

COMMENTARY

Employing cognitive behaviour therapy to reduce unemployment

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Psychotherapy has been transformed in the past decade by cognitive behaviour therapy. The recent *Science and Practice of Cognitive Behaviour Therapy*¹ provides a magisterial overview of its historical, theoretical, and practical aspects. Initially used for depression and anxiety, cognitive behaviour therapy is now indicated for panic disorder, obsessive-compulsive disorder, eating disorders, sexual problems, attempted suicide, hypochondriasis, cardiovascular disease, and atypical chest pain,¹ as well as psychosis,² chronic fatigue syndrome,³ unexplained physical symptoms,⁴ and symptoms due to malignant disease.⁵ In this week's *Lancet*, Judith Proudfoot and colleagues present another remarkable success for cognitive behaviour therapy, that of helping the long-term unemployed find employment.

Cognitive behaviour therapy originates in two separate psychotherapeutic approaches. Behaviour therapy purposely discarded the Freudian search for unconscious meanings, and concentrated on behaviour itself, caring little where it came from or what it meant. Although it was successful, notably in the phobias, therapists worried that it was too atheoretical, too passionless, too removed from mental life. Cognitive therapists, notably Beck and

Ellis, asked questions about thought itself, in a theoretical approach anticipated by Kelly's theory of personal constructs. Cognitive behaviour therapy synthesised these approaches, acknowledging that behaviour is central, but concentrating on the ways it is anticipated and explained by the patient. A re-invigorated phenomenology has now come centre-stage in psychopathology, emphasising what is thought about problem behaviours, rather than about one's childhood or one's dreams. Particularly in depression, but also in other conditions, the principal problem is automatic, negative, dysfunctional thoughts that inevitably engender failure. The central tenet of cognitive behaviour therapy is the need for patients to recognise maladaptive thoughts, to control them, and to allow more useful thoughts and behaviours, thereby letting cognitions generate more positive emotions. The panel summarises the six core techniques of cognitive therapy.⁶

Proudfoot and colleagues used similar techniques in their group of long-term, professional unemployed people, in 57% of whom, as elsewhere,^{7,8} there was evidence of psychiatric caseness on the General Health Questionnaire (GHQ). They found clear evidence of a beneficial effect of cognitive behaviour therapy on employment (34% in full-time jobs compared with 13% in controls), and on self-esteem, attributional style, self-efficacy, and motivation.

The immense cost of long-term unemployment, for individuals and for society, makes these results of great practical importance, extending well beyond the normal bounds of medical care. However, before the authors' conclusions are accepted as definitive, the work should be replicated, at the same time remedying some minor design problems. The most notable was that although subjects were blind, the small number of therapists were not blind, and might have conveyed different expectations of treatments, as suggested by the finding that only 9 people did not enter the cognitive behaviour therapy programme, whereas 34 did not enter the control programme (relative risk 4.7, 95% CI 2.1–10.2). Also surprising is that those on the cognitive behaviour therapy programme were 14.2 times more likely to be lost to follow-up (95% CI 1.8–109.8), although a charitable explanation may be that they moved to find employment.

What does this study say about poor mental health and unemployment? As Bartley recently put it, "It is no longer seriously argued that there is no such relationship".⁷ What is argued about is direction of causation,⁹ and about process.¹⁰ The opposing camps can be called psychological reductionists,¹⁰ who emphasise the person's response to loss in unemployment, and sociological reductionists, who

Core techniques of cognitive behaviour therapy*

Technique	Purpose
Thought-catching	Teaching the person to become aware of negative thoughts as they occur
Task assignment	Encouraging behaviours that the person has been avoiding
Reality testing	Selecting tasks to test out the truth of negative thoughts or beliefs
Cognitive rehearsal	Recounting to the therapist the stages of an activity that has been avoided, along with the thoughts and feelings, to find the "roadblocks" that are preventing successful behaviour
Alternative therapy	Encouraging the person to imagine a difficult situation, and generating strategies for coping
Dealing with underlying fears and assumptions	Investigating how dysfunctional schemata and assumptions have been built up over a lifetime and how they impact on everyday thought.

*Based on Williams⁶

stress institutional and societal changes co-occurring with redundancy.¹⁰ Both groups will find succour here. That psychological processes are important is shown by the finding that a purely cognitive intervention reverses the impact of job loss, restores GHQ scores to normal, and results in re-employment. However, closer scrutiny shows that in those receiving cognitive behaviour therapy who do not get a job, GHQ levels return to baseline levels 3 months after the intervention, in contradistinction to the usual sustained benefits in depression.⁶ The discrepancy suggests that unchanged adverse social factors are maintaining poor mental health.

Chris McManus

Academic Department of Psychiatry, Imperial College School of Medicine at St Mary's, London W2 1PG, UK

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Vindication of policy of vitamin A with measles vaccination

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Measles vaccination and vitamin A supplementation of young children are two of the most cost-effective health interventions available to developing countries.¹ Vitamin A supplementation prevents over 20% of deaths in children aged 6–59 months in areas where vitamin A deficiency is prevalent,² which is the situation in most of the developing world.³ Similarly, measles vaccination prevented over 30% of childhood deaths in studies in Bangladesh.^{4,5} By 1995, approximately 80% of infants in developing countries were estimated to have received measles vaccine as well as three doses of diphtheria-tetanus-pertussis and poliomyelitis vaccines.⁶ Thus, most infants in developing countries have at least three contacts with immunisation services in the first year of life. For well over a decade, WHO and other official advisory bodies have recommended that high-dose vitamin A supplements should be given every 3 to 6 months to children aged 6–71 months,⁷ and have suggested that “immunization against measles provides a good opportunity to give one of these doses”.⁸

It was worrying, therefore, when a randomised controlled trial in Indonesian infants found that

seroconversion to measles vaccine given at 6 months of age was significantly reduced in the presence of concurrent vitamin A supplementation (100 000 IU) in the two-thirds of infants who had maternal antibody at the time of vaccination.⁹ Seroconversion was not reduced among those infants who did not have detectable maternal antibody. The finding led to a call for further studies in different populations, and especially for evaluation of the effect of concurrent vitamin A and measles vaccine administration at age 9 months, the age for routine measles immunisation in most developing countries.¹⁰

The results of such a trial in Guinea-Bissau reported today by Christine Benn and colleagues provide considerable reassurance, since high-dose vitamin A supplements given alongside a single dose of measles vaccine at 9 months of age did not reduce the very high seroresponse rate (95%). In fact, in boys vitamin A significantly enhanced measles antibody levels. In addition, administration of vitamin A together with each of two doses of measles vaccine at ages 6 and 9 months did not significantly affect seropositivity (98%) or mean antibody levels at age 18 months. In the absence of information on prevaccination maternal antibody levels in the two groups, it is more difficult to interpret the seropositivity levels after only the first dose of vaccine in this study, but there was no evidence of a reduced response in the supplemented group.

The study also raises further interesting questions about potential sex differences in response to infections and vaccination. A previous study by this group¹¹ found lower postvaccination antibody levels in boys as measured by enzyme immunoassay but not by haemagglutination inhibition. In this study, unsupplemented boys had lower postvaccination measles antibody levels than did unsupplemented girls after vaccination aged 9 months, whereas there was no such difference in children who received vitamin A. The authors propose that more frequent infection in boys depletes their vitamin A reserves more quickly and that vitamin A deficiency reduces the response to measles vaccination. If so, earlier provision of vitamin A, as currently being studied during visits for DTP-poliomyelitis vaccination, may also improve responses to measles vaccine. As Benn and colleagues propose, it would be of interest to assess any interaction between sex, vitamin A supplementation, and response to vaccinations in such studies.

The most important finding for public-health programmes in developing countries is that high-dose vitamin A supplements can be given safely alongside measles vaccination, whether administered in a single dose at 9 months of age or in an “early” two-dose measles vaccination regimen, as is currently recommended for high-risk groups such as refugee populations and HIV-infected infants.¹² The policy of administration of vitamin A to 6–59-month-old children at opportunities such as during visits for immunisation should be actively implemented. The challenge is set for governments and donors to develop sustainable strategies to make vitamin-A supplements and measles vaccinations available to all children. The potential benefits are great.

David A Ross, Felicity T Cutts

Department of Communicable and Tropical Disease Epidemiology, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK