

ROYALFREE

world class care and expertise



The Royal National
Throat, Nose and
Ear Hospital

uclpartners
ACADEMIC HEALTH SCIENCE PARTNERSHIP

Royal Free Hampstead 
NHS Trust

**First International E-Mental Health Summit
Amsterdam, the Netherlands
Symposium 3.10 Ementalhealth@work
16th October 2009**

**Computerised cognitive behavioural therapy
at work: a randomised controlled trial
in employees with recent stress-related
absenteeism**

Dr Paul Grime MBChB MSc FRCPI FFOM MBA



FREE

METRO

Tuesday, June 26, 2001

editorial@londonmetro.co.uk



**WIN a
week's
holiday
for two
in Las
Vegas**

Page 22

Stress at work costing billions

BY FIN DAVERN

STRESS-related illness is costing the country £3.75 billion a year.

Each year, 150,000 people take at least a



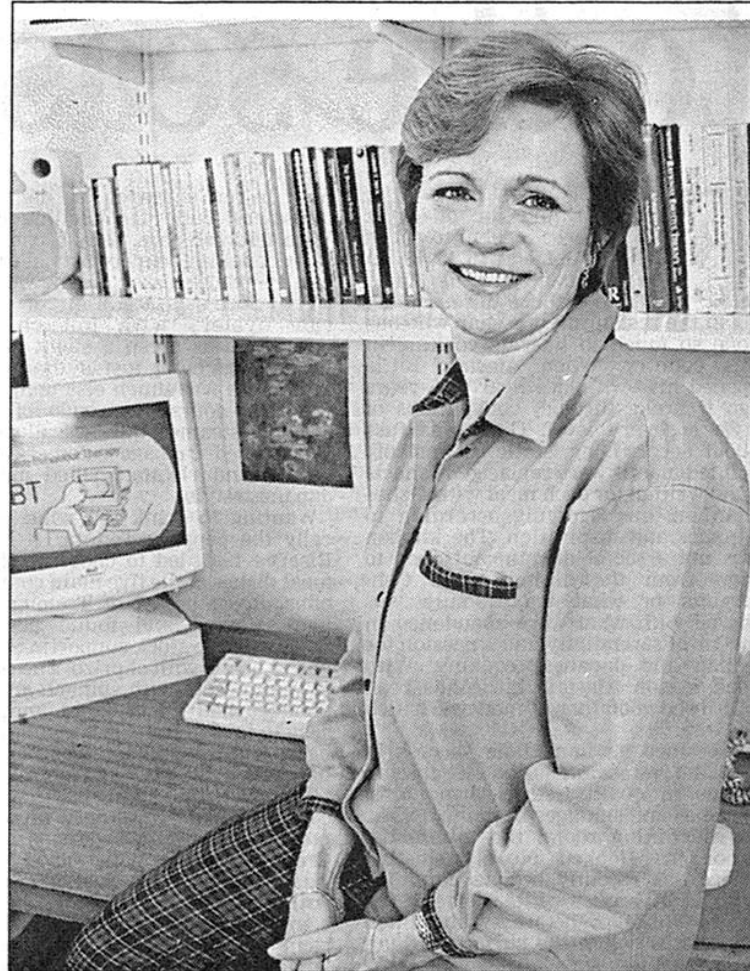
The Royal National
Throat, Nose and
Ear Hospital

uclpartners
ACADEMIC HEALTH SCIENCE PARTNERSHIP

Royal Free Hampstead **NHS**
NHS Trust

You're depressed. What is going to help most? Antidepressants, or tea and sympathy with an understanding computer? **SHARON MAXWELL MAGNUS** meets the woman behind an innovative treatment, and, right, **Dr RAJ PERSAUD** reports on how diet can affect your state of mind

The screen that cheers you up ...



Positive results: Dr Judy Proudfoot, creator of Beating the Blues



Throat, Nose and Ear Hospital

UCL partners
ACADEMIC HEALTH SCIENCE PARTNERSHIP

royal free hampstead
NHS Trust



“Beating The Blues”

Cognitive

- automatic thoughts
- thinking errors & distraction
- challenging unhelpful thinking
- core beliefs
- attributional style

Behavioural

(Ways to tackle specific problems)

- activity scheduling
- task breakdown
- problem solving
- sleep management
- relaxation training & biofeedback
- planning & prioritising
- graded exposure



Computerised Cognitive Behavioural Therapy

Principles of CBT

- Treatment of choice for anxiety/depression
- Challenges negative thinking
- Changes behaviour
- Teaches coping strategies

Computerised CBT

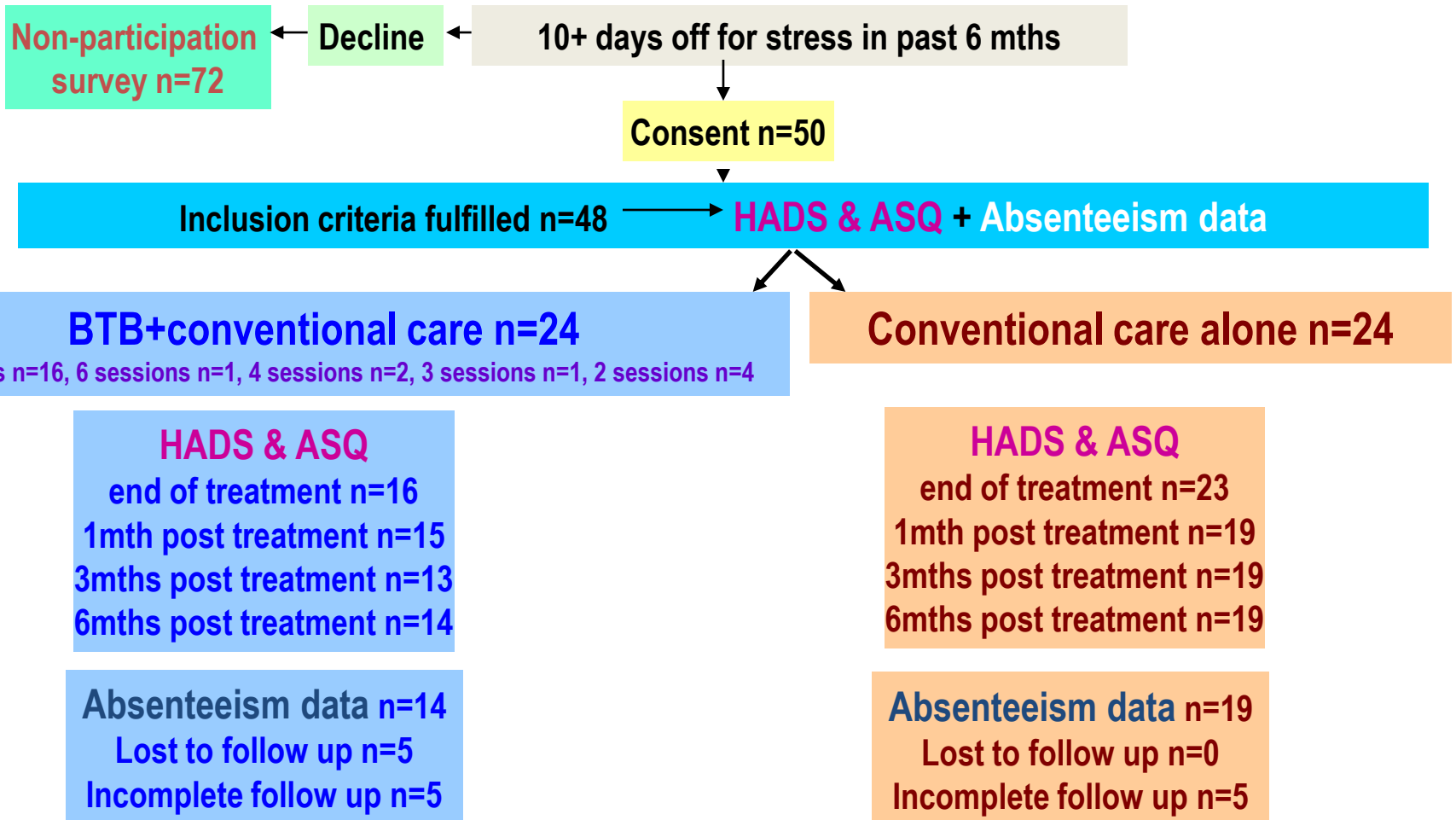
- Potentially ↑
 - efficiency,
 - flexibility,
 - consistency,
 - economy,
 - access
- Need to evaluate benefits, risks, costs to determine proper rôle
- Not previously studied in workplace



The Royal National
Throat, Nose and
Ear Hospital

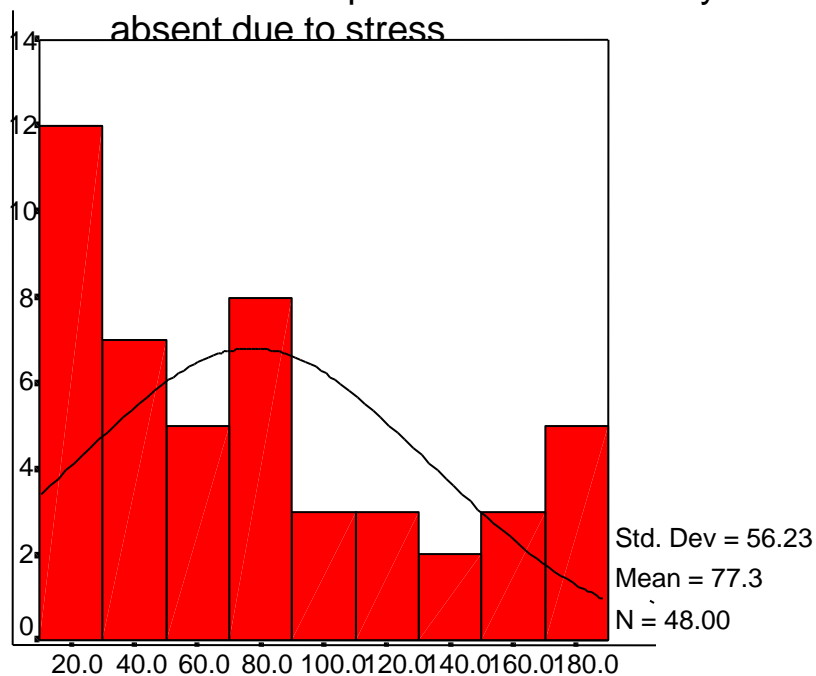


Study Progress Plan



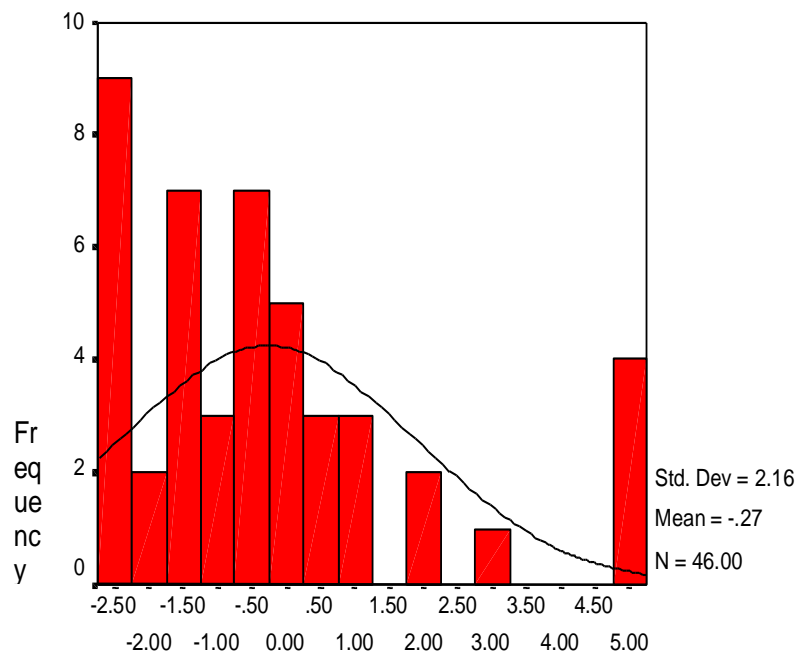
Distribution of sickness absence data

Distribution of pre-randomisation days absent due to stress



Pre-randomisation no. of days absent due to stress

Natural log (p/1-p)



Natural log (p/1-p)



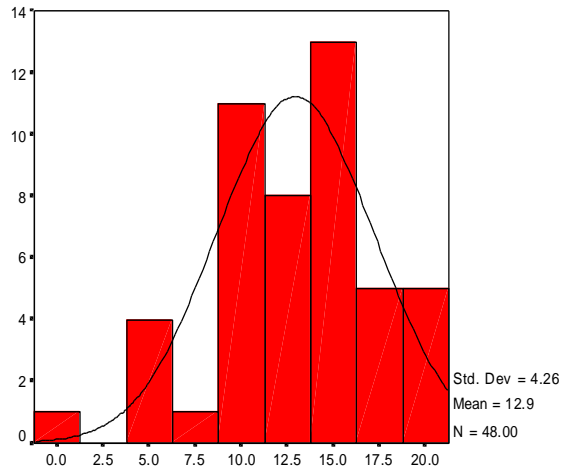
Adjusted Odds Ratios of post treatment absenteeism

	OR	95% CI
<10 days for stress	1.76	0.30-10.21
<10 days for any cause	1.51	0.26-8.74
No spells for stress	2.30	0.46-11.39
No spells for any cause	2.54	0.36-17.86



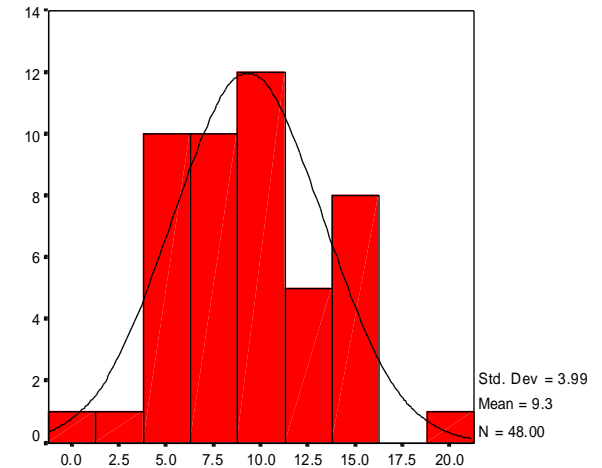
Distributions of Psychological data

HADS Anxiety scores



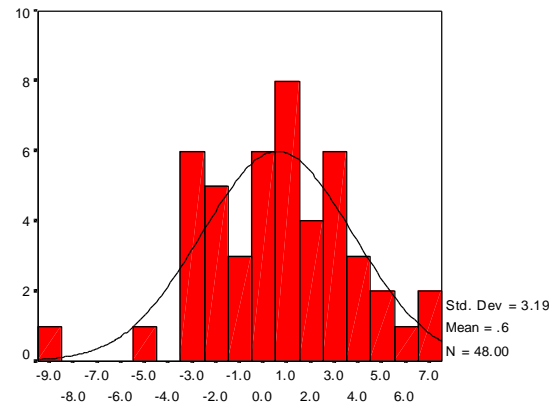
Baseline Anxiety Score (HADS)

HADS Depression scores



Baseline Depression Scores

ASQ comp scores



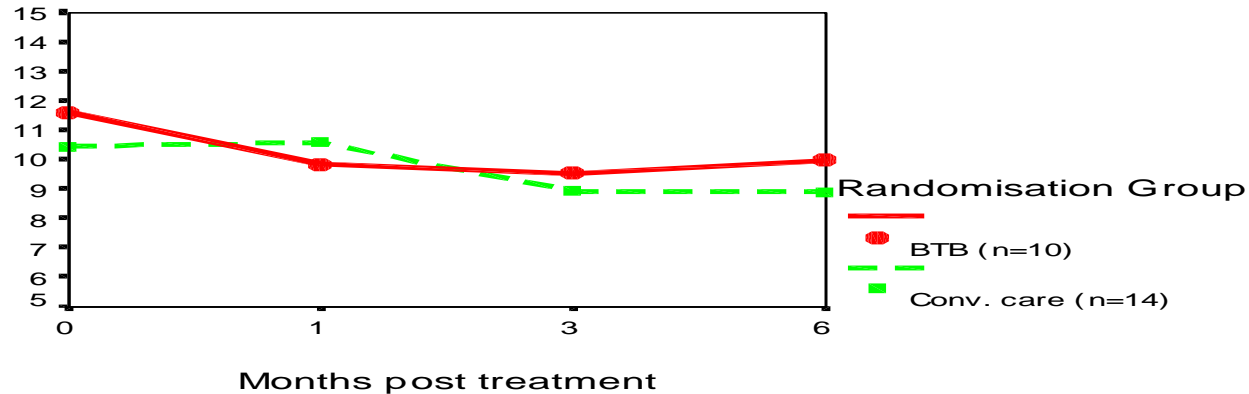
Baseline ASQ Combined Scores



Anxiety Scores

Adjusted post treatment anxiety scores

Covariate: baseline anxiety scores

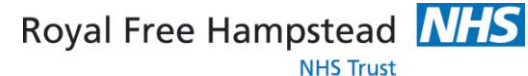


NB. Baseline scores not shown

Includes only cases with data for each time-point

Adjusted mean difference between groups (95% CI)

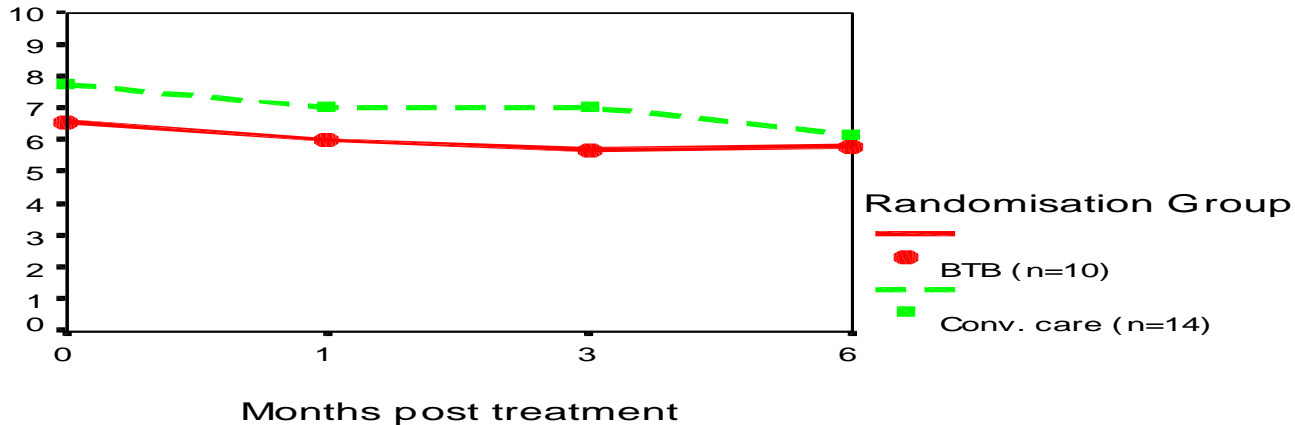
0	1mth	3mth	6mth
-0.78	-3.19	-0.14	0.65
(-3.64-2.08)	(-5.87--0.51)	(-3.61-3.32)	(-2.39-3.69)



Depression Scores

Adjusted depression scores post treatment

Covariate: baseline depression scores



NB. Baseline scores not shown

Includes only cases with data for each time point

Adjusted mean difference between groups (95% CI)

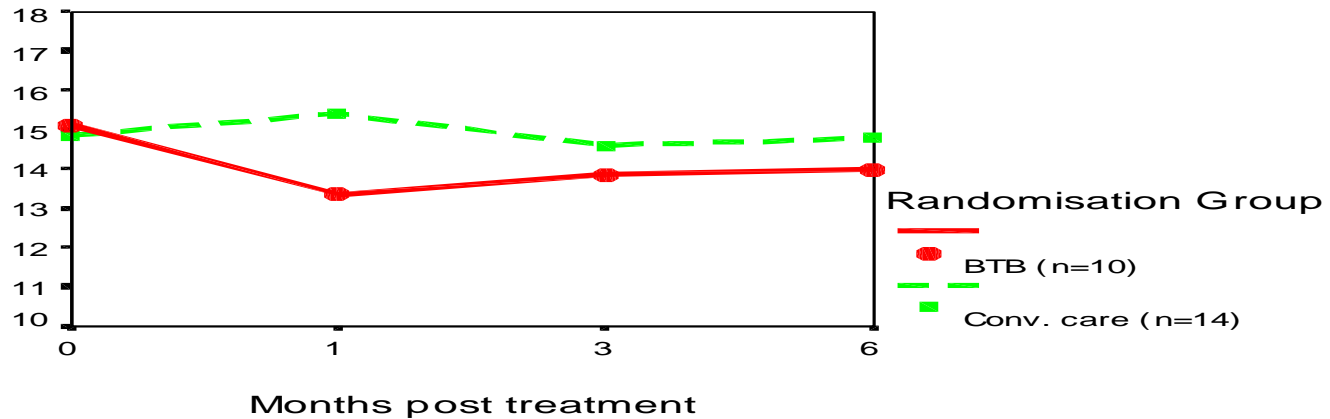
0	1mth	3mth	6mth
-3.07	-2.72	-0.96	0.78
(-5.79--0.35)	(-5.32--0.13)	(-4.35-2.44)	(-4.13-2.57)



Positive Attributional Style Scores

Adjusted ASQ positive scores post treatment

Covariate: baseline ASQ positive scores

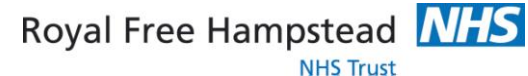


NB. Baseline scores not shown

Includes only cases with data for each time point

Adjusted mean difference between groups (95% CI)

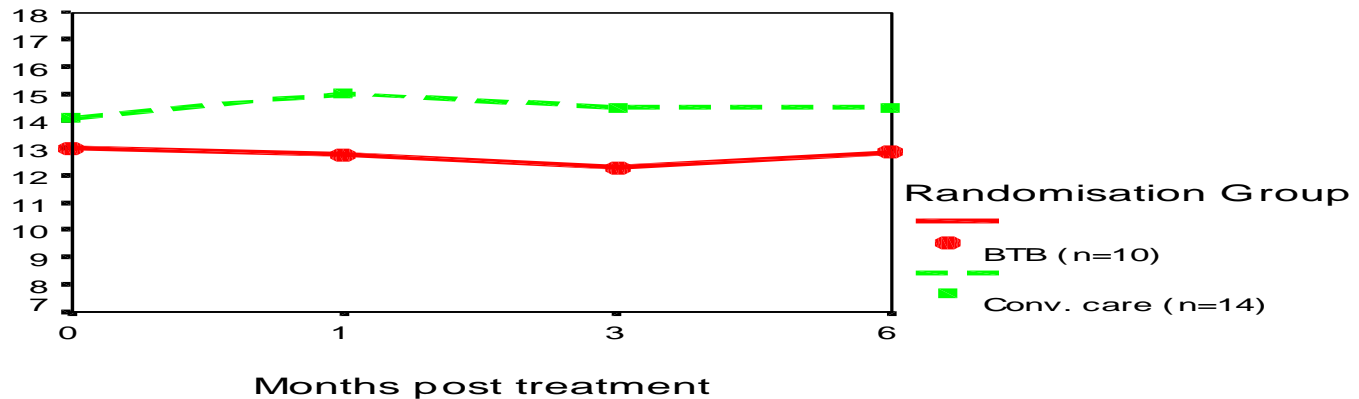
0	1mth	3mth	6mth
-0.53	-1.29	-1.09	0.84
(-1.82-0.76)	(-2.84-0.26)	(-2.41-0.23)	(-2.30-0.63)



Negative Attributional Style Scores

Adjusted ASQ negative scores post treatment

Covariate: baseline ASQ negative scores

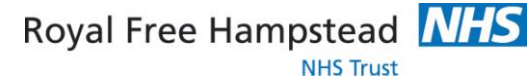


NB. Baseline scores not shown

Includes only cases with data for each time-point

Adjusted mean difference between groups (95% CI)

0	1mth	3mth	6mth
-2.32	-1.95	-1.59	-1.43
(-4.11 - -0.54)	(-3.77 - -0.13)	(-3.63 - 0.44)	(-3.44 - 0.57)



Sample size estimations based on observed outcomes

Outcome Measure	Group Size needed
Absenteeism	390
Anxiety	17
Depression	18
Attributional Style	22



The Royal National
Throat, Nose and
Ear Hospital



Reasons for non-participation

Too far/ too difficult to travel	20
Receiving other treatment	17
Employer connection	13
Unable to take time off	13
Didn't think it would help	12



Reasons for non-participation

- *“such was my depression at times I didn’t have motivation for everyday tasks. I didn’t want to commit myself ...nor seem unreliable”*
- *“I lost confidence in myself and couldn’t face what I thought would be an ordeal. I had panic attacks.”*
- *“I did try but when I got to London Bridge I had a panic attack. Sorry for letting you down.”*



Reasons for non-participation

- *“Felt that my stress/depression would “lift”/disappear in time and with the security of alternative employment since this was a major factor in my condition.”*
- *“I was told by my employer I was in the wrong job if I suffered from depression and was afraid of losing my job”*
- *“My employer was very obstructive.”*



Organisational Responses

“...sickness.... is a major issue and we are therefore keen to promote any initiatives which will improve the health of our staff.”

-Director of Human Resources.

(3300 employees, 11 study participants)

“... We are not happy with your intention to approach employees ... it is inevitable that most employees will look for paid time off work and we are concerned that this could place managers in an invidious position if they are reluctant to approve time off for a particular individual.”

-Personnel Adviser

(c10,000 employees, 1 study participant on long term sick leave)



Comments from BTB participants

- *“I found it very difficult coming to the appointments in work time due to colleagues being inquisitive as to why I was coming every week and also having to return to work afterwards, feeling sometimes quite upset after the session.”*
- *“ I found the didactic approach very useful; deconstructing thought processes using the theory underlying the programme enabled me to view more objectively my state of mind.”*



Comments from BTB participants

- *“Just a quick note to say thank you and how much I have been helpedvia the programme. I reduced the Prozac....then...I stopped on my own accord. I haven’t had any counselling or absence from work over the period of time.”*
- *“...I cannot say in all honesty that the course solved my problems but it helped to give me a little time each week to focus on issues and examine them in a sensible and logical way and sometimes it seemed to produce a feeling that maybe things weren’t so bad.”*



The Royal National
Throat, Nose and
Ear Hospital



Summary of Results

- Study groups needed to be 28 times larger to detect an effect on absenteeism and study would take 56 years to complete
- BTB group had statistically significantly lower depression & negative ASQ scores at end of treatment & 1 month later
- BTB group had statistically significantly lower anxiety scores 1 month after treatment



Conclusions (1)

- BTB may help to speed recovery
- Uptake may be improved by:
 - shorter programme
 - better access (on line?)
 - tailored to anxiety more than depression



Conclusions (2)

- Use appropriate outcome measures to evaluate interventions
- Economic evaluation requires large, probably multi-centre studies, which need appropriate resourcing



Reference

- Computerised cognitive behavioural therapy at work: a randomised controlled trial in employees with recent stress-related absenteeism. Paul Grime. *Occupational Medicine* 2004; 54 (5) 353-9.



Workplace interventions for people with common mental health problems: Evidence review and recommendations BOHRF September 2005

- Evidence looks promising
- Further research on computer-aided CBT needed
- Accessibility, acceptability and effectiveness beyond the short term are key issues
- An abridged version with 3 or 4 sessions, tailored more to address anxiety, should be tested in workplaces



Computerised cognitive behaviour therapy for depression and anxiety **Review of Technology Appraisal 51 NICE February 2006**

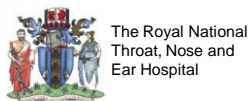
BTB recommended as an option for
delivering CBT in the management of mild
and moderate depression



Computerised cognitive behaviour therapy for depression and anxiety **Review of Technology Appraisal 51 NICE February 2006**

Further research recommended:

- RCTs with ITT analysis
- Record and report adverse effects
- Collect information on costs
- Collect information on QoL measures,
- Identify type of individuals most likely to benefit
- Comparisons with placebo and other therapies



The Royal National
Throat, Nose and
Ear Hospital



Beating the Blues developments

- Now available for purchase online
<http://www.beatingtheblues.co.uk/>
<http://www.ultrasis.com/products/>
- “Relief” series: separate 4-module products for anxiety, depression, stress and insomnia



ROYALFREE

world class care and expertise



The Royal National
Throat, Nose and
Ear Hospital

uclpartners
ACADEMIC HEALTH SCIENCE PARTNERSHIP

Royal Free Hampstead 
NHS Trust