

FORTY YEARS OF PSYCHOSOCIAL TREATMENTS

Isaac Marks

Institute of Psychiatry, London, U.K.

Abstract. Over the last 40 years certain psychosocial treatments have made great strides on the long road towards becoming a reliable clinical science. A mark of this maturation is the recent enabling of sufferers from anxiety disorders and depression to help themselves when guided by particular manual or computer self-help systems, indicating that several effective therapeutic mechanisms have become reasonably defined. Still unknown, however, is exactly how many separate therapeutic paths are being trodden to improve anxiety and depression, and how much various tracks converge on common mechanisms. Careful dismantling studies may in time reveal that some behavioural, cognitive and interpersonal therapy procedures are in fact proxies for administering as yet dimly-perceived therapeutic principles. Progress would accelerate further once therapists were required to specify how much they improve their patients on simple and widely-agreed measures of outcome and cost, and once they learn to speak a broad-accepted common language.

Keywords: Behaviour therapy, cognitive therapy, interpersonal therapy, cost-effectiveness, self-help, computer-guided treatment.

Introduction

The editor's request for a paper to mark my retirement from 40 years at the Maudsley prompted a step back for a broader perspective on psychosocial treatments than journals usually grant. The field has advanced hugely since the early 1960s. At that time hardly any randomized controlled trials (RCTs) pointed to what improved certain problems reliably, what worked less well, and why that was so. Measurements of outcome were rarely made. Cost-efficiency was never mentioned. Computer aids to self-help were hardly on the horizon. This paper traces some of the progress made, obstacles to further advances, and roads ahead.

It needs no pointing out that psychosocial treatments began not in the 1960s but with the dawn of civilization. Many, including religious healing and psychoanalysis, were splendidly reviewed in Pierre Janet's *Psychological healing* (1925). Behavioural exposure therapy had been advocated by Freud (1919, though few psychoanalysts heeded him on that score) and by Janet (1925), among others. Approaches that came to be called behavioural were systematized in Wolpe's *Psychotherapy by reciprocal inhibition* (1958) and in Eysenck's (1960) edited reports. Wolpe and Eysenck rooted their ideas in learning theory, and most behaviour and cognitive therapists have been psychologists. Wolpe, however, was a physician, as was Aaron Beck, the psychiatrist who sired cognitive therapy.

Reprint requests to Isaac Marks, Institute of Psychiatry, De Crespigny Park, London SE5 8AF, U.K. E-mail: imarks@iop.kcl.ac.uk

© 2000 British Association for Behavioural and Cognitive Psychotherapies

What we regard as the ideological root of our practice is a projective test shaped by ideology and turf wars. We could all trace whatever we do back to almost any person, time or place we chose. “The vain pursuit of the idol of origins” (Marc Bloch, cited by Barraclough, 1966) was brought home to me at the first conference I ever attended abroad — the 1966 International Conference on Psychology in Moscow. One Soviet neuropsychologist after another began their paper by saying their work built on that of the great I. P. Pavlov, and thereafter ignored him when describing their superb but unrelated scientific studies. A few days later in Leningrad at the Bechterev Psychotherapy Institute I heard the director say his clinic practised “Pavlovian” psychotherapy. It turned out that his patients were encouraged to describe their past relationships with relatives and taught how those had led to present problems. The same rose was called Pavlovian in one country and Freudian in another. In similar vein, Soviet neurosurgeons eschewed doing leucotomies, but performed the same operation under the name of thalamo-frontal section. Ask not what God you worship; rather, ask what you do. The confusing tendency to call similar therapy procedures by different names continues today, a theme to which we’ll return later. . . .

I began my career in experimental psychopathology by testing psychoanalytic views that OCD symptoms defended against aggression (Marks, 1965). The controlled design used was inspired by Bob Cawley’s call for clear hypothesis testing. The results disconfirmed the psychoanalytic view of OCD. They forced a chastening reappraisal of cherished ideas and strengthened my interest in other approaches.

About that time steps towards scientific rigour in therapy were quickening in the U.S.A. and the U.K. Jerome Frank’s team had begun seminal RCTs in psychotherapy in the 1950s (beautifully summarized in *Persuasion and healing*, Frank, 1961). Lang, Lazovik and Reynolds published an early RCT of desensitization in 1965. Sir Aubrey Lewis fostered critical thinking and experiments at the Maudsley. Archie Cochrane (1971) urged doctors to test clinical efficacy in RCTs.

All the above and Michael Gelder influenced me after I joined him in 1964 in a fruitful 6-year collaboration concerning behaviour therapy. Our work with sexual deviations had fascinating therapeutic outcomes that also shed light on learning mechanisms (Marks & Gelder, 1967; Gelder & Marks, 1970; Marks, Gelder, & Bancroft, 1970). Such research, however, was not encouraged and dried up almost everywhere. The world has seen remarkably few RCTs of psychosocial treatments of sexual problems as a whole despite their being common and distressing and incurring huge personal, legal and penal costs. Fashion shapes the direction of scientific enquiry. This is true too for anxiety disorders. I hardly dare tell readers that we found significant benefits from leucotomy for agoraphobia and for OCD after using a retrospective matched controlled design to follow up cases operated on 5 years earlier (Marks, Birley, & Gelder, 1966; Tan, Marks, & Marset, 1971).

Influences on animal experiments

Like Wolpe’s, my phobia work was influenced by animal research. In 1967 I visited Morrie Baum’s laboratory at McGill University in Montreal while on a tour of North American centres of behaviour therapy. Baum was doing elegant experiments (reviewed in Marks, 1981). He conditioned rats to avoid shock by jumping from the electrified grid floor of their cage onto a retractable ledge. Then he switched off the current, but his rats never spent long enough on the grid floor to discover this fact, having been conditioned to avoid shock by

jumping immediately onto the ledge every time they were placed on the cage floor. Only after Baum blocked the rats' conditioned avoidance by retracting the ledge so that they could no longer attain safety by jumping onto it did they gradually stop their abortive jumps and settle down on the grid floor. Blocking the avoidance (the safety behaviour) led to its rapid extinction.

To me this seemed a paradigm for treating phobias. At the time the usual behavioural approach was Wolpe's systematic desensitization. He thought this worked by relaxation reciprocally inhibiting the fear that patients felt when imagining phobic scenes briefly and repeatedly up a hierarchy. His approach too was inspired by animal studies. As an example, hungry cats that had been conditioned to avoid a food learned to overcome their fear by being pressed toward that food (Masserman, 1943). Baum's rats, however, stopped conditioned avoidance without any stimuli to reciprocally inhibit their fear. Just blocking their avoidance enabled them to discover that their fear was groundless. Baum also drew my attention to the classic animal experiments of Dick Solomon (e.g., Solomon, Kamin, & Wynne, 1953) and others with whose findings Baum's agreed.

Major advances since the 1960s

Treatment of anxiety and depressive disorders

The above animal studies led my team to test whether phobias would improve by imagining phobic scenes or confronting real phobic stimuli without concurrent relaxation. In a series of randomized controlled trials (reviewed in Marks, 1981 & 1987), we found that phobic and obsessive-compulsive patients improved just by repeatedly confronting phobic stimuli in imagination or in real life. Relaxation proved to be redundant. Nor was it necessary for the anxiety induced by the phobic stimuli to be extremely intense as in flooding (implosion). Thus we arrived at the idea that the many different approaches that reduced fear shared a core element of engaged exposure to the phobic stimulus (Marks, 1973) whose counterparts in animal studies were habituation and extinction.

That exposure was sufficient to improve phobias and OCD lastingly for many years became abundantly confirmed in many RCTs. Was exposure necessary as well as sufficient to lessen fear, however? A doubt was present right at the start because phobias improved as much after exposure to fear cues that were irrelevant to the phobia as after exposure to fear cues that were relevant to it (Watson & Marks, 1971), a finding that was replicated later (Smith, Kirkby, Montgomery, & Daniels, 1997). The fact that exposure to irrelevant fear cues reduced phobias raised the possibility that exposure therapy is a form of stress immunization, of teaching subjects broader emotional control. This tantalizing topic has hardly begun to be explored experimentally.

Recent findings further challenged the idea that exposure is the only way to reduce fear. In an RCT blood phobics improved well and enduringly with muscle-tensing exercises that excluded exposure (Ost, Fellenius, & Sterner, 1991) — blood phobics lost their fear just by tensing their muscles to maintain blood pressure and prevent vasovagal fainting when they encountered blood. In other RCTs PTSD, hypochondriasis and OCD improved with cognitive restructuring that excluded systematic exposure, while generalized anxiety disorder benefited from problem-solving (reviewed by Marks & Dar, 2000), and panic/agoraphobia improved with non-prescriptive reflective listening that contained no exposure (Shear, Pilkonis, Cloitre, & Leon, 1994).

It has become clear that exposure is but one of several roads that can reduce fear, while many other tracks don't lead there e.g., relaxation without exposure, anti-exposure, drug or attention placebo, being on a waiting list. Which roads to reduce fear reach there by converging on common pathways and which get there independently deserve exploration. It is intriguing that when PTSD improved with a cognitive restructuring therapy that omitted exposure, fear reduction tended to precede rather than follow cognitive change, questioning whether the treatment package worked via its component of cognitive restructuring (Livanou, 1998).

That several approaches are reliably therapeutic has become clear not only with anxiety disorders but also with major depression. Psychosocial treatment for depression is usually thought of as being cognitive behaviour therapy, and many RCTs found that package to be valuable. In a landmark RCT, however, behavioural activation on its own improved major depression as much up to a 2-year follow-up as did a full cognitive therapy package that included behavioural activation (Jacobson et al., 1996; Gortner, Gollan, Dobson, & Jacobson, 1998). Two important questions remain after that RCT. First, it is not known whether the number of new activities that behavioural-activation patients undertook related to outcome. Second, no RCT has yet tested whether major depression would improve by cognitive restructuring on its own without behavioural activation, though such a result seems likely given the outcome with anxiety disorders.

In other RCTs further psychosocial approaches improved depression reliably. One is interpersonal therapy (e.g., Frank & Spanier, 1995) that has been widely researched in the U.S.A. but is only just coming to the U.K. Interpersonal therapy might be regarded as a special form of problem-solving therapy that concentrates on interpersonal issues. Problem-solving is demonstrably antidepressant (Mynors-Wallis, Gath, & Baker, 2000). Mindfulness meditation prevented relapse in recurrent depression (Teasdale et al., in press). Yet another psychosocial treatment — bible readings with the therapist — improved depression in religious sufferers.

Research has yet to define the mechanisms of action of the above psychosocial treatments that in RCTs have improved anxiety disorders and major depression. The unravelling of their overlapping and/or separate modes of operation is a crucial task for the next few decades.

Treatment of other disorders

In disorders other than anxiety or depression psychosocial treatments have also made strides as shown in numerous RCTs. Eating disorders improved with cognitive, behavioural and family approaches (Treasure et al., 1999) and bulimia improved with CBT guided by a manual (Thiels, Schmidt, Treasure, Garthe, & Troop, 1998). In chronic schizophrenia, relapse is impressively reduced by family work when the family has high expressed emotion (Leff, 1998), cognitive behavioural approaches reduce hallucinations and delusions (Kuipers et al., 1998), and intensive prolonged skills training enhances independent living skills in the community (Liberman et al., 1998). In uncontrolled work sufferers from certain forms of epilepsy improved and needed less medication after being trained in individually tailored self-control manoeuvres (Goldstein, 1990).

Medication with psychosocial treatments

The various psychosocial approaches that help schizophrenia were all used together with chronic antipsychotic medication and did not reduce the need for that. Anxiety and depressive disorders, however, commonly benefit from psychosocial treatments on their own without medication and the reverse is also true. Several “antidepressant” medications including SSRIs improve both anxiety disorders and depression when given alone without psychosocial treatment. Combining antidepressants with psychosocial treatment can enhance outcome, especially when anxiety disorders are complicated by comorbid depression.

With both anxiety disorders and with major depression relapse is common on stopping medication even after it has been taken for a year or two. In contrast, improvement of anxiety disorders usually continues for many years after the end of exposure therapy, and for the shorter 6–12 months of follow-up available so far after cognitive restructuring with anxiety disorders and after muscle tensing for blood phobia. Brief booster treatment usually restored function in the minority of anxiety-disorder patients who relapsed after ending exposure therapy. With major depression improvement from interpersonal therapy appears to last longer if booster sessions are given at intervals after more intensive treatment has ended.

How long a treatment needs to continue in order to yield enduring gains markedly affects its cost efficiency. Anxiety-disorder patients have usually had their problem for many years before they enter an RCT. If a months-long treatment only improves a sufferer’s chronic problem transiently then that greatly reduces the cost-efficiency of the treatment. Improvement in anxiety disorders usually lasts long after one-off exposure therapy has ended; that treatment’s cumulative benefits start to exceed its total cost within 2–3 years (Ginsberg, Marks, & Waters, 1984).

The situation is different with medication. With anxiety disorders medication must usually be given for years to avoid relapse, so its total cost mounts arithmetically as the years go by to soon exceed that of exposure therapy (Marks, 1991). The accumulating cost includes that of the medication itself and of visits to the prescribing clinician, quite apart from the incalculable cost to the patient of continuing side effects of medication such as anorgasmia.

Though combining psychosocial treatments with medication can confer short term synergy, a problem loomed recently after the medication was withdrawn. In two multicentre RCTs of panic disorder, improvement at drug-free follow-up was actually *less* in ex-medication than ex-placebo patients, regardless of whether they had had exposure or panic management or not. The medications had been alprazolam for panic with severe agoraphobia (Marks et al., 1993) and imipramine for panic with no or mild agoraphobia (Barlow, Gorman, Shear, & Woods, in press). If this finding is replicated yet again in RCTs, it will have major implications for the treatment of anxiety disorders.

Development of brief treatments and self-help

The last 20 years have seen an encouraging trend towards briefer treatments and to self-help. Phobias improved lastingly after a single 3-hour session of therapist-accompanied exposure in extensive trials by Ost and colleagues (Ost, Brandberg, & Alm, 1997). Panic/agoraphobia patients presenting to an emergency room improved enduringly with a single 20-minute

session of exposure advice and with exposure instructions given by phone (McNamee, O'Sullivan, Lelliott, & Marks, 1989). Nightmare sufferers improved with self-exposure instructions sent by post, more than with posted relaxation instructions or being on a waiting list (Burgess, Gill, & Marks, 1998); when failures with postal relaxation were crossed over to have postal exposure they then improved (Burgess, 2000).

It became apparent that improvement may depend more on what patients do as homework between therapist-guided sessions rather than on what happens within therapist-guided sessions. In RCTs phobic and obsessive-compulsive disorders improved as much just by doing self-exposure homework alone as by doing such homework plus additional therapist-accompanied exposure (Alkubaisay et al., 1992; Marks et al., 1988). Phobics improved by self-exposure that was guided by a manual as much as when it was guided by a clinician (Ghosh, Marks, & Carr, 1988). Eating disorders improved significantly with guidance from a CBT manual, though not quite as much as with sessions from a therapist (Thiels et al., 1998).

Intuitively one might think that patients would benefit more from a therapist's flexible guidance than from a fixed manual. Therapists, after all, can tailor their advice to what they think a patient needs. In fact, the reverse turned out to be the case in an RCT (Schulte, Kunzel, Pepping, & Schulte-Bahrenberg, 1992). Agoraphobics improved more with guidance from a manual than from therapists who were allowed to depart from an exposure protocol according to patients' apparent need. The more that therapists departed from the protocol, the less their patients improved.

Computer aids to self-help

The self-help trend is mushrooming with the advent of computer aids to self-treatment (reviewed by Marks, 1999). Many such aids are being created around the world, and some have reached the stage of RCTs or of being implemented in routine care. The systems offer three kinds of benefit: easier access of patients to effective self-help, speeding of research into therapeutic change, and more training of staff.

1. *Clinical improvement at lower per-patient cost.* In RCTs, phobics improved as much with self-exposure advice guided by a computer screen system or by a manual as by a therapist (Ghost et al., 1988), while major depression improved as much with CBT guided by a computer-screen system as by a therapist, and more than with being on a waiting list (Selmi, Klein, Greist, Sorrell, & Erdman, 1990); gains lasted respectively to 6- and 12-month follow-up.

Computer self-help systems accessed by phone via interactive voice response (IVR) show promise and allow sufferers to phone from home for help any time of day or night. In a recent multicentre RCT, 200 OCD sufferers improved almost as much with an IVR system (BTSTEPS) accessed by phone as with exposure guided by a therapist, and far more than with relaxation guided by audiotape (Greist et al., 2000). When major depression sufferers had CBT guided by an IVR system that was accessed by phone their depression improved as much, in a meta-analysis (Osgood-Hynes et al., 1998), as did depressives in a big multicentre RCT who had face-to-face therapist guidance concerning interpersonal therapy, CBT or imipramine. IVR guidance was also effective for smoking cessation (Schneider, Schwartz, & Fast, 1995).

Computer self-help aids do not replace clinicians. Rather, by taking over repetitive aspects of care, they free clinicians to help several patients at a time, so increasing productivity and saving clinicians 60–90% of their usual per-patient clinical time depending on the system. With present computer aids, a clinician still usually screens patients briefly for suitability before they are given access to a computer self-help system, and has to remain available at short notice if patients find difficulty in using the system. This situation might change as computer self-help becomes even more reliable and sophisticated and the need for human backup recedes.

Where computer aids to self-help are used, the per-patient cost of treatment drops. This does not necessarily mean, however, that the total cost of care to society will go down. In a U.K. community survey, only 14% of sufferers from ‘neurotic’ problems were being treated for their problem (Bebbington, 2000). If the availability of confidential self-help via a machine encourages numerous hidden sufferers to come out of the closet and ask for help, this might more than offset the reduction in per-patient cost of care and so raise the total cost of care to society.

2. *Facilitation of research.* Appropriately programmed self-help systems can record patients’ every key-press or mouse-move or click and thus open a window onto therapy change processes. They facilitate micro-analysis of what patients do that predicts improvement (Kirkby et al., in press). As examples, BTSTEPS users improved more in their OCD if they were motivated at the start, completed self-assessment quickly, and went on to do self-exposure and ritual prevention (Bachofen et al., 1999). Such analysis must be anticipated and programmed for in detail, which takes time, but far less so than does research with non-computerised ratings.

3. *Training of staff.* A further spin-off from computer self-help systems is that staff can train on them as stooge patients to acquire therapeutic knowledge and skills. An RCT of this is in progress. Interestingly, in two studies medical students preferred personal to computer instruction but in fact learned as much (McDonough, personal communication) or a bit more (Williams & Aubin, 2000) from the computer. Williams and Aubin used a system designed for student study, not patient self-help.

Can psychosocial therapy become an integrated discipline?

Although some psychosocial treatments have increased in potency, the field as a whole remains fragmented into fiefdoms and a federal union seems to lie far in the future. It is unusual for behavioural and cognitive therapists, interpersonal or problem-solving therapists, and psychodynamic therapists, to mingle and to read one another’s research. Practitioners and researchers tend to stick to their last long after strong evidence has emerged about more effective methods. This conservatism is understandable. Why give up hard-earned skills that seem effective and profitable to venture into foreign fields that require troublesome further training? As the saying has it, ‘a wise man enquires not too closely into the source of his well-being.’

The evolution of psychotherapy from disparate insulated cells into a broader science will take time. It will require at least two developments. The first is a common language. At present, similar procedures are called different names by different schools e.g., comparable instructions to patients are called exposure and ritual prevention by behaviour therapists and

giving up safety behaviours and challenging of irrational thoughts by cognitive therapists. Also, confusingly, the same label may denote different procedures in different hands e.g., some therapists say they gave behaviour therapy for OCD when meaning that they taught muscle relaxation without any exposure and ritual prevention.

The EABCT and the AABT have recognized the need to reduce this babel by appointing a joint Task Force to work towards a common psychotherapy language that is internationally accepted. It has yet to start work, and its task will be arduous. Standardization depends on knowing what we need to agree. What are natural psychotherapy units of analysis comparable to chemistry's atoms and molecules? Standardization also involves political consensus. After international agreement to site longitude 0 on the Greenwich rather than the Paris meridian was reached at a conference in Washington DC French mapmakers took decades to show this. The Gregorian calendar took centuries to be used widely in Europe and is not yet universal.

A second pressure is needed to move psychosocial therapies towards becoming a broadly agreed technology based on a science. That pressure is a demand by payors and patients for good evidence of the cost-effectiveness of therapies being offered. A few funders in the U.K. are starting to ask about efficacy evidence before approving new services. Such evidence is reviewed by Cochrane and other groups, but their reviews can be problematic and rarely concern comparative cost-efficiency of different treatments for particular disorders.

Even rarer are comparisons of outcomes in different clinics in routine care as opposed to research. Using similar measures, a colleague, who asked understandably to remain anonymous, found recently that the improvement of OCD treated by exposure and ritual prevention in a certain inpatient unit was two-thirds less, yet cost double to attain, than that in my unit with patients of similar severity at admission. This comparison was possible because both units use the same outcome measures. Few psychosocial therapists rate clinical outcome at all. This is partly because turkeys don't vote for Christmas; it takes time and trouble and therefore expense to measure, store and analyse outcomes, and there are few incentives to do so. Only when this activity is rewarded will it become possible to construct comparative league tables across clinics and therapies in the way we contrast different car models' petrol consumption in kilometres per litre.

Computer systems are used in a very few clinics to facilitate the measurement of clinical outcome and the cost of attaining that result (Marks, 1998). A New Zealand insurance company pays a consultant using such a system \$50 for each graphic printout of outcome per patient with psychosomatic disorder. This example is almost unique. Financial reward for supply, or punishment for non-supply, of evidence of clinical outcome is aeons away from becoming usual practice in healthcare services. The technology exists for computer-aided outcome measurement and could speed the construction and operation of an international clearinghouse of outcomes. Widespread use of such technology, however, depends on a political will that is lacking. This will defer the implementation of an outcomes clearinghouse for many years to come.

When psychotherapists start to talk a common language, and when cross-clinic and cross-country comparisons of clinical outcome and its cost eventually become routine and are subjected themselves to tight audit to minimize the inevitable massaging of data that occurs when reimbursement depends on results, then psychosocial therapy will have become an applied science.

Overview and roads ahead

Psychosocial therapy has matured in the last few decades from an art to a discipline within which parts are poised to become a scientific technology. Today, certain psychosocial treatments improve anxiety, depressive and other disorders reliably, albeit usually incompletely, and prevention of relapse remains a challenge with some disorders. Many sufferers help themselves successfully with appropriate guidance from a therapist, manual or computer. Combining psychosocial with pharmaco-therapy can be synergistic, but for agoraphobia/panic this mixture may be detrimental in the drug-free long term.

Though advances in the field have been great, like other gains in knowledge they uncover more of what we don't know. Several but not all approaches confer comparable benefits in particular disorders. Elucidation is needed of whether they act via overlapping or different mechanisms. Psychosocial therapists remain divided into schools communicating little with each other. Different therapists often call the same procedure different names and give the same name to different procedures, and a common psychotherapy language has still to be agreed. Demonstration of measurable improvement and the cost of attaining that is rarely done in routine care as opposed to research, and therapists are largely unaccountable for their patients' outcome. League tables of the cost-efficiency of different clinics and therapists are but a dream. Few researchers into psychosocial therapy have in-depth knowledge of the animal experiments, ethology, evolutionary and cognitive psychology that could catalyse their investigations. We know little about how religious practices across the world comfort billions; this technology might be harnessed for psychosocial therapy. As disciplines mature better questions are asked. At least we know today some of the directions in which psychosocial therapy can fruitfully forge ahead to become a full clinical science.

References

- ALKUBAISY, T., MARKS, I. M., LOGSDAIL, S., MARKS, M. P., LOVELL, K., SUNGAR, M., & ARAYA, R. (1992). Role of exposure homework in phobic reduction: A controlled study. *Behavioural Therapy*, 23, 599–622.
- BACHOFEN, M., NAKAGAWA, A., MARKS, I. PARK, J. M., GREIST, J. G., BAER, L., WENZEL, K. W., PARKIN, J. R., & DOTTL, S. L. (1999). Home self-assessment and self-treatment of OCD using a manual and a computer-conducted telephone interview: Replication of a US-UK study. *Journal of Clinical Psychiatry*, 60, 545–549.
- BARLOW, D. H., GORMAN, J. M., SHEAR, M. K., & WOODS, S. W. (in press). Randomised controlled trial of CBT vs imipramine and their combination for panic disorder: Primary outcome results. *Journal of the American Medical Association*, 282, 2529–2536.
- BARRACLOUGH, G. (1966). *History and the common man*. Presidential address to the Historians Association of Great Britain, London.
- BEBBINGTON, P. (2000). Paper to annual meeting of Community and Social Psychiatry Section of Royal College of Psychiatrists, London.
- BURGESS, M. (2000). Unpublished PhD dissertation. University of London.
- BURGESS, M., GILL, M., & MARKS, I. M. (1998). Postal self-exposure treatment of recurrent nightmares: Randomised controlled trial. *British Journal of Psychiatry*, 172, 257–262.
- COCHRANE, A. L. (1971). *Effectiveness and efficiency: Random reflections on health services*. Nuffield Provincial Hospitals Trust.
- EYSENCK, H. J. (1960). *Behaviour therapy and the neuroses*. Oxford: Pergamon Press.
- FRANK, E., & SPANIER, C. (1995). Interpersonal psychotherapy for depression: Overview, clinical efficacy, and future directions. *Clinical Psychology: Science and Practice*, 2, 349–369.

- FRANK, J. D. (1961). *Persuasion and healing: A comparative study of psychotherapy*. London: Oxford University Press.
- FREUD, S. (1919). Turnings in the world of psychoanalytic therapy. In *Collected Papers*, 2, (pp. 399–400). London: Hogarth and Institute of Psychoanalysis.
- GELDER, M. G., & MARKS, I. M. (1970). Transsexualism and faradic aversion. In R. Green (Ed.), *Transsexualism and sex reassignment*. New York: John Hopkins University Press.
- GHOSH, A., MARKS, I. M., & CARR, A. (1988). Therapist contact and outcome of self-exposure treatment for phobias. *British Journal of Psychiatry*, 152, 234–238.
- GINSBERG, G., MARKS, I. M., & WATERS, H. (1984). Cost benefit analysis of a controlled trial of nurse therapy in primary care. *Psychological Medicine*, 14, 683–690.
- GOLDSTEIN, L. H. (1990). Behavioural and cognitive-behavioural treatments for epilepsy: A progress review. *British Journal of Clinical Psychology*, 29, 257–269.
- GORTNER, E. T., GOLLAND, J. K., DOBSON, K. S., & JACOBSON, N. S. (1998). CBT for depression: Relapse prevention. *Journal of Consulting and Clinical Psychology*, 66, 377–384.
- GREIST, J. H., MARKS, I. M., BAER, L., KOBAC, K. A., WENZEL, K. W., HIRSCH, J., & MANTLE, J. M. (2000). *Behaviour therapy for obsessive compulsive disorder guided by a computer or by a clinician compared with relaxation as a control*. Manuscript submitted for publication.
- JACOBSON, N. S., DOBSON, K. S., TRUAX, P. A., ADDIS, M. E., KOERNER, K., GOLLAN, J. K., FORTNER, E., & PRINCE, S. E. (1996). Component analysis of CBT for depression. *Journal of Consulting and Clinical Psychology*, 64, 295–304.
- JANET, P. (1925). *Psychological healing: A historical and clinical study*. London: George Allen & Unwin.
- KIRKBY, K. C., BERRIOS, G. E., DANIELS, B. A., MENZIES, R. G., CLARK, A., & ROMANO, A. (in press). Process-outcome analysis in computer-aided treatment of OCD. *Comprehensive Psychiatry*.
- KUIPERS, E., FOWLER, D., GARETY, P., CHISHOLM, D., FREEMAN, D., DUNN, G., BEBBINGTON, P., & HADLEY, C. (1998). London East Anglia RCT of CBT for psychosis III: Follow-up and economic evaluation at 18 months. *British Journal of Psychiatry*, 173, 61–68.
- LANG, P. J., LAZOVIK, A. D., & REYNOLDS, D. J. (1965). Desensitisation, suggestibility and pseudo-therapy. *Journal of Abnormal Psychology*, 70, 395–402.
- LEFF, J. (1998). Needs of the families of people with schizophrenia. *Advances in Psychiatric Treatment*, 4, 277–284.
- LIBERMAN, R. P., WALLACE, C. J., BLACKWELL, G., KOPELOWICZ, A., VACCARO, J. V., & MINTZ, J. (1998). Skills training versus psychosocial occupational therapy for persons with persistent schizophrenia. *American Journal of Psychiatry*, 155, 1087–1091.
- LIVANOU, M. (1998). *Beliefs about self and the world as predictors of treatment outcome in PTSD*. Unpublished PhD dissertation. University of London.
- MARKS, I. M. (1965). *Patterns of meaning in psychiatric patients*. Maudsley Monograph No. 13. London: Oxford University Press.
- MARKS, I. M. (1973). The reduction of fear: Towards a unifying theory. *Canadian Psychiatry Association*, 18, 9–12.
- MARKS, I. M. (1981). *Cure and care of neurosis*. New York: Wiley.
- MARKS, I. M. (1987). *Fears, phobias and rituals*. London: Oxford University Press.
- MARKS, I. M. (1991). Phobias and related disorders. *British Medical Journal*, 302, 1037–1038.
- MARKS, I. M. (1998). Overcoming obstacles to routine outcome measurement: The nuts and bolts of implementing clinical audit. *British Journal of Psychiatry*, 173, 281–286.
- MARKS, I. M. (1999). Computer aids to mental health care. *Canadian Journal of Psychiatry*, 44, 548–555.
- MARKS, I. M., BIRLEY, J. L. T., & GELDER, M. G. (1966). Modified leucotomy in severe agoraphobia: A controlled serial inquiry. *British Journal of Psychiatry*, 112, 757–769.

- MARKS, I. M., & DAR, R. (2000). Fear reduction by psychotherapies: Recent findings, future directions. Editorial. *British Journal of Psychology*, *176*, 507–511.
- MARKS, I. M., & GELDER, M. G. (1967). Transvestism and fetishism: Clinical and psychological changes during faradic aversion. *British Journal of Psychiatry*, *113*, 711–739.
- MARKS, I. M., GELDER, M. G., & BANCROFT, J. H. J. (1970). Sexual deviants two years after aversion. *British Journal of Psychiatry*, *117*, 173–185.
- MARKS, I. M., LELLIOTT, P., BASOGLU, M., NOSHIRVANI, H., MONTEIRO, W., & KASVIKIS, Y. (1988). Clomipramine and exposure for OCD. Replication and extension. *British Journal of Psychiatry*, *152*, 522–534.
- MARKS, I. M., SWINSON, R. P., BASOGLU, M., KUCH, K., NOSHIRVANI, H., O’SULLIVAN, G., LELLIOTT, P. T., KIRBY, M., MCNAMEE, G., SENGUN, S., & WICKWIRE, K. (1993). Alprazolam and exposure alone and combined in panic disorder with agoraphobia. A controlled study in London and Toronto. *British Journal of Psychiatry*, *162*, 776–787.
- MASSERMAN, J. H. (1943). *Behaviour and neurosis*. Chicago: University of Chicago Press.
- MCNAMEE, G., O’SULLIVAN, G., LELLIOTT, P., & MARKS, I. M. (1989). Telephone-guided treatment for household agoraphobics with panic disorder: Exposure vs relaxation. *Behaviour Therapy*, *20*, 491–497.
- MYNORS-WALLIS, L. M., GATH, D. H., & BAKER, F. (2000). Randomised controlled trial of problem solving treatment, anti-depressant medication, and combined treatment for major depression in primary care. *British Medical Journal*, *120*, 26–30.
- OSGOOD-HYNES, D. J., GREIST, J. H., MARKS, I. M., BAER, L., HENEMAN, S. W., WENZEL, K. W., MANZO, P. A., PARKIN, J. R., SPIERINGS, C. J., DOTTL, S. L., & VITSE, H. M. (1988). Self-administered psychotherapy for depression using a telephone-accessed computer system plus booklets: An open US-UK study. *Journal of Clinical Psychiatry*, *58*, 358–365.
- OST, L. G., BRANDBERG, M., & ALM, T. (1997). One vs five sessions of exposure in the treatment of flying phobia. *Behaviour Research and Therapy*, *35*, 987–996.
- OST, L., FELLENIUS, J., & STERNER, U. (1991). Applied tension, exposure in vivo, and tension-only in the treatment of blood phobia. *Behaviour Research and Therapy*, *29*, 561–574.
- SCHNEIDER, S. J., SCHWARTZ, M. D., & FAST, J. (1995). Computerized, telephone-based health promotion: Smoking cessation program. *Computers in Human Behaviour*, *11*, 135–148.
- SCHULTE, D., KUNZEL, R., PEPPING, G., & SCHULTE-BAHRENBURG, T. (1992). Tailor-made vs standardized therapy of phobic patients. *Advances in Behaviour Research and Therapy*, *30*, 67–92.
- SELMI, P. M., KLEIN, M. H., GREIST, J. H., SORRELL, S. P., & ERDMAN, H. P. (1990). Computer-administered CBT for depression. *American Journal of Psychiatry*, *147*, 51–56.
- SHEAR, M. K., PILKONIS, P. A., CLOITRE, M., LEON, A. C. (1994). CBT compared with nonprescriptive treatment of panic disorder. *Archives of General Psychiatry*, *51*, 395–401.
- SMITH, K. L., KIRKBY, K. C., MONTGOMERY, I. M., & DANIELS, B. A. (1997). Computer-delivered modelling of exposure for spider phobia: Relevant vs irrelevant exposure. *Journal of Anxiety Disorders*, *11*, 489–497.
- SOLOMON, R. L., KAMIN, L. J., & WYNNE, L. C. (1953). Traumatic avoidance learning: Several extinction procedures with dogs. *Journal of Abnormal Social Psychology*, *48*, 291–302.
- TAN, E., MARKS, I. M., & MARSET, P. (1971). Bimedial leucotomy in obsessive-compulsive neurosis: A controlled serial enquiry. *British Journal of Psychiatry*, *118*, 155–164.
- TEASDALE, J. D., SEGAL, Z. V., WILLIAMS, J. M. G., RIDGEWAY, V. A., SOULSBY, J. M., & LAU, M. A. (in press). Prevention of relapse/recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*.
- THIELS, C., SCHMIDT, U., TREASURE, J., GARTHE, R., & TROOP, N. (1998). Guided self change for bulimia nervosa incorporating a self care manual. *American Journal of Psychiatry*, *155*, 947–953.
- TREASURE, J. L., KATZMAN, M., SCHMIDT, U., TROOP, N., TODD, G., & DE SILVA, P. (1999). Engagement and outcome in the treatment of bulimia nervosa: First phase of a sequential design comparing

- motivation enhancement therapy and cognitive behavioural therapy. *Behaviour Research and Therapy*, 37, 405–418.
- WATSON, J. P., & MARKS, I. M. (1971). Relevant vs irrelevant flooding in the treatment of phobias. *Behaviour Therapy*, 2, 275–293.
- WILLIAMS, C., & AUBIN, S. (2000). *Do students know what is good for them? Randomised single blind trial in medical students of a computer-based multimedia package and lecture based teaching concerning anxiety and panic*. Manuscript submitted for publication.
- WOLPE, J. (1958). *Psychotherapy by reciprocal inhibition*. Stanford: Stanford University Press.