

INTENSIVE ELECTROCONVULSIVE THERAPY: A FOLLOW-UP STUDY*

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Intensive electroconvulsive shock has been investigated as a method of treatment at the Allan Memorial Institute for the past ten years. The procedure, its *rationale* and immediate effects have been described elsewhere by Cameron and his co-workers (1). The present study is concerned with the identification and assessment of long-term changes associated with this form of therapy.

Our basic sample for follow-up investigation comprised 79 former patients admitted to the A.M.I. during the years 1956-63, who were known to have reached the 'third stage of depatterning' as defined by Cameron (2). Comparisons between these cases and the general population of the Institute indicate that a) they were, on the average, ten years younger; b) many more of them were single; c) they remained in hospital twice as long as others; d) 77 per cent as compared to 23 per cent were diagnosed schizophrenic or borderline; e) 24 per cent relapsed following depatterning, while still in hospital; f) physical complications ranging from 'mild' to 'severe' were associated with the treatment in 23 per cent of the group; severe complications accounted for six per cent of the sample.

Information was obtained on 47 cases with regard to current status; a) 15 per cent of these patients are currently hospitalized and an additional 70 per cent maintain psychiatric contact; b) 62 per cent receive medication as out-patients; 25 per cent also receive E.C.T. periodically; c) 40 per cent are judged either

symptom free or functioning adequately despite symptoms; varying degrees of psychiatric impairment are reported for the rest of the group; d) 75 per cent of the sample demonstrate unsatisfactory or impoverished social adjustment; e) more than half of patients fully employed prior to hospitalization are now either in part-time work or sheltered employment or are not working. A comparison of the foregoing findings with those reported by Leyberg (3) on 81 discharged schizophrenics receiving other forms of treatment, reveals little to distinguish between the two groups in terms of long-term clinical outcome.

Intelligence and memory tests were administered to 28 former patients. The results, when compared with pre-treatment scores, yielded little evidence of general intellectual or memory impairment attributable to the intensive electroconvulsive shock. Current response to the Rorschach test, however, was notably diminished as compared with pre-treatment performance. There was a reduction of colour perception, and an increased rejection of stimulus cards. The results are similar to those obtained in hospitalized chronic schizophrenics.

An intercorrelational analysis was undertaken to identify factors associated with clinical outcome and current test performance; a) there was a clear-cut and consistent positive association between intelligence and educational levels and current clinical, social, and work status; b) a pattern of frequent electroconvulsive shock during hospitalization was associated with poor clinical outcome; c) the shorter the interval between electroshocks, the greater was the current memory impairment as seen on the Wechsler Memory Scale; d) finally, no significant correlations were obtained

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between measures of current status and lengths of illness, hospitalization and time elapsed since hospitalization.

A questionnaire designed to examine memory function in detail was completed by 27 former patients who had received the intensive E.C.T. The 29 'memory' items were distributed among 31 questions dealing with physical and emotional health in order to minimize the aim of the questionnaire. The dependence on others for recall of past events is reported by 63 per cent of the sample. A persisting amnesia retrograde to the 'deprogramming' and ranging in time from six months to ten years is reported by 60 per cent of the respondents. The number of 'memory' complaints presented by the patient appeared to be independent of both the patient's state of health as reported by the patient, and his current clinical condition as judged by the clinician.

The results of the questionnaire are at variance with those derived from objective memory tests where little impairment was noted. It is possible that, despite actual recovery from the short-term amnesic effects of intensive E.C.T., the questionnaire reflects the persisting distress of the patient concerning the severe loss of memory experienced during and immediately following his course of treatment. On the other hand, it is also possible that the questionnaire and the tests of recall are examining different facets of memory function, and that particular areas of deficit do, in fact, persist long after the termination of intensive electroconvulsive shock therapy.

Conclusions

Results of our follow-up investigation indicate that, in terms of both recovery rate and current clinical condition, patients who received intensive electroconvulsive shock therapy cannot be distinguished from those who receive other forms of treatment. Indicators of favourable clinical outcome associated with this type of treatment are also indistinguishable from those operating for other approaches. The incidence of physical complications and the anxiety generated in the patient because of real or imagined memory difficulty argue against the administration of intensive electroconvulsive shock as a standard therapeutic procedure.

References

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