

BEHAVIOUR CHARACTERISTICS OF THE MENTALLY RETARDED IN A STATE MENTAL HOSPITAL—A COMPARATIVE STUDY¹

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SUMMARY

30 institutionalised severely subnormal (SSN) subjects and 30 matched severely subnormal individuals attending the outpatient services of the Institute of Mental Health, Madras were evaluated for their behaviour characteristics using a schedule containing two scales, the social and physical incapacity (SPI) scale and the speech, self help and literacy (SSL) scale. Destructive behaviour, self injury, overall poor speech, self help and literacy ability, overall social and physical incapacity, poor speech ability, poor speech comprehensibility, poor self help and poor literacy were the discriminating factors much more common for the institutionalised subjects than for the outpatient individuals. The usefulness of this information in the planning and implementation of services for the institutionalised mentally retarded is discussed.

Some studies make a strong case that institutionalisation results in cognitive and affective deficits (Spitz, 1945; Bowlby, 1951); however, a number of investigators have documented increases in IQ and cognitive development for institutionalised individuals (Clarke and Clarke, 1954; Balla *et al.*, 1974). Thus the assumption that institutionalisation is, without qualification, detrimental to client growth is too simplistic. Despite the criticisms of public residential facilities by many proponents of deinstitutionalisation, the facilities perform at least three functions in the provision of residential services for the retarded children and adults. First, they provide a permanent place for very low functioning clients. Second, they provide a stable alternative when home or community placements deteriorate. Third, they emerge as transitional facilities, stable back-ups for more integrative alternatives. The issue then, at least with client progress, is not institution vs. community but custodial vs therapeutic care. Although institutions are designed to provide custodial

care, it is important to find ways to increase the emphasis on humanistic and therapeutic care, as it appears now that institutions will persist (Klienberg and Gallifan, 1983).

To provide good therapeutic care for the institutionalised, a proper planning and programming is essential and understanding the characteristics and needs of the residents can help the administrators reach the goal. Even at the same chronological age, the behaviours of the severely subnormal children with the same clinical syndrome often differ as much as those found among people with different syndromes (Kushlick *et al.*, 1973). Data on the behaviour characteristics of the mentally retarded that relate to the degree of dependency of the handicapped person and the real problems of management of the handicapped would be of immense help in programming services for them.

The purpose of the present study was to collect personal and functional data on a sample of institutionalised and non-institutionalised severely mentally

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retarded persons that would permit (a) a description of general demographic and behaviour characteristics and (b) a comparison of the institutionalised and non-institutionalised on behaviour characteristics.

METHOD

The experimental subjects were 30 mentally retarded individuals (25 males, 5 females) in the Institute of Mental Health, Madras. The subjects' ages ranged from 9-18 years (mean—13.1, s. d.—2.2). All belonged to the severely subnormal (SSN) group. The severe subnormality was defined as IQ levels of less than 50 and the SSN corresponds to 318 of the I. C. D.-9 and the 'severely subnormal' of the British Mental Health Act, 1959. The control subjects were 30 mentally retarded individuals (24 males, 6 females) attending the outpatient services of the Institute of Mental Health, Madras. The subjects' age ranged from 6-18 years (mean—12.8, s.d.—2.8). All belonged to the severely subnormal group (SSN) as defined above.

The two groups did not differ in terms of the socio—demographic variables (See Table I).

The two groups were rated on the schedule described by Kushlick *et al.* (1973) to rate behaviour characteristics of the mentally handicapped. Two scales can be derived from the schedule: the Social and Physical Incapacity (S P I) scale and the Speech, Self-help and Literacy (S S L) scale, both reflecting the aspects of the handicapped person's degree of dependence on others. The S P I scale includes categories of behaviour which, if present, could disrupt the daily lives of others with whom they relate. The S P I scale rates according to levels of conti-

TABLE I *Comparison of the institutionalised and the outpatient subjects for socio-demographic variables.*

	Institutionalised (N—30)	Outpatient (N—30)	
<i>Sex</i>			
Male	25	24	
Female	5	6	
			$\chi^2=0.12$, d. f.=1, N. S.
<i>Age</i>			
Range	9-18	6-18	
Mean	13.1	12.8	
S. D.	2.2333	2.8095	
			$t=0.46$, d. f.=58, N. S.
<i>Socio economic status</i>			
III	4	7	
IV	6	5	$\chi^2=1.026$;
V	20	18	d. f.=2; N. S.
			$\chi=1.03$, d. f.=2, N. S.
<i>Home back-ground</i>			
Urban	18	21	
Suburb	5	7	
Rural	7	2	
			$\chi^2=2.51$, d. f.=2, N. S.

nence, ambulance and the presence of specified disruptive behaviours while the S S L scale reflects speech, self-help and literacy abilities. The schedule also contains items relating to vision, hearing and speech comprehensibility to give supplementary information and these are not used in the derivation of S P I and S S L ratings.

RESULTS

(i) Comparison of the Institutionalised and the Outpatient severely subnormal for SPI categories:

Table II compares the institutionalised and the outpatient group for SPI categories and it can be noted that

TABLE II Comparison of the institutionalised and the outpatient group for SPI categories.

SPI Categories	Institutionalised		Out-patient	
	N	%	N	%
Incontinence				
Severe	21	70	12	40
Mild	9	30	15	50
Nil	0	0	3	10
Mobility				
Non ambulant	7	23.3	4	13.3
Partly ambulant	15	50	16	53.3
Fully mobile	8	26.7	10	33.3
Behaviour Disorder				
Severe	21	70	12	40
Mild	7	23.3	18	60
Nil	2	6.7	0	0

there were more severely incontinent, severely behaviour disordered and non-ambulant individuals in the institution than in the outpatient group. As can be seen from Table III, the two groups

TABLE III Comparison of the institutionalised and the outpatient group for SPI ratings.

Rating	Institutionalised (N=30) mean \pm s.d.	Out-patient (N=30) mean \pm s.d.	t
Incontinence	5.63 \pm 1.33	6.88 \pm 1.85	2.80*
Mobility	4.57 \pm 1.33	5.07 \pm 0.93	1.69
Behaviour Problems	8.70 \pm 2.02	9.20 \pm 1.74	1.03
Overall SPI Rating	18.87 \pm 2.63	21.07 \pm 2.67	3.22*

*-p<0.1

significantly differed in overall SPI ratings ($p<0.01$) and incontinence scores ($p<0.01$) indicating that the institutionalised as a group were more severely incontinent and had more overall social and physical incapacity. The two groups did not differ in terms of mobility and total behavioural problems. Since there was no difference between the two groups in total behavioural problems, comparison was made between the two groups for individual behavioural problems namely aggression, overactivity, attention-seeking behaviour, destructive and self-injuring behaviour. It can be seen from Table IV that the institutionalised were more

TABLE IV Comparison of the institutionalised and the outpatient group for behaviour ratings.

Rating	Institutionalised (N=30) mean \pm s.d.	Out-patient (N=30) mean \pm s.d.	"t"
Aggressive	1.60 \pm 0.61	1.70 \pm 0.46	0.72
Destructive	1.27 \pm 0.44	2.30 \pm 0.59	7.71**
Overactive	2.00 \pm 0.68	1.47 \pm .50	3.45*
Attention seeking	2.57 \pm 0.50	1.17 \pm 0.37	12.36**
Self-injuring	1.27 \pm 0.44	2.33 \pm 0.65	7.43**

*-p<0.01, **-p<0.001

destructive ($p<0.001$) and self-injuring ($p<0.001$) whereas the outpatient group were more overactive ($p<0.01$) and attention-seeking ($p<0.001$). The two group did not differ in terms of aggression.

(ii) Comparison of the institutionalised and the outpatient severely subnormal for SSL categories:

Table V compares the institutionalised and the outpatient group for

TABLE V Comparison of the institutionalised and the outpatient group for SSL Categories.

SSL Categories	Institutionalised (N=30)		Outpatient (N=30)	
	N	%	N	%
Non verbal	10	33.3	2	6.7
Partly verbal	15	50.0	15	50.0
Verbal	5	16.7	13	43.3
Not able	18	60.0	10	33.3
Partly able	10	33.3	13	43.3
Able	2	6.7	7	23.3
Notliterate	28	93.3	24	80.0
Partlyliterate	2	6.7	6	20.0
Literate	—	—	—	—

SSL categories and it can be noted that there were more non-verbal, not able and not literate individuals in the institution than the outpatient group. As can be seen from Table VI, the two groups significantly differed in overall SSL ratings ($p>0.001$), speech ability

TABLE VI Comparison of the institutionalised and the outpatient group for SSL ratings.

Rating	Institutionalized (N=30) mean \pm s.d.	Out-patient (N=30) mean \pm s.d.	't'	Sig
Speech Ability	1.8333 \pm 0.6872	2.3667 \pm 0.6046	3.1919	$p<0.01$
Self help	4.9667 \pm 1.4488	5.8667 \pm 1.668	2.3293	$p<0.05$
Literacy	3.5333 \pm 0.9214	4.1333 \pm 1.2037	2.1673	$p<0.05$
Overall SSL rating	10.3667 \pm 1.6829	12.3667 \pm 2.0527	4.1215	$p<0.001$

($p>0.01$), self-help ($p<0.05$) and literacy ($p>0.05$) indicating that the institutionalised as a group had poor speech, self-help and literacy abilities.

(iii) Comparison of the institutionalised and the outpatient group for other behaviour characteristics;

Table VII denotes that the two groups did not differ in terms of vision and hearing but differed significantly in speech comprehensibility ($p<0.01$) indicating that others had more difficulty in understanding the speech of the institutionalised.

TABLE VII Comparison of the institutionalised and the outpatient group for other characteristics.

Rating	Institutionalized (N=30) mean \pm s.d.	Out-patient (N=30) mean \pm s.d.	't'
Speech	0.30 \pm 0.69	1.03 \pm 1.22	2.86*
Comprehensibility			
Vision	2.50 \pm 0.76	2.63 \pm 0.66	0.72
Hearing	2.47 \pm 0.81	2.53 \pm 0.76	0.33

*— $p<0.01$

Our results suggest that destructive and self-injuring behaviour, overall poor speech self-help and literacy ability, overall social and physical incapacity, speech comprehensibility, incontinence, poor self-help and poor literacy were the main behaviour characteristics that differentiated the institutionalised and outpatient. The outpatient mentally retarded on the other hand were more attention seeking and overactive than the institutionalised.

DISCUSSIONS

Behaviour problems were the main cause of failure to adjust in the community (Sternlicht and Deutsch, 1972;

Intagliata and Willer, 1982). Behaviour problems as assessed clinically were seen as a common reason for institutionalisation (Somasundaram *et al*, 1983). Eymn and Call (1977) reported that physical violence, property damage and self-violence were the discriminating problems much more common for institutionalised individuals than for those living in the community. Our results are based on cross-sectional data and therefore we cannot address the issue of whether the behaviour characteristics that differentiate the institutionalised and the outpatient group were responsible for the institutionalisation or institutionalisation influenced the above characteristics. However, studies on the reasons for institutionalisation or community failure constantly suggest that placement is a result of retarded individuals' behaviour (Craft and Miles, 1967; Shellhaas and Nihira, 1970; Eyman *et al*, 1972). Since some studies document the inferiority of the institutionalised group in language ability (Tizard, 1960; Lyle, 1960; Muller and Weaver, 1964), the poor language ability may be the result of institutionalisation. Gould (1976) reported that behaviour problems occurred most often in children with no language. He also pointed out that children with no language tended to be aggressive, restless, destructive, prone to self injury and in some cases the classically autistic behaviour pattern is present. On the other hand, children with some language were more likely to pester other people for attention or to be over-active and interfering in a socially obtrusive, demanding fashion. Thus the results of the present study are generally consistent with previous findings and clinical belief.

Historically, there is nothing surprising in the fact that the more disturbed retarded individuals are generally residing in the institutions. However the

results reveal certain behaviour characteristics which will surely persist as obstacles to family acceptance or community placement. The nature and the extent of the behaviour characteristics suggest the need for intensified individual attention and programming for the institutionalised retarded.

The immediate task is to develop, at all levels of service, operational policies which have as their main aim to allow the development to their full potential of the mentally handicapped. The need for increasing the staff in institutions is greatest (Kushlick, 1970) as well as more normalising residences (MacEachron, 1983). The need for development of special residential services in our country has already been stressed (Somasundaram *et al*, 1983). Behaviour modification procedures have emerged in the last dozen years as a most powerful tool for training and educating retarded persons in areas as diverse as self-help, language, academic social and living skills and in reducing inappropriate disruptive, maladaptive and self-injurious behaviour (Graziano, 1971; 1975; Begab, 1975; Lecero *et al*, 1976) and these procedures should be applied to the institutionalised population.

The present study outlines the specific problems posed by the institutionalised mentally retarded and it is hoped that better residential care in the lines mentioned above would be organised for all mentally retarded in the near future.

REFERENCES

- BALLA, D., BUTTERFIELD, E. AND ZIGLER, E. (1974). Effects of institutionalisation on retarded children: A longitudinal cross-institutional investigation. *Amer. J. Ment. Defic.* 78, 530.
- BEGAB, M. J. (1975). The mentally retarded and society: Trends and Issues. In M. J. Begab and S. A. Richardson (Eds.), *The mentally*

- retarded and society: A social science perspective. Baltimore: University Park Press.
- BOWLBY, J. (1951). Maternal care and mental health. Geneva: World Health Organisation.
- CLARKE, A. D. AND CLARKE, A. M. (1954). Cognitive changes in the feeble-minded. *Brit. J. Psychol.*, 45, 173.
- CRAFT, M. AND MILLS, L. (1967). Patterns of care for the subnormal. Oxford: Pergamon Press.
- EYMAN, R. K., O'CONNOR, G., TARJAN, G. AND JUSTICE, R. S. (1972). Factors determining residential placement of mentally retarded children. *Amer. J. Ment. Defic.*, 76, 692.
- EYMAN, R. K. AND CALL, T. (1977). Maladaptive behaviour and community placement of Mentally Retarded persons. *Amer. J. Ment. Defic.*, 82, 137.
- GOULD, J. (1976). Language development and Non-verbal skills in severely Mentally Retarded children: An Epidemiological Study. *J. Ment. Defic. Res.*, 20, 129.
- GRAZIANO, A. M. (1971). Behaviour therapy with children (Vol. 1). Chicago: Aldine.
- GRAZIANO, A. M. (1975). Behaviour therapy with children (Vol. 2). Chicago: Aldine.
- INTAGLIATA, J. AND WILLER, B. (1982). Reinstitutionalisation of mentally retarded persons successfully placed into family care and group homes. *Amer. J. Ment. Defic.*, 87, 34.
- KUSHLICK, A. (1970). The need for residential care of the mentally handicapped. *Brit. J. Hosp. Med.*, 8, 161.
- KUSHLICK, A., BLUNDEN, R. AND COX, G. (1973). A method of rating behaviour characteristics for use in large scale surveys of mental handicap. *Psychol. Med.*, 3, 466.
- KLIENBERG, J. AND GALLIGAN, B. (1983). Effects of Deinstitutionalisation on Adaptive Behaviour of Mentally Retarded Adults. *Amer. J. Ment. Defic.*, 88, 21.
- LECERO, W. J., FRIEMAN, J., SPOERING, K. AND FEHRENBACHER, J. (1976). Comparison of three procedures in reducing self-injurious behaviour. *Amer. J. Ment. Defic.*, 80, 548.
- LYLE, J. G. (1960). The effect of an institution environment upon the verbal development of institutionalised children. *J. Ment. Defic. Res.*, 4, 1.
- MACEACHRON, A. E. (1983). Institutional Reform and Adaptive Functioning of Mentally Retarded persons: A Field Experiment. *Amer. J. Ment. Defic.*, 88, 2.
- MULLER, M. W. AND WEAVER, S. J. (1964). Psycholinguistic abilities of institutionalised and non-institutionalised trainable mental retardates. *Amer. J. Ment. Defic.*, 68, 775.
- SHELLHAAS, M. D. AND NIHIRA, K. (1970). Factor analytic comparison of reasons retardates are institutionalised in two populations. *Amer. J. Ment. Defic.*, 74, 626.
- SOMASUNDARAM, O., PAPPAKUMARI, M., JAYANTHINI, V. AND SURESH KUMAR, M. (1983). Institutionalised mentally retarded in a State Mental Hospital. *Indian J. Psychiat.*, 25, 180.
- SPIZ, R. (1943). Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood. In: A. Freud, H. Hartmann, and E. Kris (Eds.), *The Psychoanalytic study of the child* (Vol. 1). New York: International Universities Press.
- STERNLICHT, M. AND DEUTSCH, M. R. (1972). Personality Development and Social behaviour in the mentally retarded. Lexington, MA: D. C. Heath.
- TIZARD, J. (1963). Residential care of mentally handicapped children. *Brit. Med. J.*, i, 1041.