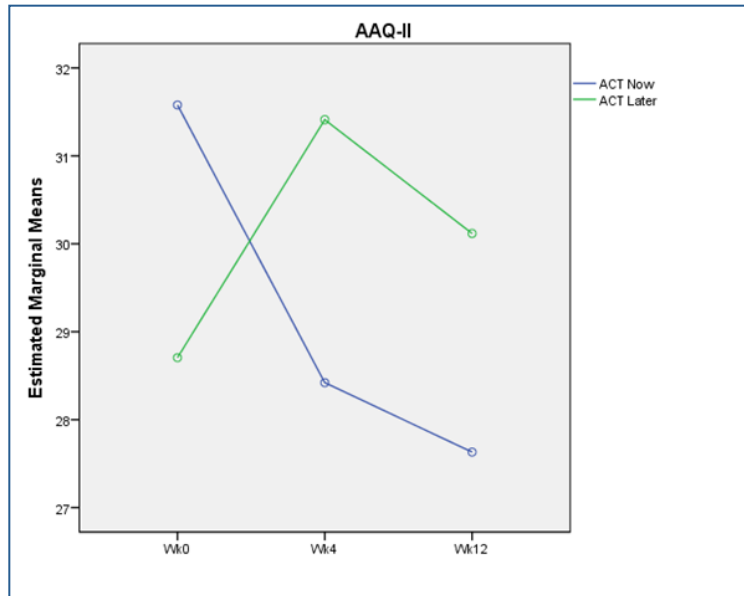
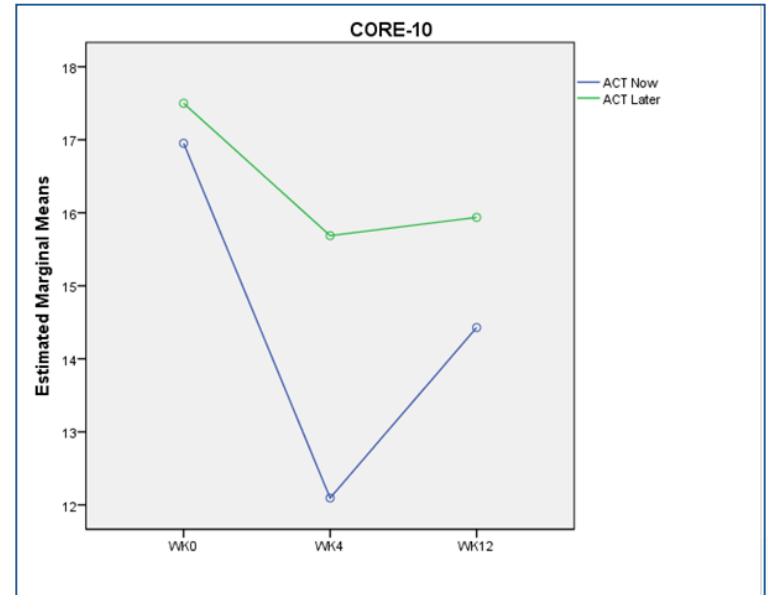
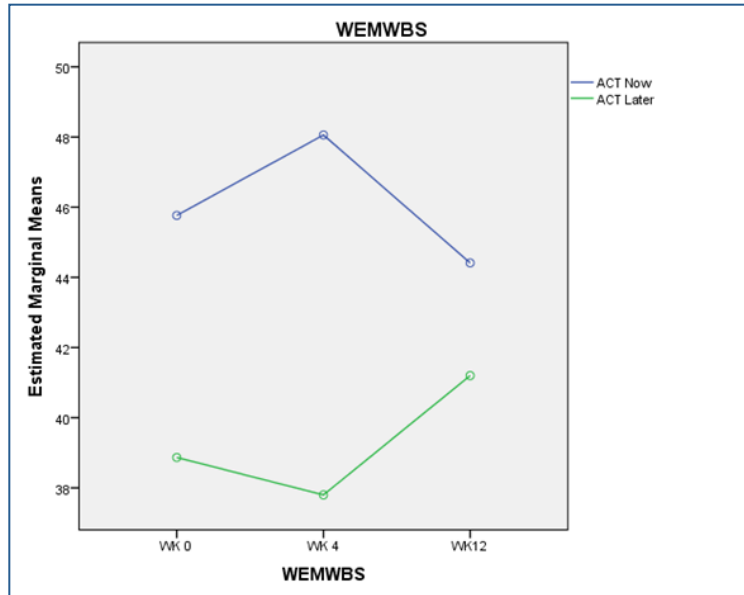
### Findings:

- Significant treatment effect
- Coeff=8.0,  $p < 0.001$ , 95% CI 3.8-12.3
- Between groups ES=0.6 at 4 weeks
- ES=0.4 at 12-week follow-up

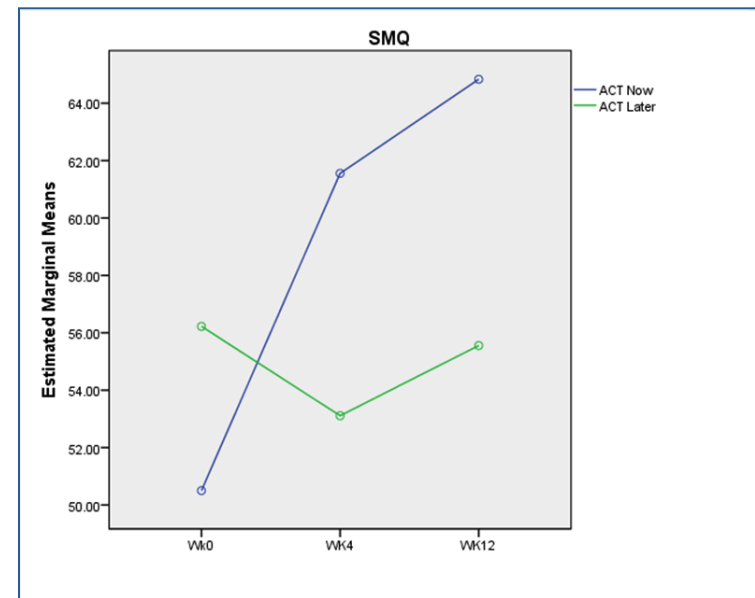
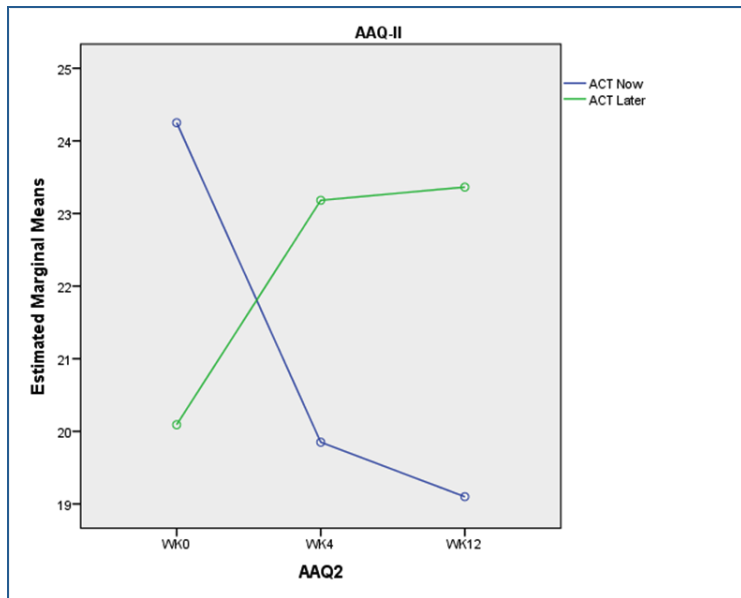
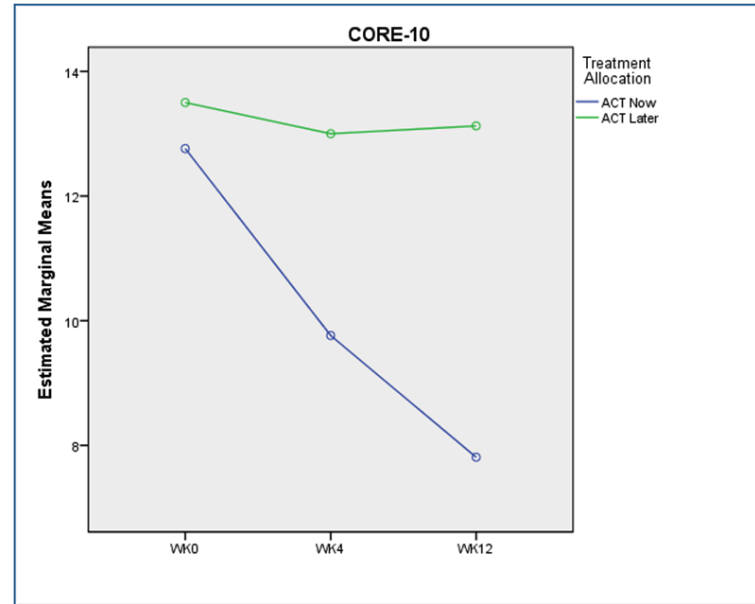
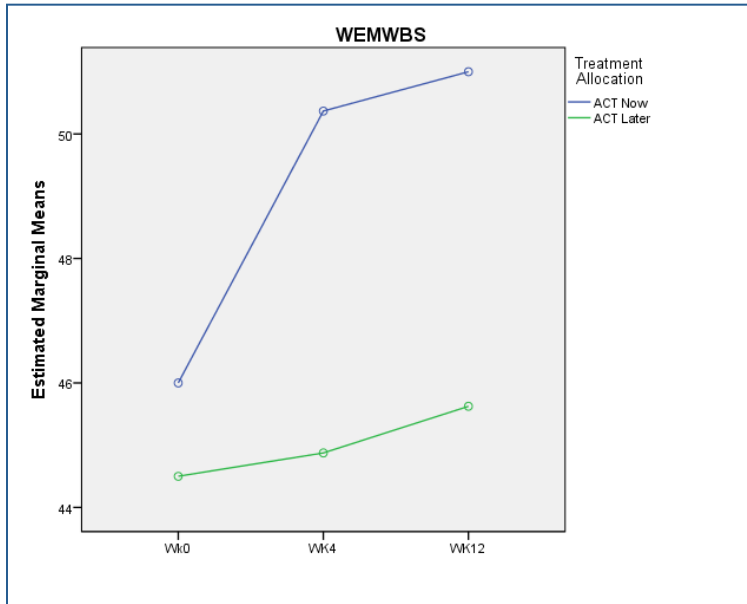
(Jolley, Johns, O'Donoghue, ACTfR group and Morris., in prep)



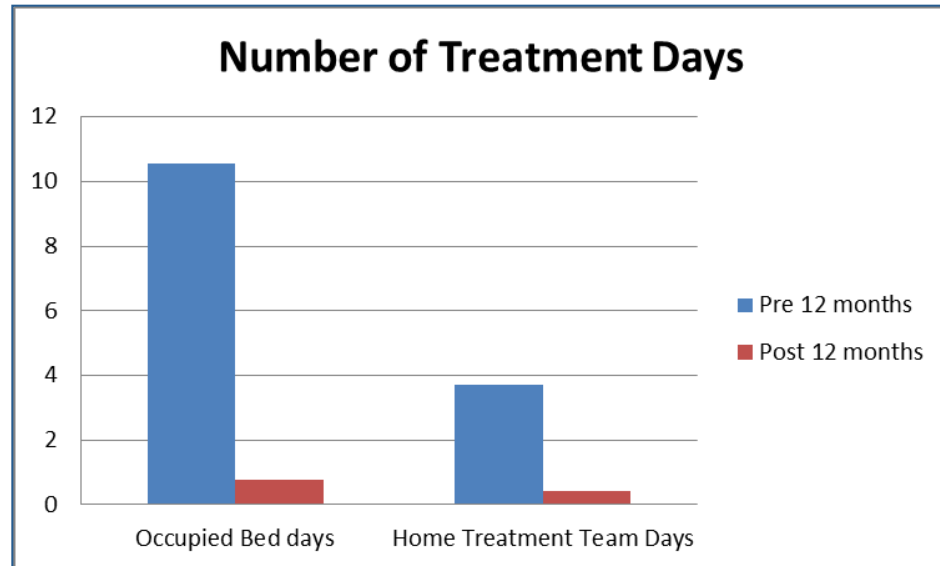
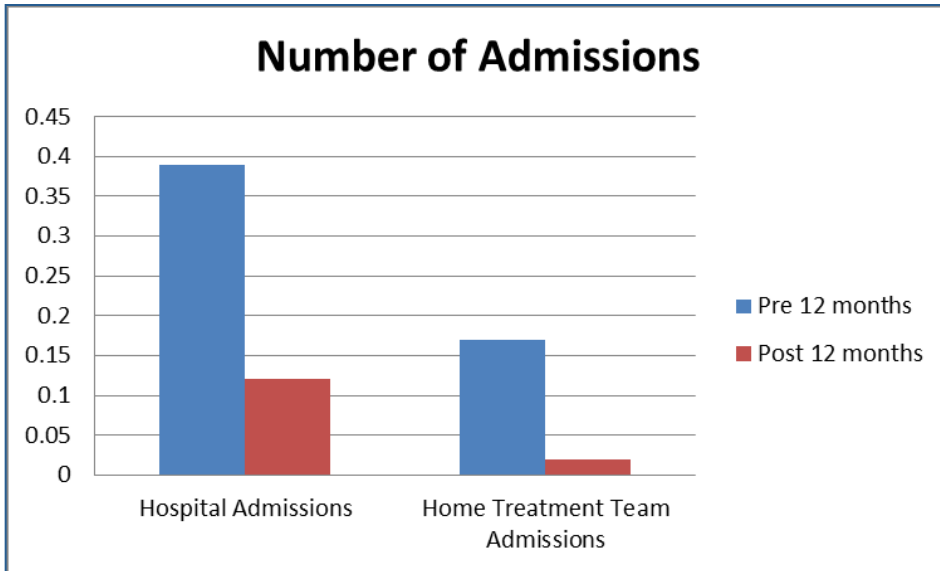
# Service User Means



# Carer Means



# Service Use



Uncontrolled Service Use was recorded 12 months prior to the intervention and 12 months following the booster sessions.

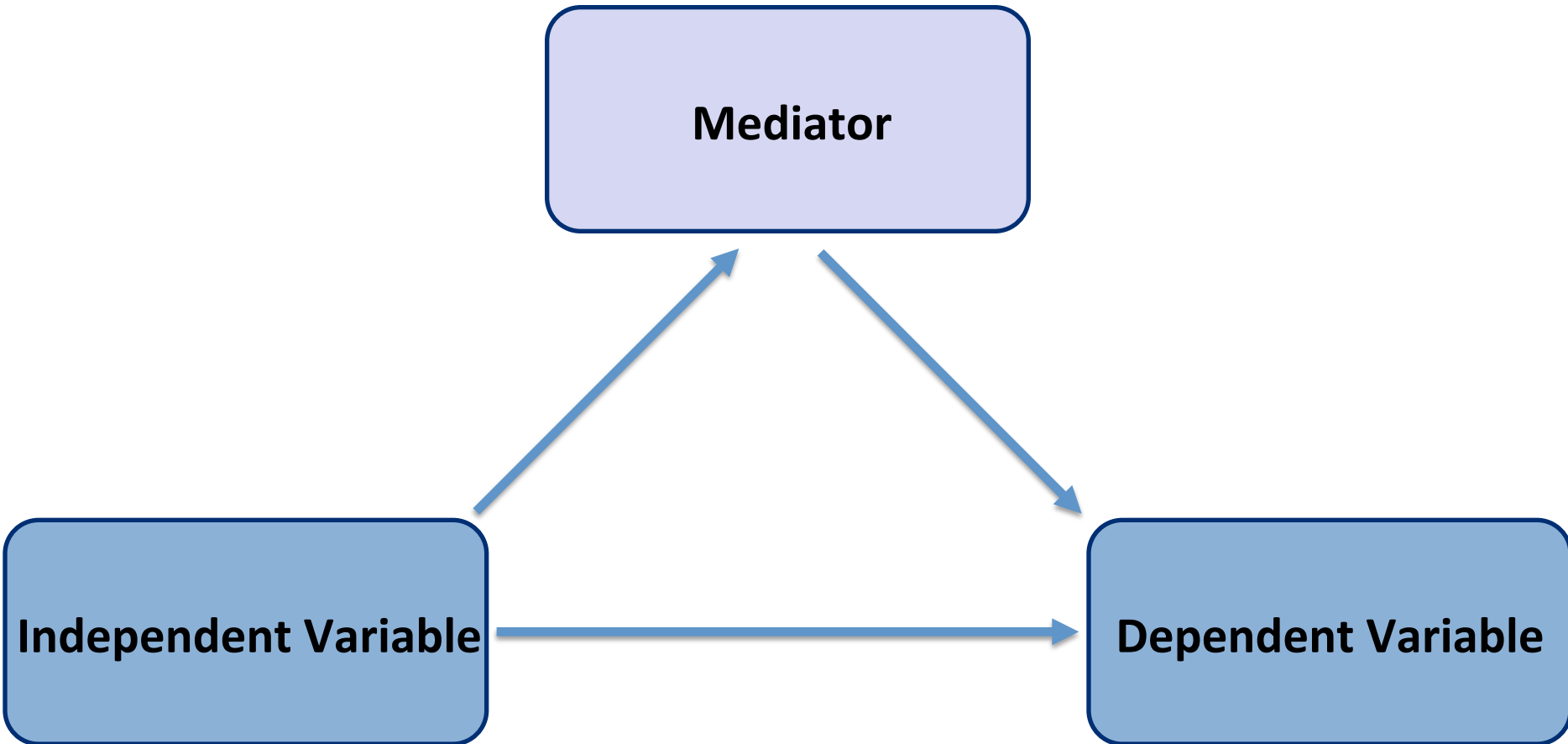
### Findings:

- Significant reductions in number of admissions to Hospital and Home Treatment Admissions (\* $p < 0.5$ )
- Significant reductions in Occupied Bed Days and Home Treatment Team Days (\* $p < 0.5$ )

# Mechanisms of Change



# Mediation Analysis



# Mediation Analysis - Bootstrap

Is **change** in Wellbeing **mediated** by a change in an ACT process?  
(Baseline - 12 wk f/u change)

**Mindfulness  
SMQ**

Sig. Indirect Effect = 4.89,  
95% BCa CI (1.86, 9.79)  
accounting for 21% variance

a = 13.01\*

b = 0.38\*\*

**Group Allocation  
ACTNow, ACTLater**

n.s.

**Overall Wellbeing  
12 week follow-up**

\* p < .001    \*\* p < .0001

# Mediation Analysis - Bootstrap

Is **change** in Wellbeing **mediated** by a change in an ACT process?  
(Baseline - 12 wk f/u change)

**Psych Flex**  
AAQ-II

Sig. Indirect Effect = 3.51,  
95% BCa CI (0.17, 8.31)  
accounting for 17% variance

a = 5.97\*

b = 0.59\*

**Group Allocation**  
ACTNow, ACTLater

**Overall Wellbeing**  
12 week follow-up

n.s.

\* p < .01



# Mediation Analysis - Bootstrap

Is **change** in Wellbeing **mediated** by a change in an ACT process?  
(Baseline - 12 wk f/u change)

**Psych Flex**  
AAQ-II & SMQ

Sig. Indirect Effect = 5.29,  
95% BCa CI (1.86, 10.16)  
accounting for 23% variance

a = 5.12\*

b = AAQ -0.32  
b = SMQ 0.28\*


**Group Allocation**  
ACTNow, ACTLater

n.s.


**Overall Wellbeing**  
12 week follow-up

\* p < .01

# Themes – Qualitative Analysis (Service Users)

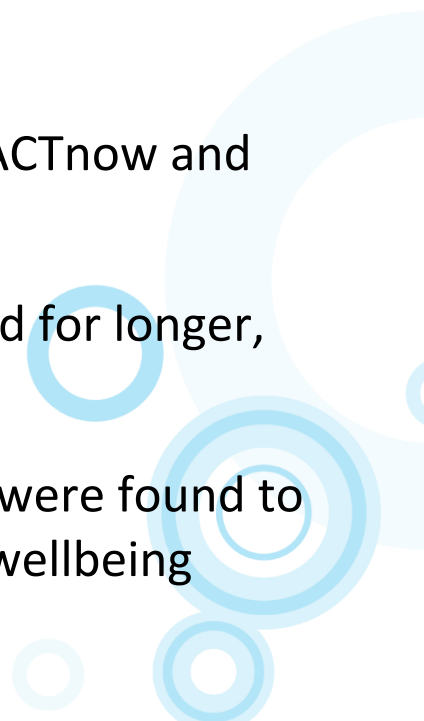
1. *Preferred exercises (PoB Metaphor, willingness, values/goals clarification, committed action, focus on recovery)*
  2. *Qualitative changes (More mindful/present, accepting, values/goals, increased self-awareness etc.)*
  3. *Responding to ‘Passengers’ (Identification, externalising passengers, responding differently to passengers)*
  4. *Group Processes (Shared understanding/experiences)*
  5. *Difficulties with the model (Understanding PoB metaphor, Identifying values/goals)*
- 

# Themes – Qualitative Analysis (Carers)

1. *Qualitative changes (Mood and wellbeing, increased self-awareness etc.)*
  2. *Preferred exercises (Mindfulness, values clarification, committed action)*
  3. *How people relate to difficulties (More mindful, accepting)*
  4. *Positive impact on the caring role*
  5. *Group Processes (Shared understanding, space to be heard)*
- 

# Summary

- **Results show:**

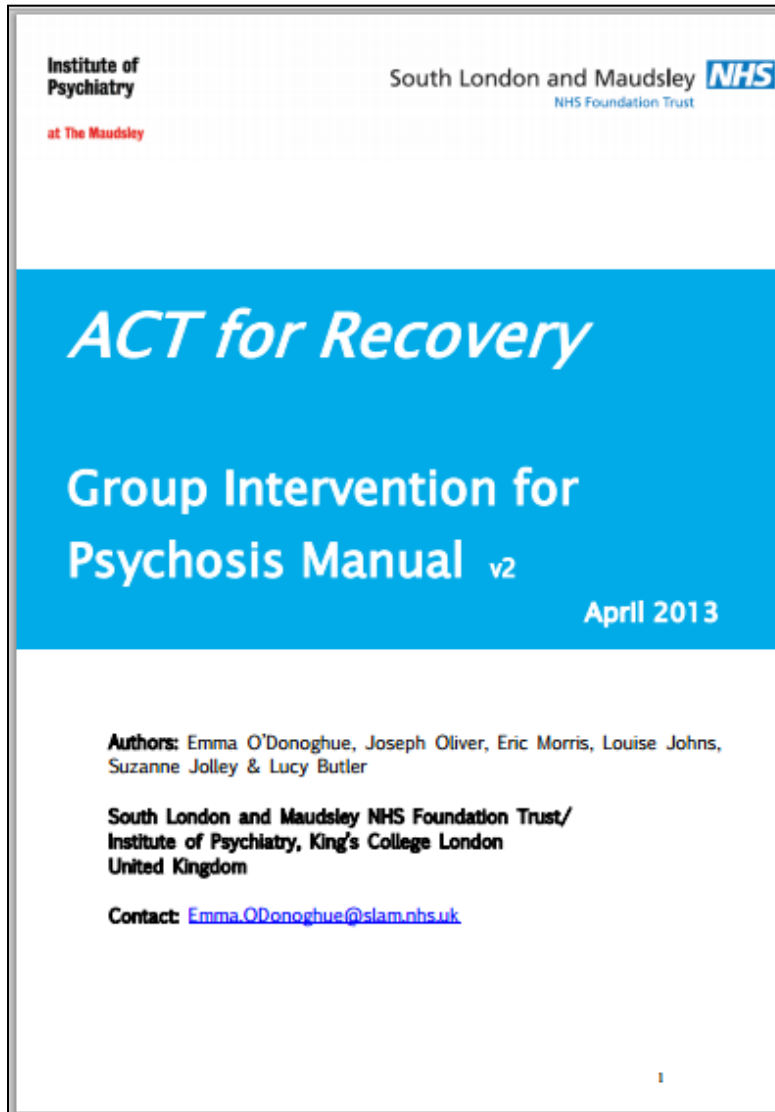
- Wellbeing and psychological distress improved after workshops and was consistent over the follow-up period
    - 4 sessions of ACT is sufficient for carers
    - May need to increase number of sessions for service users to maintain improvement
  - Eight point difference in overall wellbeing between the ACTnow and ACTlater groups
  - Between group effect sizes comparable to those reported for longer, individual therapies, in the UK NICE guidance
  - Psychological Flexibility and Mindfulness increased and were found to mediate the relationship between group allocation and wellbeing
- 

# Next Steps...

- 6 months follow-up assessments
  - Assess for long-term treatment effect
- Cost effectiveness of ACTfR Intervention



# Coming soon!



- The ACT for Recovery manual will be published by New Harbinger Publications in autumn 2016

# Contact Details



Dr Emma O'Donoghue

Study Coordinator – ACT for Recovery Project

South London and Maudsley NHS Foundation Trust

[Emma.ODonoghue@slam.nhs.uk](mailto:Emma.ODonoghue@slam.nhs.uk)

[Emma.O'Donoghue@kcl.ac.uk](mailto:Emma.O'Donoghue@kcl.ac.uk)

Dr Eric Morris

[Eric.Morris@latrobe.edu.au](mailto:Eric.Morris@latrobe.edu.au)