

MEDICAL AND SOCIAL NEEDS OF PATIENTS IN HOSPITALS FOR THE MENTALLY SUBNORMAL*

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In a series of investigations between 1949 and 1958 an assessment was made of the medical, nursing, and social needs of Birmingham hospital patients (Lowe and McKeown, 1949; Garratt, Lowe, and McKeown, 1957, 1958a, b; McKeown, Mackintosh, and Lowe, 1961). The most significant finding was the heterogeneity of patients in each type of hospital—acute, mental, and chronic—and it was suggested that patients should be regrouped to bring together those with similar needs. This idea led to the concept of a balanced hospital community: a hospital centre designed to accommodate all classes of patients from a defined population in multiple buildings on a common site (McKeown, 1958).

The only patients not included in these proposals were the mentally subnormal. There were two reasons for this omission: there had been no investigation of the needs of the mentally subnormal in hospital; and it was thought advisable to allow a little time for appraisal of the idea of comprehensive responsibility for all other types of patients before considering the possibility of this addition. At the same time it was recognized that the case for classification of the mentally subnormal according to their medical, nursing, and social needs, and for reappraisal of services in the light of such a classification, was particularly strong. There is wide variation in the care required by patients in the same hospital. Moreover, institutional provision for the mentally subnormal is deficient in quantity and quality, and raises staffing difficulties at least as serious as those in mental and chronic hospitals.

This paper presents the results of an assessment of the type of care—medical, nursing, and social—required by all (1,652) Birmingham patients in local hospitals for the mentally subnormal. A

subsequent communication will discuss the organization of the institutional care of the mentally subnormal in the light of these findings.

METHODS

The methods are those used in the earlier assessments of hospital patients' needs, modified in relation to the different problems presented by the mentally subnormal. These modifications were introduced after a pilot survey of 118 patients in the three institutions which receive most Birmingham patients.

During 1965, the needs of all Birmingham residents in local hospitals for the subnormal were assessed in respect of requirements for medical and nursing attention and for other forms of care such as training and occupation. The assessment was made individually for each patient by the hospital doctor and the nurse in charge of the ward. On the basis of this information a record card was completed for each patient by a doctor and a social worker employed by the Department of Social Medicine.

The Birmingham patients were distributed between thirteen hospitals varying in size between 21 and 1,466 beds. Only two of the hospitals were within the City boundary. The thirteen hospitals provided 5,855 beds, of which 1,652 were occupied by Birmingham residents (874 male; 778 female). No observations were recorded in respect of patients not resident in Birmingham. The data for individual hospitals are of no special interest, and the Tables are based on the total of 1,652 Birmingham patients derived from a population of 1,106,000.

In Tables I to III (overleaf), Birmingham patients are compared with those in all hospitals in England and Wales. Table I examines the distribution of patients according to their status under the Mental Health Act (1959); to make the data comparable, five Birmingham patients classified as having mental

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TABLE I
STATUS OF MENTALLY SUBNORMAL PATIENTS IN HOSPITAL

Status under Mental Health Act (1959)		Birmingham, 1965				England and Wales, (December 31, 1964)				
		Sub- normality	Severe Sub- normality	Total*		Sub- normality	Severe Sub- normality	Total		
				No.	Per cent.			No.	Per cent.	
Informal		217	1,301	1,518	92.2	14,611	45,482	60,093	92.2	
Detained	Treatment Order ..	4	4	8	0.5	194	394	588	0.9	
	Sixth Schedule ..	19	76	95	5.8	853	2,538	3,391	5.2	
	Order by Court or Home Secretary ..	16	10	26	1.6	767	240	1,007	1.5	
	Other	—	—	—	—	54	43	97	0.1	
Total										
		No.	256	1,391	1,647		16,479	48,697	65,176	
		Per cent.	15.5	84.5			25.3	74.7		100

* Birmingham patients in subnormality hospitals but classified as having mental illness (3 cases) or psychopathic disorder (2 cases) have been excluded because comparable national data are not available.

TABLE II
AGE DISTRIBUTION OF PATIENTS IN MENTAL SUBNORMALITY HOSPITALS

Age (yrs)	Birmingham, 1965						England and Wales, (December 31, 1963)	
	Males		Females		Total		No.	Per cent.
	No.	Per cent.	No.	Per cent.	No.	Per cent.		
Less than 15	74	8.5	45	5.8	119	7.2	6,466	11.8
15-29	248	28.4	180	23.1	428	25.9	15,681	28.5
30-44	213	24.4	173	22.2	386	23.4	13,749	25.0
45-59	231	26.4	203	26.1	434	26.3	12,873	23.4
60-74	100	11.4	157	20.2	257	15.6	5,585	10.2
75 and Over	8	0.9	20	2.6	28	1.7	600	1.1
Total	874	100	778	100	1,652	100	54,954	100

TABLE III
DURATION OF STAY

Duration of Stay (yrs)	Birmingham, 1965		England and Wales, (December 31, 1963)	
	No.	Per cent.	No.	Per cent.
Less than 1	78	4.7	4,503	8.2
1-4	236	14.3	11,246	20.5
5-9	257	15.6	9,976	18.2
10-19	326	19.7	12,639	23.0
20-29	431	26.1	9,945	18.1
30 and Over	324	19.6	6,645	12.1
Total	1,652	100	54,954	100

illness or psychopathic disorder are excluded. In both the local and national populations, more than 90 per cent. of patients are classified as "informal", but there are considerable differences between the proportions of "subnormal" and "severely subnormal". There is also variation by age (Table II); for example, there are fewer young Birmingham patients—hospital accommodation for them is recognized to be deficient. The data also show the expected higher proportion of females at late ages. In the subsequent analysis we shall consider

separately patients under and over age 16, but most sex differences are trivial and will not be shown. Table III shows duration of stay in hospital; as would be expected, in view of the differences in age and in the proportions classified as severely subnormal, it is somewhat longer for patients from Birmingham than for those from England and Wales as a whole.

MEDICAL CARE

Since our main concern is to determine the care required by patients, the aetiology of their mental and physical disabilities is of secondary importance (fortunately, for it can be only crudely assessed). In Table IV (opposite) patients are classified according to whether they did or did not require medical investigation or active treatment of a kind which made it necessary for them to be in hospital. They are further subdivided in relation to the type of condition—neuropsychiatric or other—needing to be treated. This division seems preferable to one between mental and physical disabilities, for it is often not possible to distinguish clearly between

TABLE IV
MEDICAL TREATMENT REQUIRED

Age (yrs)		0-15		16 or More		Total	
		No.	Per cent.	No.	Per cent.	No.	Per cent.
Investigation or Active Hospital Treatment	For neuropsychiatric conditions ..	—	—	2	0.1	2	0.1
	For other conditions ..	—	—	5*	0.3	5*	0.3
Other Treatment	For neuropsychiatric and other conditions ..	4	2.9	69	4.6	73	4.4
	For neuropsychiatric conditions ..	62	44.6	491	32.5	553	33.5
	For other conditions ..	12	8.6	156	10.3	168	10.2
None		61	43.9	790	52.2	851	51.5
Total		139	100	1,513	100	1,652	100

* One of these patients also needed treatment for a neuropsychiatric condition.

psychiatric and neurological conditions in the mentally subnormal.

Seven patients required investigation or active hospital treatment, only two of them because of neuropsychiatric illness. We are not of course suggesting that these are the only grounds which make it necessary for patients to be in hospital. But the remaining 1,645 patients were not considered to require investigation or active hospital treatment and about half (851) needed no medical treatment of any kind. Differences between patients under and over 16 (Table IV) are not large.

Table V shows the kinds of treatment required for neuropsychiatric conditions; the common ones were tranquillizers, sedatives, and anticonvulsant therapy. (Since some patients needed more than one treatment, numbers do not correspond with those in the previous table.) It seems unnecessary to attempt to specify treatment for illness which was not neuropsychiatric, but Table VI shows the types of conditions for which treatment was needed. A distinction is made again between patients who required investigation or active treatment and those

who did not. There were only five of the former. Some of the remaining 246 patients had previously been investigated or received active treatment (for example for tuberculosis, neoplasm, and trauma) but their medical treatment at the time of inquiry would not, of itself, have made it necessary for them to be in hospital.

TABLE VI
CONDITIONS, OTHER THAN NEUROPSYCHIATRIC, FOR WHICH PATIENTS REQUIRED MEDICAL TREATMENT

Conditions requiring Investigation or Active Hospital Treatment	Thyrotoxicosis	1
	Congestive cardiac failure	1
	Haemorrhoids for surgery	2
	Pneumonia	1
Other Conditions*	Infective and parasitic (I)	
	Tuberculosis	21
	Other	4
	Neoplastic (II)	9
	Allergic, endocrine, metabolic and nutritional (III)	48
	Haematological (IV)	22
	Special sensory (VI—part)	13
	Circulatory (VII)	
	Heart disease	34
	Varicose veins	18
	Other	16
	Respiratory (VIII)	17
	Digestive (IX)	15
	Genito-urinary (X)	2
	Dermatological (XII)	14
	Orthopaedic (XIII)	19
	Congenital (XIV)	3
Traumatic (XVII)	7	
Total†	246	

* Numbers in brackets refer to the "International Classification of Disease" (1957).
† 21 patients required treatment for two conditions.

In spite of their limitations the data concerning the aetiology of mental subnormality are of some interest.

In Table VII (overleaf) patients are classified according to the Classification of the American Association on Mental Deficiency (Heber, 1961). The figures show the inevitable high proportion of patients, with or without convulsive disorder, for whose subnormality there was no recognized cause.

TABLE V
MEDICAL TREATMENT REQUIRED FOR NEUROPSYCHIATRIC CONDITIONS

Age (yrs)		0-15	16 or More	Total
Investigation or Active Hospital Treatment	E.C.T. and tranquillizer ..	—	1	1
	Anticonvulsant (including injection during fits)	—	1	1
Other Treatment*	Tranquillizer ..	14	251	265
	Sedative	16	117	133
	Anticonvulsant ..	41	246	287
	Tremor/rigidity depressant ..	3	27	30
	Other	3	28	31

* 111 patients were receiving more than one type of treatment for neuropsychiatric conditions.

TABLE VII
PATIENTS CLASSIFIED ACCORDING TO SUGGESTED
AETIOLOGY OF MENTAL SUBNORMALITY

Patients	No.	Per cent.	
Infection (I)*	54	3·3	
Intoxication (II)	10	0·6	
Trauma or Physical Agent (III)	44	2·7	
Disorder of Metabolism, Growth or Nutrition (IV)	13	0·8	
New Growth (V)	11	0·7	
Unknown Prenatal Influence (VI)	With cranial anomaly	53	3·2
	Mongolism	108	6·6
	Other { with motor dysfunction without motor dysfunction	160	9·8
		5	0·3
Unknown Postnatal Cause with Structural Reaction Manifest (VII)	7	0·4	
Unknown or Psychologic Cause with No Structural Reaction Manifest (VIII)	With convulsive disorder	210	12·8
	Without convulsive disorder	964	58·8
Total†	1,639	100	

* Numbers in brackets refer to the medical classification given in the "Manual on Terminology and Classification" of the American Association on Mental Deficiency (Heber, 1961).

† 13 patients who were not thought clinically to be mentally subnormal are excluded.

(This is the meaning of the somewhat elaborate term: "unknown or psychologic cause with no structural reaction manifest".) Of course many patients in hospitals for the subnormal have not been fully investigated and a critical assessment would undoubtedly modify diagnosis and reduce the proportion attributed to unknown causes.

Of the 1,652 patients, 618 (37 per cent.) were considered to have significant associated psychiatric

disorders (Table VIII). In this case sex differences are of some interest, particularly the higher proportion of male than of female schizophrenics.

NURSING CARE

The analysis of nursing requirements presents certain difficulties, chiefly because patients frequently need more than one type of care. For example a patient may require mental and physical nursing, and may need basic nursing because of both incontinence and limited mobility. Nevertheless it seems desirable to examine separately the kinds of care needed because of physical and mental condition, before bringing the data together in a comprehensive analysis of the needs of all patients.

In assessing nursing care needed because of a patient's physical condition, we have made a broad distinction between skilled and basic nursing. Under skilled nursing are included services for which a considerable degree of training and experience is required; for example, assistance with investigation, assessment, or active treatment and the care of acutely ill patients. Under basic nursing are included personal services—washing, dressing, feeding, lifting, attention to bladder and bowel of the incontinent—which do not require the degree of skill or experience referred to above. We have not included here supervision and care needed by patients because of their mental state.

The results shown in Table IX (opposite) suggest that in this context the proportion of patients needing skilled nursing because of their physical condition is so small that the distinction from basic nursing is of little significance. The main conclusion is that approximately one-third of patients needed basic nursing and two-thirds did not. The proportion

TABLE VIII
CLASSIFICATION OF PATIENTS WITH SIGNIFICANT PSYCHIATRIC DISORDERS OTHER THAN SUBNORMALITY*, BY SEX

Sex		Male		Female		Total	
		No.	Per cent.	No.	Per cent.	No.	Per cent.
Psychosis	Schizophrenic (300)†	69	22·6	33	10·5	102	16·5
	Affective (301)	8	2·6	21	6·7	29	4·7
	Epileptic (308·1)	4	1·3	16	5·1	20	3·2
	Other (rest of 302-309)	10	3·3	16	5·1	26	4·2
Psychoneurosis (310-318)		13	4·3	17	5·4	30	4·9
Pathological Personality	Inadequate (320·3)	49	16·1	46	14·7	95	15·4
	Sexually maladjusted (320·6)	45	14·8	8	2·6	53	8·6
	Other (rest of 320)	14	4·6	29	9·3	43	7·0
Immature Personality (321)		48	15·7	89	28·4	137	22·2
Other Significant Psychiatric Disorders (322-324, 326·4)		45	14·8	38	12·1	83	13·4
Total		305	100	313	100	618	100

* Patients with multiple disorders are classified according to the one which ranks highest on the list.

† Numbers in brackets refer to the "International Classification of Disease" (1957).

TABLE IX
NURSING CARE REQUIRED
(EXCLUDING MENTAL NURSING), BY AGE

Age (yrs) ..	0-15		16 or More		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Skilled and Basic ..	—	—	2	0·1	2	0·1
Skilled Only ..	—	—	5	0·3	5	0·3
Basic Only ..	113	81·3	465	30·7	578	35·0
None ..	26	18·7	1,041	68·8	1,067	64·6
Total ..	139	100	1,513	100	1,652	100

who needed this type of care is understandably much higher among children than among adults.

Table X shows the kinds of functions with which patients who required basic nursing commonly needed assistance. About one-fifth of all patients were not fully ambulant (Table XI) and one-quarter were incontinent (Table XII).

TABLE X
FUNCTIONS IN RESPECT OF WHICH PATIENTS
REQUIRED BASIC NURSING, BY AGE

Age (yrs) ..	0-15	16 or More	Total
Locomotion ..	49	164	213
Excretion ..	99	356	455
Feeding ..	85	304	389
Washing ..	100	313	413
Dressing ..	76	306	382

* 460 patients required assistance with more than one function.

TABLE XI
MOBILITY, BY AGE

Age (yrs) ..	0-15		16 or More		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Bedfast ..	16	11·5	15	1·0	31	1·9
Sitting ..	—	—	—	—	—	—
Out of Bed ..	20	14·4	60	4·0	80	4·8
Partly Ambulant ..	17	12·2	166	11·0	183	11·1
Fully Ambulant ..	86	61·9	1,272	84·1	1,358	82·2
Total ..	139	100	1,513	100	1,652	100

In Table XIII we have attempted to assess the kinds of personal supervision needed by patients

TABLE XIII
PERSONAL SUPERVISION REQUIRED, BY AGE

Age (yrs) ..	0-15		16 or More		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Mental Nursing (of Potentially Difficult Patients) ..	84	60·4	570	37·7	654	39·6
Checking and/or Counselling ..	18	12·9	334	22·1	352	21·3
None ..	37	26·6	609	40·3	646	39·1
Total ..	139	100	1,513	100	1,652	100

because of their mental condition. In doing so we have distinguished between nursing care of potentially difficult patients and the lesser degree of care referred to as "checking and counselling" (advice concerning such simple activities as dressing, washing, and time-keeping). Two-fifths of the patients were considered to require mental nursing; another fifth needed only checking and counselling; the remainder required no personal supervision.

TRAINING AND OCCUPATION

Next we consider patients' needs for training and occupation, which are examined in Table XIV. Here the distinction between children and adults is particularly important. Of the 139 children under 16, approximately two-thirds needed habit (mainly) or scholastic training. Four patients were

TABLE XIV
OCCUPATION RECOMMENDED, BY AGE

Age (yrs) ..	0-15		16 or More	
	No.	Per cent.	No.	Per cent.
None ..	44	31·7	366	24·2
Training (Elementary ..)	83	59·7	29	1·9
(Scholastic ..)	8	5·8	—	—
Domestic Work on Wards ..	1	0·7	79	5·2
Occupational Therapy or Rehabilitation ..	3	2·2	752	49·7
Work in Hospital Service Departments ..	—	—	159	10·5
Work Outside Hospital ..	—	—	128	8·5
Total ..	139	100	1,513	100

TABLE XII
CONTINENCE, BY AGE

Age (yrs) ..		0-15		16 or More		Total	
		No.	Per cent.	No.	Per cent.	No.	Per cent.
Incontinent ..	Day and night ..	91	65·5	239	15·8	330	20·0
	Night only ..	7	5·0	77	5·1	84	5·1
	Day only ..	—	—	9	0·6	9	0·5
Continent ..		41	29·5	1,188	78·5	1,229	74·4
Total ..		139	100	1,513	100	1,652	100

considered suitable for occupational therapy or work on hospital wards. The remainder—one-third—were thought not to require training or occupation.

Among those over 16 the needs were, understandably, quite different. Nearly one-fifth were suitable for work in hospital service departments or outside the hospital, and half required therapeutic occupational or vocational rehabilitation. One-quarter were considered not to be suitable for training or occupation.

The estimate of the proportion of patients not requiring training or occupation (a third of children and a quarter of adults) may be thought to be surprisingly high. It varied greatly between the hospitals but it is not possible to judge whether this variation is due partly to differences in assessment of the scope for occupation. It is undoubtedly due mainly to differences between the hospitals in the types of patients admitted. This is evident from the fact that most patients considered unsuitable for training and occupation needed simple basic nursing (all 44 children and 303 of 366 adults) and the proportion of patients requiring basic nursing varied considerably between hospitals.

CLASSIFICATION OF PATIENTS ACCORDING TO TYPE OF CARE REQUIRED

Finally, the observations on patients' medical, nursing, and other needs are brought together in an attempt to present a picture of the essential requirements of the whole population of patients in hospitals for the mentally subnormal. In Table XV the types of care are arranged in order of decreasing complexity (from "investigation or active hospital treatment" to "sheltered environment only") and each patient is uniquely assigned according to the most complex type of care he required.

TABLE XV
CLASSIFICATION OF PATIENTS ACCORDING TO TYPE
OF CARE REQUIRED, BY AGE

Age (yrs) ..	0-15		16 or More		Total	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
Investigation or Active Hospital Treatment ..	—	—	7	0.5	7	0.4
Mental and Basic Nursing	77	55.4	289	19.1	366	22.2
Mental Nursing	7	5.0	279	18.4	286	17.3
Basic Nursing ..	36	25.9	176	11.6	212	12.8
Checking and Counselling ..	14	10.1	288	19.0	302	18.3
Sheltered Environment Only ..	5	3.6	474	31.3	479	29.0
Total ..	139	100	1,513	100	1,652	100

The number of patients thought to need investigation or active hospital treatment was very small (seven of 1,652). About two-fifths required what we have referred to as mental nursing, the supervision of potentially difficult patients. A little more than one-tenth needed basic nursing because of their physical condition, but not mental nursing. The remainder, nearly half of the hospital population, required none of these medical or nursing services; some needed a little personal care, such as checking and counselling, but the majority no more than to be in a sheltered environment. In this context we have not considered patients' needs for training and occupation, which cut across the assessment in Table XV.

DISCUSSION

In this paper we have attempted to classify subnormal patients in hospital according to the type of care they required. It should be emphasized that the assessment of a patient's medical, nursing and other needs was made, not by external observers, but by the hospital medical and nursing staff normally responsible for his care. While opinions concerning, for example, the scope for treatment or the need for supervision are largely subjective, it seems reasonable to believe that the judgements made by the staffs of thirteen midland hospitals would be reasonably acceptable to their colleagues in other parts of the country.

The circumstances in these hospitals are not in all respects characteristic of the country as a whole. We have noted in Birmingham, for example, the higher proportion of patients classified as severely subnormal (Table I) and the shortage of accommodation for young patients which affects the age distribution (Table II). These differences have no substantial effect on the analysis which is aimed at a comprehensive classification of patients according to type of care required (Table XV).

In the present paper we shall not discuss the staff which should provide the services listed in Table XV (in some cases it is self-evident); nor shall we examine the possible significance of the results to the care of the mentally subnormal. Our main concern is to provide a background of information about patients now in hospital against which the organization of services can later be considered. For this purpose, we suggest, the exact percentages of patients assigned to the various classes in Table XV are not of great importance. The important conclusions, according to contemporary assessment of patients' needs, are as follows:

(a) The proportion of patients in hospitals for the

subnormal who require investigation or active hospital treatment is very small.

- (b) About half the patients need nursing care because of their mental and/or physical condition.
- (c) The other half of the patients require no medical or nursing service. Some of them need simple personal attention, such as checking and counselling, but this does not require the presence of a nurse.
- (d) The majority of patients, children as well as adults, need training and occupation.

SUMMARY

- (1) During 1965 the care needed by each of the 1,652 Birmingham residents in local hospitals for the subnormal was assessed by the hospital doctor and nurse in charge of the ward.
- (2) Seven patients required investigation or active medical treatment of a kind which would make it necessary for them to be in hospital. About half (851) were considered to need no medical treatment of any kind.
- (3) Only the seven patients under investigation or active treatment required skilled nursing because of their physical condition. Approximately 40 per cent. needed mental nursing, with or without basic nursing (washing, dressing, feeding, etc.). About 13 per cent. required only basic nursing.
- (4) The remainder of the patients, approximately half, needed no nursing service. Some of them

required simple personal attentions (such as advice concerning washing, dressing, time-keeping, etc.), but most needed only a sheltered environment with opportunities for training and occupation.

- (5) 19 per cent. of patients were considered suitable for work outside hospital or in hospital service departments, and approximately 50 per cent. required therapeutic occupation or vocational rehabilitation.

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