

# SYMPOSIUM

## **ACT in the workplace: Understanding how ACT interventions improve employees' mental health**

CHAIRS/ PRESENTERS: Dr. Paul Flaxman and Ross McIntosh

DISSCUSANT: Professor Frank Bond



## **Symposium overview**

- 1. ACT in the workplace: Exploration of multiple processes of change**
- 2. A randomised controlled comparison of worksite applications of ACT and mindfulness training**
- 3. School teachers' experiences of a workplace ACT intervention: A mixed methods study**
- 4. ACT in the workplace: Program content (4 session example)**

# PAPER 1

## ACT in the workplace: Exploration of multiple processes of change

Paul Flaxman,<sup>1</sup> Mia Söderberg,<sup>1</sup> Lucie Zernerova,<sup>1</sup> Jo Lloyd,<sup>2</sup> Nigel Guenole,<sup>2</sup> & Frank Bond<sup>2</sup>

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## Background to study

- **Evidence indicates that workplace ACT interventions improve employees' mental health, stress, and job burnout**

(e.g., Bond & Bunce, 2000; Brinkborg et al., 2011; Flaxman & Bond, 2010a, Jeffcoat & Hayes, 2012; Lloyd et al., 2013; Waters et al., 2018)

## Background to study

- **ACT in workplace performs as well as (if not better than): a work-related stress intervention; CBT stress management training; personal development workshops; mindfulness training**

(Bond & Bunce, 2000; Flaxman & Bond, 2010a; Frögéli et al., 2016; Flaxman et al., in prep)

## Background to study

- **Mixed evidence that improvements in psychological flexibility mediate ACT's effects on employees' mental health**

(Bond & Bunce, 2000; Flaxman & Bond, 2010a; Lloyd et al., 2013;

*but see* Brinkborg et al., 2011; Frögéli et al., 2016; Waters et al., 2018)

## Research questions

- Could we go beyond general construct of psychological flexibility and identify more specific processes of change (e.g., defusion, behavioural activation, reduced avoidance)?
- Do specific processes of change show greater influence at early/ later stages?
- Can we translate such findings into practical suggestions for designing ACT-based programs for workplace settings?

## METHOD: Study design

- Waitlist controlled trials of ACT conducted at three UK organisations – two healthcare organisations, one central government
- Some participants randomly allocated to ACT or waitlist control group; others required to signed up to early or later training based on work schedules
- ACT-based training delivered to groups of employees over three half-day sessions; five month evaluation period



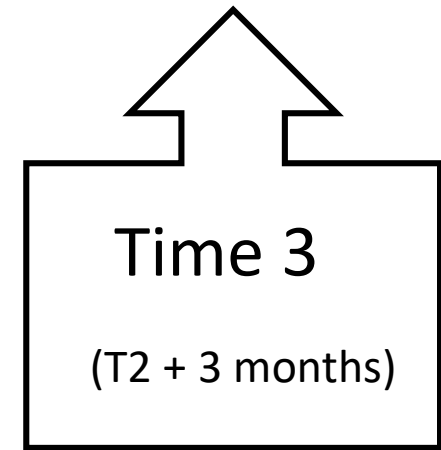
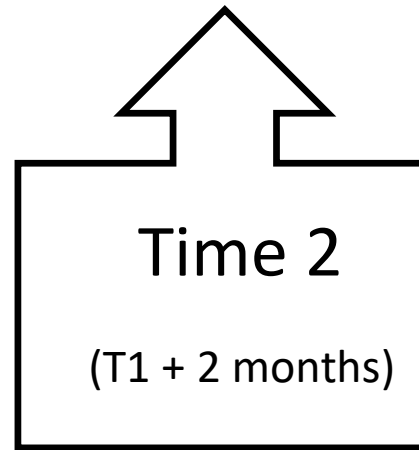
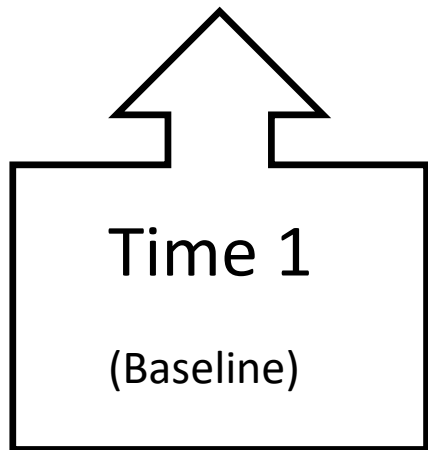
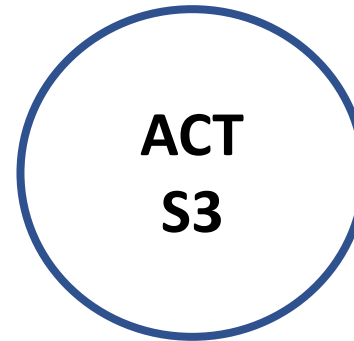
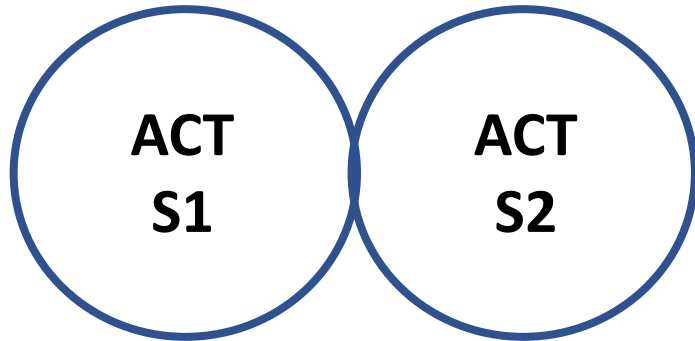
# METHOD: Study design

Week 1

Week 2

Week 8

Week 20





## **MINDFULNESS**

- Present moment awareness training
- Noticing and disentangling from internal barriers to values-based action

## **VALUES-BASED ACTION**

- Defining personal values
- Using values as a guide to daily behaviour

## METHOD: Participants

N = 264 volunteered for 'Psychological Skills Training' or 'Personal Resilience Training'

N = 244 completed baseline assessments: ACT = 112; control = 132

78% Female; average age = 41 (range 20 to 69)

48% reporting clinical level of distress

## Primary outcome variables

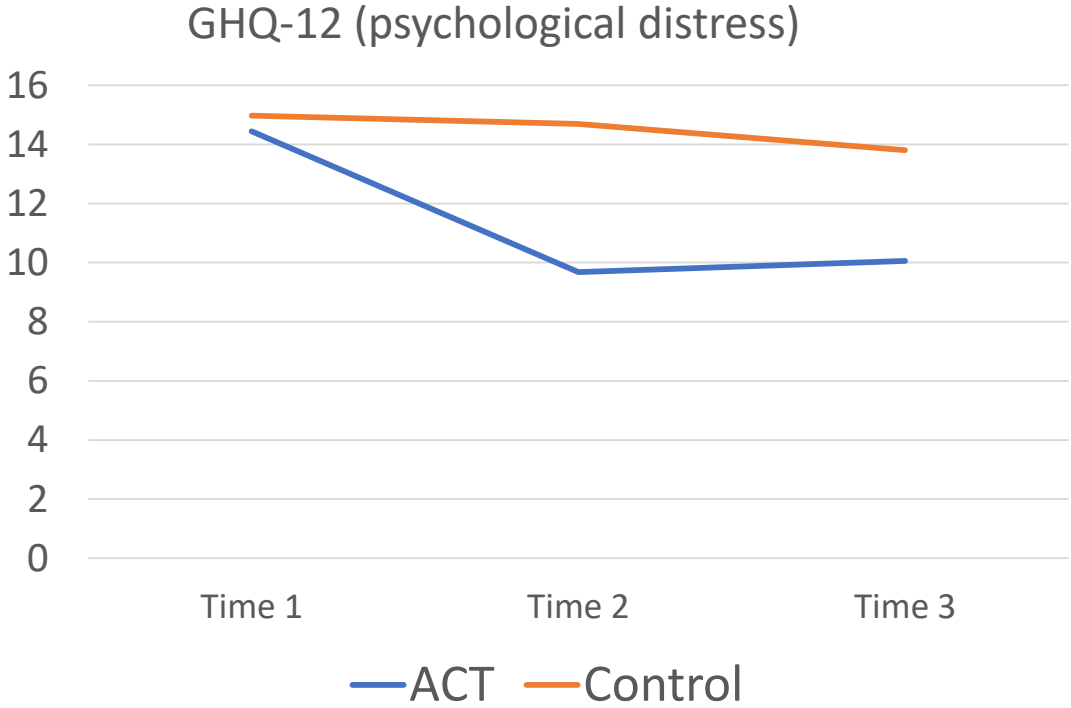
<b>Variable</b>	<b>Measure</b>	<b>Items</b>
Psychological distress	General health questionnaire-12 (Goldberg, 1978)	“Felt you couldn’t overcome your difficulties?”  “Felt that you are playing a useful part in things?”
Life satisfaction	Personal Wellbeing Index-Adult (International Wellbeing Group, 2013)	“Thinking about your own life and personal circumstances, how satisfied are you with your life as a whole?” (10 point scale)

# Hypothesised mediating variables

<b>Variable</b>	<b>Measure</b>	<b>Items</b>
Cognitive fusion	Cognitive fusion questionnaire (CFQ-7; Gillanders et al., 2014)	"I tend to get very entangled in my thoughts."  "I get so caught up in my thoughts that I am unable to do the things that I most want to do."
Behavioural activation	Behavioural activation for depression scale (BADS; Kanter et al., 2007)	"I did something that was hard to do but it was worth it."  "I was an active person and accomplished the goals I set out to do."
Avoidance	Behavioural activation for depression scale (BADS; Kanter et al., 2007)	"I did things to avoid feeling sadness or other painful emotions."  "I engaged in activities that would distract me from feeling bad."

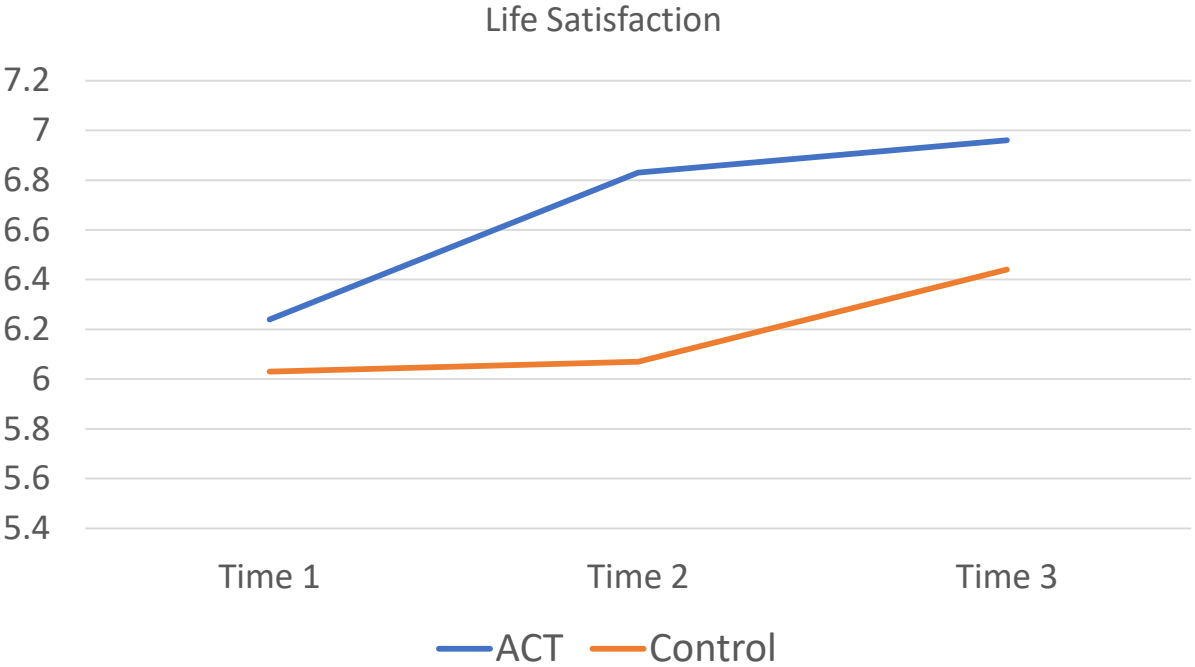
# RESULTS: Outcome effects (GHQ-12)

(ITT results following multiple imputation)



# RESULTS: Outcome effects (life satisfaction)

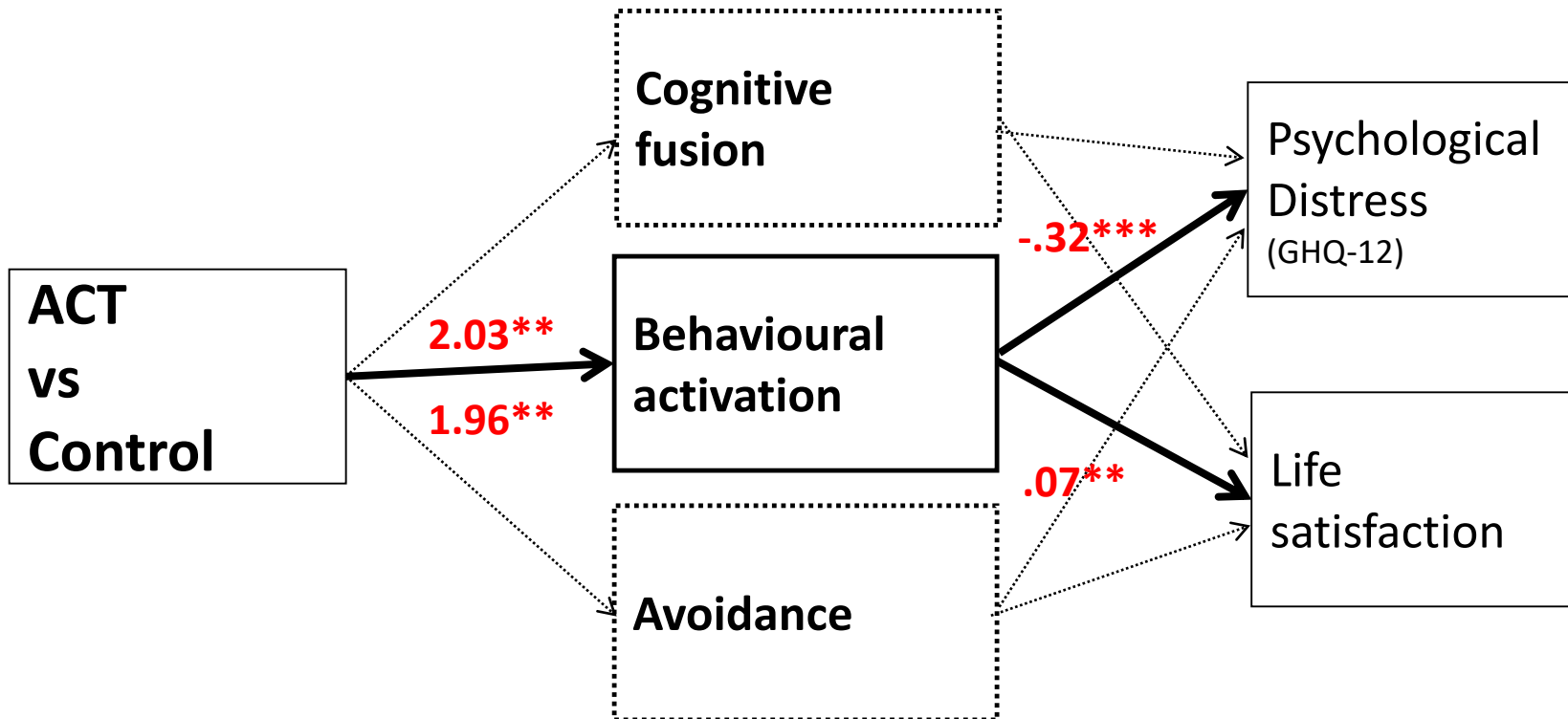
(ITT results following multiple imputation)



# RESULTS: Bootstrapped mediation tests (Time 1 to Time 2)

TOTAL indirect effects: -1.17 (.61), CI [-2.27, -.14] (GHQ-12); .24 (.13), CI [.02, .52] (life sat)

SPECIFIC indirect EFFECTS via Behavioural activation only

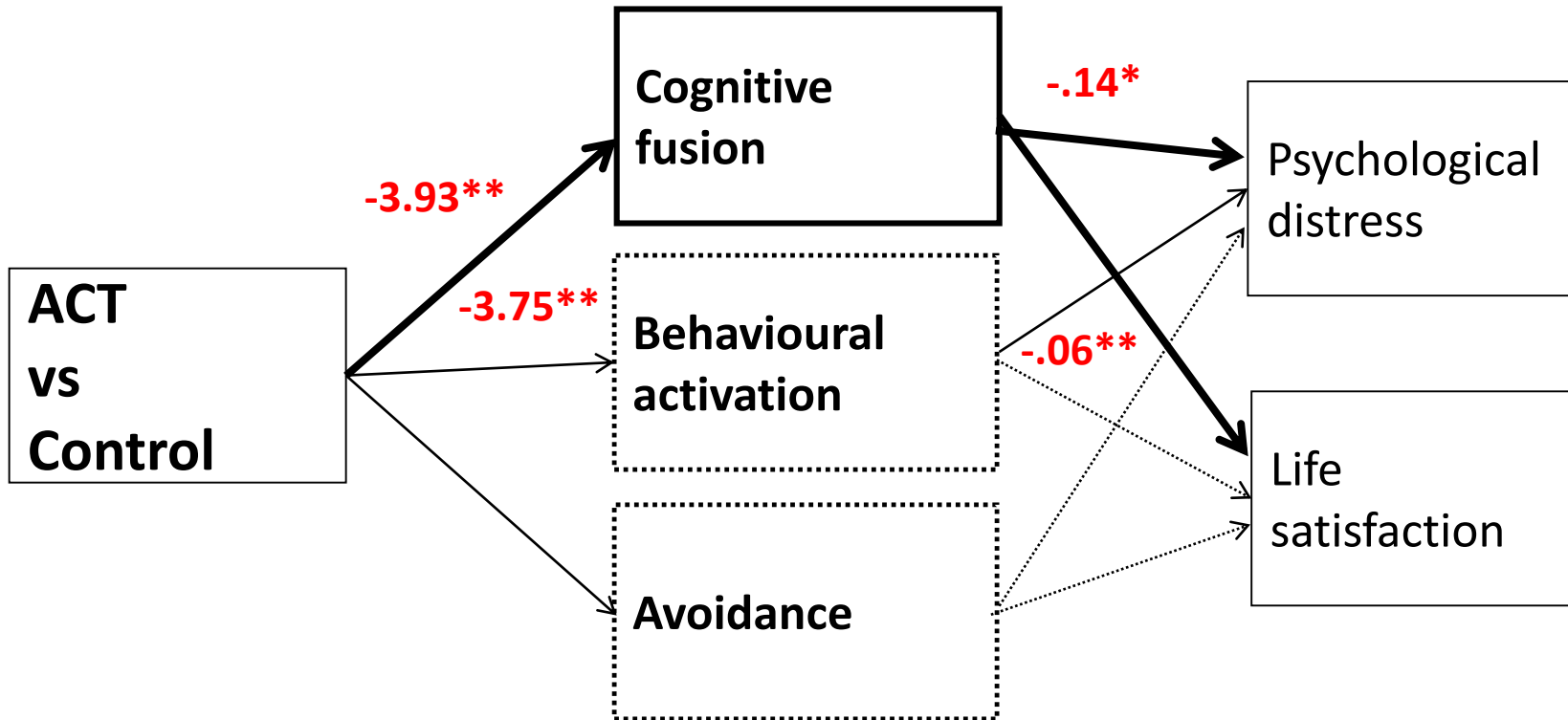




# RESULTS: Bootstrapped mediation tests (Time 1 to Time 3)

TOTAL indirect effects: -2.36 (.87), CI [-4.25, -.84] (GHQ-12); .49 (.17), CI [.16, .86] (life sat)

SPECIFIC indirect EFFECT via cognitive defusion only



## Discussion/ conclusion

- Likely to be some 'quick wins' through (values-based) behavioural activation in workplace ACT programs
- Influence of cognitive defusion on employees' mental health may be more subtle and gradual - but eventually serves as important process of change
- Reduced experiential avoidance not found to be a unique mediator of change in this workplace sample

# Limitations

- Not all participants were randomised to condition
- Attrition: N = 244 (T1); N = 190 (T2); N = 152 (T3)
- Inactive control condition
- Couldn't demonstrate that change in mediators was preceding change in outcomes



# Acceptance and commitment therapy (ACT) for clinically distressed health care workers: Waitlist-controlled evaluation of an ACT workshop in a routine practice setting

Cerith S. Waters<sup>1,2\*</sup> , Neil Frude<sup>1,2</sup>, Paul E. Flaxman<sup>3</sup> and Jane Boyd<sup>2</sup>

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<sup>2</sup>Psychology and Counselling, Whitchurch Hospital, Cardiff University, Wales, UK

<sup>3</sup>Department of Psychology, City University London, UK

# Practical implications

- Promote values-based action early in the program; communicate that size of the action is unimportant; noticing some “towards moves” in daily life
- Integrate defusive language and interventions throughout the program; can also have a dedicated defusion skills segment
- Undermining experiential avoidance can be more subtle in workplace groups; willingness messages communicated alongside all ACT strategies

Thank you for your attention!

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# A randomised controlled comparison of worksite applications of ACT and mindfulness training

Paul Flaxman, Vasilki Christodoulou, Joe Oliver, Eric Morris,  
Nigel Guenole, Jo Lloyd, & Frank Bond



# Study Background

- Huge interest in delivering mindfulness-based interventions (MBIs) in workplace settings

Methodological limitations in extant body of workplace MBI research:

- Short evaluation periods (often only pre-post)
- Overreliance on inactive control conditions (some studies without control groups)
- Focus still mainly on outcome effects; less research examining specific processes of change



# Does 'MBI' refer (only) to MBSR/ MBCT?

- Acceptance and commitment therapy (ACT) – sometimes classified as an MBI (e.g., Baer, 2003; 2010), sometimes not (e.g., Virgili, 2015)
- *In theory*, ACT cultivates many of the same skills and psychological processes as other MBIs (e.g., Hayes et al., 2011)
- ACT employs mindfulness/ acceptance to enhance people's ability to engage in personally valued action
- ACT shown to be effective in various workplace settings (e.g., Bond & Bunce, 2000; Brinkborg et al., 2011; Dahl et al., 2004; Flaxman & Bond, 2010; Frögéli et al., 2016; Lloyd, Bond & Flaxman, 2013)

# Distinction between mindful *attention* and mindful *attitude*

- Paying attention is the ‘what’ of mindfulness.....  
  
With a non-judgemental/ non-reactive attitude is the ‘how’
- Present moment awareness is not *intrinsically* functional (e.g., Eisenlohr-Moul et al., 2012; Leigh et al., 2005; Leigh & Neighbours, 2009; Peters, et al., 2013)
- Cultivation of mindful attitude the most unique aspect of MBIs?
- Theory and research suggest development of mindful attitude should be a potent MBI mechanism of action (e.g., Baer, 2003; Hölzel et al., 2011; Malinowski, 2013).

# Study Hypotheses

- Worksite ACT and mindfulness training (MT) programs will result in significant and comparable improvements in employees' psychological health over a six month evaluation period.
- Worksite ACT and MT programs will result in significant and equivalent improvements in employees' mindfulness skills.
- Beneficial effects of ACT and MT will primarily be transmitted through an increase in the attitudinal facets of mindfulness (i.e., through the cultivation a more accepting and/ or less reactive relationship with inner experience).

# Participants and Procedure

National Health Service (NHS) employees. Advertised as well-being training for staff: 'strengthen your well-being and personal resilience'

240 people expressed interest and were randomised to: Mindfulness training, ACT, or waitlist control group

**$N = 199$**  completed informed consent and baseline assessments

**Mindfulness training:  $n = 63$**

**ACT:  $n = 67$**

**Control group:  $n = 69$**

77% female; age range 21 to 62

Nursing and healthcare assistance (28%); medical practice (4%); departmental management (8%); administrative and clerical support (12%); psychotherapy (16%); other health-related services (e.g., pharmacy, occupational therapy, and physiotherapy; 14%).

# Study Design

**Time 1** measures (pre-intervention)

Training session 1

Training session 2

Training session 3

**Time 2** measures (Time 1 + 1.5 months)

Training session 4

**Time 3** measures (Time 2 + 1.5 months)

**Time 4** measures (Time 3 + 1.5 months)

**Time 5** measures (Time 4 + 1.5 months)

# Measures

## General health questionnaire (GHQ-12)

e.g., Have you recently....

“Lost much sleep over worry?”

“Been able to face up to your problems?”

## Five facet mindfulness questionnaire (FFMQ)

**Act with awareness;** e.g., “It seems I am “running on automatic” without much awareness of what I’m doing”

**Non-reactivity to inner experience;** e.g., “When I have distressing thoughts or images I can just notice them without reacting.”

**Non-judging of experience;** e.g., “I think some of my emotions are bad or inappropriate and I shouldn’t feel them”.

# Measures

## Average amount of weekly formal practice:

- Not at all
- < 30 mins per week
- 30 mins
- 1 hour
- 1.5 hours
- 2 hours
- 2.5 hours
- 3 hours
- 3.5 hours
- 4 hours or more

# Mindfulness Training and ACT Programs

<b>Mindfulness Training</b>		<b>ACT</b>
Raisin exercise		Raisin exercise + brief meditations
Body scan		Clarify personal values; and use as a guide to daily action (values-based action)
Sitting meditation		Cognitive defusion exercises to disentangle from unhelpful thoughts
Mindful movement		Physicalizing exercise - relating skilfully to difficult emotion
3 step breathing space		Usual ACT metaphors (e.g., “passengers on the bus”)
Usual mindful poems and inquiry process		



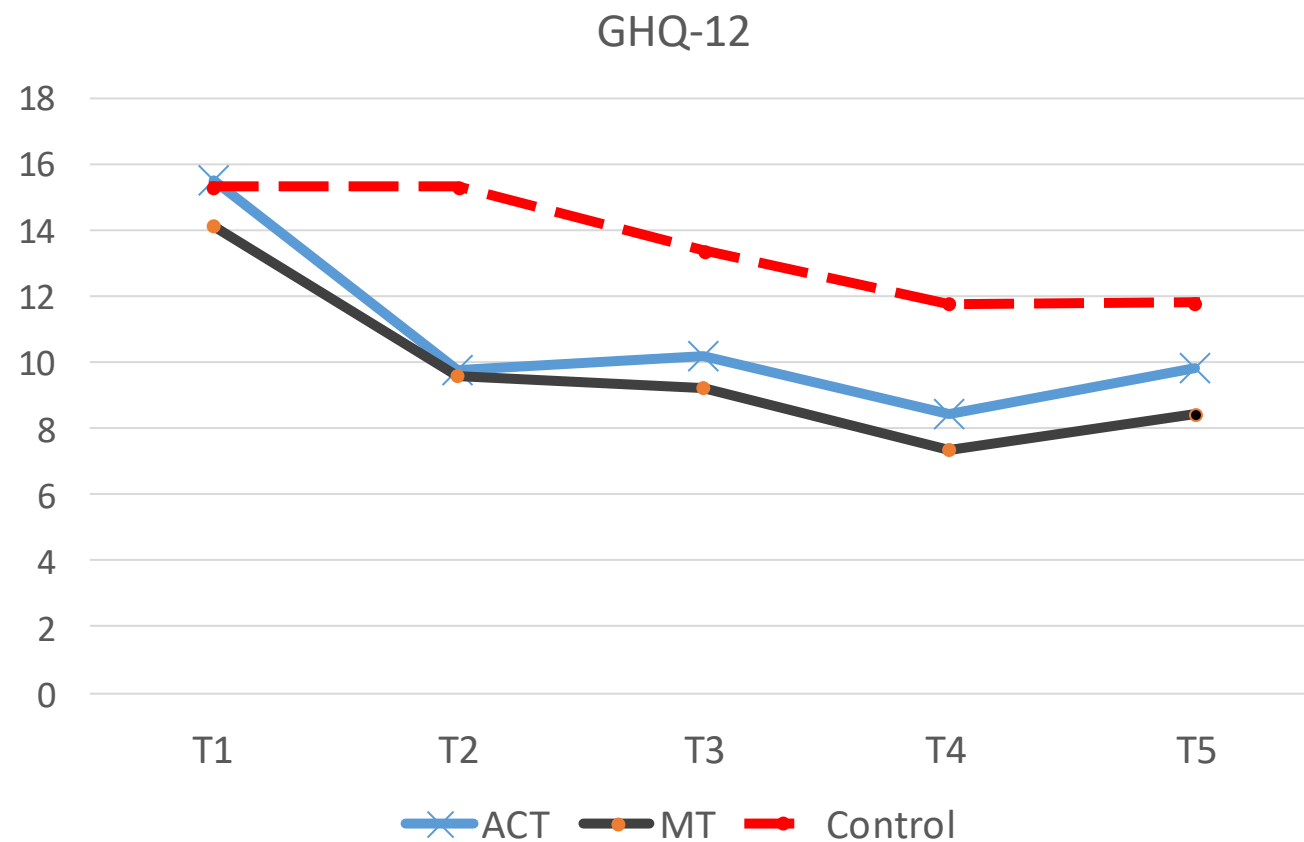
# Analytic Strategy

Measurement invariance testing

Univariate growth curve models to test significance of change over time in each condition

Mindfulness mediators of change tested with parallel process latent growth curve model over the five measurement occasions

# Outcome Results: Reductions in distress across the study (GHQ-12)



# Results

## Amount of formal mindfulness meditation home practice:

**T2, T3, T4:** MT group reported significantly more time practicing than ACT group

MT group = averaging around 1 to 1.5 hours home practice per week

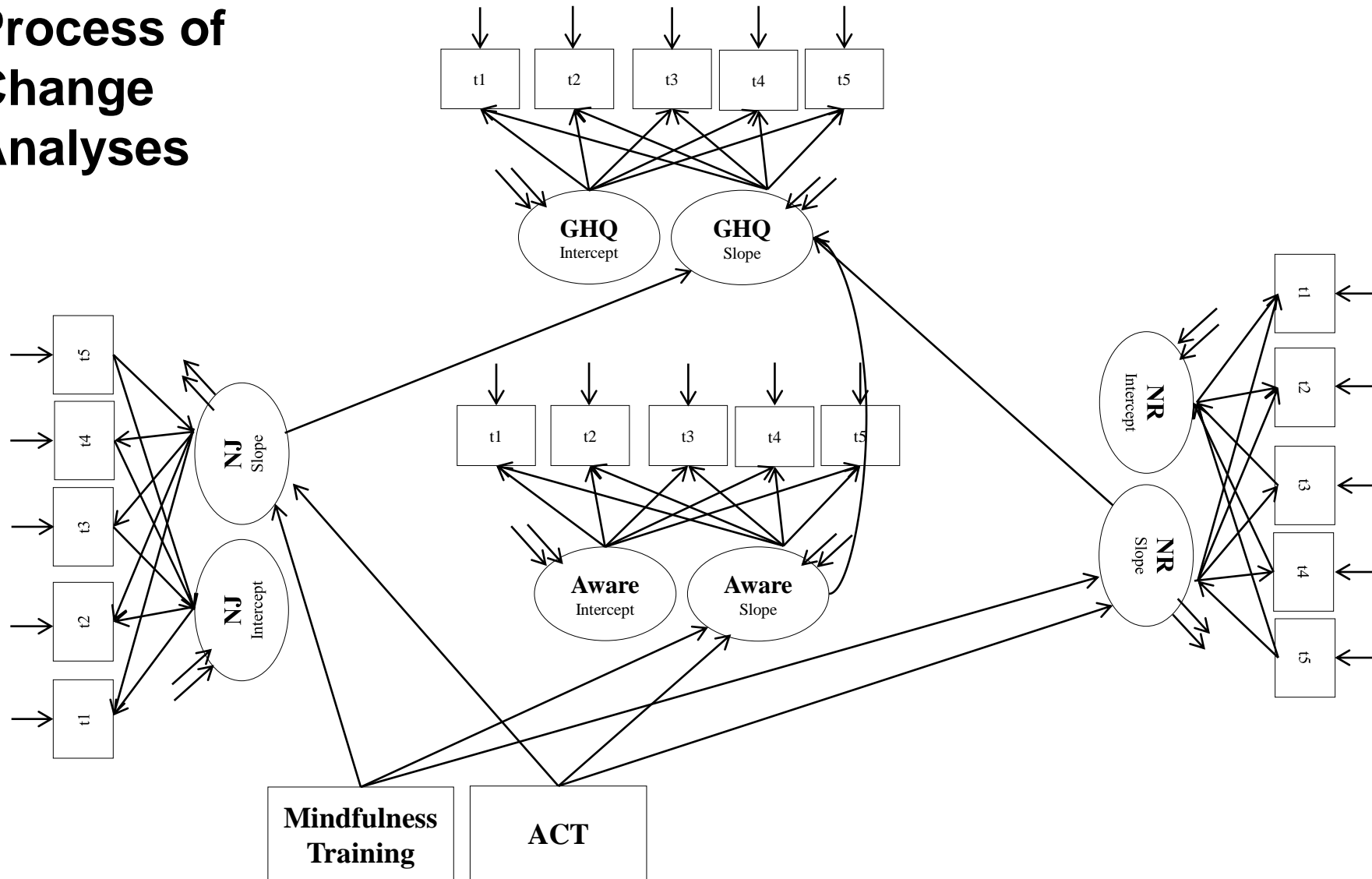
ACT group = averaging 30 mins per week

# Results

Univariate growth models (slope means)

	<b>Control</b>		<b>ACT</b>		<b>MT</b>
Act with awareness	.04		.17**		.15.*
Non Judge	.08		.19**		.24***
Non React	.11		.38***		.34***
GHQ-12	-.51***		-2.82***		-1.91***

# Process of Change Analyses



Model fit:  $\chi^2 = 384.44$ ,  $df = 215$ ,  $CFI = .90$ ,  $TLI = .89$ ,  $RMSEA = .06$

# Process of Change Results

*Indirect effects on GHQ-12 change in the Mindfulness Training and ACT groups (compared to control group) via the 3 mindful skill facets*

Significant *total* standardized indirect effects:

ACT = **-.436**; Mindfulness Training = **-.475**

Significant *specific* indirect effects:

via *Non-Judging* only (for both ACT and Mindfulness Training)

## Summary/ Conclusion

- Both ACT and MT appear to work by increasing psychological acceptance
- Supports validity of classifying ACT as a 'MBI'
- ACT an option for those workers who are unlikely/unwilling to engage in formal meditation
- Future studies of worksite MBIs should include the FFMQ, and examine change on each facet

Thank you for your attention!

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# PAPER 3

## School teachers' experiences of a workplace ACT intervention: A mixed methods study

Paul Flaxman, Ross McIntosh, Shannon Horan,  
Julia Yates, and Jeff Salter



## Background to study

- Very high rates of stress and burnout in the teaching profession
- Few published qualitative studies of participants' experiences of workplace ACT interventions
- Qualitative explorations of ACT groups may be particularly important – often do not hear how individual participants are responding

# Williams et al. 2014

## ACT groups for caregivers of persons with acute brain injury

### 5 themes:

- Increasing personal awareness
- Dialectic of emotional acceptance vs emotional avoidance
- Integration of ACT principles
- Peer support
- Moving forward after the group

## Williams et al. (2014)

**A painful and difficult increase in self-awareness....**

*“It was making me so unhappy. I just decided I have to go back to the way I was before, because it worked....”*

*“When we were doing those sessions, it got to the point where I felt sad and low – and then I made a conscious decision, that I couldn't let this happen to me...I gathered everything up and stuffed it in Pandora's box.”*

*“I had all my flesh removed and it's just bone, there's no protection....I'm hoping to get that back by continuing to go.”*

## Williams et al. (2014)

The results highlight a need for facilitators to tread carefully when encouraging participants to appraise their own coping responses, since these are approaches that have been adopted in very difficult circumstances.

(Williams et al., p.38)

# The present study

- Four session ACT program delivered to teachers in five different UK schools
- Quantitative measures: pre, post, 1.5 month follow-up.
- Teachers invited to semi-structured interview about their experiences of the training:

*What impact did the training have your work life? What impact did the training have on your personal life?*

## Participants

Whole sample:  $N = 65$  (19 males, 46 females).

Pre-intervention ( $N = 63$ ), post-intervention ( $N = 48$ ), follow-up ( $N = 33$ ).  $N = 31$  completed sets.

Average age: 38; range 23 - 56

45% reported working more than 50 hours per week

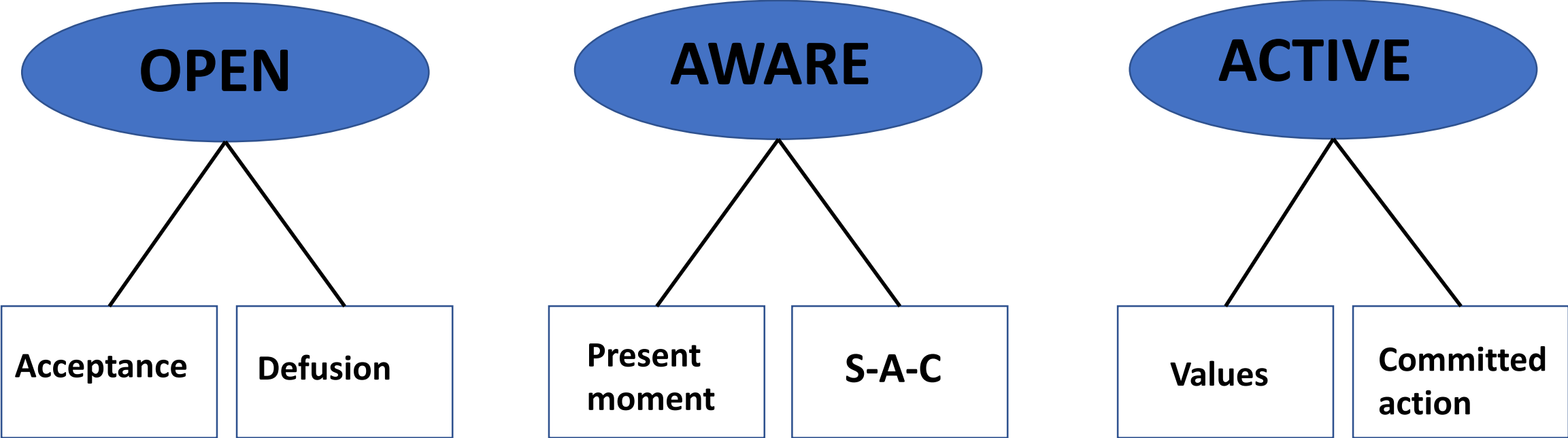
Interviewed:  $N = 34$

# Template analysis

- Useful for larger qualitative datasets
- Provides middle ground between 'top down' and 'bottom-up' styles of analysis
- Central is development of coding template
- Hierarchical organisation of codes: similar codes clustered together to produce more general higher order codes



# Using ACT's processes as initial analytic template



## Using ACT's processes as initial template

Acceptance/ willingness	<p>"I feel stressed, I feel overworked, undervalued, overwhelmed, but I'm going to welcome that because I acknowledge that's how I feel."</p> <p>"It's okay to feel this negative feeling, embrace it, don't get rid of it, it's part of you."</p>
Cognitive defusion	<p>"...I kind of tell myself purposely not to listen to it, whereas [if] it's obviously something I think I should do or shouldn't do, that I would just listen."</p>
Present moment awareness	<p>"Before I just went off on autopilot and just sent an email, I made myself stop and I thought, I really need to think about my feet and my legs and my breath."</p> <p>"....instead of watching him on the slide and enjoying how happy he is, I'd be thinking, OK I've got to do this for Monday and I've got to do that for..... Whereas I just didn't. I allowed myself to just be what we were doing."</p>

## Using ACT's processes as analytic template

Values	<p>“I became a teacher for creativity. I was in another career that was creative before this, so actually it’s made me just think – no, if I value creativity, it’s why I became a teacher and all my life, it’s pushed me in a certain direction. I can’t lose that just because someone is being aggressive or rude or saying no.”</p>
Committed action	<p>“I sent them a little note or a photo of us all together....that I wouldn't normally have done, because it really made me think: how do I want to show love? They were really grateful.....so actually it feathered out into a lot of stuff in my life.”</p> <p>“Well the fact that I’m doing it, I’m saying thank you...makes me feel better and more like the person I want to be.”</p>

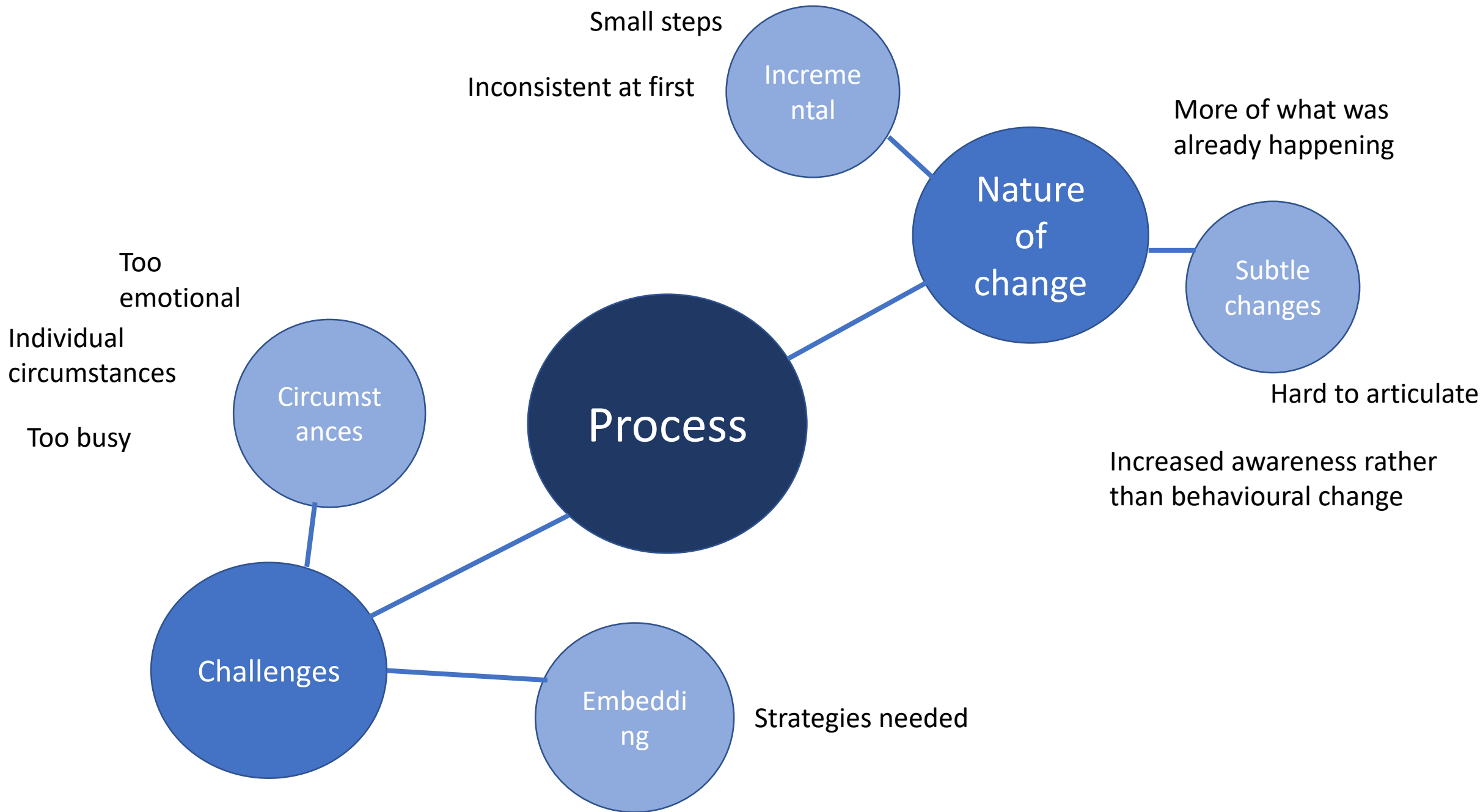


## 'Outcomes': examples

<p>Better relationships</p>	<p>“Getting to sometimes understand that [other] people have a bad day as well.”</p> <p>“If you understand how you’re feeling, this also makes you think you can understand how other people might be feeling.”</p>
<p>Experiencing things differently</p>	<p>“Ultimately it felt different, it felt new, it felt like things were new and I was doing things, seeing things, feeling things in a tiny microscopically different way; so recolouring, reframing.”</p>

## 'Outcomes': examples

Sense of self/ valuing self	“I was just able to do things I wanted to do, and that was a good feeling.”  “[The training] makes you think you deserve it.”
Emotional consequences	“I felt lighter, I felt brighter, I felt freer.”  “It’s quite a calm feeling that I can just watch.”  “So while I was doing things I always did, there wasn't as much of a guilt aspect to it because I felt actually I deserve this.”  “I didn’t feel the tension inside or anything that I usually get when I’m angry.”



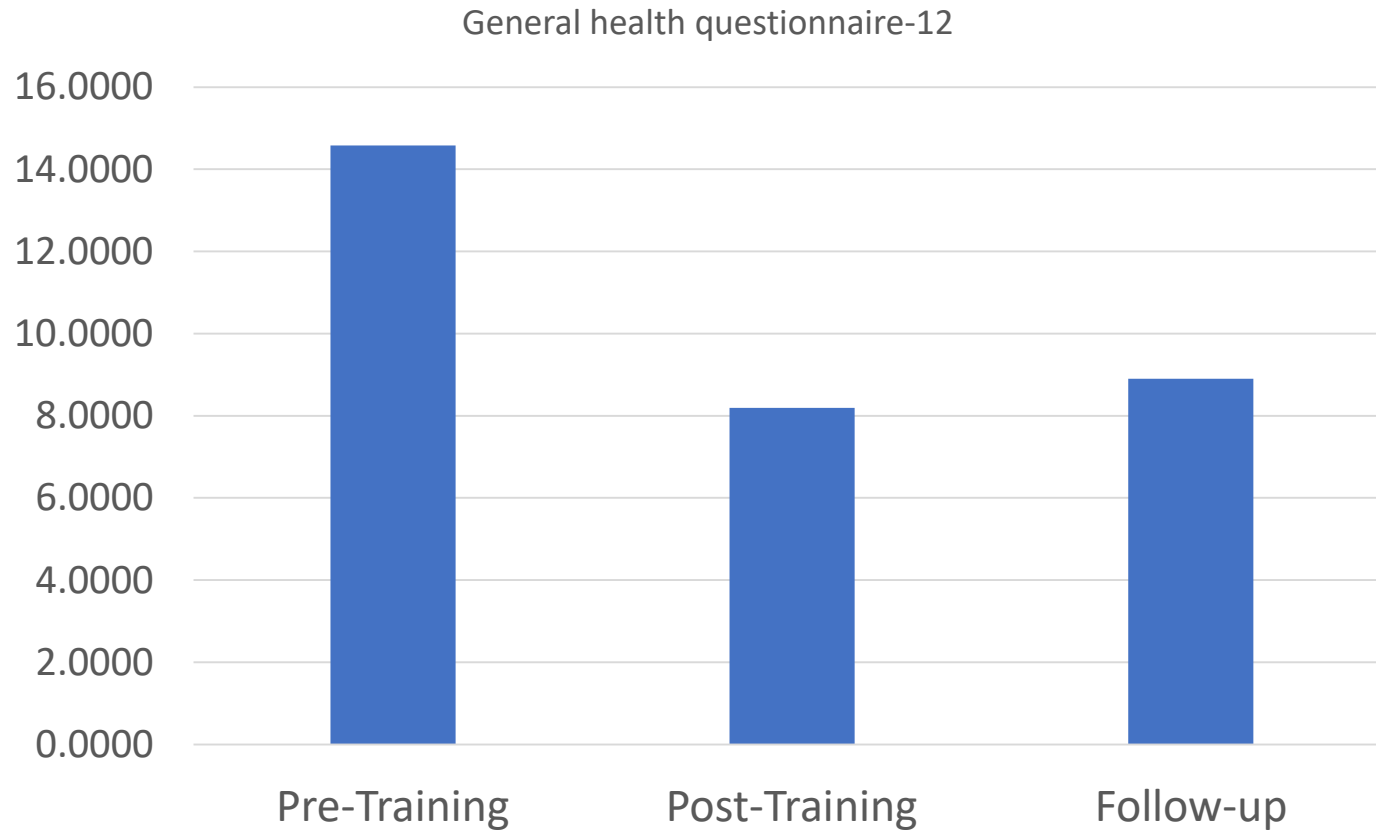
## 'Process': examples

Challenges	"It felt risky."  "It caused me anxiety and stress thinking, is this the right thing to do?"
Nature of the change	"That hasn't changed, I'm more aware of it."  "I would enjoy it the same way, but I realise it more."  "Very small, simple steps."  "I don't know whether there would be a lot, a big difference, but if you know me well, I think you would [notice a difference]."

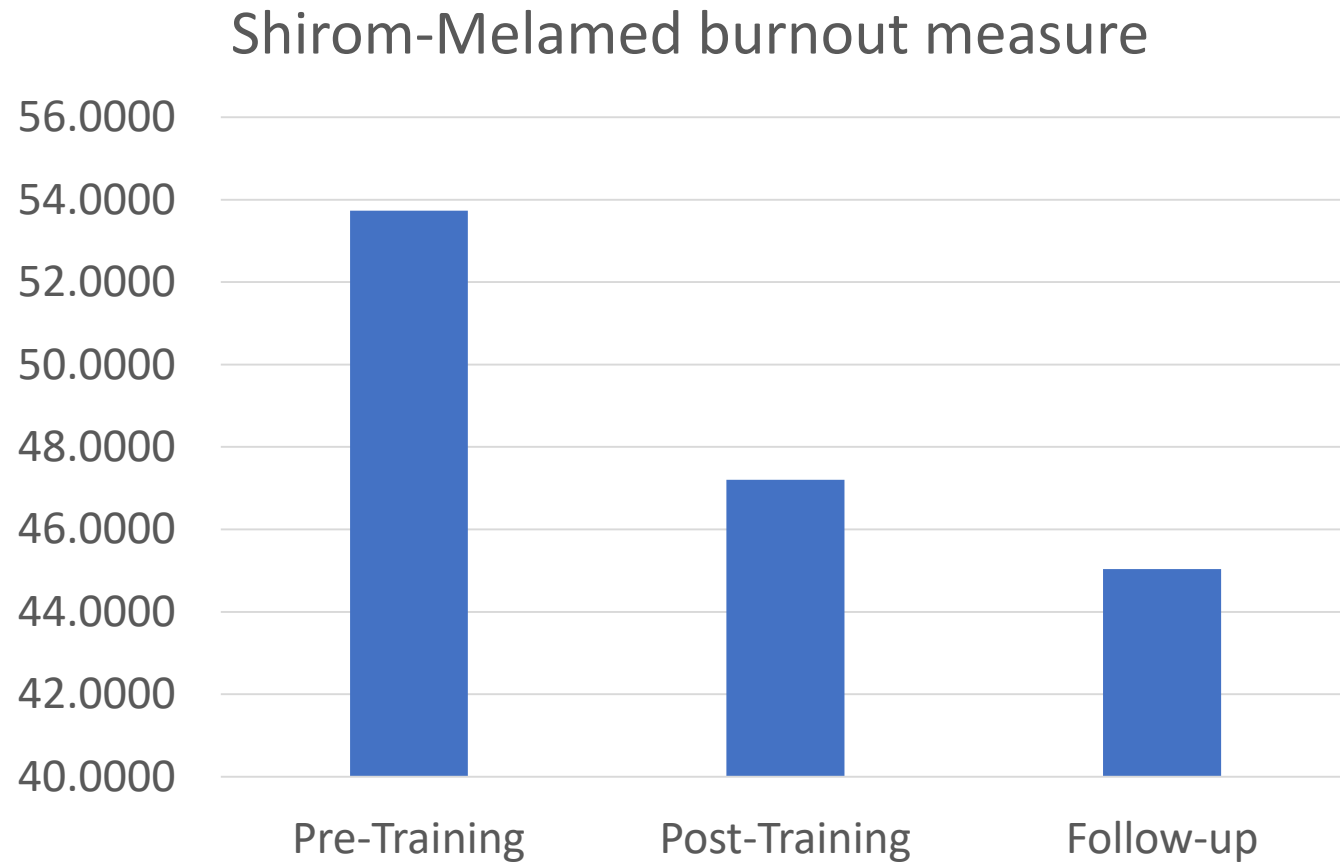


Quantitative analyses.....

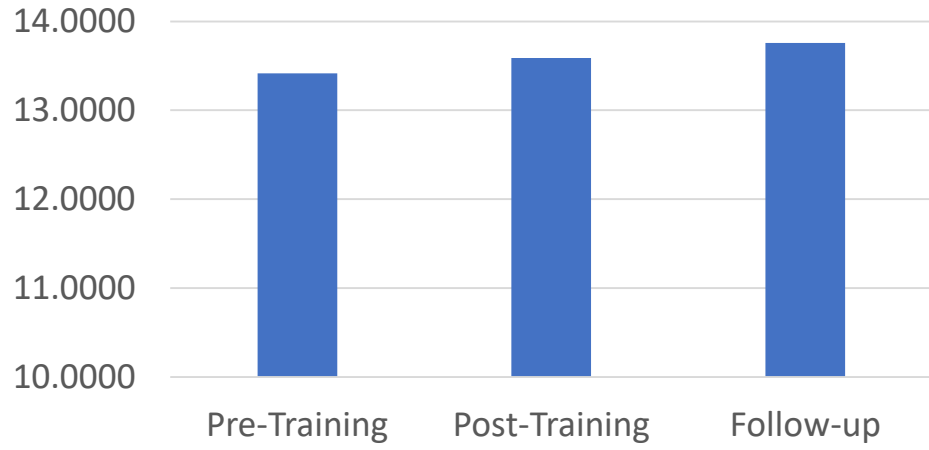
# Change in levels of psychological distress



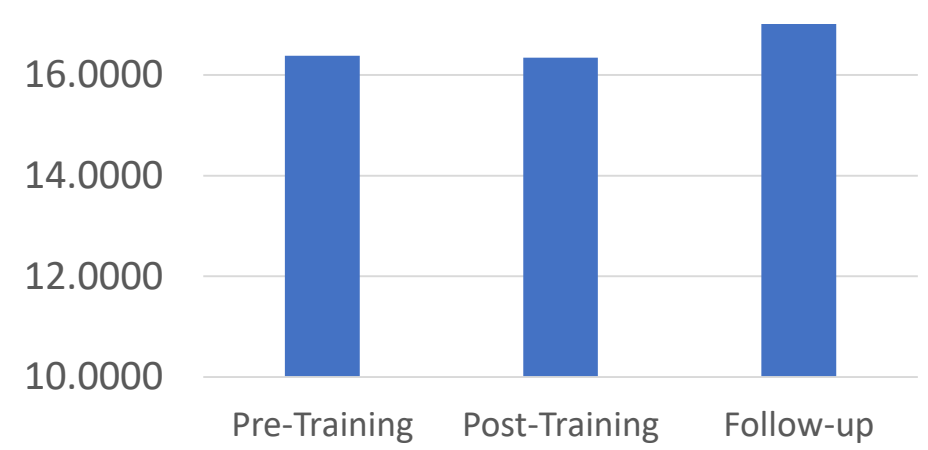
# Change in levels of job burnout (over past month)



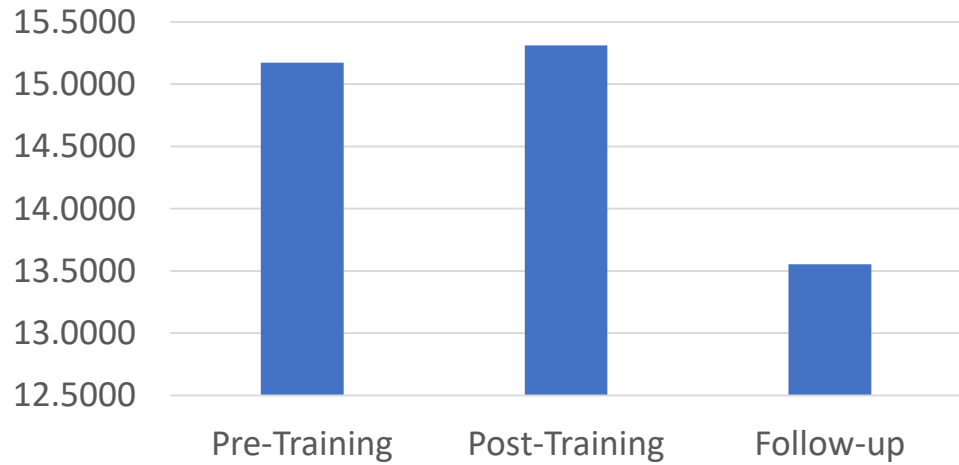
### Act with Awareness



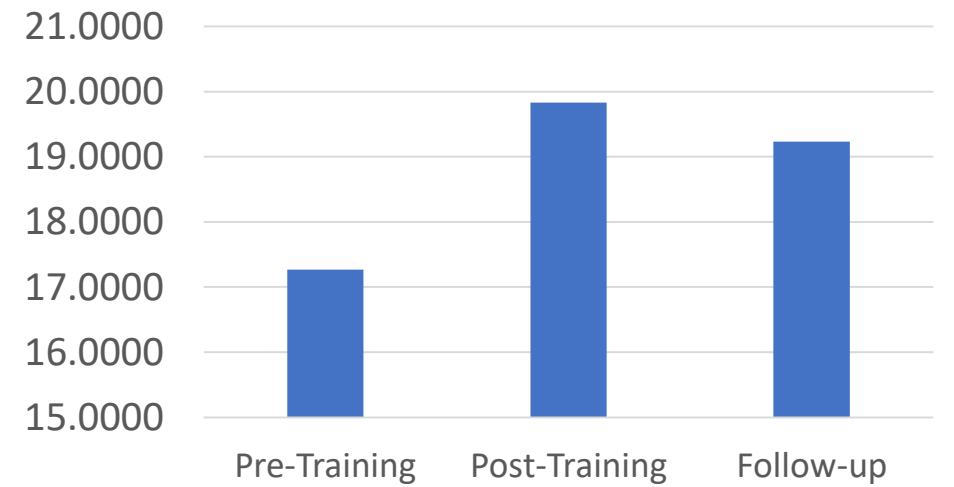
### Non-Reactivity



### Judging inner experience



### Valuing



## Summary and reflections

- Plenty of experiences that help bring ACT processes to life
- Participants can struggle to find the language to explain ACT's impact; 'control' language often used when talking about an acceptance or defusive process:

*“I kind of put them kind of things.....not to the back of my mind....but I kind of think that's definitely the anxiety talking.....”*

*“I kind of like just put it like to the back of my mind kind of thing.....”*

# Summary and reflections

- Numerous participants found ACT difficult or challenging - a sense of risk, anxiety, and uneasiness
- Reduction in burnout could be linked to improved recovery from work pressures during non-work time
- Quantitative data again suggests valued action increases quickly; acceptance skills show increase a bit later

## Practical suggestions

- Communicate that valued living isn't easy. Focus on safety and ensure all exercises are invitational.
- The 'impact' of workplace ACT is often felt in employees' personal lives – communicate that this is not a 'work stress' intervention.
- Increase in 'self-care' seems to be an important outcome in teachers and nurses – explicitly orient some of the training towards that (e.g., passengers on bus role play).
- Small steps seem to be useful and common – emphasising that the size of the action is unimportant when learning these skills.

# Limitations

- Interviewed just over 50% of participants who started the study
- No control group for quantitative data
- For some participants, interview occurred before follow-up assessment



ACT in the workplace:

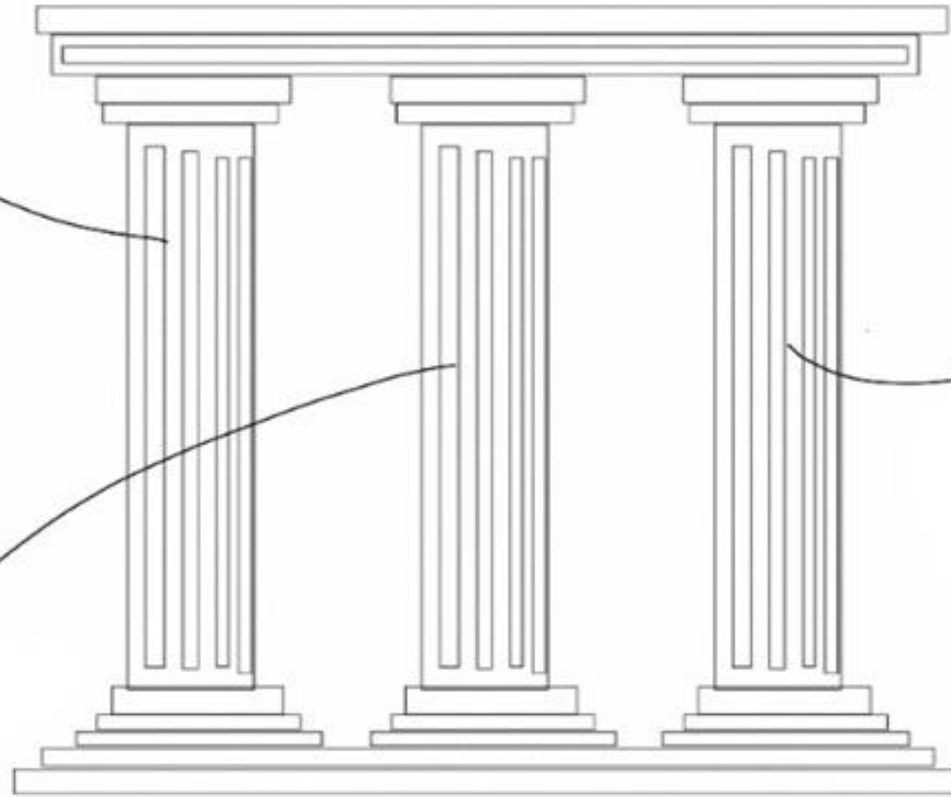
Programme content (4 session version)

## PSYCHOLOGICAL WELL-BEING

**OPEN**  
skillfully  
relating to the  
inner world

**NOTICING**  
inner world  
& behaviour

**ACTIVE**  
towards  
who & what  
matters



# Introducing the program

- 4 sessions
- Skills training, not therapy
- Not (just) about work
- Bringing practice to life
- Self-care

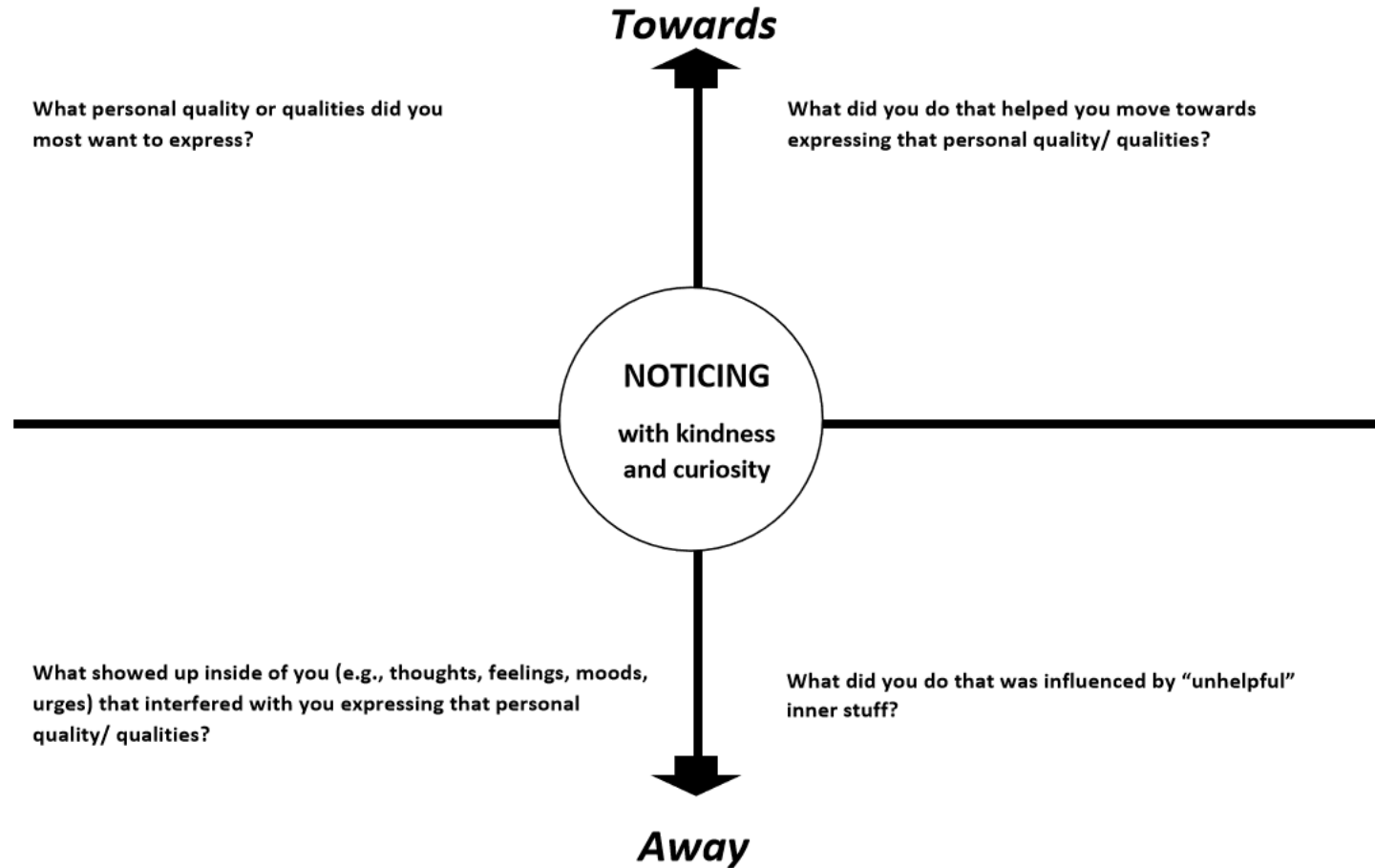
# Session 1

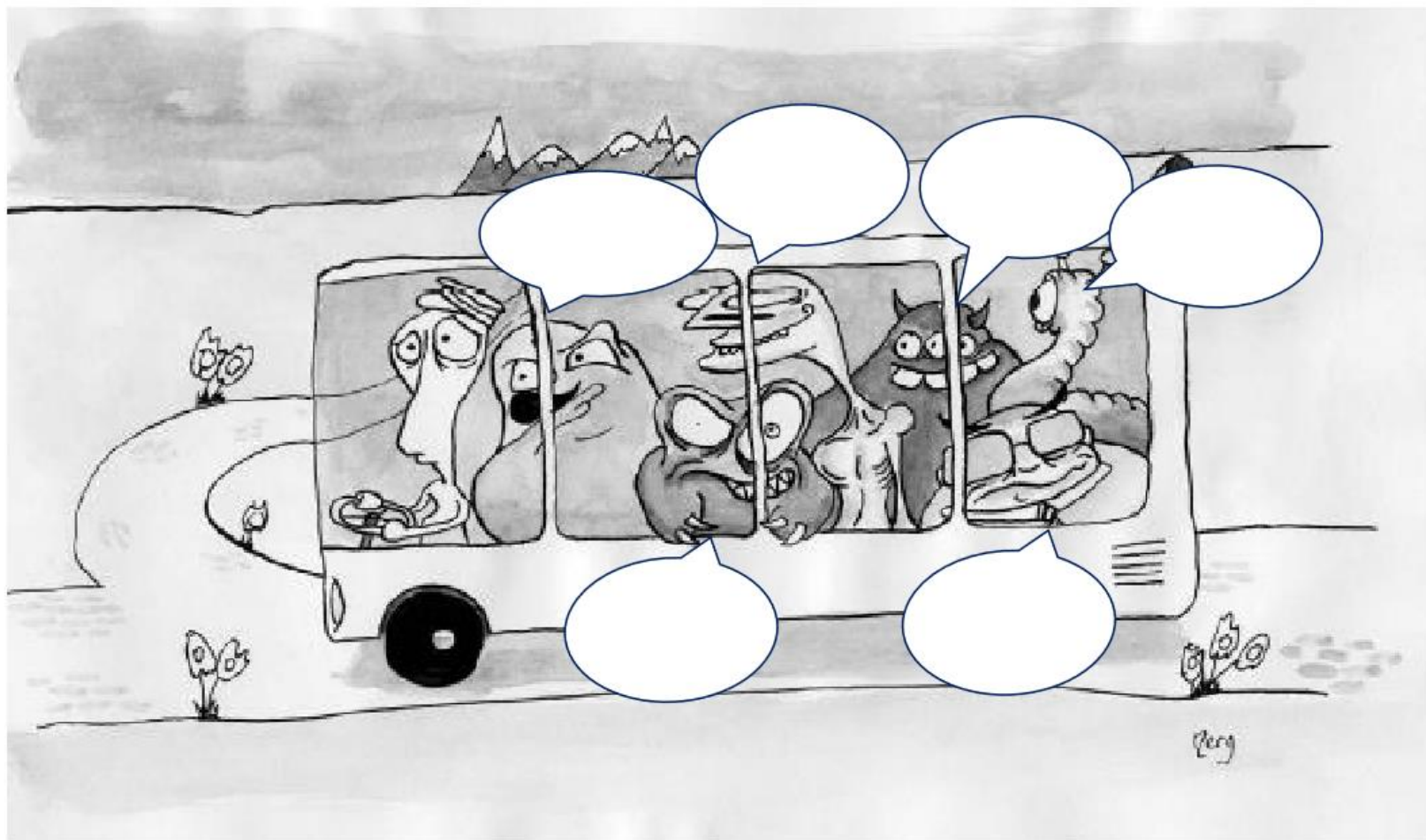
Welcome and introductions	What shows up inside if us that gets in the way of moving towards what matters?
Introduce program format; 3 columns	Passengers on bus metaphor
Introduction to mindfulness training <ul style="list-style-type: none"><li>• <i>Raisin exercise</i></li><li>• <i>Body and breath practice + message 1</i></li></ul>	Life practice: Noticing one 'towards move' each day over the next week
Introduction to personal values: <ul style="list-style-type: none"><li>• <i>Values card sort</i></li></ul>	
Working with one personal value: <ul style="list-style-type: none"><li>• <i>What have you recently done that moved you towards expressing this quality?</i></li><li>• <i>What could you do over the next few days to move towards expressing this quality?</i></li></ul>	

## Session 2

<b>Welcome back; 3 columns</b>	Values card sort + small towards moves
<b>Mindful practice + message</b>	Relating skilfully to 'unhelpful' thoughts (cognitive defusion) <i>Step 1: Become more aware of unhelpful mind chatter</i> <i>Step 2: Taking unhelpful thoughts a bit less seriously</i> <i>Step 3: Cultivating some distance between thoughts and thinker</i>
<b>Life practice review</b>	Life practice: Noticing one 'towards move' and one 'away move' each day over the next week
<b>Matrix: retrospective noticing</b>	

Reflecting on a challenging or important event over this past week.....



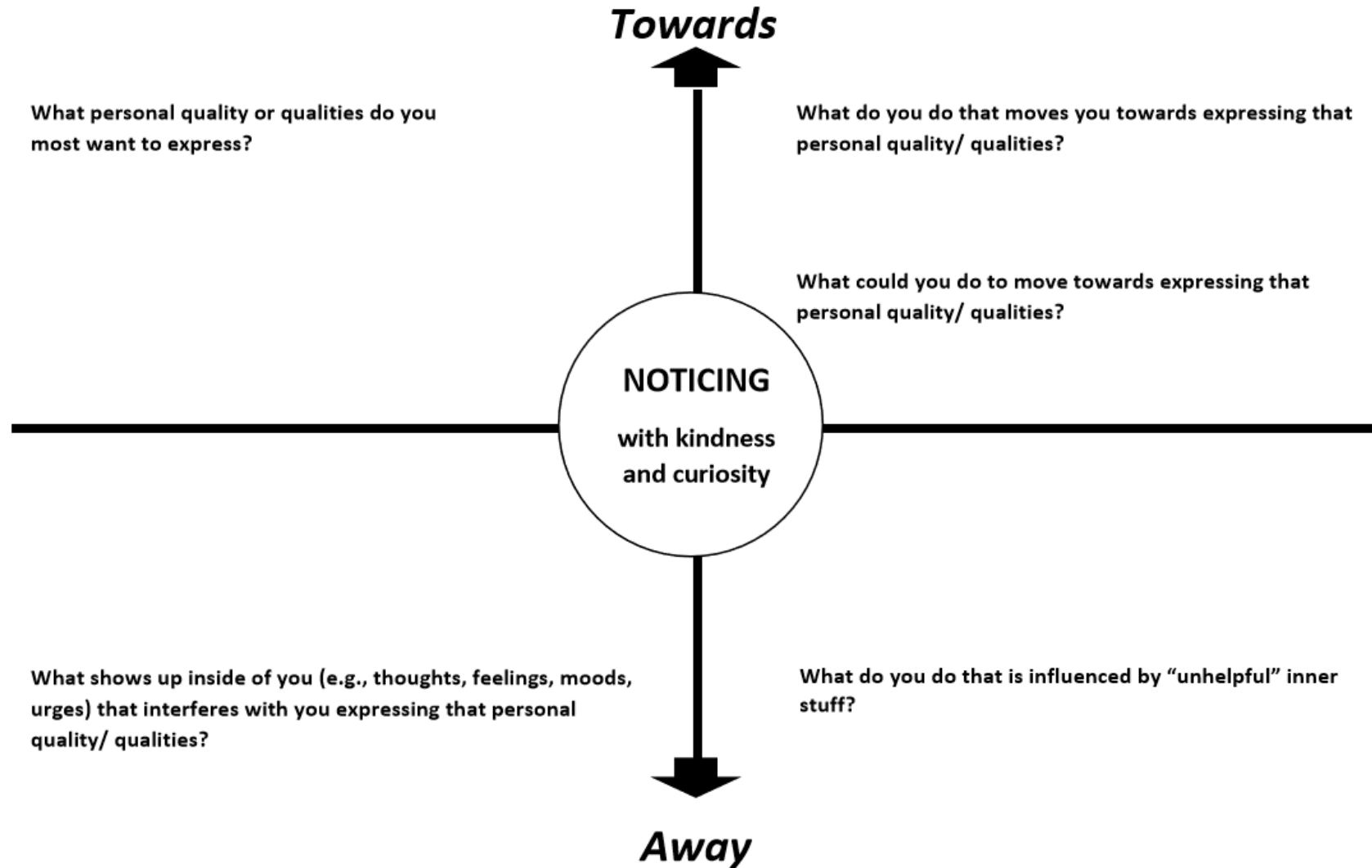


# Session 3

<b>Welcome back; 3 columns</b>	Relating skilfully to difficult mood/ emotion <ul style="list-style-type: none"><li>• <i>Physicalising exercise</i></li></ul>
<b>Mindful practice + message</b>	Matrix: Life areas exercise
<b>Life practice review</b>	Life practice: Noticing at least one 'towards move' and one 'away move' each day over the next week
<b>Matrix: retrospective noticing</b>	3-step mindfulness exercise



Life area: Health/ Relationships/ Work and Career/ Leisure time



# Session 4

<b>Welcome back; 3 columns</b>	Matrix: Life areas exercise
<b>Mindful practice + message</b>	ACTing out passengers on the bus <ul style="list-style-type: none"><li>• <i>Self-care example</i></li><li>• <i>Where is the driver investing his/ her energy?</i></li><li>• <i>Is the bus moving towards what matters?</i></li></ul>
<b>Life practice review</b>	Review of program/ reflection in pairs
<b>Matrix: retrospective noticing</b>	Poem to end

Thank you for your sustained attention!

**Paul and Ross**

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Now, over to Frank for questions and  
comments....