



MI and CBT to reduce substance use problems and improve mental health and well-being

Amanda Baker PhD



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



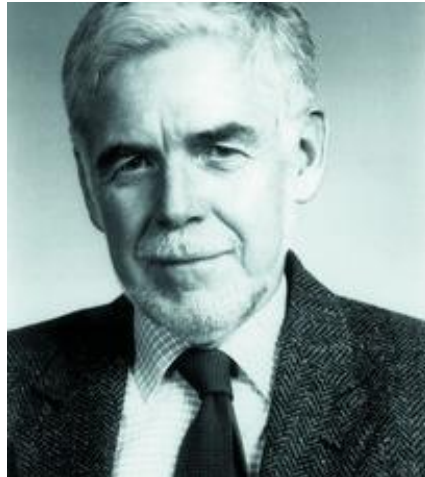
Acknowledgments

- Clinical Psychology /PhD
 - Peter Wilson (Syd Uni)
 - Nick Heather (UNSW)
 - Alex Wodak (UNSW)
 - Richard Mattick (UNSW)
 - Wayne Hall (UNSW)
- Early Clinical Career
 - Tom Jones
 - Nick Tarrier
 - Tonina Harvey
- Academic
 - Kylie Bailey
 - Richard Velleman
 - Students
 - Collaborators
 - UoN; UNSW; UoW; QUT; HNE; NDRI; TP; Deakin; UK; USA; NZ

Acknowledgments – Prof James Rankin; APSAD

- “The drug and alcohol area does not fit into any single professional area: it is truly interdisciplinary...”

Prof James Rankin, 2000



Overview

- History – as a clinical psychologist
- MI/CBT – some treatment findings
 - MA
 - Alcohol and depression
 - Tobacco
- Healthy lifestyles
- Recommendations for practice

Health Issues 1984

5

Deinstitutionalization



Severe mental illness



Motivational Interviewing



HIV epidemic & harm reduction

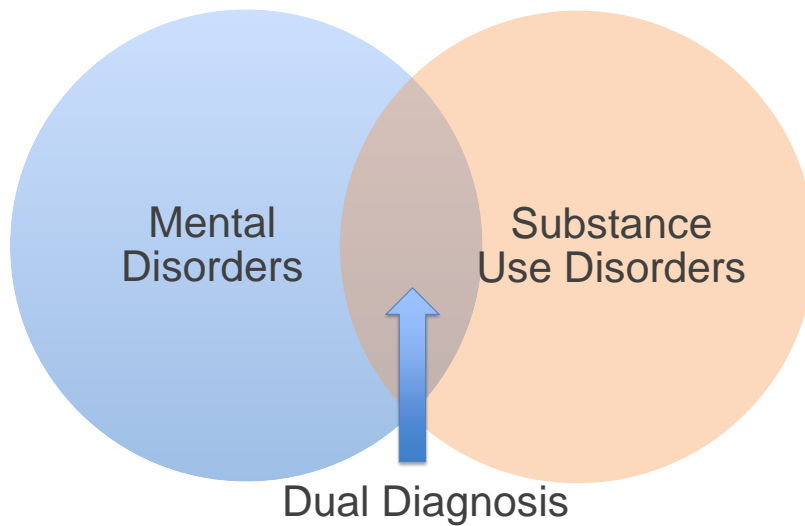


NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Dual Diagnosis 1990s

6



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Treatment Silos

7



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



National Survey of MH & Well-being

8

- Concluded that:

*“whilst Australia has focused some research effort on comorbid mental health and substance use problems, comorbidity **with physical disorders also warrants attention**, with the evidence for the most appropriate treatment response to these comorbidities being particularly limited” (Teesson et al 2007).*



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Treatment Silos

9



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Multiple drug and alcohol silos

10



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Multiple mental health silos

11



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Well-being

12

- *Following substance use treatment, quality of life in the*
 - *physical*
 - *psychological*
 - *social and*
 - *environmental domains**remains below Australian norms*

(Manning et al 2016)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Ditch the silos?

13



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



One integrated service?

14



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE

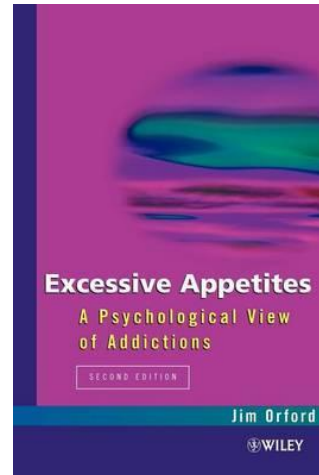


Excessive Appetite

15

Core elements :

- skewed consumption
- restraint
- + incentive learning mechanisms
 - rapid emotional change as rewards
 - wide cue conditioning
- cognitive schema
- conflict



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Excessive Appetite

16

- **Strong attachment** to an appetitive activity
 - self-control is diminished
 - behaviour may appear to be disease-like
- **Giving up excess**
 - is a natural consequence of conflict
- Much change happens outside expert treatment
- Treatment change processes - more basic and universal



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Motivational interviewing

17

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



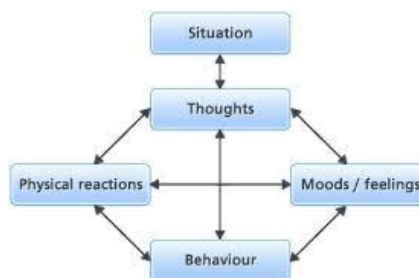
NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Cognitive Behaviour Therapy

18

- CBT
 - therapist and client work together in changing the client's behaviours, or their thinking patterns, or both of these.



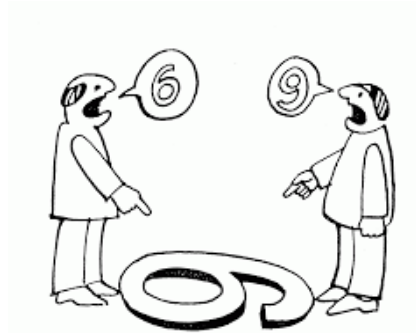
NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Counselling relationship

19

- Therapist
 - Empathy
 - Warmth
 - Reflection
 - MI (consistency)
- Working alliance
- Client feedback



- Measure / Training

(Miller & Moyers 2014)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

MI/CBT Methamphetamine

20

- Control, 2 or 4 sessions
- ≥ 2 sessions doubled abstinence (6m)
- More sessions:
significantly improved depression

(Baker et al 2001; Baker et al 2005)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE

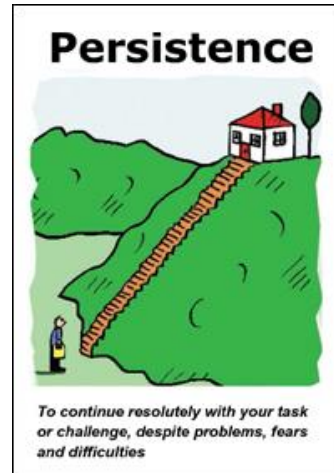


THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

Acceptance & Commitment Therapy (ACT)

21

- 12 ACT vs 4 CBT
- Median 3 sessions
- MA / dep ↓ 12, 26 w
- Hair samples; physical; polydrug favoured CBT
- High attrition
- Worthy of further research (*Smout et al 2010*)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



MI/CBT Psychosis Sample

22

- Psychotic disorders
- RCT: MI/CBT 10 sessions vs control
- 42% MA abuse/dep
- Large effect of MI/CBT at 12m (*Baker et al 2006*)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



MI/CBT for MA

23

- Effective
- ?CM
- Involve families
- Cognitive
- Healthy lifestyle
- Maintenance



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



24

Journal of Substance Abuse Treatment 46 (2014) 281–290



ELSEVIER

Contents lists available at ScienceDirect

Journal of Substance Abuse Treatment



Regular articles

Randomized controlled trial of MICBT for co-existing alcohol misuse and depression: Outcomes to 36-months[☆]

Amanda L. Baker, Ph.D.^{a,*}, David J. Kavanagh, Ph.D.^b, Frances J. Kay-Lambkin, Ph.D.^c, Sally A. Hunt, M.Psych. (Clin.)^a, Terry J. Lewin, B.Com. (Psych)Hons.^d, Vaughan J. Carr, M.D.^e, Patrick McElduff, Ph.D.^f

^a Centre for Translational Neuroscience and Mental Health, The University of Newcastle, Callaghan NSW 2308, Australia

^b Institute of Health & Biomedical Innovation and School of Psychology & Counselling, Queensland University of Technology, Queensland 4001, Australia

^c National Drug and Alcohol Research Centre, University of New South Wales, NSW 2052, Australia

^d Hunter New England Mental Health, Newcastle NSW 2300, Australia

^e Schizophrenia Research Institute and School of Psychiatry, University of New South Wales, NSW 2052, Australia

^f School of Medicine and Public Health, The University of Newcastle, Callaghan NSW 2308, Australia



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



MI/CBT Alcohol and Depression

25

- Reliable reductions
lowest (*Manning et al 2016*)
- DAISI project
 - BI, Single, Integrated
 - Start with a brief integrated intervention and step up treatment, monitoring MH / AOD
 (*Baker et al 2010; 2014*)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



MI/CBT for Alcohol and Depression

26

- Effective
- Involve families & social networks
(*Copello et al 2006, 2006, 2009*)
- Cognitive
- Healthy Lifestyle
- Maintenance



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Maintenance - Mutual Aid

27

- Mutual aid attendance predicted treatment success (alcohol)

(Manning et al 2016)

- Evaluate SMART Recovery and 12-step approaches



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Tobacco

28

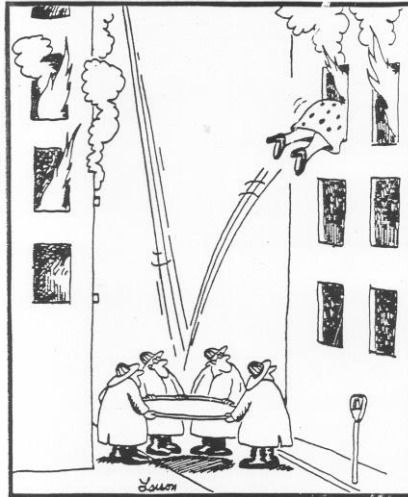


NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Fears about worsening AOD use and mental health

29



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Tobacco

30

- Less behavioural disturbance
- Fears of patients not coping/aggression
- NRT widely available

Hughes & Weiss (2005)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



“A national disgrace”

31

National Mental Health Commission. A Contributing Life, the 2012 National Report Card on Mental Health and Suicide Prevention (2012)

- Life expectancy shorter
- Cardiovascular disease: single largest cause of the death



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Leading causes of death

(AIHW 2012)

32

Men	%	Women	%
CHD	16.7	CHD	15.3
Lung cancer	6.6	Stroke	9.8
Stroke	6.2	Dementia	8.0
Respiratory	4.4	Lung cancer	4.4
Prostate cancer	4.3	Breast cancer	4.1



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Unhealthy behaviours and leading preventable causes of death

(AIHW 2012)

33

Disease	Behaviour	Biomedical
CHD/ stroke	Smoking, Inactivity, Alcohol, Diet	Obesity, high BP, Cholesterol
Cancers	Smoking, Inactivity, Alcohol, Diet	Obesity
Respiratory	Smoking	



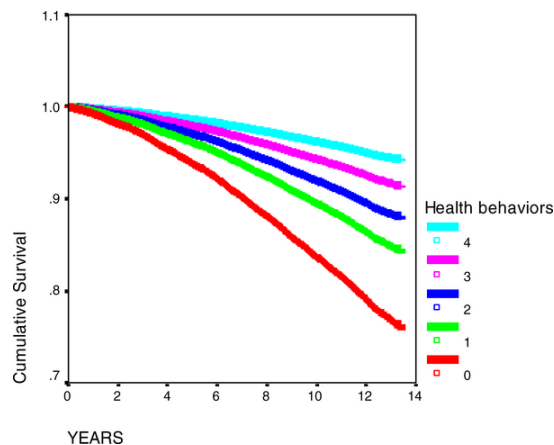
NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Health score of 0 vs 4 = 14 year difference in chronological age for mortality risk

(Khaw et al 2008)

34

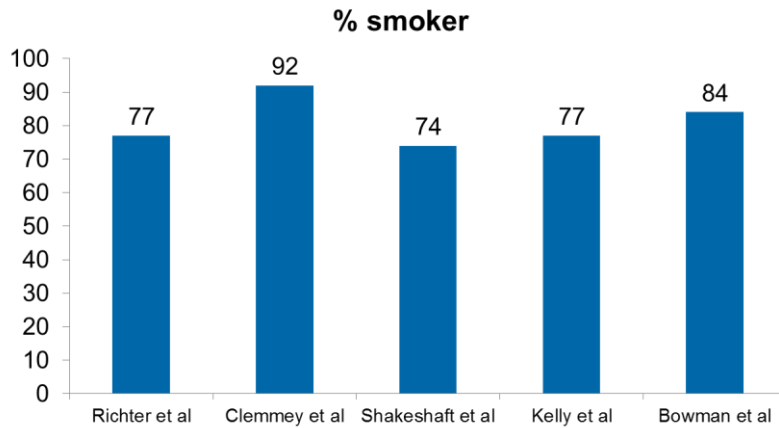


NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Smoking rates in D&A treatment populations

35



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Service consumers are interested in quitting

36

- N = 228 smokers in residential D&A treatment
- 75% had tried quitting in the past
- 67% were 'seriously thinking about quitting'

Kelly et al, 2012

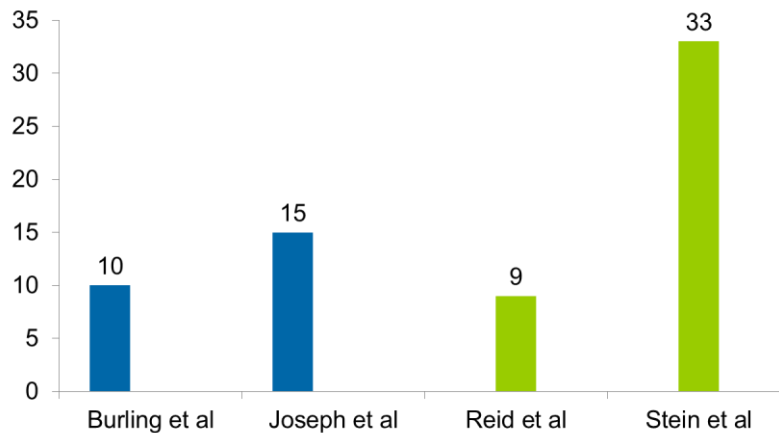


NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



D&A clients are able to quit - cessation rates in four trials

37



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Multiple risk profiles in inpatients

(Prochaska et al 2014)

38

Behaviour	% at risk	Behaviour	% prepared 30 days
Tobacco	100	Depression prevent	76
High fat diet	68	Stimulant use	74
F & V	67	Stress management	69
Sleep hygiene	53	Sleep hygiene	69
Inactivity	52	Non-Rx opiate use	68
Cannabis	46	Binge drinking	57
Depression prevent	43	Inactivity	51
Stress management	42	F & V	46
Binge drinking	26	High fat diet	43
Stimulant use	22	Cannabis	23
Non-Rx opioids	11	Tobacco	23



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



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

39



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Article

A Randomized Controlled Trial of a Smoking Cessation Intervention Among People With a Psychotic Disorder

40

Amanda Baker, Ph.D.

Robyn Richmond, Ph.D.

Melanie Haile, M.Psych.(Appl.)

Terry J. Lewin, B.Com.(Psych.)
Hons.

Vaughan J. Carr, M.D.,
F.R.A.N.Z.C.P.

Rachel L. Taylor, M.Clin.Psych.

Sylvia Jansons, R.N.

Kay Wilhelm, M.D.,
F.R.A.N.Z.C.P.

Objective: Despite extremely high rates of smoking among individuals with psychotic disorders and the associated financial and health costs, few studies have investigated the efficacy of smoking cessation interventions among this group. The purpose of this study was to compare an integrated psychological and nicotine replacement therapy intervention for people with a psychotic disorder with routine care alone.

Method: The authors recruited 298 regular smokers with a psychotic disorder residing in the community and randomly assigned them to a routine care comparison condition (N=151) or an eight-session, individually administered smoking cessation intervention (N=147), which consisted of nicotine replacement therapy, motivational interviewing, and cognitive behavior therapy. Outcome variables included continuous and point-prevalence abstinence rates, smoking reduction status, and changes in symptoms and functioning.

Results: While there were no overall differences between the treatment group and comparison group in abstinence rates, a significantly higher proportion of

smokers who completed all treatment sessions stopped smoking at each of the follow-up occasions (point-prevalence rates: 3 months, 30.0% versus 6.0%; 6 months, 18.6% versus 4.0%; and 12 months, 18.6% versus 6.6%). Smokers who completed all treatment sessions were also more likely to have achieved continuous abstinence at 3 months (21.4% versus 4.0%). There was a strong dose-response relationship between treatment session attendance and smoking reduction status, with one-half of those who completed the intervention program achieving a 50% or greater reduction in daily cigarette consumption across the follow-ups, relative to less than one-fifth of the comparison subjects. There was no evidence of any associated deterioration in symptoms or functioning.

Conclusions: These findings demonstrate the utility of a nicotine replacement therapy plus motivational interviewing/cognitive behavior therapy smoking cessation intervention among individuals with a psychotic disorder. Further development of more efficacious interventions is required for those who do not respond to existing interventions.

(*Am J Psychiatry* 2006; 163:1934-1942)





Australian and New Zealand Journal of Psychiatry

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smppl/title-content=t768481832>

Coronary heart disease risk reduction intervention among overweight smokers with a psychotic disorder: pilot trial

Amanda Baker ^a; Robyn Richmond ^b; David Castle ^{ac}; Jayashri Kulkarni ^{af}; Frances Kay-Lambkin ^a; Rebecca Sakrouge ^g; Sacha Filia ^{af}; Terry J. Lewin ^a

^a Centre for Brain and Mental Health Research (CBMHR), Faculty of Health, University of Newcastle, Callaghan, NSW, Australia ^b School of Public Health and Community Medicine, University of New South Wales, Sydney, New South Wales, Australia ^c University of Melbourne, ^d Department of Psychiatry, St Vincent's Hospital, Melbourne, Victoria, Australia ^e Alfred Psychiatry Research Centre, The Alfred ^f School of Psychology, Psychiatry and Psychological Medicine, Monash University, Melbourne, Victoria, Australia

Online Publication Date: 01 February 2009



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Nicotine & Tobacco Research Advance Access published April 1, 2015

Nicotine & Tobacco Research, 2015, 1–9

doi:10.1093/ntr/ntv039

Original Investigation

OXFORD

Original Investigation

Randomized Controlled Trial of a Healthy Lifestyle Intervention Among Smokers With Psychotic Disorders

Amanda L. Baker PhD¹, Robyn Richmond PhD², Frances J. Kay-Lambkin PhD^{1,3}, Sacha L. Filia BSc(Hons)⁴, David Castle MD⁵, Jill M. Williams MD⁶, Terry J. Lewin BCom(Psych)Hons^{1,7}, Vanessa Clark BPsych Hons¹, Robin Callister PhD⁸, Natasha Weaver PhD⁹

¹Priority Research Centre for Translational Neuroscience and Mental Health, University of Newcastle, Callaghan, Australia; ²School of Public Health and Community Medicine, University of New South Wales, Sydney, Australia; ³National Drug and Alcohol Research Centre, University of New South Wales, Sydney, Australia; ⁴Monash Alfred Psychiatry Research Centre, Central Clinical School, Monash University, Alfred Hospital, Melbourne, Australia; ⁵University of Melbourne and Department of Psychiatry, St Vincent's Hospital, Fitzroy, Australia; ⁶Division of Addiction Psychiatry, Rutgers-Robert Wood Johnson Medical School, New Brunswick, NJ; ⁷Mental Health - Research, Evaluation, Analysis and Dissemination Unit, Hunter New England Mental Health, Newcastle, Australia; ⁸Priority Research Centre for Nutrition and Physical Activity, University of Newcastle, Callaghan, Australia; ⁹Clinical Research Design, IT and Statistical Support Unit, School of Medicine and Public Health, University of Newcastle, Callaghan, Australia

Corresponding Author: Amanda L. Baker, PhD, Priority Research Centre for Translational Neuroscience and Mental Health, University of Newcastle, Callaghan, 2308, NSW, Australia. Telephone: 61-2-40335690; Fax: 61-2-40335692; E-mail: amanda.baker@newcastle.edu.au

'Better Health Choices' by telephone: A feasibility trial of improving diet and physical activity in people diagnosed with psychotic disorders



Amanda L. Baker^{a,*}, Alynna Turner^{a,b,c}, Peter J. Kelly^d, Bonnie Spring^e, Robin Callister^f, Clare E. Collins^f, Kathryn L. Woodcock^{a,g}, Frances J. Kay-Lambkin^{a,g}, Holly Devir^a, Terry J. Lewin^{a,h}

^a School of Medicine and Public Health, and Centre for Translational Neuroscience and Mental Health, the University of Newcastle, University Drive, Callaghan, NSW, Australia

^b IMPACT SRC, School of Medicine, Deakin University, Geelong, VIC, Australia

^c Department of Psychiatry, University of Melbourne, Parkville, VIC, Australia

^d School of Psychology, University of Wollongong, Wollongong, NSW, Australia

^e Preventive Medicine, Northwestern University, Chicago, Illinois, USA

^f Priority Research Centre for Physical Activity and Nutrition, the University of Newcastle, Callaghan, NSW, Australia

^g National Drug and Alcohol Research Centre, University of New South Wales, Sydney, NSW, Australia

^h Hunter New England Mental Health, Newcastle, NSW, Australia

ARTICLE INFO

Article history:

Received 10 September 2013

Received in revised form

17 June 2014

Accepted 21 June 2014

Available online 27 June 2014

Keywords:

Motivational interviewing

Fruit

Vegetables

ABSTRACT

The study objective was to evaluate the feasibility of a telephone delivered intervention consisting of motivational interviewing and cognitive behavioural strategies aimed at improving diet and physical activity in people diagnosed with psychotic disorders. Twenty participants diagnosed with a non-acute psychotic disorder were recruited. The intervention consisted of eight telephone delivered sessions targeting fruit and vegetable (F&V) consumption and leisure screen time, as well as smoking and alcohol use (as appropriate). F&V frequency and variety, and overall diet quality (measured by the Australian Recommended Food Score, ARFS), leisure screen time, overall sitting and walking time, smoking, alcohol consumption, mood, quality of life, and global functioning were examined before and 4-weeks post-treatment. Nineteen participants (95%) completed all intervention sessions, and 17 (85%) completed follow-up assessments. Significant increases from baseline to post-treatment were seen in ARFS fruit, vegetable and overall diet quality scores. Quality of

RCTs in progress

44

- **Peer delivery** in mental health settings by telephone (NEAMI, MIND)
- **Groups** within residential rehabilitation settings (The Salvation Army)
 - Kelly et al: feasible / results this conference
- **Quitline Victoria**



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Summary of RCTs

45

- Mental health, substance use & physical health risk factors cluster together
- We can assist people to work on a few behaviours at a time if they want to
- Allows flexibility, success over time



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Other groups

46

- Head and neck cancer: smoking, alcohol, diet
- Cardiac rehabilitation
- Stroke
- Young people disengaging from work and school (telephone)
- Mutual aid participants (SMART Recovery)



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Conclusion (1)

47

- MI/CBT is effective
- Can target multiple behaviours
- Include
 - Family
 - Mutual aid groups
 - Telephone

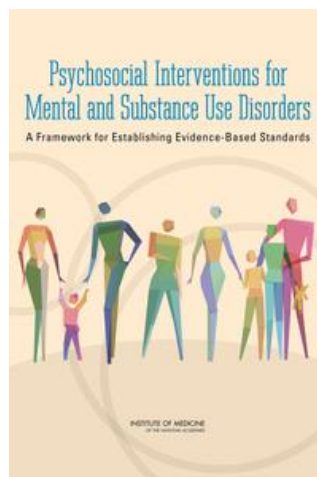


NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Improving the quality of psychosocial interventions

48



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Conclusion (2)

49

- “We need to go beyond interventions focused on the individual or family to include the local community and national policy” ...

(James McKay 2016)

- APSAD provides good opportunities for clinicians, community workers, policy makers and researchers to collaborate and work to improve treatment outcomes



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



Tip for the day

50

- Who Shot Thebarman



NHMRC CENTRE OF RESEARCH EXCELLENCE
in MENTAL HEALTH and SUBSTANCE USE



THANK YOU

Newcastle, Australia

