

psychotherapy is effective

I Kolvin MD FRCPsych A Macmillan MSc PhD A R Nicol FRCP FRCPsych R M Wrate MB FRCPsych
 Nuffield Psychology and Psychiatry Unit, Fleming Memorial Hospital, Newcastle upon Tyne NE2 3AX

Keywords: psychotherapy, child psychiatry

Clinicians who conduct psychotherapy with children and adolescents have for long done so without the evidence that their activities were validated by sound confirmatory research. The doubts and uncertainties surrounding psychotherapy were thrown into sharp relief in the 1950s with Eysenck's¹ controversial claims that patients receiving psychotherapy were no better off than those receiving no treatment at all. Since then, the claims and counterclaims have resounded through the therapy evaluation literature. Yet clinicians continue to practise psychotherapy, guided presumably by their own experiences within the context of therapy. But is it also possible to provide evidence for the clinician's assumptions at the research level? It will be argued in this paper that positive evidence *does* exist - drawing on work conducted in Newcastle upon Tyne - and, additionally, that pessimistic conclusions have in the past been based on inadequate and misleading data. In arguing this position it is essential to address some fundamental issues concerning what constitutes good research evidence.

Criteria for good outcome research

There is considerable variability in methodological criteria across psychotherapy research studies. In a recent review, Epstein and Vlok² presented a list of accepted criteria so as to provide a framework for their own evaluation. The main criteria include:

- (1) Rigorous and clearly thought out assumptions, questions and procedures.
- (2) Adequate size of research sample.
- (3) Random assignment to experimental and control group.
- (4) Clear description of patient sample to allow generalization.
- (5) Post-treatment evaluation and long-term follow up.
- (6) Multiple and valid measurement . . . and sources of assessment. We can address only some of these themes here: a fuller account of methodological issues was discussed by Hartmann *et al.*³

Nature of the control group

One of the basic assumptions in psychotherapy research is that the control group will allow systematic investigation of the degree of spontaneous change in untreated patients. Given the possibility that even one diagnostic interview may be of therapeutic benefit in conveying support and reassurance⁴ with supposedly 'untreated' controls, it is clearly difficult to maintain a rigorous separation between subjects who are 'treated' and those who are not. Bias may be minimized, with *no-contact* control groups, where subjects have no knowledge of their inclusion. The notion that patients who do not receive formal

psychotherapy - such as *no treatment* or *waiting list* controls - remain without help from other sources, has not been substantiated. Many people in search of psychological help do not choose mental health professionals but obtain help from other sources⁵. A more accurate representation of psychotherapy evaluation research is that, frequently, formal therapy is being compared with other forms of help of an unknown kind. *Treatment drop-outs* do not constitute adequate controls because selective factors such as motivation may determine continuation, and a variety of negative factors may precipitate termination, as may positive factors such as seeing themselves as sufficiently well so as to no longer need help.

The controversy about the effects of psychotherapy

The basis of the controversy was Eysenck's¹ contention that two-thirds of adult neurotic patients showed spontaneous remission, a rate of improvement that was not bettered by psychotherapy. This conclusion was based on a review of studies considered to be methodologically sound. In a re-examination of the evidence two decades later, Bergin⁶ concluded that Eysenck's remission figures were an overestimate and cited a median remission rate of only 30%. Rachman⁷ countered with support for Eysenck's original estimate. A further review by Bergin and Lambert⁸ argued again for a more conservative spontaneous remission rate of 43%, with the caution that 'this is an average figure which obscures considerable variation'. The original position, however, has been vigorously restated⁹.

The early reviews which appeared to lead to a discrediting of psychotherapy with adult patients were soon paralleled by reviews of child psychotherapy^{10,11}. In a series of reviews starting 25 years ago, Levitt cites an outcome in child guidance cases at the end of treatment of one-third improved, one-third partly improved, and one-third not improved, with similar rates for both treated and untreated cases. Somewhat better rates of improvement were observed at follow up than at termination (three-quarters of cases as against two-thirds)¹².

Levitt's conclusions require some examination. His untreated comparison groups were derived from two older studies consisting of 'defectors' from treatment, i.e. patients for whom treatment was recommended but not accepted or completed^{13,14}. The question is immediately raised of the equivalence of treated and untreated cases and the possibility that defectors constituted a biased group. There are questions of bias, lesser degrees of severity of disturbance, that some of the children may have received treatment, a lengthy follow-up period which is unlikely to provide

Based on
 I Kolvin's
 Presidential
 Address to
 Section of
 Psychiatry,
 12 October 1982

0141-0768/88/
 050261-06/\$02.00/0
 © 1988
 The Royal
 Society of
 Medicine

sensitive and meaningful data, etc. Given such deficiencies, Levitt's baseline improvement rate must be regarded as unreliable. Further, it is to be noted that some of the studies included in Levitt's survey were overloaded with problems with known high spontaneous improvement rates. Averaging across these conditions obscures considerable variation, and when those with high spontaneous improvement rates are excluded, the 'much improved' rate falls to about 25%. Levitt's conclusions can therefore be seriously questioned, yet his contention of one-third 'improved', one-third 'partly improved' and one-third 'not improved' became the hallmark against which other child therapies were judged.

Assessment of outcome

The diversity of approaches that is evident in therapeutic orientation is also reflected in the manner in which effectiveness is assessed, with investigators from different perspectives often having distinctive views as to what constitutes a meaningful outcome. However, apart from an acceptance of fundamental criteria such as reliability and validity of measures, there is also an increasing agreement that multiple measures of change need to be sought rather than relying on unidimensional indices.

Ratings of improvement have probably been the most frequently used measures in psychotherapy research. This involves establishing a baseline, which includes an assessment of the initial severity of the disorder and also the range of associated problems using evidence from a variety of sources, which may include the child's home, school and information from the child himself. Thereafter, the rater has to use all the information to make a clinical judgment of improvement. Some raters may focus on the global picture, others on the specific problem. Although such procedures have the advantages of simplicity and face validity, they have important drawbacks³. Thus they may be susceptible to retrospective falsification and selective recall, they may be unduly influenced by the patient's level of adjustment at particular points in time, and may be biased by expectations of positive treatment effects.

In our work in Newcastle, special attention was given to the issue of ratings of outcome, in addition to the use of multivariate statistical procedures. Our method was adapted from Sainsbury¹⁵ and we focus on his concept of outcome - that is, how well the patient is before and after treatment. Sainsbury pointed out that the problem associated with outcome 'stems from the situation, often crucial in clinical studies, in which patients at the top (or bottom) of the scale have no room to improve (or worsen)'. Sainsbury offers the following formula for rating outcome of psychiatric disturbance:

$$O = 3 \times M2 - M1$$

where O=outcome, M1=initial score and M2=final score. The initial score is not merely subtracted from the final score but a differential weighting of three-to-one is introduced. (This is similar to using an analysis of covariance when the regression coefficient of final upon initial score is one-third.) This technique is therefore not merely a measure of change but one which has a particular emphasis on the final state after treatment or on follow up. In using this technique the clinician has only to rate severity on the specified occasions. He does not address himself

to rating change. In our studies, each child is rated on a four-point scale at each of the assessment points (1=no disturbance, 2=slight disturbance, 3=moderate disturbance, 4=marked disturbance).

In summary, we know we can rate clinical severity with a satisfactory degree of reliability¹⁶. If we rate severity at two points in time, we can apply Sainsbury's formula, which gives rise to a range of outcome scores from -1 to 11. We then make appropriate cut-offs to give categories of 'good', 'moderate' and 'poor' outcomes and these can be presented in percentage form. Inevitably, the group designated as 'moderate' had 'fuzzy edges' - in other words, there was some overlap at the margins. We studied these marginal cases and concluded that whatever clinical or statistical techniques had been used, there would have been problems about categorizing them. Nevertheless, many of these cases would have been likely to be rated as somewhat improved. In our view this approach is superior to the more difficult task of making clinical judgments about improvement.

While the potential deficiencies of rating methods have been stressed in recent years, it needs to be acknowledged that more sophisticated multivariate procedures also have shortcomings. Thus, Kazdin and Wilson¹⁷ have pointed out that when evaluation focuses on comparisons between groups of subjects, there is an averaging of the amount of change across subjects within groups and this average may have little counterpart in reality. Nor do averages necessarily represent the degree of improvement of most individual patients. Kazdin and Wilson recommend going beyond overall averages to ascertain the proportions of percentages of patients who have good and poor outcomes. Rating procedures that provide such data can therefore usefully complement multivariate approaches. Finally, the possibility of deterioration in treated cases, as well as in control cases, should not be ignored¹⁸.

The Newcastle studies

We have seen that the argument which psychotherapy researchers have to confront is that there is essentially no difference in outcome between treated and untreated groups - some 66% of both tend to show improvement. It has been suggested that the base rate for spontaneous recovery is so impressive that psychotherapy is not worthwhile since children will improve irrespective of therapy. Thus a reliable baseline for spontaneous recovery is crucial. We consider that the Newcastle research makes a useful contribution towards a resolution of this complex area.

In the Newcastle studies described fully elsewhere^{18,19}, three control groups of disturbed children were identified, for which base rates could be calculated, with categories of 'good', 'moderate' and 'poor' outcome:

- (a) 'Maladjusted' controls ($n=60$), aged 9-14 years, in ordinary or remedial classes in ordinary schools, with symptomatology of comparable severity to clinical cases. The latter were drawn from a clinical sample of seriously disturbed children¹⁸.
- (b) 'Maladjusted' controls ($n=83$), aged 11-12 years, in ordinary schools, who were identified by a multiple criterion screen. These were drawn from a school-based intervention study¹⁹.
- (c) 'At risk' controls ($n=61$), aged 7-8 years, in ordinary schools. These somewhat less disturbed

children were drawn from the same study as (b) and were identified using a multiple criterion screen; they were considered as 'maladjusted' or 'at risk' for maladjustment.

There is a case for combining only groups (a) and (b) above, for the purpose of calculating a base rate, as group (c) contains younger children and some of these might be thought not to be sufficiently maladjusted. However, the outcome pattern for the younger group was similar to that shown by the other groups, and the greater number increases the robustness of the results. The combination of groups yields a sizeable sample of 204 untreated controls.

In the clinical study (a), we were dealing with seriously disturbed children in special settings. However, controls were selected from the ordinary school population on the basis of clinical severity, using three sources of information - clinical interview of children, parental interviews and teacher questionnaires. In addition, the same measures were applied at all assessment points to both clinical and control groups. While this is not as good as having random allocation as in programme (b) and (c) above, we consider that, overall, our control groups were more homogeneous than is customary in review studies where patient populations with widely different lengths of follow up are pooled to provide base rates.

Outcome: the Newcastle control group

The rate of unequivocal good outcome in controls proved to be only 33%; when the intermediate or moderate category is added, the rate is only 46% (Figure 1). Some may contend that our cut-off, using our modification of the Sainsbury formula, had been set too low and that some of the cases classed as 'moderate' should really fall in the 'poor' category, which means that spontaneous improvement may well be below 40%. For a number of other reasons these results probably constitute an optimistic estimate of spontaneous improvement. For example, there may have been possible therapeutic contamination of the controls within schools, through the numerous contacts with the controls or their families by research workers. In addition, certain controls may have obtained help elsewhere.

However, against the background of results of the early reviews on spontaneous remission, these are unexpected findings. Are they consistent with more recent reports?

Recent evaluations of psychotherapy outcome

A recent, relevant review of outcome data is that by Tramontana²⁰ in his ten-year (1967-77) survey of clinical and experimental studies of psychotherapy for adolescents. A scan of the studies he selected for inclusion reveals only four studies with a reasonably sound methodology, with sample size sufficiently large to encourage confidence in results, and which also had follow-up data. Two of these studies were of institutionalized delinquents receiving individual psychotherapy or some form of group therapy or counselling^{21,22}. The other two studies concerned discharged hospital psychiatric patients who continued in psychodynamic psychotherapy²³ and a mixed psychiatric outpatient sample²⁴. The controls in the latter studies were patients who had terminated treatment and cases where it is reported that therapy was not indicated or refused.

When the outcome in these four studies is combined, a 63% rate of good outcome is obtained for the treated cases and 42% for the controls. Tramontana²⁰ adds that these results are not really comparable as there are vast differences in method and way of rating improvement in the studies surveyed.

Finally, Tramontana suggests that the change process in spontaneous remission is not random, but rather that there are complex, but systematic, factors operating to produce changes in the absence of formal psychotherapy. He argues that describing it as spontaneous remission merely reflects our ignorance about such factors.

A study with comparable methodology to the Newcastle treatment - comparison study was that of Miller *et al.*²⁵. Two treatments, namely psychotherapy and systematic desensitization, were evaluated with phobic children. Treatment was time-limited, multiple measures were employed, and assessments were also available at follow up. While both treatment groups did better than controls, they did not differ from each other. Most importantly, from the point of view of the present discussion, only 34% of untreated cases had a successful outcome.

The findings examined in this section point consistently to the need for a downward revision of the traditional two-thirds estimate for spontaneous improvement of untreated cases. This represents an important shift in the standpoint of comparison for treatment studies. But what of treatment itself? Can it be shown to be effective?

Is therapy effective?

The central theme of this paper relates to the question of whether therapy is effective. The Newcastle studies go some way towards providing a positive answer. Data are available on several different treatment groups from two separate studies. The first study¹⁹ involves school-based interventions, the second¹⁶ clinical or hospital treatment. The school-based study was undertaken with 547 children identified by screen procedures, and on whom individual information was gathered from parents, teachers and individual and group assessments. The children were randomly allocated by school class to the various treatment regimens, including a non-treatment one. Major follow ups were undertaken 18 and 36 months after the baseline assessments. The treatment regimens, with their principal characteristics, were as follows:

Behaviour modification: This programme was applied in secondary schools, with the main strategy being social reinforcement by teachers. Problem behaviours and goals were defined in behavioural terms and individual prescriptions were prepared for each child. Ongoing consultation with the teachers was provided by a psychologist.

Group therapy: Applied in both primary and secondary schools, this was conducted by social workers with small groups, with an emphasis on non-directive principles derived from Axline²⁶ and Rogers²⁷.

Parent counselling/teacher consultation: This was applied in primary and secondary schools. Interventions consisted of consultation by social workers with teachers of identified children, casework with the parents, and attempts to link the home and school.

Nurture work: This was applied in primary schools and consisted of a compensatory and enrichment

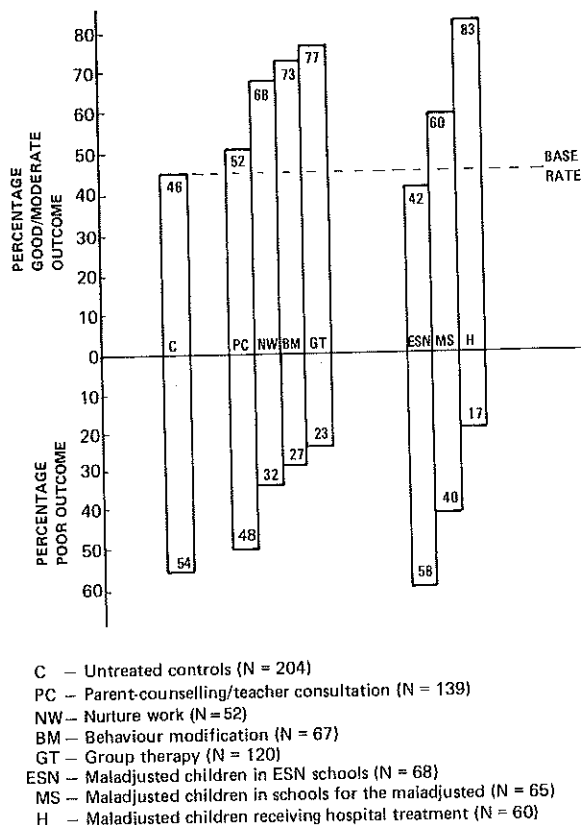


Figure 1. Newcastle psychotherapy evaluation studies: percentage rates of good and poor outcome

programme focusing on healthy interactional experiences. Teacher-aides were the principal mediators of the procedures.

The study of seriously disturbed children was undertaken on a number of groups, but the data of concern here are those pertaining to children who attended hospital for treatment either on an out- or inpatient basis, and those who attended residential schools for either maladjusted or educationally subnormal (ESN) children. Follow ups were conducted at 12-15 and 30 months after initial baseline assessments. Treatment varied and was tailored to a particular child's disorder.

Examining the results some 30-36 months after the start of treatment programmes, the following pattern emerges (Figure 1). Combining the untreated control groups in the two studies, the base rate of good plus moderate outcome is 46%; the pattern for parent counselling/teacher consultation is similar to that of the controls; this base rate is exceeded by some 22% in the case of the nurture work, by 27% in the case of behaviour modification, and by 31% in the case of group therapy. With regard to the treatment groups in the special settings, the good/moderate outcome for the ESN group resembles that of the controls, while the maladjusted schools' sample exceeds the base rate by some 14% and the hospital by 37%.

It is important to try to locate such beneficial changes on the dimension of time. It is commonly believed that patients respond gradually to psychotherapeutic help, with the maximum response being achieved by the end of treatment. Thereafter, patients may reach a plateau, or, with the cessation of therapeutic support, the effects of treatment may begin to dissipate. Examining outcome across assessment points, it was

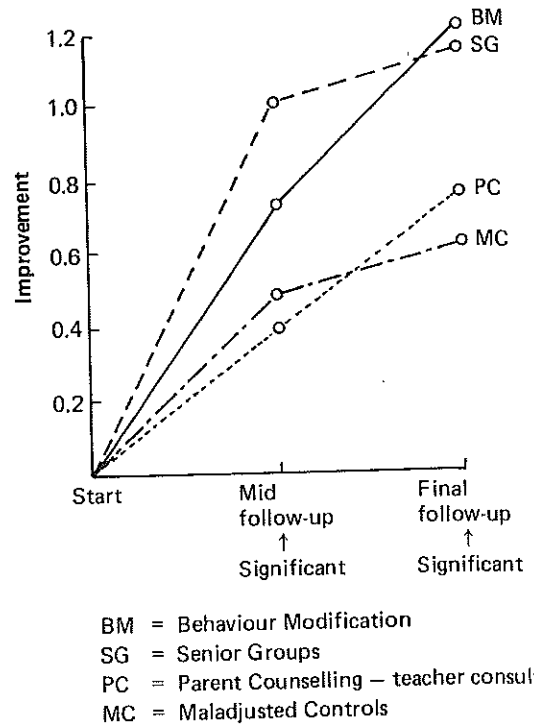


Figure 2. Improvement on overall maladjustment (sum of 14 items). (Reproduced with kind permission from Kolvin et al.¹⁹)

intriguing to find that treatment effects continued to increase for some 18 months or so after the end of treatment. The failure of the controls to 'catch up' by the end of our follow-up period also suggests that positive processes had been set in motion. This is well demonstrated in Figure 2.

One of the most attractive ideas to emerge from recent psychotherapy research is whether different types of disorders respond to different kinds of treatment. These concepts of specificity, which are so important in adult disorders, do not appear to be supported by our work with children and adolescents. We found no consistent evidence of specificity, namely a better response of conduct or neurotic disorders to different treatment of management programmes. Where treatment was effective, it proved to be more so for neurotic and less so for conduct disorders, but there was no particular treatment which was more effective for one or the other.

Discussion

The data presented here suggest that treatment can be effective and that some forms are more effective than others. Thus children receiving nurture work, group therapy and behaviour modification showed significantly better outcome than controls, as did the hospital group of seriously maladjusted children. Parent counselling/teacher consultation, in the form in which we applied it, proved ineffective, and children in this regimen did no better than untreated controls. It should be noted that this pattern of results is essentially the same as revealed by multivariate analyses¹⁹. Maladjusted children in ESN settings tend to do poorly, unlike their counterparts in schools for the maladjusted. The greater availability of therapeutic input in the latter setting may explain some of this difference. With the hospital setting, it is likely that the varied and multiple forms of psychotherapeutic input contributed to the good outcome with these cases.

A major theme of this paper has been the crucial status of information on untreated controls in evaluating therapy outcome. The results of the Newcastle studies and other recent work suggest that therapy researchers have for too long been misled by inflated spontaneous remission rates, against which the impact of their own helping efforts seemed almost inevitably trivial. The optimism of earlier estimates seems strangely at odds with clinical experience and findings from longitudinal research that a significant proportion of difficulties in childhood and adolescence do persist. In the Isle of Wight follow-up study²⁸ of children with psychiatric disorder at 10 years, three-quarters of those with conduct disorders and nearly half (46%) of those with emotional disorders still had handicapping psychiatric disorders in adolescence. There is much evidence that disorders involving aggressive and antisocial behaviour are likely to persist to a greater extent than emotional disorders²⁹. Other workers have also demonstrated persistence of widespread pervasive conduct disorder³⁰ from the junior school years into adolescence.

Against such a background of evidence, our own findings that some 54% of maladjusted children are the same or worse 30-36 months after identification, are not at all surprising and must erode confidence in the notion of transiency of psychiatric disorders in childhood and adolescence, especially those that are severe.

Another theme that the Newcastle studies have helped to highlight is the importance of follow-up assessments once treatment has ended. Our findings suggest that therapy may set in motion processes which have effects long after termination and these may go undetected if provision is not made for long-term follow up. This has been a particular weakness of behaviour modification research, where the often unwarranted assumption has been made that withdrawal of reinforcement procedures will lead to the loss of treatment gains, in the absence of programming for generalization³¹. The positive follow-up results reported here are not new: they are consistent with those of Wright *et al.*³² published in 1976.

As well as considering the notion of the trajectory of change, it is also important to consider other ways in which time is a relevant factor in therapy. Duration of treatment is an important element. For many good reasons it is essential to identify forms of therapy that give rise to good outcome in the briefest possible time and hence are most economic³³. Our work showed that shorter-term treatment had the best outcome, which is consistent with the findings of others^{34,35}, who have indicated that the majority of patients respond positively with brief intervention.

Another question is the importance of frequency of sessions of psychotherapy. However, in our school-based treatment studies, it seemed that it was *type* rather than *intensity* of treatment that was the critical factor in intervention. But our findings with more seriously disturbed children suggest the issue is rather more complex, for it was evident that in the hospital settings (where there were multiple and varied forms and intensities of treatment), the effects of intervention were greatest; in schools for the maladjusted (where there is less intensive psychotherapy than in hospitals and clinics), the effects were less impressive; and in the ESN school group (where there was very little in the way of psychotherapeutic interactions), improvement was minimal.

It is hoped that our research goes some way towards answering the common question of clinicians and researchers: which form of psychotherapy for which sort of problem? In short, our response would be that there is little difference between certain psychodynamic and behavioural therapies, and that particular therapies do not appear to have effects specific to certain kinds of problems. However, a positive answer to the ubiquitous question 'Does psychotherapy work?' appears to be almost within our grasp in relation to children and adolescents.

Acknowledgments: The research was funded by grants from the Department of Education and Science.

References

- 1 Eysenck HJ. The effects of psychotherapy. An evaluation. *J Consult Psychol* 1952;16:319-24
- 2 Epstein ND, Vlok LA. Research on the results of psychotherapy: A summary of evidence. *Am J Psychiatry* 1981;8:1027-35
- 3 Hartmann DP. Considerations in the choice of inter-observer reliability estimates. *J Appl Behav Anal* 1977;10:103-16
- 4 Meltzoff J, Kornreich M. *Research in psychology*. New York: Atherton Press, 1970
- 5 Gurin G, Veroff J, Feld S. Americans view their mental health: A nationwide survey. New York: Basic Books, 1960
- 6 Bergin AE. The evaluation of therapeutic outcomes. In: Bergin AE, Garfield SL, eds. *Handbook of psychotherapy and behaviour change*. New York: Wiley, 1971
- 7 Rachman S. The effects of psychological treatment. In: H J Eysenck, ed. *Handbook of abnormal psychology*. London: Pitman, 1973:805-61
- 8 Bergin AE, Lambert MJ. The evaluation of therapeutic outcomes. In: Garfield SL, Bergin AE, eds. *Handbook of psychotherapy and behaviour change*. 2nd ed. New York: John Wiley, 1978:139-90
- 9 Rachman S, Wilson GT. *The effects of psychological therapy*. Oxford: Pergamon Press, 1980
- 10 Levitt EE. Psychotherapy with children: A further evaluation. *Behav Res Ther* 1963;60:326-9
- 11 Levitt EE, Beiser HR, Robertson RE. A follow-up evaluation of cases treated at a community child guidance clinic. *Am J Psychiatry* 1959;29:337-47
- 12 Levitt EE. The results of psychotherapy with children: An evaluation. *J Consult Psychol* 1957;21:189-96
- 13 Witner HL, Keller J. Outgrowing childhood problems: A study of the value of child guidance treatment. *Smith College Studies in Social Work* 1942;13:74-90
- 14 Lehrman LJ, Sirluck H, Black BJ, Glick SJ. *Success and failure of treatment of children in the child guidance clinics of the Jewish Board of Guardians* (Research Monograph No. 1). New York: Jewish Board of Guardians, 1949
- 15 Sainsbury P. Evaluation of community mental health programmes. In: Guttentag M, Struening EL, eds. *Handbook of evaluation research, Vol 2*. Beverly Hills, California: Sage, 1975:125-60
- 16 Wrate RM, Kolvin I, Garside RF, Wolstenholme F, Hulbert CM, Leitch IM. Helping seriously disturbed children. In: Nicol AR, ed. *Longitudinal studies in child psychology and psychiatry*. Chichester: John Wiley, 1985
- 17 Kazdin AE, Wilson GT. *Evaluation of behaviour therapy*. Cambridge, Mass: Ballinger, 1978
- 18 Gomez-Schwartz B. Negative change induced by psychotherapy. *Br J Hosp Med* 1982;248-53
- 19 Kolvin I, Garside RF, Nicol AR, Macmillan A, Wolstenholme F, Leitch IM. *Help starts here: The maladjusted child in the ordinary school*. London and New York: Tavistock Publications, 1981
- 20 Tramontana MG. Critical review of research on psychotherapy outcome with adolescents 1967-1977. *Psychol Bull* 1980;2:429-50

- 21 Redferring DL. Durability of effects of group counselling with institutionalized delinquent females. *J Abnorm Psychol* 1973;82:85-6
- 22 Persons R. Relationship between psychotherapy with institutionalized delinquent boys and subsequent community adjustment. *J Consult Psychol* 1967;31:137-41
- 23 Gosset J, Barnhart D, Lewis J, Phillips V. Follow-up of adolescents treated in a psychiatric hospital: predictors of outcome. *Arch Gen Psychiatry* 1977;34:1037-42
- 24 Pichel JA. A longterm follow-up of 60 adolescent psychiatric outpatients. *Am J Psychiatry* 1974;131:140-4
- 25 Miller LC, Barrett CL, Hampe E, Noble H. Comparison of reciprocal inhibition, psychotherapy and waiting list controls for phobic children. *J Abnorm Psychol* 1972;79:269-79
- 26 Axline VM. *Play therapy*. Boston: Houghton-Mifflin, 1947
- 27 Rogers CR. *Client-centred therapy*. Boston: Houghton-Mifflin, 1952
- 28 Graham P, Rutter M. Psychiatric disorder in the young adolescent: A follow-up study. *Proc R Soc Med* 1973;66:1226-9
- 29 Robins LN. Follow-up studies of behaviour disorders in children. In: Quay HC, Werry JS, eds. *Psychopathological disorders of childhood*. New York: John Wiley, 1972
- 30 West DJ, Farrington DP. *Who becomes delinquent?* London: Heinemann, 1973
- 31 Macmillan A. The effectiveness of behaviour modification procedures in secondary schools with limited teacher training and consultation time. PLO Thesis, University of Newcastle upon Tyne, 1983
- 32 Wright DM, Moelis I, Pollack LJ. The outcome of individual psychotherapy; increments at follow-up 1976. *J Child Psychol Psychiatry* 1976;17:275-85
- 33 Strupp HH. Psychotherapy research and practice: an overview. In: Garfield SL, Bergin AE, eds. *Handbook of psychotherapy and behaviour change*. 2nd ed. New York: John Wiley, 1978
- 34 Luborsky L, Spence DP. Quantitative research and psychoanalytic therapy. In: Garfield SL, Bergin AE, eds. *Handbook of psychotherapy and behaviour change*. 2nd ed. New York: John Wiley, 1978
- 35 Garfield SL. In: Strupp H (Chair). Short-term psychotherapy for whom? Symposium presented at the Annual Meeting of the Society for Psychotherapy, Madison, Wisconsin, 1977

(Accepted 15 July 1987)

Some recent books

Oto-Rhino-Laryngology

Logan Turner's Diseases of the Nose, Throat and Ear. 10th edn. A G D Maran, ed (pp 456, £14.95) ISBN 0-7236-0945-4, London: Wright 1987

Scott-Brown's Otolaryngology. 5th edn. A G Kerr, general ed. (1 Basic Sciences. D Wright, ed) (pp 637, £60) ISBN 0-407-00511-0, London: Butterworths 1987

Scott-Brown's Otolaryngology. (2 Adult Audiology. D Stephens, ed) (pp 657, £75) ISBN 0-407-00512-9, London: Butterworths 1987

Scott-Brown's Otolaryngology. (3 Otolology. J B Booth, ed) (pp 637, £60) ISBN 0-407-00513-7, London: Butterworths 1987

Scott-Brown's Otolaryngology. (4 Rhinology. I S Mackay, ed) (pp 385, £50) ISBN 0-407-00514-5, London: Butterworths 1987

Scott-Brown's Otolaryngology. (5 Laryngology. P M Stell, ed) (pp 459, £50) ISBN 0-407-00515-3, London: Butterworths 1987

Scott-Brown's Otolaryngology. (6 Paediatric Otolaryngology. J N G Evans, ed) (pp 571, £60) ISBN 0-407-00516-1, London: Butterworths 1987

Neurology and Neuroscience

Cerebrospinal Fluid and the Brain Edemas. T H Milhorat (pp 168, \$55) ISBN 0-944809-00-6, New York: T H Milhorat 1987

Clinical Electromyography. W F Brown & C F Bolton (pp 541, £95) ISBN 0-409-951-63-3, Boston: Butterworths 1987

Electromagnetic Fields and Neurobehavioral Function. (Progress in Clinical and Biological Research, Vol 257) M E O'Connor & R H Lovely, eds (pp 401, \$74) ISBN 0-8451-5107-X, New York: Alan Liss 1987

Impact of Functional Imaging in Neurology and Psychiatry. (Current Problems in Neurology: 5) J Wade *et al.*, (pp 199, £26) ISBN 0-86196-106-4, London: Libbey 1987

Infections of the Nervous System. P G E Kennedy & R T Johnson, eds (pp 284, £32.50) ISBN 0-407-02293-7, Sevenoaks, Kent: Butterworths 1987

Intrinsic Determinants of Neuronal Form and Function. (Neurology and Neurobiology, Vol 37) R J Lasek & M M Black, eds (pp 591, \$120) ISBN 0-8451-2739-X, New York: Alan Liss 1988

Long-term Potentiation: from Biophysics to Behavior. (Neurology & Neurobiology, Vol 35) P W Landfield & S A Deadwyler, eds (pp 548, \$140) ISBN 0-8451-2737-3, New York: Alan Liss 1987

Neural Plasticity. A Lifespan Approach. (Neurology & Neurobiology, Vol 36) T L Petit & G O Ivy, eds (pp 383, \$59.50) ISBN 0-8451-2738-1, New York: Alan Liss 1987

The Cerebral Palsies of Children. (Classics in Developmental Medicine, No. 1) W Osler (pp 92, £10) ISBN 0-7292-0189-3, Oxford: Blackwell Scientific 1987

The Current Status of Peripheral Nerve Regeneration. (Neurology and Neurobiology, Vol 38) T Gordon *et al.*, eds (pp 337, \$66) ISBN 0-8451-2740-3, New York: Alan Liss 1987

Endocrinology

Endocrinology. (1987 Yearbook) J D Bagdade, ed-in-chief (pp 419, £38) ISBN 0-8151-7729-1, London: Wolfe Medical 1987

Endocrinology of selected invertebrate types. (Invertebrate Endocrinology, Vol 2) H Laufer & R G H Downer, eds (pp 500, \$195) ISBN 0-8451-2902-3, New York: Alan Liss 1988

Pineal Research Reviews. Vol 5. R J Reiter, ed (pp 275) ISBN 0-8451-3604-6, New York: Alan Liss 1987

The Episodic Secretion of Hormones. W F Crowley & J G Hoffer, eds. (pp 518, £47.50) ISBN 0-471-84992-8, London: Wiley 1987