

# ***Treatment of Co-existing Depression and Substance Use***

Amanda Baker PhD



**NHMRC CENTRE OF RESEARCH EXCELLENCE**  
in MENTAL HEALTH and SUBSTANCE USE

# Thanks to:

- Dr Peter Kelly & Prof Frank Deane UoW
- Assoc Profs Kath Mills & Frances Kay-Lambkin (UNSW)

# Why are co-existing problems of concern?

- High prevalence
- Greater use of services *(Teesson, 2000)*
- Increased use of medications *(Kessler et al, 1996)*
- Increased chance of multiple & additional treatments *(Brown et al, 1995)*

# Days out of role: 12-month mental disorder

Number if disorders	Days out of role in previous 30 days
No mental disorder	1.4
One mental disorder	
Affective disorder only	4.2
Anxiety disorder only	3.1
SUDs only	1.7
Two or more mental disorders	
Affective & anxiety disorders	7.6
Affective & SUDs	2.0
Anxiety & SUDs	4.7
Affective, anxiety & SUDs	9.2
Total population	1.9

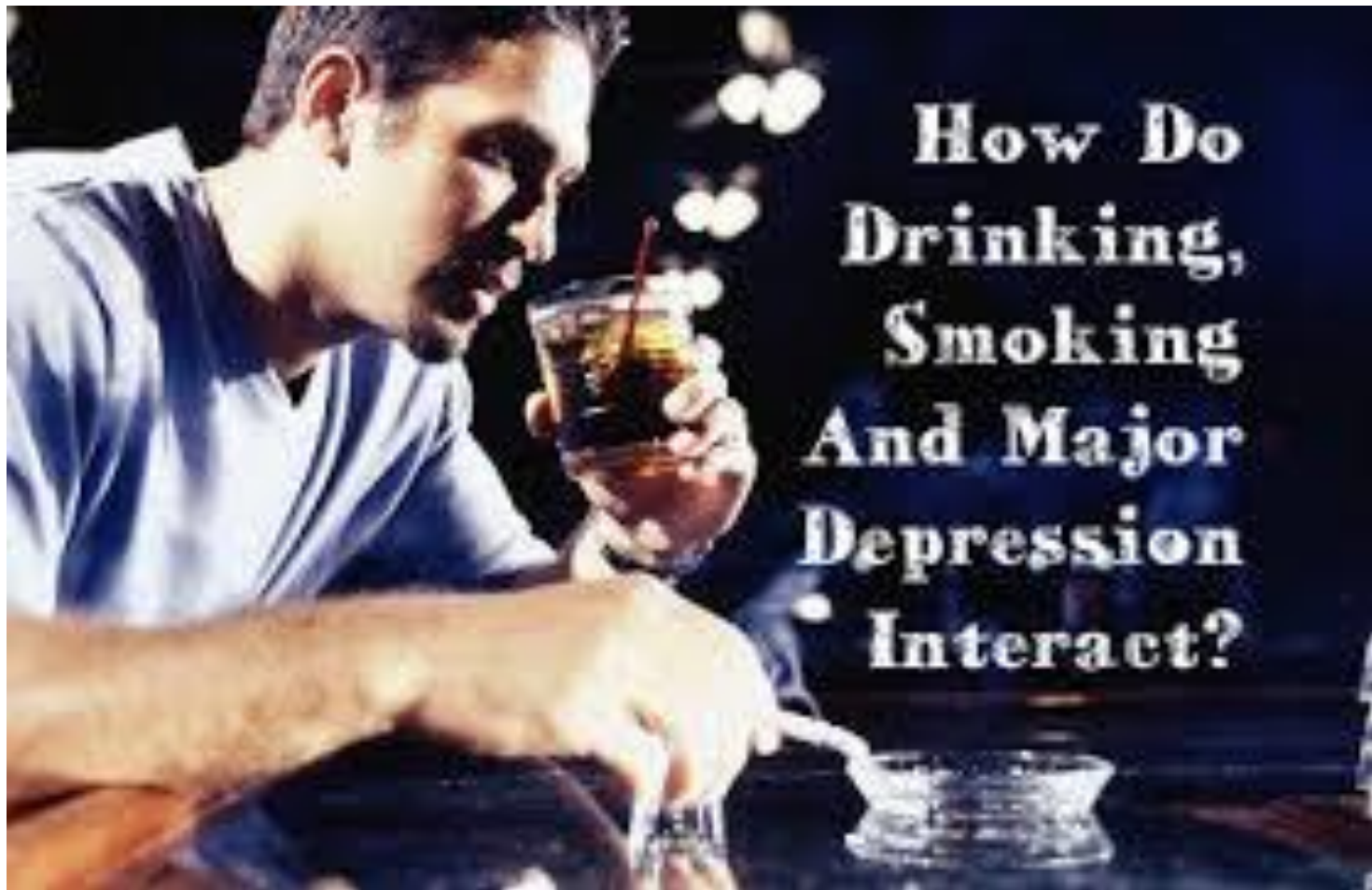
# Residential Substance Abuse Treatment

During your lifetime have you experienced?	Percentage
Depressive symptoms	79%
Anxiety symptoms	72%
Taken psychiatric medication	70%
Given into aggressive urges more than once	64%
Flashbacks from traumatic events	60%
Emotional problems associated with sex life	52%
Attempt to kill themselves	49%
Psychiatric hospital admission	37%
Heard voices / saw objects others couldn't see	37%

# Prevalence in treatment settings

- Comorbidity is the norm
- More common as the intensity of treatment increases, eg, residential settings
- Evidence base is largely for single problems but accumulating for comorbidity

# Depression, Anxiety, Smoking



# The Treatment Roundabout





# Selected Reviews

- Riper et al, Addiction, 2013
- Baker et al, JAD, 2011
- Hides et al, DAR, 2010
- Hesse, BMC Psychiatry, 2009

—... reasons for optimism



# Positive Findings

- Need for more and larger trials
- Integrated treatment has support over single focused treatment
- Single focus on substance abuse also has some support

# Unhealthy behaviours and leading preventable causes of death

(AIHW 2010)

Disease	Behaviour	Biomedical
CHD/ CVD	Smoking, Inactivity, Alcohol, Diet	Obesity, high BP, Cholesterol
Cancers	Smoking, Inactivity, Alcohol, Diet	Obesity
COPD	Smoking	

# Today's focus

- A focus on practical skills to work with a range of co-morbidities (therapeutic relationship)
- This will include:
  - Assessment
  - Values
  - Motivation
  - Treatment planning

# Assessment

# Mental Health

Scale	What is measures
Depression, Anxiety & Stress Scale (DASS)	<ul style="list-style-type: none"><li>• 21-items in length</li><li>• Symptom distress</li><li>• Three subscales</li></ul>
Kessler 10 (K10)	<ul style="list-style-type: none"><li>• 10-items in length</li><li>• Symptom distress</li></ul>
Outcome Rating Scale (ORS)	<ul style="list-style-type: none"><li>• 5-items in length</li><li>• Extremely quick to administer</li></ul>
Recovery Assessment Scale (RAS)	<ul style="list-style-type: none"><li>• Psychological recovery</li><li>• Subscales that measure different aspects of the recovery process</li></ul>

# Alcohol and Illicit Substance Use

Scale	What is measures
Severity of Dependence Scale (SDS)	<ul style="list-style-type: none"><li>• 5-items in length</li><li>• Severity of substance use problems</li></ul>
Alcohol Use Disorders Identification Test (AUDIT)	<ul style="list-style-type: none"><li>• 10-items in length</li><li>• Screening tool for alcohol misuse/abuse</li></ul>
Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)	<ul style="list-style-type: none"><li>• Screening tool to identify problematic substance use</li><li>• Used to inform treatment</li></ul>
Days of use	<ul style="list-style-type: none"><li>• “In the last 7-days, how many days have you used heroin?”</li></ul>



# Smoking

Scale	What is measures
Fagerstrom Test for Nicotine Dependence	<ul style="list-style-type: none"><li>• 6-items</li><li>• The most widely used measure of nicotine dependence</li></ul>
Smokerlyzer	<ul style="list-style-type: none"><li>• Carbon Monoxide Monitor</li></ul>



VALUES

# What are values?

- Aspects of peoples life that provide them with:
  - Hope
  - Meaning
- Values help to provide direction to a persons life
- Values have intrinsic value to the person
- Identifying values
  - Discuss values with the person
  - “Who is someone that you admire”
  - Value cards
  - Surveys (e.g. Valued Living Questionnaire)

# How to identify values

- Just ask
- Questionnaires
  - Valued Living Questionnaire
- Exercises
  - Values cards
  - Camera
  - Someone you admire

# Motivational Interviewing

# MI

- Working with ambivalence
- Ambivalence is normal
- Tip the balance in favour of change
- When it comes to health, why is ambivalence important?

# What is motivational interviewing?

- A client centered approach to working with a person to:
  - Strengthen their motivation
  - Resolve ambivalence
  - Build a plan for change

# Spirit of Motivational Interviewing

Collaboration: Not confrontation

Autonomy: No authority

Internal motivation: Not external motivation



# Treatment for co-existing problems

- Brown et al. (1997):
  - CBT for depression (vs relaxation control condition) in addition to hospital based alcohol program
    - N=35 *sequential assignment*
    - Greater reductions in depression (HAM-D *not* BDI)
    - Greater % days abstinent
    - Better alcohol use outcomes

# The SHADE Project

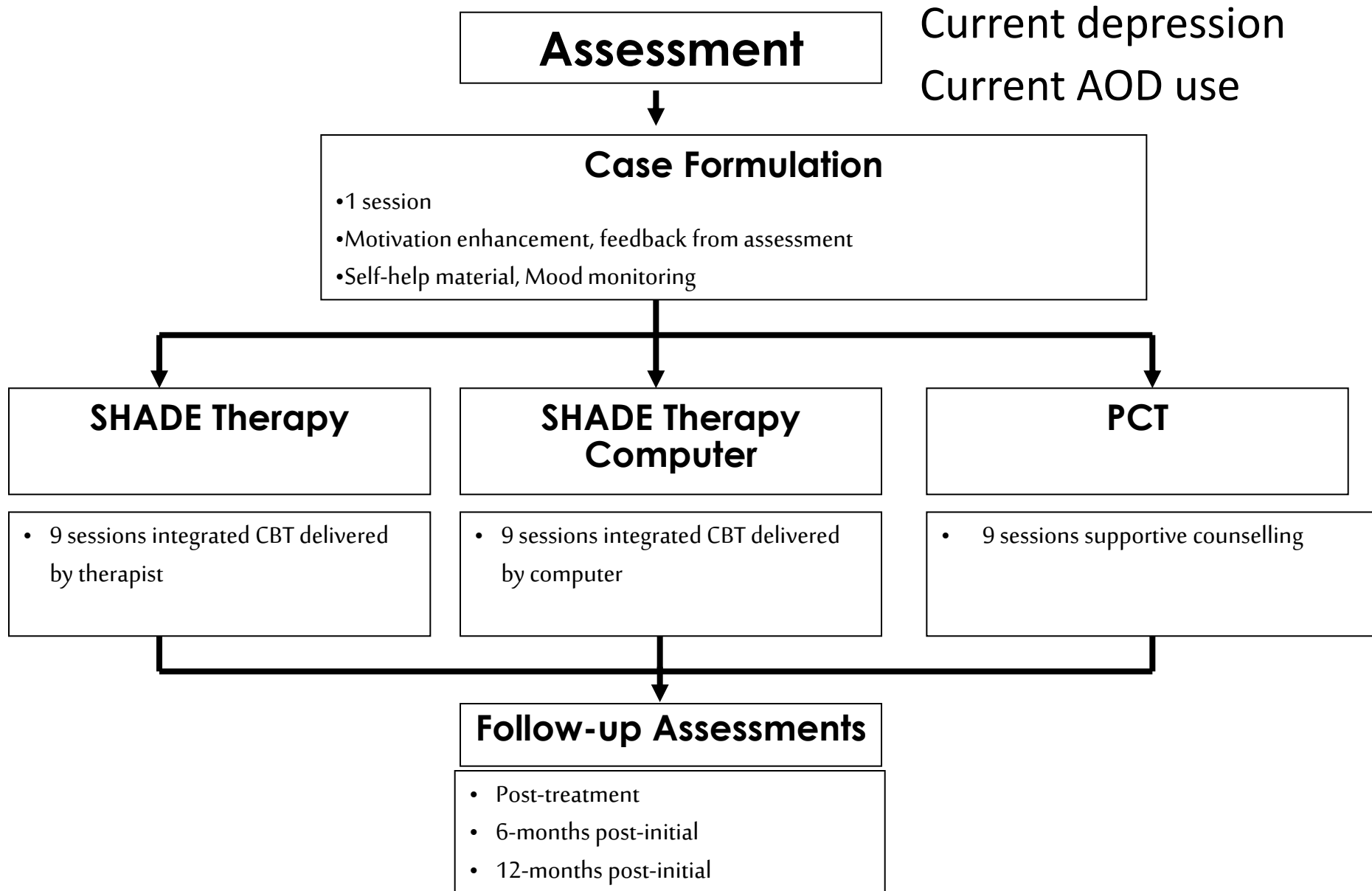
Kay-Lambkin et al Addiction 2009; MJA 2011

# The SHADE project

Self-Help for Alcohol/other drug use and DEpression  
(N=274)

- AIMS:
  - To integrate depression and AOD approaches
  - To trial the intervention
  - To compare
    - computer-based (clinician assisted)
    - therapist-delivered
    - PCT

# The SHADE Project - Methods



# Therapy Components

- Case Formulation
- Motivational enhancement
- Managing negative or permissive automatic thoughts
- Coping with cravings and/or impulses
- Mindfulness skills
- Problem solving skills
- High-risk situations
- AOD refusal
- Assertiveness skills
- Seemingly Irrelevant Decisions
- Relapse prevention

# Results (3-months)

- CBT via computer or therapist > PCT
  - Depression
  - Alcohol
- Computer > therapist
  - Alcohol

# Implications:

## Depression and alcohol

- Computer & therapist CBT:
  - effective for depression & alcohol
- Next question: Integrated vs single focus

# Randomised controlled trial of CBT for co-existing depression and alcohol problems: 6-, 12-, 24- and 36-month outcomes

(The DAISI Project, JSAT, 2014)

A.L. Baker, D.J. Kavanagh, F.J. Kay-Lambkin,  
S.A. Hunt, T.J. Lewin, V.J. Carr & P. McElduff

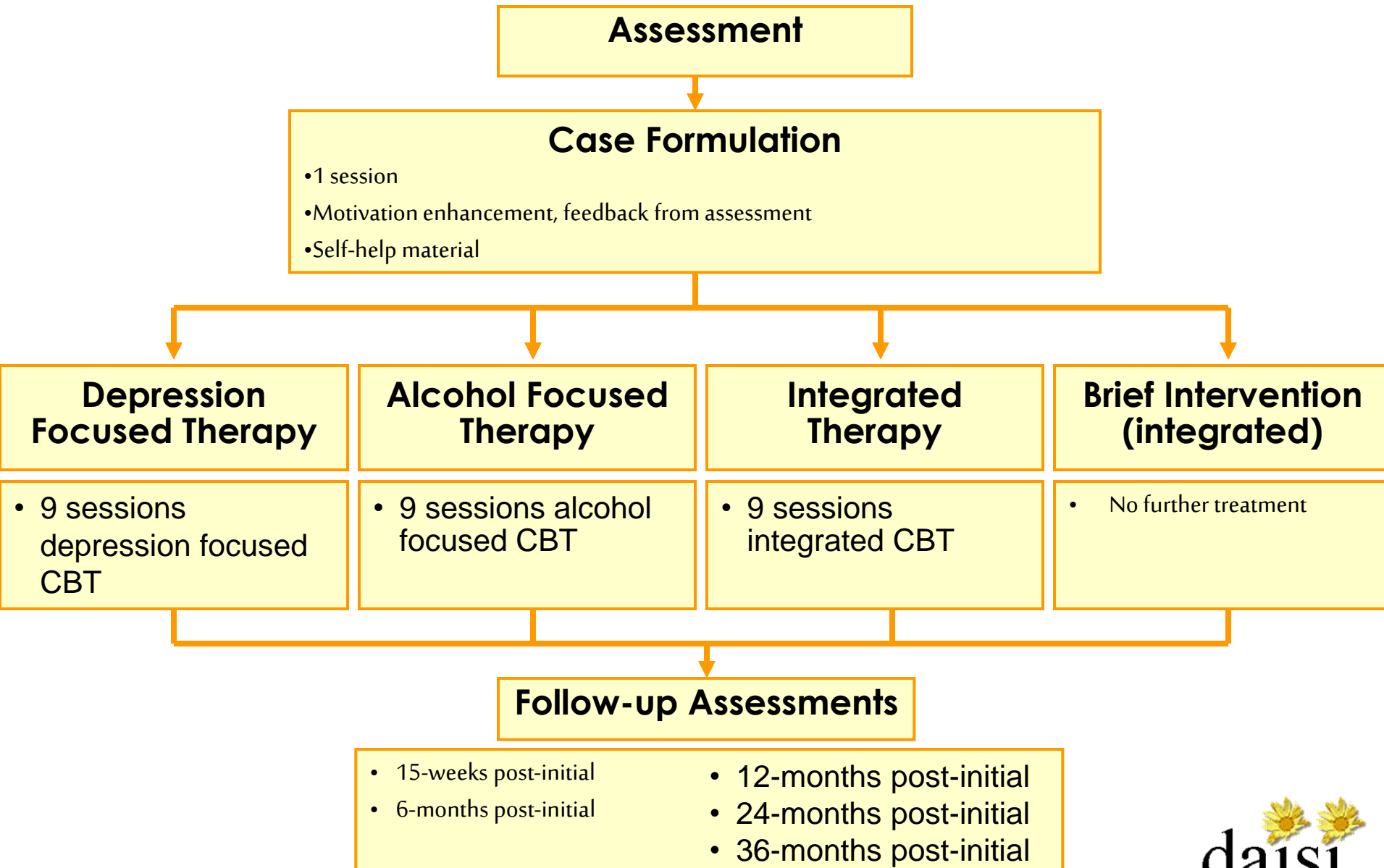


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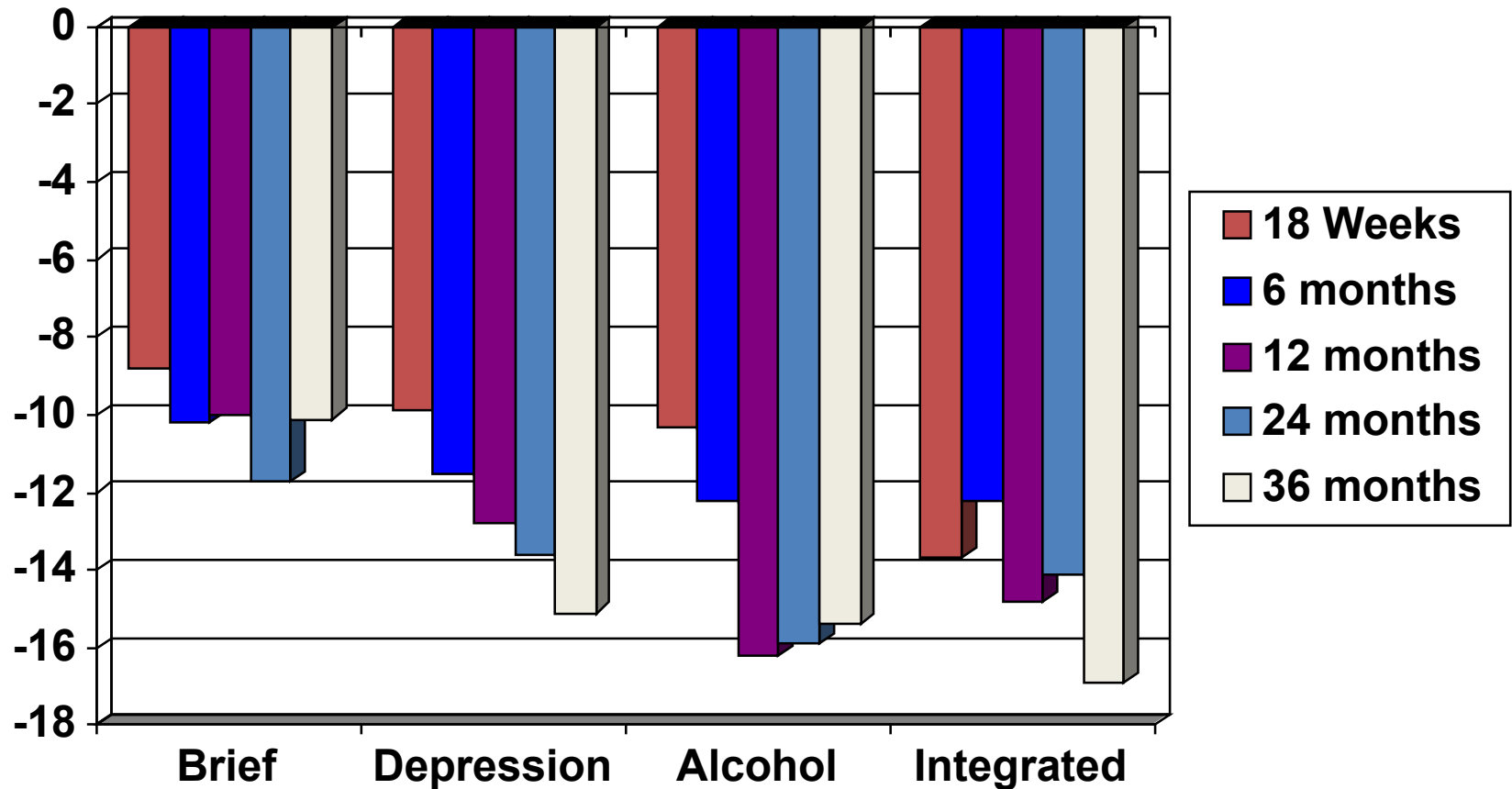


# DAISI Methodology (N=284)



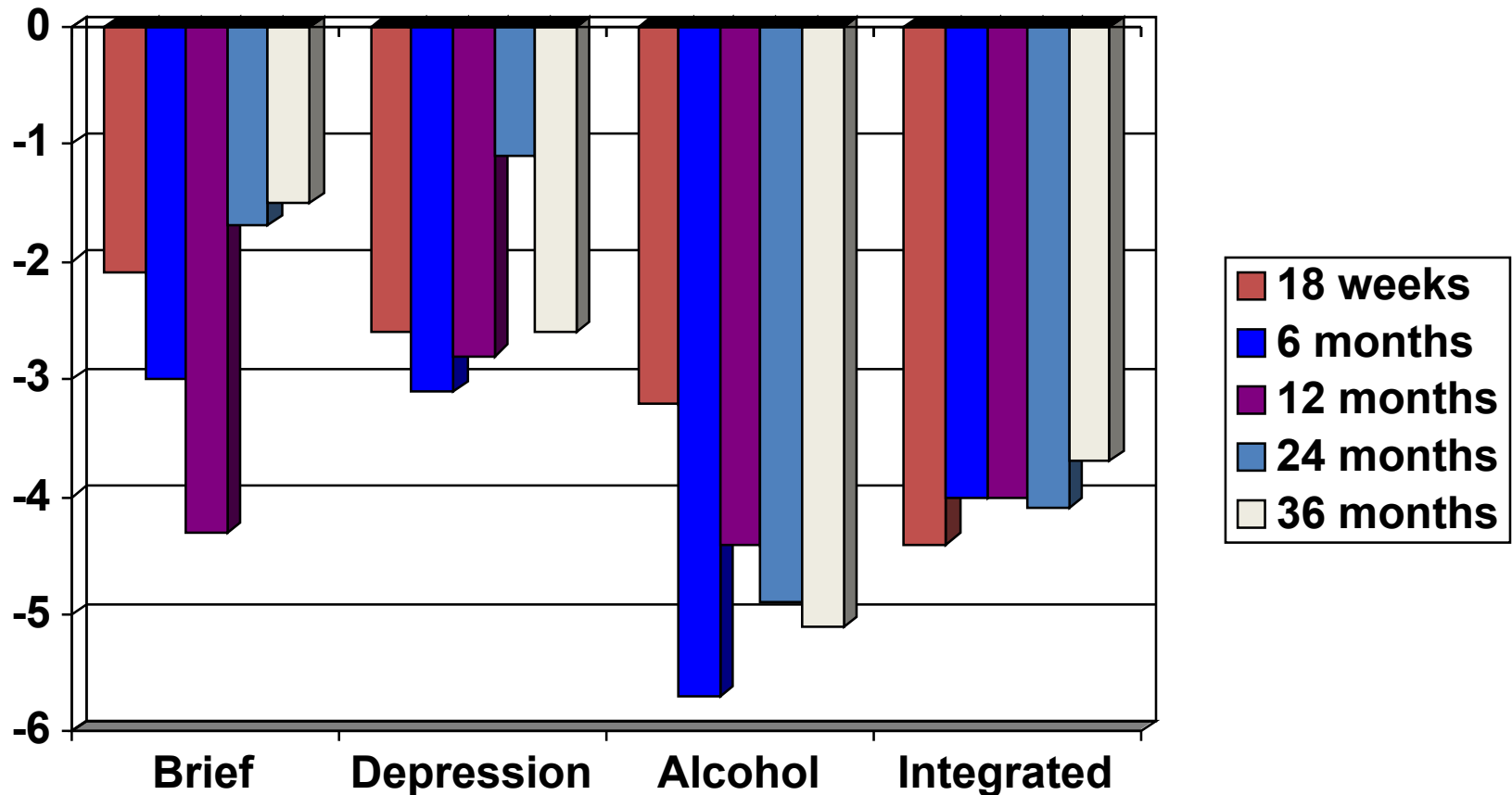
# BDI-II Mean Change Scores

(time  $p < .001$ ; BI  $< 10$  at 12- and 36 months  $p < .05$ ;  
Integrated  $>$  single focus 18 weeks  $p < .05$ )



# Standard Drinks Per Day Mean Change Scores (OTI)

(time  $p < .01$ ; Alcohol > Depression at 6- and 24-months ( $p < .01$ )  
and 12-months ( $p < .05$ ))



# Summary: BI vs 10 sessions

- Brief integrated intervention effective for alcohol problems in people with depression
- Brief integrated intervention helpful for depression and general functioning but less beneficial than 10 sessions of CBT

# Integrated versus Single Focus

- Integrated intervention associated with an earlier improvement in depression

# Alcohol versus Depression focus

- Alcohol focus significantly better in reducing drinking among people with depression

# Conclusions

- Large proportion of clients
- If undetected, can affect progress of tx
- Screen, assess and treat both domains
- Start with a brief integrated intervention and step up treatment to integrated (or alcohol focus).

# PTSD levels *(Bailey et al 2011)*

- 71.6% had experienced trauma
- 38% met DSMIV criteria for PTSD
- Assess for trauma and PTSD





# Concurrent treatment of PTSD and substance use disorders using prolonged exposure (COPE)

Medicine

National Drug and Alcohol Research Centre

— NDARC Technical Report no. 322



**Katherine L Mills, Sudie Back, Kathleen Brady, Amanda Baker, Maree Teesson, Sally Hopwood, Claudia Sannibale**

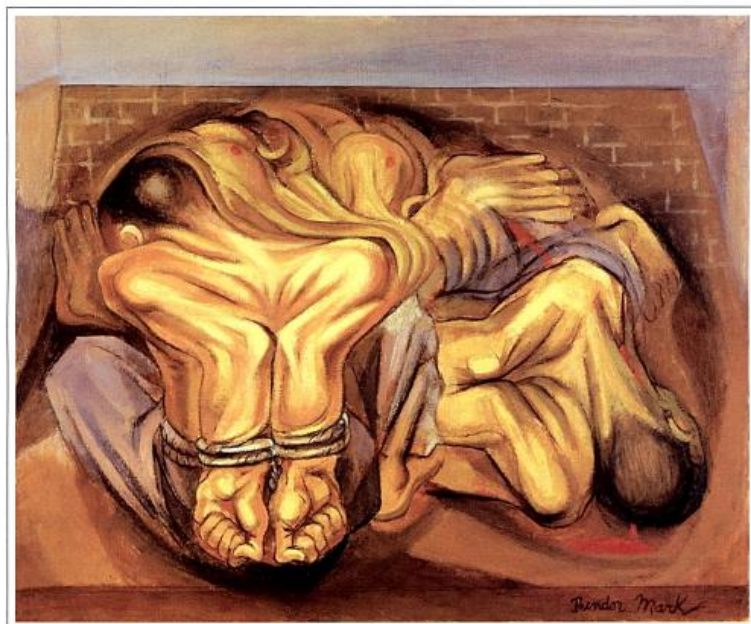


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## Integrated Exposure-Based Therapy for Co-occurring Posttraumatic Stress Disorder and Substance Dependence A Randomized Controlled Trial

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**P**ROLONGED EXPOSURE THERAPY, A cognitive-behavioral therapy (CBT) involving exposure to memories and reminders of past trauma, has long been regarded as a gold standard treatment for posttraumatic stress disorder (PTSD). Although there are other evidence-based treatments for PTSD, such as eye movement desensitization and reprocessing therapy, there is more empirical evidence for the efficacy of prolonged exposure than for any other treatment.<sup>1</sup> Indeed, the International Consensus Group on Depression and Anxiety recommends prolonged exposure as the most appropriate form of psychotherapy for PTSD,<sup>2</sup> and it was the only treatment for PTSD endorsed in a US Institute of Medicine study as evidence based.<sup>3</sup> The efficacy of prolonged exposure in reducing PTSD symptom severity has been demonstrated among persons from a number of populations who have been exposed to a wide variety of trauma types.<sup>4</sup> There is, however, a notable absence of research examining the

**Context** There is concern that exposure therapy, an evidence-based cognitive-behavioral treatment for posttraumatic stress disorder (PTSD), may be inappropriate because of risk of relapse for patients with co-occurring substance dependence.

**Objective** To determine whether an integrated treatment for PTSD and substance dependence, Concurrent Treatment of PTSD and Substance Use Disorders Using Prolonged Exposure (COPE), can achieve greater reductions in PTSD and substance dependence symptom severity compared with usual treatment for substance dependence.

**Design, Setting, and Participants** Randomized controlled trial enrolling 103 participants who met DSM-IV-TR criteria for both PTSD and substance dependence. Participants were recruited from 2007-2009 in Sydney, Australia; outcomes were assessed at 9 months postbaseline, with interim measures collected at 6 weeks and 3 months postbaseline.

**Interventions** Participants were randomized to receive COPE plus usual treatment (n=55) or usual treatment alone (control) (n=48). COPE consists of 13 individual 90-minute sessions (ie, 19.5 hours) with a clinical psychologist.

**Main Outcome Measures** Change in PTSD symptom severity as measured by the Clinician-Administered PTSD Scale (CAPS; scale range, 0-240) and change in severity of substance dependence as measured by the number of dependence criteria met according to the Composite International Diagnostic Interview version 3.0 (CIDI; range, 0-7), from baseline to 9-month follow-up. A change of 15 points on the CAPS scale and 1 dependence criterion on the CIDI were considered clinically significant.

**Results** From baseline to 9-month follow-up, significant reductions in PTSD symptom severity were found for both the treatment group (mean difference, -38.24 [95% CI, -47.93 to -28.54]) and the control group (mean difference, -22.14 [95% CI, -30.33 to -13.95]); however, the treatment group demonstrated a significantly greater reduction in PTSD symptom severity (mean difference, -16.09 [95% CI, -29.00 to -3.19]). No significant between-group difference was found in relation to improvement in severity of substance dependence (0.43 vs 0.52; incidence rate ratio, 0.85 [95% CI, 0.60 to 1.21]), nor were there any significant between-group differences in relation to changes in substance use, depression, or anxiety.

**Conclusion** Among patients with PTSD and substance dependence, the combined use of COPE plus usual treatment, compared with usual treatment alone, resulted in improvement in PTSD symptom severity without an increase in severity of substance dependence.

**Trial Registration** isrctn.org Identifier: ISRCTN12908171

JAMA. 2012;308(7):690-699

www.jama.com

efficacy of prolonged exposure among individuals with co-occurring PTSD and substance dependence.

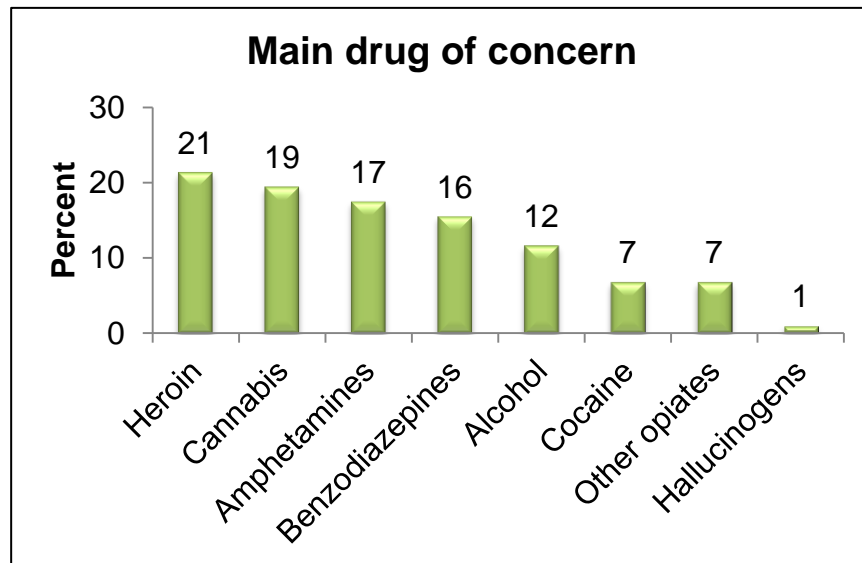
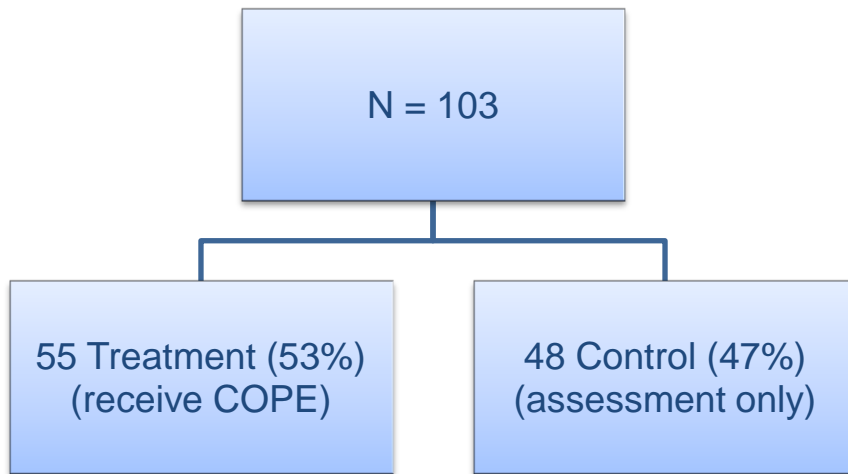
Epidemiologic and clinical research has demonstrated that trauma exposure among individuals with substance dependence is almost universal, and up to 62% experience comorbid PTSD.<sup>5,6</sup> Similarly,

up to 65% of patients with PTSD have been found to have a comorbid substance use disorder.<sup>7,8</sup> Although PTSD is perva-

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See also p 714 and Patient Page.

# Participants



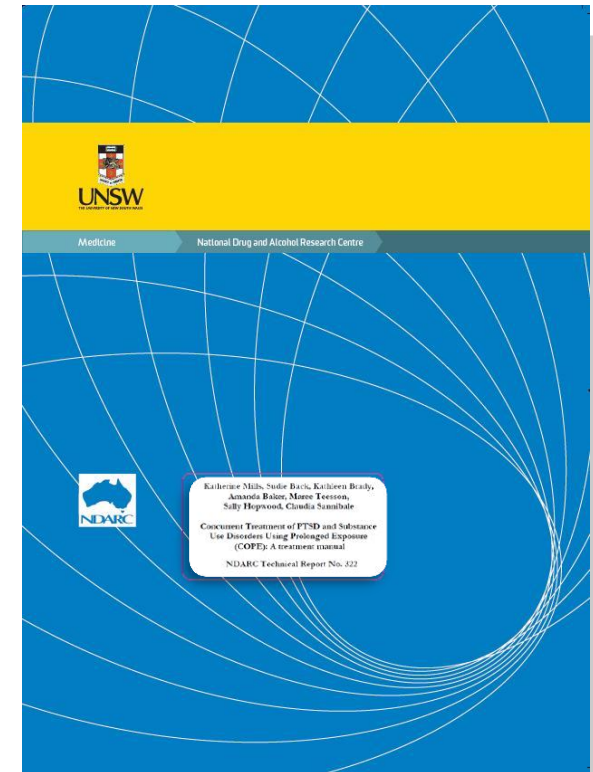
- 100% substance dependent
- Median number of drug classes used = 4.0
- 80% injecting drug users

Trauma exposure	%
% Serious physical attack or assault	93
% Threatened, held captive, kidnapped	89
% Witness injury or death	79
% Rape	68
% Sexual molestation	66
% Life-threatening accident	61
% Trauma occurred to someone else	54
% Other	32
% Natural disaster	24
% Tortured	24
% Combat experience	2
% Physical assault	93
% Threatened, held captive or kidnapped	89
% Multiple traumatic events	100
Median no. of trauma types (range)	6 (2 – 10)

# COPE Treatment components

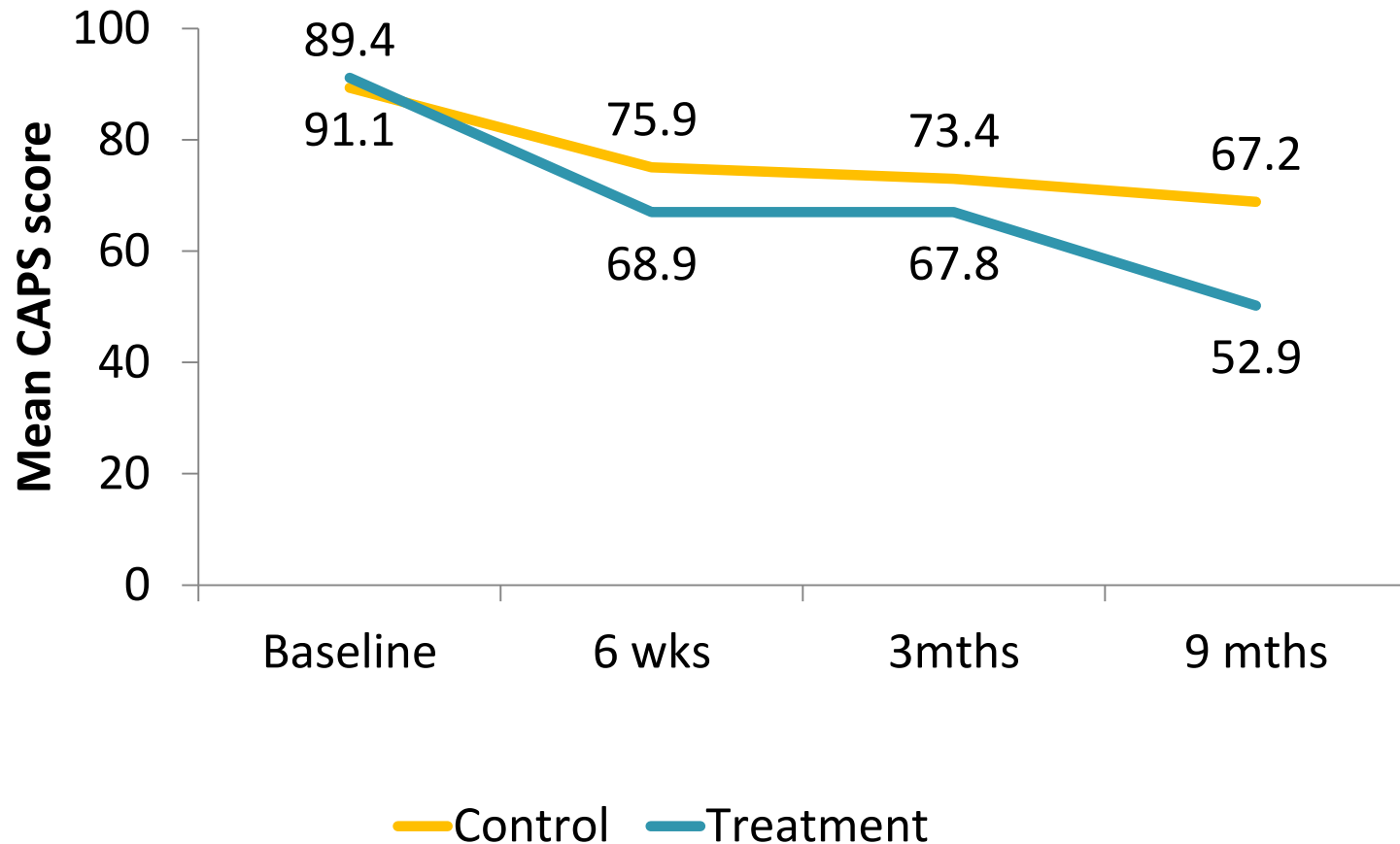


- CBT for substance use (Sessions 1-4 and throughout)
- Psychoeducation relating to both disorders
- and their interaction (Sessions 1-4)
- *In vivo* exposure (Sessions 5-12)
- Imaginal exposure (Sessions 6-12)
- Cognitive therapy for PTSD (Sessions 8-12)
- Review, after care plan, termination (Session 13)




—*Treatment Manual published as NDARC Technical Report 322*

# Severity of PTSD symptoms



- Mean between group difference between baseline and 9mth follow-up: -16.09, 95%CI: -29.00 to -3.19
- A reduction of 15 points on the CAPS total score is considered clinically significant

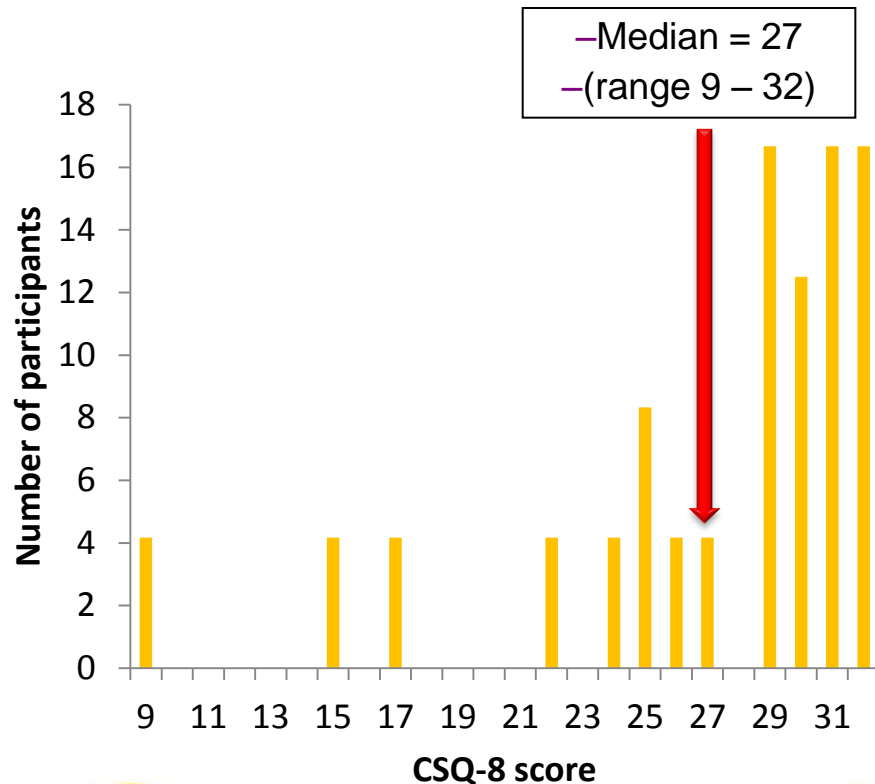
# Conclusion

- Across the 9 mth follow-up period:
    - Both groups evidenced improvements in their
      - Substance use
      - Severity of dependence
      - PTSD symptoms
      - Depression
      - Anxiety
-  – THEY DID NOT GET WORSE!
- Participants randomised to **COPE** demonstrated significantly greater improvements in relation to their PTSD symptoms without an exacerbation of substance use.
- These findings provide evidence in support of treating PTSD among people with SUDs using COPE (Mills et al., 2012).

# Client satisfaction



- Measured using the CSQ-8 (Attkisson & Zwick, 1982)



*"It was really really great! I used to wonder how I would cope emotionally without smoking - now I don't have to do that anymore - I'm so glad I did it"*

*"It has changed my life. It was hard going through it but since doing it I have made a lot of positive changes in my life. Doing the imaginal exposure really took the fear away"*

*"Best thing I've ever done!"*

*"It was exactly what I needed"*

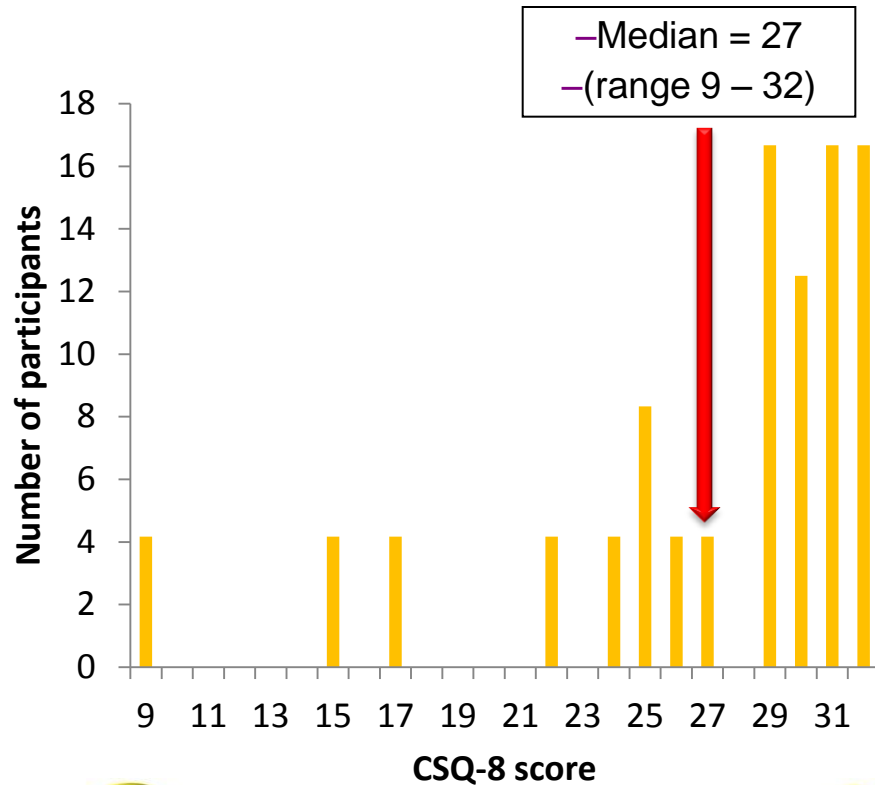
*"I believe without this help I would not have a chance to move forward."*



# Client satisfaction



- Measured using the CSQ-8 (Attkisson & Zwick, 1982)



- “The best thing I have done for myself in years. I hadn’t ever spoken about this stuff so it was really helpful”*
- “It helped me realise how much my addiction is linked to the trauma. I can now talk about the incident without freaking out”*
- “No one had ever talked to me about my trauma before. It was good to put a name to my symptoms”*
- “Treating both drug use and PTSD at the same time was good. It was **easy to understand and practical.**”*
- “The imaginal exposure was the hardest part but also the most useful.”*





- For further information on COPE please contact:  
[k.mills@unsw.edu.au](mailto:k.mills@unsw.edu.au)
- National Drug and Alcohol Research Centre  
– <http://ndarc.med.unsw.edu.au>

# Brief Intervention for PTSD symptoms

(Mills et al, Addictive Behaviours, 2014)

- N=29 inpatients in detox
- Single, 1 hour session
  - Psychoeducation:
    - common trauma reactions
    - symptom management
- PTSD symptom severity significantly decreased (majority still met criteria for PTSD)
- High levels of satisfaction
- Stepping stone to further trauma treatment

# A healthy lifestyle intervention among people with psychotic disorders: Results from a randomized controlled trial

Amanda Baker, Robyn Richmond, Frances Kay-Lambkin, Sacha Fila, David Castle, Jill Williams, Vanessa Clark, Terry J. Lewin, Robin Callister & Natasha Weaver

# Multi-component interventions: feasible, effective, and more efficient *(Spring et al 2010)*



# NHMRC Healthy Lifestyle RCT

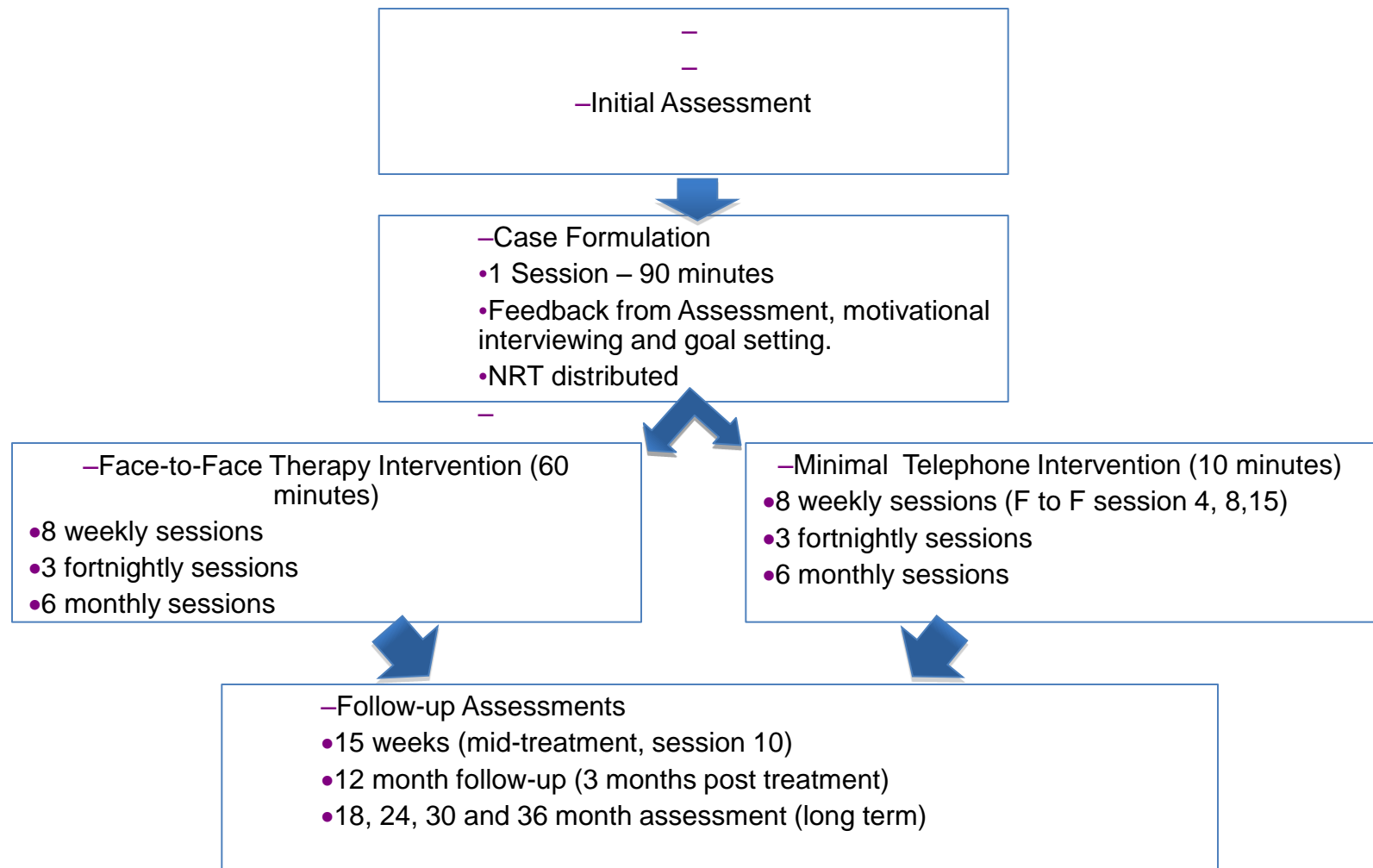
- Pilot trial N=43 overweight smokers

*(Baker et al, 2009)*

- Promising results
  - dropped inclusion criterion of overweight
  - lengthened the intervention

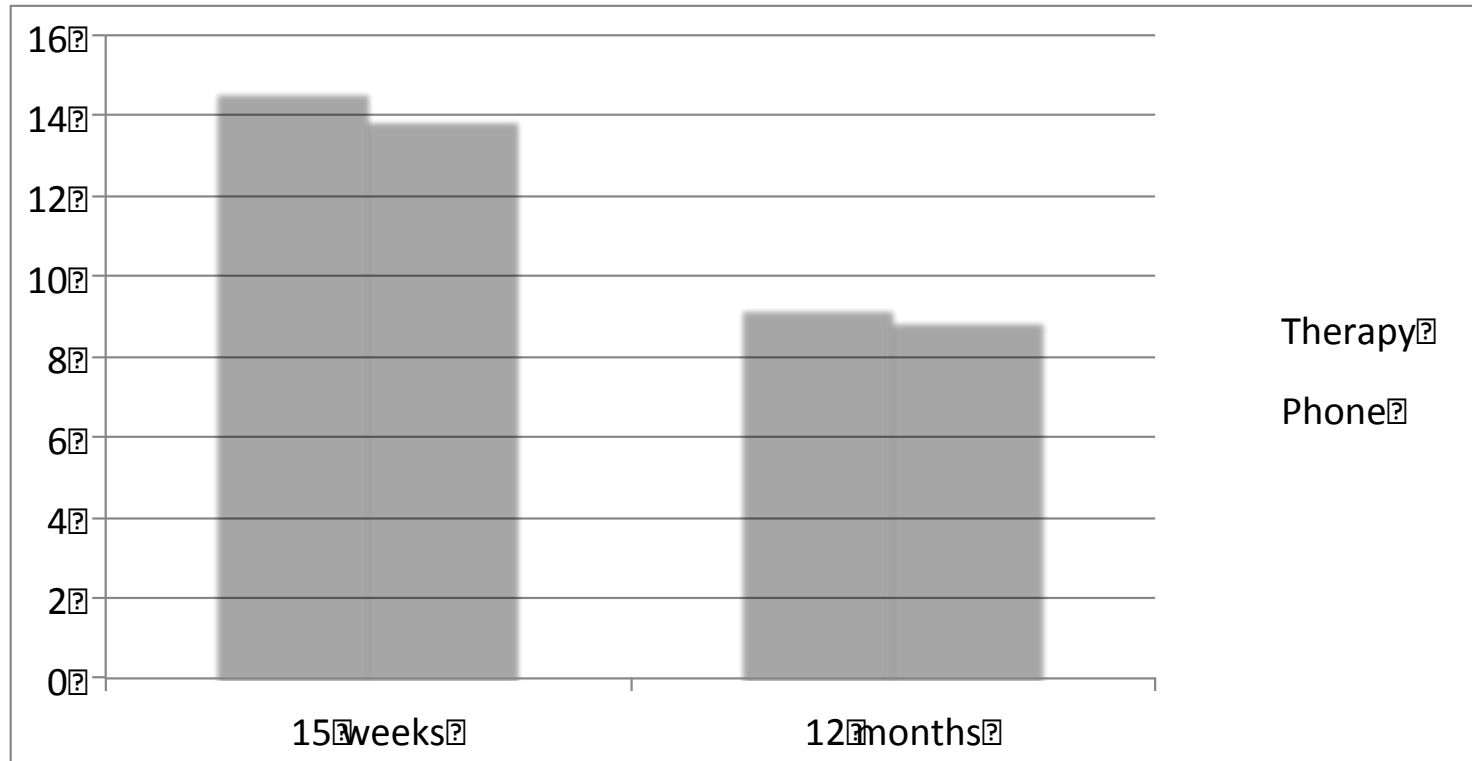
*(Baker et al, 2011)*

# Healthy Lifestyles Methodology (N=235)

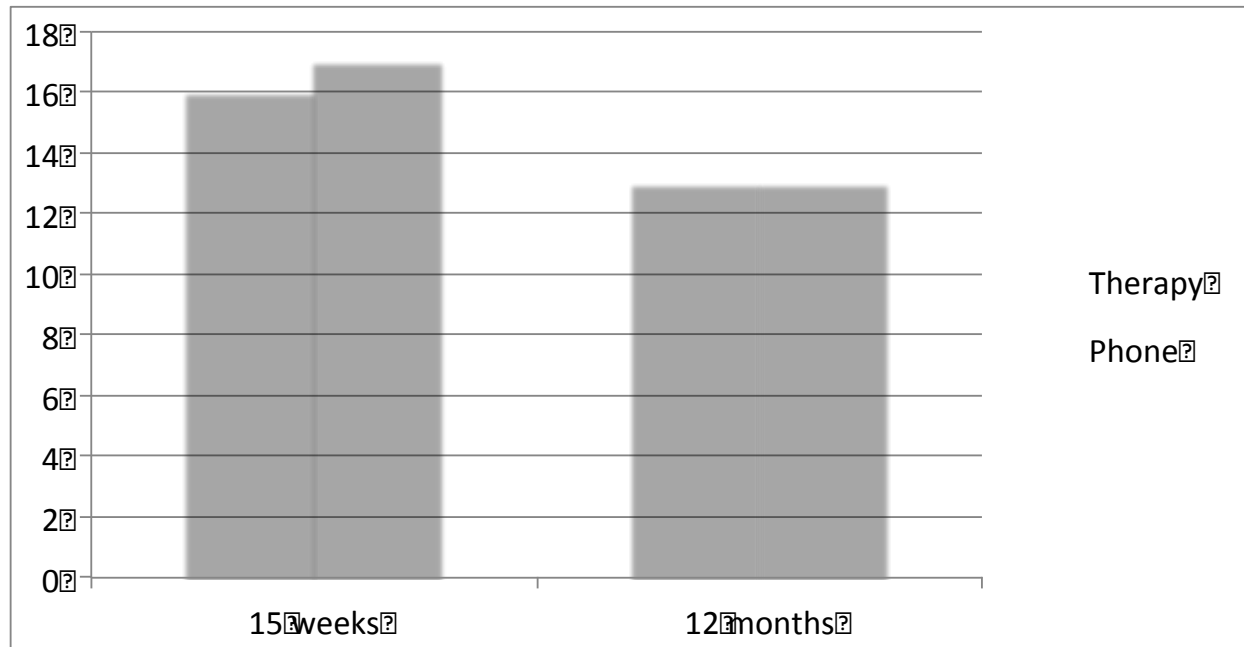


# Results: Cigarettes per day (change)

$p < .001$  (time)



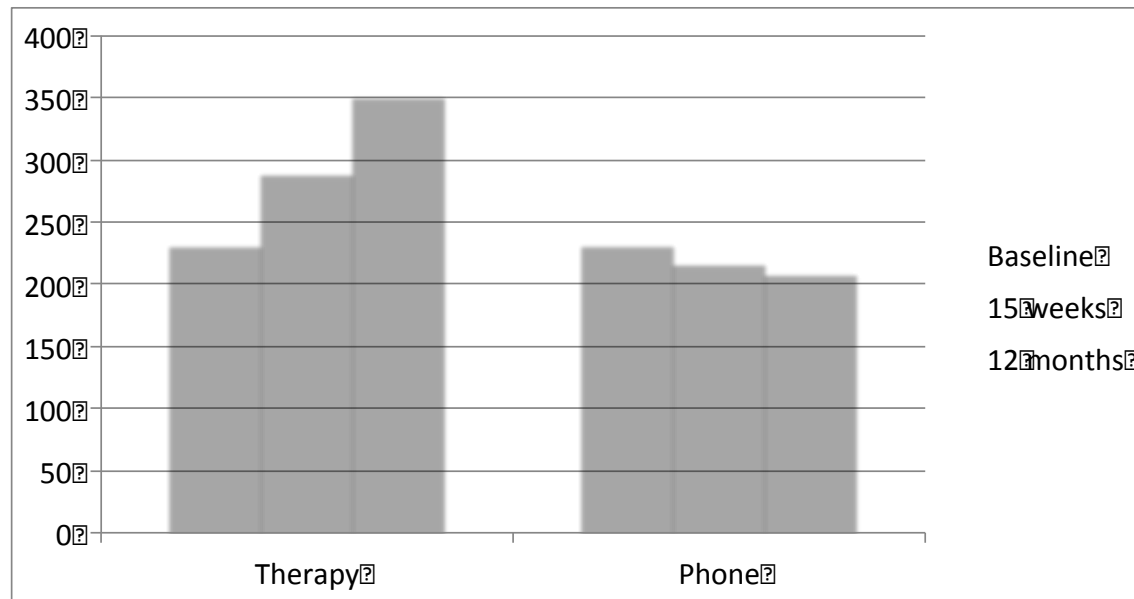
# Results: Point prevalence abstinence





# Minutes walking per week

( $p=0.06$  Therapy vs Phone 12 m)



# Symptoms

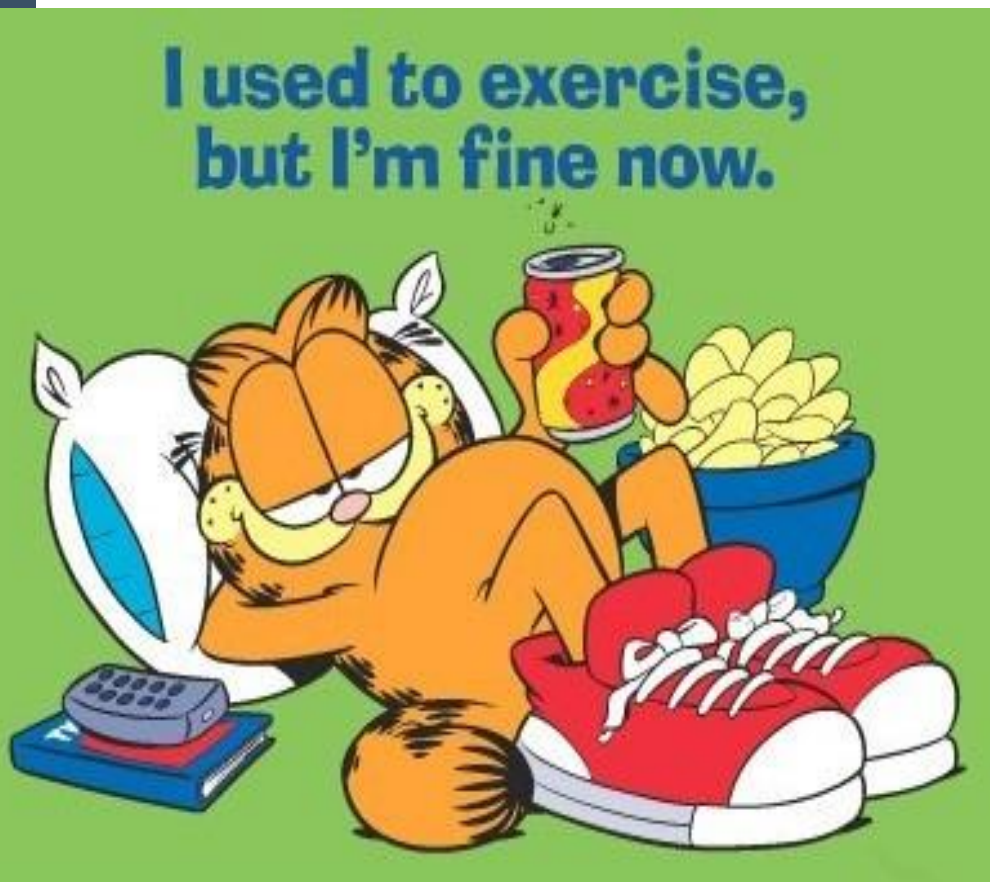
- No worsening on BPRS or BDI-II

# Healthy Lifestyle Interventions



- Smoking plus multiple targets possible
- Specify behaviours
- By telephone?

# Better Health Choices Pilot Study



N=20

8 sessions by  
telephone

Targets

- F&V
- Leisure screen time
- Other

# Better Health Choices Pilot Study Results



- Significant improvements in
  - Diet ( $p < .001$ )
  - Veg ( $p < .05$ )
  - Fruit ( $p < .01$ )
- Screen time ( $p < .05$ )

# Conclusions

- Multi-component interventions promising
- Face to face, telephone, group, online worthy of further study
- Aim to develop a suite of interventions clinicians can use

# Evidence Base *Hitsman et al (2009)*

- MI+CBT (delivered by a smoking cessation counsellor or a health care provider)  
+pharmacotherapy integrated into care
- Tobacco treatments do not have an adverse effect on psychiatric symptoms

# Helping people who can't or don't want to quit





# Evidence Base

- Smoking reduction as the initial treatment goal
- Chronic disease approach
- Integrated care

# TREATMENT OF MULTIPLE HEALTH BEHAVIOUR

# Healthy Lifestyle Intervention

Focus on diet, physical activity, smoking & alcohol/illicit substance use

## Advantages

- Avoids stigma
- Avoids premature focus
- Appealing
- Allows multiple behaviour change



# Implications for treatment

Baker, AL., Kay-Lambkin, F.J., & Lee, N.

When less is more: addressing symptoms of mental health problems in drug and alcohol treatment settings.

Mental Health and Substance Use: dual diagnosis, 2009, 130-139.

# Clinical Implications

- Treat depression & sub-clinical symptoms in D&A settings
- Flexible, stepped care approach
- Screening

*(Baker, Kay-Lambkin & Lee, 2009)*

# Clinical Pathways

- Collaborative integrated case formulation / psycho-education

# Clinical Pathways

- (1) Treat D&A use first & monitor MH symptoms
  - suited to clients whose MH symptoms have only occurred when using AOD
  - some may recover sufficiently from depression with abstinence

# Clinical Pathways

- (2) Treat mild to moderate MH symptoms & D&A use with an integrated approach: *clinician intervention*
- Challenge unrealistic beliefs about substances
  - Facilitate understanding of the relationship between MH symptoms & D&A use
  - Teach specific skills for self-managing D&A use, early warning signs MH problems, develop social support for alternative lifestyles.



# Clinical Pathways

(3) Treat mild to moderate MH symptoms & D&A use with an integrated approach:  
*clinician assisted computer intervention*

- Work with client
  - to discuss internet material & MH interventions
  - set & check homework
  - monitor MH progress

# Clinical Pathways

- (4) Provide a specialist MH intervention for severe & persistent MH problems
  - Preferably delivered within the one service

# Conclusions

- Large proportion of clients
- Sub-clinical & clinical symptoms
- If undetected, can affect progress of tx
- Screen, assess and treat with stepped care approach
- Start with a brief integrated intervention
- Ongoing training, support and supervision