ABNORMAL BEHAVIOUR AND MENTAL BREAKDOWN IN ADOLESCENCE.

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YOUTH is an elusive period of life, and although it has been considered from many points of view, it remains an intricate and unpredictable epoch, for which further study is needed to bring it into clearer perspective.

As the child grows into an adult, physical and mental changes of fundamental importance take place, and this evolution should be a gradual process free from disturbance, of which the adolescent may be almost unaware. How often this is so is difficult to estimate, but many factors are involved, and emotional disturbances from the most trivial to the most serious may occur. It is also difficult to define where the readjustments of normal growing-up end and abnormal disturbances begin, adding to the diffuseness of these problems. Any factual information on the factors involved in abnormal behaviour or mental breakdown at this time of life is of interest, and may help towards their understanding.

OBJECTS OF THE PRESENT INVESTIGATION.

In spite of the range of writings on adolescence, there are few surveys of the aetiology or symptomatology of mental disturbances at this age, particularly in regard to the many factors involved, besides the important physiological and psychological changes of adolescence itself. Undue weight may be given to adolescence as the main factor in the description of upsets at this age, perhaps because of the amount of work that has been devoted to psychological development, and too little attention paid to their other aspects. It would seem important for the full knowledge of a mental breakdown at this age to have the background and framework of the aetiology and symptomatology, to view the picture as a whole. The one cannot properly be viewed without the other.

A group of adolescents was therefore taken who were showing abnormal behaviour or mental breakdown severe enough to require admission and treatment in hospital. The group comprised widely different psychiatric illnesses, the only common factor being adolescence, and an attempt was made to analyse and assess the aetiological factors apparent in their history, background, and in their previous personalities. The abnormal traits and symptoms shown prior to their illness were examined, as also the symptoms of their present illness. Finally the relevance and significance of the physiological and psychological changes of adolescence were considered as factors, both from the aetiological and symptomatological points of view.

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The objects of this investigation are therefore three in number, to try and determine :

(1) What aetiological factors there are in these patients and their background, their incidence, and to what extent these factors can be said to be causative in leading to abnormal behaviour or mental breakdown at this time.

(2) What abnormal symptoms and traits are shown by these patients either in their previous life or personality, and the significance if any of the relationship or development of these symptoms into the present illness or abnormal behaviour now showing in adolescence.

(3) To what extent adolescence can be said to be causative or contributory to this illness or abnormal behaviour, and how far or in what way the symptoms shown by them can be considered to be peculiar to or coloured by adolescence.

They will be considered in turn and investigated by statistical methods where relevant. It is suggested that by these means the psychiatric disorders of adolescence can be viewed in perspective in regard to the factors that led up to and compose them, and an estimate perhaps made of how far adolescence is of importance as such in their aetiology.

This group may be in a minority amongst the total number of adolescent disturbances, and in their relative severity have a more significant aetiology than the numerous lesser emotional difficulties of the period ; difficulties that may lead to delinquency, a request for medical advice, or in many cases maladjustment and unhappiness for which no help is sought. Nevertheless, it is considered that the multiplicity and nature of the factors involved in their aetiology and symptomatology may be of help towards the understanding of adolescent disturbances as a whole.

It can be argued, as Schwab and Veeder (1) did, that abnormal types are too far away from the average to give exact data applicable to the whole, so that due caution is necessary in interpreting their significance. However, Finesinger (2) stressed that the body and behaviour of man is the product of what has gone before ; and the physical structure as also the behaviour and even the social difficulties of the adolescent have their origin in the previous stage of development. He considered that adolescence could not be wholly considered separately from what has happened in earlier childhood. Yellowlees (3) also stated that " trouble in adolescence rarely comes out of the blue. There is, as a rule, the strongest possible evidence that the mischief has already been done, and that previous danger signals have been ignored. Conversely, the one all-important factor in determining a healthy and happy adolescence is the upbringing which has preceded it."

This group of abnormal adolescents would seem in many cases to bear out the importance of this concept.

The Material.

The material consists of nearly all the cases of adolescent age admitted into the Maudsley Hospital between October, 1945, and October, 1947.

The ages of the patients range between 13 and 18. In the case of girls it was decided to include only those who had begun to menstruate and had

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reached physiological puberty. In boys there was no such definite criterion. The onset of seminal emissions has been considered indicative of sexual maturity, but it is not always easy to ascertain their presence from the patient. Shyness, ignorance or possible misunderstanding made it doubtful in many cases. Again, as an alternative criterion an estimation of the development of secondary sexual characters is uncertain. In view of this the age of 14 was taken as the lowest age for inclusion for boys, although it is of necessity an arbitrary lower limit which does not necessarily mean the attainment of puberty, as some boys were notably immature.

The age range chosen is in any case artificial, and was partly dictated by the ages of the adolescent patients admitted. It is a truism that childhood problems gradually merge into those of adolescence and thence into adulthood, and psychiatric disorders frequently arise in the prepubertal years. Adolescence includes puberty, and these prepubertal problems are often interdependent on it and could properly be included in an adolescent series. However, their inclusion would widen the scope of this study too much.

The total amounts to 50. They were closely observed over the time of their in-patient treatment and some were followed up. This total is small, but it is considered of value owing to the care taken in ensuring accurate detail of the case-material, and because few investigations of this sort could be found. They were widely assorted, consisting of 24 girls and 26 boys. They came from different social conditions, from those (6 cases) who were comfortably off, to the very poor (3 cases), although the majority (41 cases) were from working-class homes. Most had their homes in London, but a few came from the country, or had been brought up abroad. Of the 24 girls, 15 had left school or had started work, 5 were still at school, 3 in college, and 1 in an approved school. Of the 26 boys, 19 had left school or were at work, 7 still at school, and 1 in an approved school. There was no special choice of case.

The Methods of Investigation.

All but one of these patients were looked after in the adult wards, and this case was treated in the Children's Ward. The right place to treat children of adolescent age is a difficult one, as they can neither be looked after happily amongst adults on the one hand nor amongst young children on the other. There would seem to be a need for separate accommodation for young people, which is not at present available in this country.

The form of case-taking was on a common plan, and the information required to achieve the objects of this investigation was extracted from these records and listed into three main groups for the purposes of analysis, as described below :—

(1) *Aetiology*.—This attempted to cover all aspects, and to demonstrate the various factors which affected the patient and led to the mental disturbance now showing in adolescence. They included :

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(A) The endowment of the patient, consisting of—

(*a*) Factors in the family history.

(*b*) Factors in the patient, including organic disease in the central nervous system or elsewhere; any marked deviations of personality; the level of intelligence; the electro-encephalogram when recorded.

(B) Factors in the environment of the patient, past or present, comprising—

(*a*) Those emotionally ill-adapted to the patient in the home or elsewhere.

(*b*) Those physically ill-adapted to the patient, consisting of poverty, malnutrition, etc.

(2) *Symptomatology.*—The symptoms or traits shown by these patients were divided into those present before the illness began, and those in the present *illness* or abnormal behaviour showing in adolescence. This division, in spite of minor difficulties inherent in any attempt to divide artificially the evolution of a psychiatric disturbance, seemed to be of value in placing these mental disorders in perspective.

Next the dates of onset of the present illness were examined in relationship to physiological puberty, to try and determine any relationship between them.

Finally the individual symptoms were classified under broad headings into natural groups for clarity of presentation; and examined in detail for any components or relationships with adolescence that became apparent.

(3) The *manifestations of adolescence*, as contributory factors to the mental disturbance in these patients, were next determined, to assess—

(*a*) How far adolescence could be considered a causal or contributory factor to the mental disturbance or abnormal behaviour.

(*b*) To what degree their symptoms could be regarded as peculiar to or coloured by adolescence.

Definite conclusions were not expected, but in the light of the present state of the physiological and psychological knowledge of this age, the attempt was made to try to clarity the relationship of adolescence to the mental breakdown or abnormal behaviour these patients showed.

Classification in Regard to Diagnosis.

Some of the cases showed easily diagnosable features, but in others the diagnosis was not so clear, and it was only after careful observation that the case was placed under one heading or another. It is well known how difficult to diagnose may be the symptoms shown in adolescence (4), although according to Kanner (5) they are nearer the lines of adult psychopathologic patterns than those of childhood. It was possible in many cases to apply the psychiatric terminology used for adult cases; in some cases—particularly in the younger or more immature children—it was more revealing to think of them in the more fluid terms of childhood psychiatry. Some cases were given such descriptive diagnoses as "maladjustment of adolescence," showing an uncertainty which further observation may resolve.

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None has been followed up more than a few months, and there may be need to alter the diagnosis if subsequent developments warrant this. Beres *et al.* (6) stress the difficulties of differential diagnosis at this age, and especially that of psychopathic personality. They describe how cases with such a diagnosis may subsequently become psychotic and *vice versa*. These difficulties naturally apply, and it was with an open mind that they were divided into two main groups—those who showed no diagnosable evidence of psychosis, and those who were considered to have been proved psychotic.

Amongst the non-psychotic group, the greatest number were psycho-neurotics. These included a number of reactions, which followed neurotic patterns, the diagnosis being descriptive. Some of these dated back into early childhood; others were shorter. One may prove to be epileptic and another psychotic in due course—emphasizing the fluidity of classification necessary.

A small group was also included whose symptoms appeared to be more abnormal and irreversible in nature. The distinction between them and the psycho-neurotics was indefinite, and they merged into the more tractable cases of the main group. They included one case (Case 25), who showed the beginnings of serious maladjustment and then sustained a serious head injury, which materially contributed to her symptoms. In two cases (Cases 27 and 28) fairly definite evidence of encephalitis lethargica preceded the onset of severe behaviour disorder. In four cases (Cases 26, 29, 30, 31) a gross and long-standing disorder of behaviour and personality could only be described by the term "psychopathic personality," in spite of the uncertainties of such a diagnosis at this age (6). Such cases have even so shown aetiological factors, potentially damaging in the emotional sense—in common with other types of cases—and whose contribution to the illness could not be assessed. Further observation may reveal the onset of a psychosis, and in two cases at least psychotic features were present. On the other hand, increasing maturity may lead to their amelioration.

It seems that in adolescence such clinical problems have not crystallized out in many cases into the clearer psychiatric syndromes of adulthood, and they retain the more fluid characteristics of the emotional disturbances of childhood. Only time and further maturity will determine the ultimate diagnosis that should be applied. (See Table I.)

Aetiology.

A number of authors express views on the aetiology of abnormal behaviour or mental breakdown in adolescence; many causative factors are stressed by them, but little statistical evidence is offered. Conklin (7) for instance emphasized the significance of the family situation in the formation of the personality of the adolescent, and stressed that any condition or influence that delayed development or reduced the integration of stability, poise and control would be expected to produce instability.

Yearbury and Newell (8), who investigated 56 psychotic children up to the age of 19, concluded that there was a predominance of unfavourable hereditary

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tendencies in the parents of psychotic children, emphasized by the fact of a large number of abnormal siblings. They also found such factors as bad homes, and a lack of security in human relationships; psychic traumata too were considered a significant factor in leading to breakdown.

Dorothea Friedlander (9) analysed the records of 27 young people under 20, including 16 cases of schizophrenia, 9 of psychopathic personality and 2

TABLE I.—*Details of Diagnosis.*

Non-psychotic Group.

(a) *Psycho-neuroses.*

Cases.	Sex.	Age on admission to hospital.	Diagnosis.
1	Female	15	Adolescent behaviour disorder with mental backwardness.
2	,,	16	Anxiety reaction. ? Cerebral agnosia.
3	,,	16	Behaviour disorder; reactive to home worries.
4	,,	13	Hysteria.
5	,,	13	Behaviour disorder with anxiety.
6	,,	16	Hysteria. Immature personality.
7	,,	15	Reactive depression. Chronic eczema.
8	,,	15	Obsessional neurosis.
9	,,	15	Maladjustment of adolescence. ? Epilepsy.
10	,,	17	Reactive depression. Hysterical personality.
11	,,	17	Behaviour disorder. Temperamental instability.
12	,,	15	Behaviour and personality disorder.
13	,,	15	Reactive depression. Anxiety features.
14	,,	13	Anxiety state with hypochondriasis.
15	Male	14	Mental backwardness. Hysterical personality.
16	,,	14	Anxiety state. Obsessional and hysterical features.
17	,,	16	Anxiety state.
18	,,	18	Anxiety state with secondary depression.
19	,,	17	Compulsive tics of probable psychogenic origin.
20	,,	17	Behaviour disorder.
21	,,	17	Adolescent personality disorder.
22	,,	14	Behaviour disorder. Mental backwardness.
23	,,	17	Anxiety state with obsessional features.
24	,,	16	Maladjustment of adolescence. Obsessional personality. Physical immaturity.

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(b) *Severe personality disorders or sequelae of organic disease of the central nervous system.*

Cases.	Sex.	Age on admission to hospital.	Diagnosis.
25	Female	16	Sequelae head injury. Psychopathic personality.
26	,,	17	Behaviour disorder. Psychopathic personality.
27	Male	17	Behaviour disorder. ? Post-encephalitis.
28	,,	14	,, ,, ,,
29	,,	17	Psychopathic personality.
30	,,	15	,, ,,
31	,,	17	,, ,,
Psychotic Group.			
32	Female	15	Schizophrenia.
33	,,	16	Paranoid schizophrenia.
34	,,	15	Recurrent catatonic schizophrenia.
35	,,	16	Schizophrenia.
36	,,	16	Mental backwardness. Schizophrenia.
37	,,	15	Acute paranoid schizophrenia. Congenital spatial disability.
38	,,	16	Schizophrenia.
39	,,	15	,,
40	Male	14	,,
41	,,	14	Catatonic schizophrenia.
42	,,	17	Paranoid schizophrenia.
43	,,	15	Mental deficiency. Hebephrenia.
44	,,	15	Periodic catatonic schizophrenia.
45	,,	18	Paranoid schizophrenia.
46	,,	14	Schizophrenia.
47	,,	16	Mental backwardness. Epileptic dysrhythmia. ? Schizophrenia.
48	,,	17	Manic-depressive psychosis.
49	,,	15	,, ,,
50	,,	16	Paranoid state. Friedreich's ataxia. Epileptic clouded state.

of manic-depressive psychosis. She found in all a high frequency of parents who were either rejecting or over-solicitous and over-protective in childhood; there was a high frequency of extremes of discipline, either too severe, too slack or variable; there was severe friction in the home of 75 per cent. of the cases of schizophrenia, and 44 per cent. of psychopathic personality.

Such results are suggestive, but they cannot be considered more than this because of the small totals examined, the lack of statistical control, and a lack of information of the ages of the patients.

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Analysis of these 50 cases shows a multiplicity of factors, including family inter-relationships, which are of aetiological significance. Unfortunately, through lack of normal controls they cannot be compared statistically with adolescents who have shown no abnormal behaviour or mental disturbance. There is no proof that there may not be a similar number of disturbing factors which normal subjects resist. However, these factors are impressive in their frequency and variety, although statistical analysis must be confined to comparisons within the series.

The Endowment of the Patient.

The endowment of the patient is made up of the factors of generic importance in the family history, coupled with the constitutional factors in the patients themselves, and they will be discussed in that order.

Family History.

This must be judged by the fact that the parents and siblings at least largely determine the environment in which the child is brought up, and any neurotic or psychopathic qualities that they possess are likely directly to affect the environment; it is impossible to separate these from the alternative or co-existent effect that such a heredity is likely to have on the child's constitution.

In this series the family history has been confined to those generations in which inquiries could produce reasonably accurate answers (grandparents, parents and their siblings, and the patient's siblings), and the results for analytical purposes were divided into two groups:

(1) Major psychoses, epilepsy, severe alcoholism, mental deficiency or well-marked psychopathic traits, in direct line or in collaterals.

(2) Minor neuroses, anomalies of personality or delinquency, in direct line or in collaterals, not so severe as in Group 1. They are shown in Table II.

Inquiry was also made into the presence of serious physical disease in these relations, which could be considered important from the generic point of view, but in no cases were these found.

Table II.—*Family History.*

	Totals.	Major psychoses, etc.	Minor neuroses, etc.
Non-psychotic Cases.			
Girls	16	8	7
Boys	15	7	11
Total	31	15	18
Percentage	..	48·4%	58·1%
Psychotic Cases.			
Girls	8	4	5
Boys	11	6	8
Total	19	10	13
Percentage		52·6%	68·4%
Total	50	25	31
Percentage	..	50%	62%

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Analysis of Table II.—There is a high percentage of trouble in the families of these patients, but without normal controls no definite conclusions can be drawn. The chi-square test shows no significant difference between the non-psychotic and psychotic groups, nor between girls and boys. The figures appear to be similar to those generally found in the heredity of mental disorder.

Other factors in the endowment of the patients that help to determine their constitution in adolescence are considered under appropriate headings in the following paragraphs.

Serious Physical Disease.

Serious physical disease in the patient either in the past or in adolescence, if it has interfered with physical or mental development or even emotional well-being, may be an important factor in the causation of a breakdown or abnormal behaviour. It is not common in these cases, but its degree of importance can best be judged from study of the individual cases, relevant extracts of which are given below. They are divided into—

(1) Patients with a history of encephalitis, meningitis or severe head injury.

(2) Patients with a history of some organic disease of the central nervous system of importance other than those in Group (1).

(3) Patients with severe physical disease in other systems than the above.

(1) *Patients with a history of encephalitis, meningitis or severe head injury.*

Non-Psychotic Group.

(a) *Psycho-neurotic cases.*

CASE 8.—Female, aged 15. Aged four months this patient was treated in hospital with post-basal meningococcal meningitis; long attendance in out-patients followed, and she was, until the age of two, supposed to have had a " large head." Her present illness was that of obsessional neurosis, to which a number of factors contributed, and which developed out of a long-standing neuroticism. The effect of her physical illness on the aetiology could not be estimated.

CASE 10.—Female, aged 17. This girl, of low average intelligence, with a bad family history and background, had long shown neuroticism and instability. Eight months before her admission she was in hospital for five to six weeks with a fractured skull. There was no evidence that this had any bearing on her present illness, that of a reactive depression in an hysterical personality.

(b) *Cases with more intractable personality disorder.*

CASE 25.—Female, aged 16. This patient had a very bad family history and an equally bad home. From the age of nine she had become increasingly unstable in her behaviour. At 14 she sustained a severe head injury, and following this her behaviour became markedly worse. She showed an epileptic record in an EEG, and signs of organic deterioration. Her injury was important in increasing and perpetuating a pattern of behaviour that was already present.

CASE 27.—Male, aged 17. There was again a bad family and home, and he had long shown neurotic traits, and was backward and delicate. Six months ago he was in hospital for a month with an illness suggestive of encephalitis. Following this he became difficult and aggressive to his mother. In hospital he showed no abnormal behaviour, but his EEG suggested cortical dysrhythmia. It appeared that his illness and other psychogenic factors contributed to his behaviour disorder, and long-term observation will be necessary to assess this case.

CASE 28.—Male, aged 14. This patient had a bad family history and home, and early showed neurotic traits. There was much ill-health, and at five he appeared to have had definite encephalitis. From then on he was mischievous,

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unstable, and repeatedly committed arson. He was mentally backward, physically underweight, but an EEG was normal. The history of encephalitis needed to be weighed against other important psychogenic factors.

Psychotic Group.

CASE 42.—Male, aged 17. This patient had an unstable alcoholic father, but after his desertion the family background was stable. He had neurotic traits, missed school because of ill-health, and was scholastically backward. Two years ago he had sustained a head injury and was unconscious for two days. His recent development of schizoprenia had no apparent relationship with this.

(2) *Patients with a history of some organic disease of the central nervous system of importance other than in Group* (1).

Non-Psychotic Group.

CASE 2.—Female, aged 16. This child, whose father died, was subsequently spoilt by her mother. She showed long-standing emotional and personality difficulties, and was seduced at the age of ten. For several years she had weakness of the hands and feet (cerebral agnosia), which handicapped her in that she could not play games. Although of superior intelligence she failed scholastically, probably from discouragement over her handicap. A number of factors, including this, led to her abnormal behaviour.

Psychotic Group.

CASE 49.—Male, aged 15. This patient had Friedreich's ataxia, and he was sensitive of his disabilities. At 15 he developed a paranoid psychosis. He also had epileptiform attacks and a grossly abnormal EEG. His physical state appeared to be of primary importance, but other factors included a direct family history of psychotic depression.

(3) *Patients with severe physical disease of other systems.* (This only occurred in non-psychotic cases.)

CASE 7.—Female, aged 15. This patient had a long-standing generalized eczema, which first occurred in babyhood. Her father died when she was four, and subsequently she did not get on well with her mother. Her eczema recurred from ten onwards, particularly when upset with her mother. She became depressed reactively to this situation.

CASE 14.—Female, aged 13. There was an unstable background, and she was neurotic and hypochondriacal from an early age. With this went repeated physical ill-health, which materially contributed to her present neurotic illness and invalidism.

CASE 18.—Male, aged 18. This patient had a severe anxiety state following a long history of neuroticism and an unstable background. At 15 a duodenal ulcer was diagnosed by X-rays. He stayed at home for nine months and this increased his introspection and anxiety.

CASE 20.—Male, aged 17. At four years this patient had an empyema following measles, followed by abcesses and operations requiring a year's hospitalization. He was immature and of poor physique. He was much spoilt, and this combination of factors appeared to be important in leading to stealing, for which he was admitted.

CASE 23.—Male, aged 17. Here there was a history of recurrent bronchitis in childhood, and overprotection by his mother. These factors, however, appeared unimportant in comparison with the many others that contributed to his anxiety state.

CASE 28 was considered in connection with his history of encephalitis (see page 597).

The incidence of physical disorders in these patients is given in Table III.

Analysis of Table III.—The incidence is small compared with that of other factors. The chi-square test shows no significant difference between the

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TABLE III.—*Serious Physical Illness in the Past or Present.*

	Totals.	(1) Enceph.; Head injury, meningitis.	(2) Other diseases of C.N.S.	(3) Diseases of other systems.
Non-psychotic Cases.				
Girls	16	3	1	3
Boys	15	2	–	3
Total	31	5	1	6
Percentage	..	16·1%	3·2%	19·3%
Psychotic Cases.				
Girls	8	–	–	–
Boys	11	1	1	–
Total	19	1	1	–
Percentage	..	5·3%	5·3%	..

non-psychotic and psychotic groups, nor between the sexes. A history of encephalitis or head injury was higher in the small group with severe personality disorders. General systemic disease was highest in psychoneurotics, and clinically physical disease appeared to favour neuroticism, hypochondriasis or over-solicitude by the parents.

Personality.

In the consideration of personality at this age temperamental traits can be seen to stand out from the earliest days of life and thus seem to be innate; but grafted on to these are other qualities that are reactive to the circumstances of the child's life. The individual's personality, especially in these early years, is modifiable to some extent, and can be changed for good or evil by the various environmental influences that may be met.

This modifiability is important in childhood and adolescence, and Lewis (10) points out that each patient's personality is not only to be assessed as conforming to a frozen artificial type, but as a complex of dynamic functions, changing in outward form, sometimes in unstable equilibrium. In the assessment of adolescent personality this would seem to be fundamental, and due care should be taken to allow for such instability. It is well shown in Case 3, a girl of 16, who was regarded as having a normal outgoing personality until her mother died when she was 11. From then on, it seems as a result of this and her home circumstances, she became seclusive, with mild suspicion of her family and an increasing behaviour disorder. It is a matter of conjecture what an estimate of her personality would be, should this behaviour continue into adulthood. Again, Case 14 was a girl who had been described as happy, but with repeated ill-health and anxious care by her mother developed into an hypochondriacal, anxious, and in some ways hysterical individual. By adolescence these traits had become almost intractable features of her make-up.

It is generally held that abnormalities of personality are often found in those who subsequently become psychotic, and this is equally so in adolescence as in later years. The examination of the previous personalities of these cases,

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allowing for their still plastic nature, shows firstly a high proportion who had morbid traits dating back to childhood; and secondly, such traits were diverse, bearing out the individuality of each character, and the difficulties of classification into definite types except within broad limits.

As regards the first, without comparison with the normal population it is impossible to state that this high proportion of abnormality is significant; but it is suggestive and therefore reasonable to state that the presence of mental illness and abnormal behaviour in adolescence is associated in these cases at least with a previously high proportion of abnormal traits of personality, which are marked enough to be noted by relatives.

As to the second, individual personalities are evasive, and it was necessary to confine their estimation to certain broad and well-defined groups of traits, which recurred in their histories. This led to the following groupings, which were distinguishable enough to be reasonably accurate for quantitative assessment:

(1) Children who were regarded as having normal personalities—able to "exteriorize" themselves, to make friends, to mix and hold their own. They were not always free from bad traits, but such traits were not so marked as to be morbid.

(2) Children who had morbid traits sufficient to mark the patient as abnormal:

(*a*) Shut-in personalities, with shyness, solitariness, sensitiveness, overdependence or day-dreaming.

(*b*) Aggressive, quick-tempered, rebellious or resentful personalities.

(*c*) An indeterminate group, which did not fit into the above categories. They included those who were "difficult or unstable," denoting an ill-defined lack of dependability or changeableness. There were other traits, and for instance Case 29 stood out alone for indifference, lack of affection, callousness, and a capacity for cruelty.

There was no hard and fast dividing line between such artificial groups, and in some cases it was not easy to decide in which group the patient should be placed. It was, however, possible to tabulate them as shown in Table IV.

TABLE IV.—*The Personalities of these Patients.*

	Totals.	(1) Normal personality.	(2) Ab. personality.	"Shut-in."	Aggressive.	Indeterminate.
Non-psychotic Cases.						
Girls	16	7	9	3	3	3
Boys	15	2	13	8	1	4
Total	31	9	22	11	4	7
Percentage	..	29%	71%	35·5%	12·9%	22·6%
Psychotic Cases.						
Girls	8	5	3	3	–	–
Boys	11	2	9	7	–	2
Total	19	7	12	10	–	2
Percentage	..	32·8%	63·1%	52·6%	..	10·5%

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Analysis of Table IV.—This table, apart from the high total of children with abnormal personalities both among non-psychotics and psychotics, shows: (1) The "shut-in" type is relatively common among both non-psychotics and psychotics, and particularly in the latter. This was to be expected in those with schizophrenia (7 out of 15 cases of schizophrenia). (2) The number with abnormal personalities is higher amongst boys in both groups, although with such small numbers this cannot be considered significant. (3) Detailed examination—apart from schizophrenia—showed no particular type of personality disorder to be associated with any particular illness.

Intelligence.

The level of intelligence is important, and a low level may add to an adolescent's difficulties in adjusting to what is often a time of new responsibilities. Intelligence higher than the average may also bring its problems, so that deviations from the average may in some cases become an important aetiological factor.

These patients had whenever practicable their level of intelligence measured according to the needs of the case. To judge its significance as an aetiological factor the full case-history is required, but extracts are given where it was considered important.

Cases with low intelligence.

Non-Psychotic Group.

CASE 1.—Female, aged 15. This girl had an I.Q. of 77 per cent. (Stanford-Binet), and her performance at school was only average. On leaving school the jobs she attempted were beyond her, and she repeatedly absented herself. This appeared to contribute materially to her delinquencies and abnormal behaviour.

CASE 15.—Male, aged 14. Many factors contributed to his becoming a behaviour problem, but his I.Q. of 79 per cent. (Stanford-Binet) led to a lack of judgment in managing his affairs.

CASE 22.—Male, aged 14. An I.Q. of 74 per cent. (Mill Hill Vocabulary) fitted in with his timid personality, and contributed to his ill-judged aggressive behaviour that led to his admission.

Psychotic Group.

CASE 43.—Male, aged 15. This boy was mentally defective (I.Q. 56 per cent. Stanford-Binet, but with considerable scatter), and he developed an insidious hebephrenia superimposed upon it.

Cases with high intelligence.

Non-Psychotic Group.

CASE 9.—Female, aged 15½. This girl, with an I.Q. of 111 per cent. (Stanford-Binet), was taken away from school because of poverty, and had to lead a drab and monotonous life. Her vivid phantasy life and wandering away were considered partly due to her intelligence.

CASE 21.—Male, aged 17. This boy had dull and unsatisfying work; his I.Q. of 122 per cent. (Stanford-Binet) helped towards his neurotic illness in that he had no outlet for his adolescent idealism.

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TABLE V.—*Intelligence Level Considered Important as an Aetiological Factor.*

Non-psychotic Cases	Low I.Q.	High I.Q.	Total.
Girls	1	1	2
Boys	2	1	3
Total	3	2	5
Percentage	9·7%	6·4%	16·1%
Psychotic Cases.			
Girls	–	–	–
Boys	1	–	1
Total	1	–	1
Percentage	5·3%	..	5·3%

Analysis of Table V.—These cases showed a wide range of intelligence, and it was considered an important factor in a small number. The differences between non-psychotics and psychotics were not significant.

The Electro-encephalogram.

An electro-encephalogram is of interest in the aetiology and endowment of some cases, and an abnormal result might be expected to be of significance in accounting to some extent for the symptoms and abnormal behaviour shown by them. Such abnormal results were in high proportion where it was done, and were not confined to any particular type of case, except for the high incidence of epileptic activity amongst those with schizophrenia. This was in keeping with the previous work of Gibbs *et al.* (11), Jasper *et al.* (12) and Denis Hill (13).

TABLE VI.—*The Results of Electro-encephalography.*

	Total.	Normal EEG.	Abnormal EEG.	Not done.
Non-psychotic cases	31	6	11	14
Psychotic cases	19	2	10	7

Analysis of Table VI.—The types of abnormality shown were variable, from minor and doubtful abnormalities to those which were grossly abnormal, but it is to be noted that there were very few focal abnormalities or asymmetries, and these latter are the only certain evidence of acquired cortical dysfunction. Caution is necessary in the interpretation of these results; the age range of 14 to 17 is the age of "final maturation" in electro-encephalographic terms, which will decide the "stamp" or individual character. There is much individual variation, and minor degrees of abnormality are difficult to assess, owing to lack of information on the subject. This may account for a number of minor abnormalities amongst the non-psychotic group, although 30 per cent. of abnormalities are expected even amongst adults.

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The Environment of the Patient.

A number of environmental factors of varying importance could also be elicited besides those affecting endowment. These were divided into:

(1) Those emotionally ill adapted to the patient.
(2) Those physically ill adapted to the patient.

Factors Emotionally Ill Adapted to the Patient.

The most important of these factors were those involving the family circle.

The Family Circle.

The magnitude of this influence on the growing child has been stressed many times; it is one of the corner-stones of child psychiatry and of much psychopathological theory. On the other hand, a mentally unstable or physically delicate child is likely to invite the over-protection or perhaps in some cases rejection by the parents. This makes the significance of such happenings difficult to assess, and the position is further complicated by the fact that psychiatric abnormalities in the parents tend to lead to disturbances in their influence on the child as well as being of generic importance. The material has been divided for statistical purposes into the following sections for consideration of the family relationships.

(a) *Disturbances of the maternal attitude.*—This included a number of different emotional disturbances likely to affect the child for ill. They included over-solicitude, rejection, or anxiety, bad temper or nagging by the mother. In practice it was difficult to distinguish between these terms, including such a possibility as over-compensation for rejection. It was therefore decided to group them for statistical purposes, and to leave their finer shades of meaning for the individual cases, where their psycho-pathological significance could be assessed with other factors.

(b) *Lack of maternal influence.*—Evidence for this traumatic happening was confined to clear-cut cases, where the mother had died, was divorced, or lived for long periods apart from the child. Ill-defined instances of neglectful behaviour were not included.

(c) *Disturbances of the paternal attitude.*—These were not so numerous, but they included also such behaviour as indifference, antagonism or actual brutality; violent tempers or over-strict discipline.

(d) *Lack of paternal influence.*—The same reasons applied as in the mother, but in addition there were cases where the father was away for long periods on war service. There were also cases of illegitimacy, where the father was not known or had hardly come into the child's life.

(e) *Evidence of gross spoiling of the child.*—This has been included as a separate aetiological factor, as it has been considered a cause for difficulty in adjustment in adolescence, which clinically is fairly easily established. It implies over-indulgence in material things, and does not necessarily involve

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emotional disturbance on the part of the parents, although in most cases emotional disturbance and over-indulgence went together.

(f) *The only child.*—This was included as a separate factor, as it has been regarded as a cause of difficulty in adolescence. Levy (14) considered it was likely to give rise to a behaviour problem, and Burt (15) cited it as one of the factors leading to delinquency. Other authors have failed to confirm this, and little direct clinical evidence was found in favour of it, although the total of only children was small.

(g) *Disturbances of the sibling relationship.*—This is to be expected in many homes without leading to mental disturbance, and it cannot be separated entirely from the difficulties that would be likely to result from the symptoms or behaviour shown by the patient. The sibling relationship has, however, been emphasized as important, and care was taken to ensure that the disturbed attitude of the other siblings was causal and not an effect.

(h) *Miscellaneous difficulties in the home.*—A number of disturbing and unsettling factors in the home, considered detrimental to the child or adolescent, included the presence of difficult or quarrelsome relatives, remarriage and step-parents, separation of the parents, or the presence of a mistress in the home.

(i) *Long evacuation, change of home, institutional upbringing, etc.*—This was common because of the war, and the ensuing break-up of homes and evacuation almost universal among London children of this age. There were also a number of children who had no settled homes, and who were brought up in institutions or other such disturbing conditions.

The results of all these factors are shown in Table VII.

TABLE VII.—*Factors in the Family Circle Emotionally Ill-adapted to the Patients.*

	Totals.	a Maternal attitude disturbed.	b Maternal influence lacking.	c Paternal attitude disturbed.	d Paternal influence lacking.	e Grossly spoilt by parents.	Only child.	g Sibling relationship disturbed.	h Miscellaneous difficulties in the home.	Long evacuation; change of home; institutional upbringing, etc.
Non-psychotic Cases										
Girls	16	11	3	9	6	4	—	5	8	12
Boys	15	14	2	7	5	6	3	4	5	6
Total	31	25	5	16	11	10	3	9	13	18
Percentage	..	80·6	16·1	51·6	35·5	32·2	9·7	29·0	41·9	58·1
Psychotic Cases.										
Girls	8	4	2	4	4	2	1	3	5	4
Boys	11	7	3	4	4	4	3	1	4	4
Total	19	11	5	8	8	6	4	4	9	8
Percentage	..	57·9	26·3	42·1	42·1	31·6	21·1	21·1	43·4	42·1

Analysis of Table VII.—This shows a particularly high incidence in which the maternal attitude was either disturbed or her influence lacking, including all but one of the boys who developed a non-psychotic illness or showed

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abnormal behaviour. In both sexes it occurred in all but four in the non-psychotic group, and in all but six in the psychotic group. It is difficult to discount the importance of this finding, and to a lesser extent the significance of the other findings as aetiological factors. It is also of interest that the chi-square test showed no significant difference between the non-psychotic and psychotic groups, nor between the sexes.

Psychic Traumata.

Psychic traumata were found at different ages in a number of cases, and they appeared to be of varying importance. It was considered unsound to try to divide them into such kinds as sexual, emotional or physical traumata. A sexual assault may have great emotional significance ; the realization by a patient of illegitimacy on the other hand is an emotional trauma with a strong sexual aspect. In one of the cases a boy was hit on the mouth by another, and the emotional significance of this far outweighed any physical hurt that occurred. There was little to be gained by such division, and the exact significance—balanced with other factors—could only be judged in the individual case.

These traumata occurred at varying times in the patients' lives, from early childhood up to adolescence. There is clinical evidence that events with a sexual significance that occurred in earlier years, although at first of little meaning to the patient, may become greatly enhanced when the sexual urges of puberty come about, and only then become a source of conflict.

The findings in this series are given below, and in those cases marked with an asterisk the trauma appeared to be the main precipitating factor in the subsequent illness :

Non-Psychotic Cases.

CASE 2.—Female, aged 16. She was seduced at the age of ten. Afterwards she began to stimulate herself sexually by means of her breasts, and one of the symptoms of her present illness was her marked sexual phantasy.

*CASE 3.—Female, aged 16. Her mother was killed in an air-raid when the patient was eleven, she being in the house when it was bombed. She was the youngest and favourite child, and it was following this her symptoms began.

*CASE 4.—Female, aged 13. Her grandmother, living in the home, died when she was ten. She had previously attended spiritualist *séances*, and in her present illness she believed her grandmother appeared to her. More important, she had lately gained the knowledge that her mother had associated with another man, and this was a source of much private grief.

CASE 5.—Female, aged 13. This child showed much anxiety, and possible fear over menstruation. It was found, as a possible factor, that she was discovered by boys changing a sanitary pad when camping.

*CASE 6.—Female, aged 16. This girl showed fear of the opposite sex. Her step-brother had seduced her when she was ten, and later she had discovered that her parents were unmarried when she was born. Her mother drank to excess.

CASE 8.—Female, aged 15. Her eldest brother died when she was 13, of bacterial endocarditis, in the house. Her present illness, which included hypochondriacal fears of heart disease, became more marked after this.

CASE 9.—Female, aged 15. This girl was seduced a few months before admission, and the main effect was that she felt she had lost some of her self-respect. She was admitted for truancy, but this had started before seduction.

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CASE 12.—Female, aged 15. This child's mother died suddenly when she was six. She showed no overt disturbance after this. At ten she witnessed childbirth. She became a behaviour problem to which many factors contributed.

*CASE 13.—Female, aged 15. This girl felt disgusted after indulging in sexual play with boys. She was also worried as she had not menstruated. She had become antagonistic to her mother, and the latter was suddenly taken to hospital. Immediately after this her illness began with depression, and it seemed that her "death wishes" against her mother had been fulfilled.

CASE 15.—Male, aged 15. Although a long-standing behaviour problem, he was told at fourteen of his illegitimacy. He then refused to have anything further to do with his mother.

*CASE 17.—Male, aged 16. His present illness with anxiety symptoms immediately followed a punch on the mouth by a bigger boy.

*CASE 23.—Male, aged 17. This boy's father was psychotic, and at about the age of ten he witnessed, over a period, the father's excessive sexual demands of his mother. It was after this he rejected his parents—one of the prominent features of his disturbance.

Psychotic Cases.

CASE 33.—Female, aged 16. Her father died when she was three, and her loyalties were thereafter torn between her mother and grandmother. Her present psychotic illness began some months before she discovered her mother had been pregnant when unmarried. She was greatly upset, and later when staying with her mother her paranoid ideas increased.

CASE 35.—Female, aged 16. She had been exposed to drunken scenes at home in which her father hit her mother. This had no obvious connection with her illness.

CASE 38.—Female, aged 16. Her mother died when she was eight, and this had deeply upset her. She had also been buried in a rocket incident, although unhurt. There was no apparent relationship between her present illness and these events.

CASE 39.—Female, aged 15. Her father treated her mother with much brutality. Her grandmother, to whom she was much attached, died when she was twelve. There was again no apparent relationship between these and her illness.

*CASE 40.—Male, aged 14. His mother met a violent death when he was ten (? suicide), and he was made to kiss her bloodstained face. He became mentally abnormal for some weeks afterwards. His present illness followed a violent quarrel in which the grandparents accused his father of causing his wife's death.

CASE 44.—Male, aged 15. His mother died when he was eleven. Later he discovered his illegitimacy, and this knowledge showed itself in the content of his thoughts in the psychosis that then began.

TABLE VIII.—*Psychic Traumata.*

Non-psychotic Cases.	Total.	Total number of cases with psychic traumata.	Probable precipitating cause for illness.
Girls . .	16 .	10 .	3
Boys . .	15 .	3 .	2
Total . .	31 .	13 .	5
Percentage .	.. .	41·9% .	16·1%
Psychotic Cases.			
Girls . .	8 .	4 .	–
Boys . .	11 .	2 .	2
Total . .	19 .	6 .	2
Percentage .	.. .	31·6% .	10·5%

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Analysis of Table VIII.—Emotional traumata occurred in a fairly high percentage and materially contributed to the aetiology, especially where the present illness followed such an event. There is no significant difference between the two groups nor the sexes. The number of girls was higher than the boys, and this may be partially due to the higher number of sexual incidents in girls.

New or Excessive Demands in Work or School in Adolescence.

In present social circumstances adolescence is a time when excessive demands may be made on the child. Until recently the school-leaving age was 14 for the majority, so that many children are plunged into work and need quickly to re-adjust themselves to a new and wider existence. This is at a time when the physiological and psychological changes of puberty are taking place. Young people not uncommonly have difficulty in settling down to a job, and in some frequent changes of work are noted. It is probable that many have had no chance to learn what work is likely to be suitable, and there is little or no opportunity of guidance perhaps by those qualified to advise them. This problem is inextricably mixed up with other stresses that arise from the circumstances and constitution of the young person; in their consideration it is not easy to isolate this aspect.

For the more fortunate children who do not leave school, there may be "cramming" for a scholarship, or a change to a less sheltered school where older and perhaps rougher children are to be met, or perhaps a boarding-school for those who hitherto lived at home. All such changes test the robustness and adaptability of the young adolescent, and if he or she is unsuitable for the new regime because of personality or intelligence, then stress is likely to be incurred.

These stresses were not uncommonly woven in with other causes, and they appeared to be of varying importance, and in two non-psychotics the main precipitating factor. These two cases are marked with an asterisk. Some of the others have already been described in reference to other factors.

Non-Psychotic Cases.

*Case 1.—Female, aged 15. This girl was duller than the rest of her family, with an I.Q. of 77 per cent. At school she just held her own, but on leaving her parents found her a job with an electrical engineer, which proved beyond her. She became delinquent and began to run away, and through this lost further jobs.

Case 2.—Female, aged 16. Amongst other important factors she had weakness and inco-ordination of the hands and feet. Although of high intelligence, she could not play games at school, found herself at a disadvantage, and her work then began to deteriorate.

Case 8.—Female, aged 15. This girl, of shy and sensitive personality, and with a poor health record, started work at 14 in a shoe factory. She left it as she could not stand the noise. Subsequently as a sales assistant at Woolworth's she was over-conscientious, always scrubbing and cleaning.

*Case 9.—Female, aged 15½. She did well at school, but had to leave at 14 and earn. She could not take the office job advised by the school, and started as a packer for higher wages. She did not settle, and truanting began.

Case 17.—Male, aged 16. This overprotected boy left school at 14 after a normal school record, failed to settle and left his job as it was dirty and monotonous. This was a factor in the development of anxiety symptoms.

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CASE 18.—Male, aged 18. This youth, on his father's insistence, was sent to a technical school at 14 to study structural engineering. Several attempts to leave were discouraged. He developed a " duodenal ulcer " and stayed at home for nine months. Further jobs were unsatisfactory. Many other factors with this contributed to an anxiety state.

CASE 19.—Male, aged 17. On leaving a village school at 14 he cycled daily a long distance to work which he disliked, and further stress was added by study and evening classes. His illness consisted of compulsive tics.

CASE 21.—Male, aged 17. This difficult and unstable boy much disliked his work as an audit clerk for its monotony, although he gave satisfaction. His lack of outlet for his adolescent idealism was considered an important factor in his breakdown.

Psychotic Cases.

CASE 41.—Male, aged 14. An Indian boy of " shut-in " personality, he was educationally backward and bullied at school (I.Q. 101 per cent.) From eleven to thirteen he had private tuition, and on return to school he was even further behind. Soon after this he developed schizophrenia.

TABLE IX.—*New or Excessive Demands in Work or School.*

Non-psychotic Cases.	Total.	Evidence of stress caused thereby.	Considered the precipitating factor.
Girls . .	16	4	2
Boys . .	15	4	–
Total . .	31	8	2
Percentage .	..	25·5%	6·4%
Psychotic Cases.			
Girls . .	8	–	–
Boys . .	11	1	–
Total . .	19	1	–
Percentage .	..	5·3%	..

Analysis of Table IX.—These results are appreciable, but are not considered of any statistical significance as between the non-psychotic and psychotic groups, nor between the sexes.

FACTORS PHYSICALLY ILL-ADAPTED TO THE PATIENT.

Physical factors harmful to the child's growth and upbringing, which could exert a baneful influence on physiological and psychological development in adolescence, would be important. Evidence sought included malnutrition, poverty, and an overcrowded house or bad neighbourhood. Malnutrition either in the past or present was not evident in a single case, although in Case 5 there had been a possible history of underfeeding when evacuated. This absence of malnutrition was probably due to the better financial and nutritional state of the poorer sections of the community in the last few years.

Poverty was evident in several cases, and overcrowded, neglected or bleak homes were inevitably not uncommon under recent conditions. A drab, slum neighbourhood was found with some London children. Such were termed physically ill-adapted because of the effects they could have on bodily well-

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being. However, although noted in several, there was no positive evidence of physical harm. Emotional ill-effects were apparent in two cases, so that in practice they cannot be separated from the aetiological factors of emotional importance.

The two cases were as follows:

CASE 9.—Female, aged 15½. This girl, of good intelligence (I.Q. 110 per cent.), living in a poor home, drab neighbourhood and with a dull job, had no outlet for her intellectual and emotional desires.

CASE 21.—Male, aged 17. A similar case (I.Q. 122 per cent.), who was very aware of his poor surroundings, dull job and lack of outlets.

In both there were other factors, but they had come to need better conditions, perhaps because of their high intelligence level, and were frustrated. Others in equally bad surroundings showed no emotional disturbance.

TABLE X.—*Factors Physically Ill-adapted to the Patient.*

	Total.	Malnutrition.	Poverty.	Poor overcrowded homes or neighbourhood.
Non-psychotic Cases.				
Girls	16	–	2	3
Boys	15	–	–	2
Total	31	–	2	5
Percentage	..	..	6·4%	16·1%
Psychotic Cases.				
Girls	8	–	2	2
Boys	11	-	–	–
Total	19	–	2	2
Percentage	..	..	10·5%	10·5%

Analysis of Table X.—This includes the two cases where there was evidence of emotional disturbance. There is no significant difference between the non-psychotic and psychotic groups, nor between the sexes.

Summary of the Aetiological Factors.

The survey of aetiological factors covers a wide field. Isolation of each has in turn been an artificial process, and apt to give undue emphasis to one aspect or another. To present them as an inter-related whole, all having an influence in the production of the mental illness or abnormal behaviour in these adolescents, they are shown in a collective table.

These figures cannot be compared with a normal control group, but the application of the chi-square test shows no significant differences within the group, either between the non-psychotic and psychotic groups, or between the sexes. This may be due to the small total of cases. The whole group has a heterogeneous background, in which a number of influences have helped to bring about a breakdown in adolescence. They have never appeared alone,

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TABLE XI.—*Aetiological Factors.*

	Totals.	Endowment. Family history. Psychosis, epilepsy, etc., in near relatives.	Endowment. Family history. Neurosis, etc., in near relations.	Endowment. Factors in patient. Enceph.; head injury; meningitis.	Endowment. Factors in patient. Other diseases of C.N.S.	Endowment. Factors in patient. Severe physical disease.	Endowment. Factors in patient. Abnormal personality.	Endowment. Factors in patient. Intelligence level important.	Environment. Factors emotionally ill-adapted. Mat. att. disturbed.	Environment. Factors emotionally ill-adapted. Mat. int. lacking.	Environment. Factors emotionally ill-adapted. Pat. att. disturbed.	Environment. Factors emotionally ill-adapted. Pat. int. lacking.	Environment. Factors emotionally ill-adapted. Spoilt by parents.	Environment. Factors emotionally ill-adapted. Only child.	Environment. Factors emotionally ill-adapted. Sibling relat. disturbed.	Environment. Factors emotionally ill-adapted. Miscellaneous difficulties at home.	Environment. Factors emotionally ill-adapted. Long evacuation; changes at home, etc.	Environment. Factors emotionally ill-adapted. Psychic traumata.	Environment. Factors emotionally ill-adapted. New or excess demands in work, school.	Environment. Physically. Poverty.	Environment. Physically. Bad home or neighbourhood.
Non-psychotic cases .	31	15	18	5	1	6	22	5	25	5	16	11	10	3	9	13	18	13	8	2	5
Percentage . .	..	48·4	58·1	16·1	3·2	19·3	70·9	16·1	80·6	16·1	51·6	35·5	32·2	9·7	29·0	41·9	58·1	41·9	25·5	6·4	16·1
Psychotic cases .	19	10	13	1	1	—	12	1	11	5	8	8	6	4	4	9	8	6	1	2	2
Percentage . .	..	52·6	68·4	5·3	5·3	..	63·1	5·3	57·9	26·3	42·1	42·1	31·6	21·0	21·0	47·4	42·1	31·6	5·3	10·5	10·5
Total number of cases	50	25	31	6	2	6	34	6	36	10	24	19	16	7	13	22	26	19	9	4	7
Percentage . .	..	50·0	62·0	12·0	4·0	12·0	68·6	12·0	72·0	20·0	48·0	38·0	32·0	14·0	26·0	44·0	52·0	38·0	18·0	8·0	14·0

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although some stand out in frequency, notably the maternal and paternal relationship with the child, and the abnormalities of previous personality. Various factors have on clinical grounds been regarded as precipitating the present illness. However, the chief feature is the diverse nature of the aetiology apart from adolescence itself.

SYMPTOMATOLOGY.

The symptoms complained of by these patients were diverse. They are not a selected group except for their ages, and they show a wide range of problems and illnesses, so that this was expected.

Young children suffering from emotional disturbances show certain patterns or groups of symptoms which are characteristic of childhood. They tend to cover a definite if limited range, and are repeatedly seen whatever the disturbing factors. They comprise functional disturbances of various systems; more definite psycho-neurotic traits; disturbances in relationship with family, environment or conduct, and so on. They are relatively facile compared with the symptoms shown by adults, quickly arise as a reaction to environmental difficulties, and with increasing emotional disturbance tend to increase and spread until perhaps a "total reaction" occurs. With appropriate treatment they may disappear as quickly, contrary to those of adulthood. In older children more definite neurotic syndromes appear until about puberty, when they are more adult than childish in pattern, although often still retaining their more facile quality.

Adults with psychiatric problems, including the psychoses, commonly reveal neurotic traits in childhood. Their confirmation is not easy, and it is not possible to correlate one with the other. Many stable adults probably had such traits or *vice versa*, although if present they pointed to the presence of emotional disturbance at that time.

Adolescents allow a clearer picture to be seen, as relatives are reasonably reliable witnesses of such symptoms. In adolescent mental breakdown or abnormal behaviour they can still be recalled and examined in relation to this new development. These cases often had such symptoms, and they are important in clarifying and broadening the picture of the development of mental illness at this time. It is possible that they may be related in many cases, and that an unstable childhood may well lead into an unstable adolescence. The individual case-histories show best their relationship, and it is to some extent artificial to examine them apart from this setting. Nevertheless, such symptoms can be grouped without undue difficulty, to allow clarity of presentation and statistical analysis; and this includes the age of the patient at the onset of the present illness, the nature of the onset, and the relationship of the patient's age to that of physiological puberty. Adolescent disorders cannot be isolated from these, or from their previous symptoms. A clear picture can only be seen in relationship with the whole life-setting.

The psychoses and organic mental conditions, contrary to the functional disturbances, imply a new and more ominous range of symptoms at any age, more permanent and less tractable in quality. These cases included a small

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number with organic disease of the central nervous system dating back into childhood of important aetiological significance. Such organic symptoms cannot well be separated from those of emotional significance; but in these cases they occurred only at the beginning of or during the present illness. Similarly, psychotic patients, with one exception, all developed their illness at or after puberty. In some non-psychotic cases the onset of the present illness could not clearly be separated from the disturbances of the past. In a few the present illness was almost lifelong, with a gradual and continuous evolution up to adolescence. In cases of doubt as to the onset, it was in fact always prior to puberty. These relationships are shown in Table XII, and for this purpose the following items are used:

1. The age of admission to hospital.
2. The age of menarche in girls.
3. The approximate age at which the present illness or abnormal behaviour is believed to have begun.
4. The presence of physical immaturity in relation to age.
5. The presence of emotional immaturity in relation to age.
6. The presence of symptoms of emotional disturbance dating back into childhood prior to the present illness.
7. The type of onset of the present illness: Sudden (S), Quick (Q), Gradual (G), "Lifelong" (L).

TABLE XII.—*Details of the Onset of the Present Mental Breakdown or Abnormal Behaviour in Relationship to the Age of the Patient, Physiological Puberty, and the Past History.*

	Case No.	Sex.	Age in years on admission to hospital.	Age in years of menarche in girls.	Age in years at onset of present illness.	Evidence of physical immaturity.	Evidence of emotional immaturity.	Evidence of emotional disturbance prior to the present illness.	Type of onset: S. = Sudden. Q. = Quick. G. = Gradual. L. = Lifelong.
Non-psychotic	1	F.	15	13	14	..	..	+	G.
Group:	2	F.	16	+	14	..	..	+	G.
Psycho-neurotic	3	F.	16	12	11	..	..	−	G.
Cases.	4	F.	13	12	12½	..	..	−	G.
	5	F.	13½	13	12	..	..	+	G.
	6	F.	16	12	15	..	+	−	S.
	7	F.	15	+	10	..	..	−	G.
	8	F.	15	+	12	..	..	+	G.
	9	F.	15½	13	15	..	..	+	G.
	10	F.	17	15	B.P.	+	+	+	G.
	11	F.	17	+	14	..	..	+	G.
	12	F.	15	13	<11	..	..	+	G.
	13	F.	15	15	15	+	+	+	S.

B.P. = Before puberty.

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TABLE XII—(*continued*).

	Case No.	Sex.	Age in years on admission to hospital.	Age in years of menarche in girls.	Age in years at onset of present illness.	Evidence of physical immaturity.	Evidence of emotional immaturity.	Evidence of emotional disturbance prior to the present illness.	Type of onset: S. = Sudden. Q. = Quick. G. = Gradual. L. = Lifelong.
Non-psychotic Group.	14	F.	13½	12½	<11	..	+	+	G.
	15	M.	14	—	11	..	..	+	G.
	16	M.	14	—	12	..	..	+	S.
	17	M.	16	—	15	..	+	+	S.
	18	M.	18	—	14	..	..	+	G.
	19	M.	17	—	10	..	..	+	G.
	20	M.	17	—	15	+	+	+	G.
	21	M.	17	—	14	..	..	+	G.
	22	M.	14	—	B.P.	+	+	+	G.
	23	M.	17	—	10	..	+	+	G.
	24	M.	16	—	12	+	..	+	G.
Cases with severe personality disorder, or sequelae of organic disease of C.N.S.	25	F.	16	13	9	..	..	−	G.
	26	F.	17	+	B.P.	..	..	−	G.
	27	M.	17	—	16½	..	..	+	Q.
	28	M.	14	—	<5	+	..	+	L.
	29	M.	17	—	<5	+	..	−	L.
	30	M.	15	—	<5	..	..	−	L.
	31	M.	17	—	10	..	..	+	G.
Psychotic Group.	32	F.	15	14	15	..	..	+	S.
	33	F.	16	14	15	..	..	+	Q.
	34	F.	15	13½	13½	..	..	+	S.
	35	F.	16	13½	15½	..	..	+	S.
	36	F.	16	15¼	15¾	..	..	+	Q.
	37	F.	15	14	15	..	..	+	S.
	38	F.	16	14	15½	..	+	+	G.
	39	F.	15	13½	14	..	..	+	Q.
	40	M.	14	—	14	+	..	+	Q.
	41	M.	14	—	14	..	..	+	S.
	42	M.	17	—	17	..	..	+	S.
	43	M.	15	—	14½	..	..	+	G.
	44	M.	15	—	14½	..	..	+	S.
	45	M.	16	—	16	..	..	+	S.
	46	M.	14	—	B.P.	..	..	+	G.
	47	M.	18	—	14	..	..	+	G.
	48	M.	16	—	15¼	..	..	+	G.
	49	M.	17	—	8	+	..	—	G.
	50	M.	15	—	14½	..	..	+	G.

B.P. = Before puberty.

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Analysis of Table XII.—This shows the relationship of the present illness to puberty, and the presence, if any, of emotional disturbances in the past for each individual case. It also shows those cases with physical or emotional immaturity. For the purpose of analysis it is necessary to group them further in Table XIII.

TABLE XIII.—*The Onset of the Present Mental Breakdown or Abnormal Behaviour in Relationship to Puberty and Previous Emotional Disturbance.*

Non-psychotic Group. Psycho-neurotic Cases.	Total.	Onset of illness before puberty.	Onset of illness after puberty.	Evidence of emotional disturbance before present illness.	Incidence of types of onset.
Girls	14	7	7	10	11G., 1Q., 2S.
Boys	10	6	4	10	8G., — 2S.
Total	24	13	11	20	19G., 1Q., 4S.
Percentage	..	54·2%	45·8%	83·3%	..
Severe personality disorders, or sequelae of organic disease of C.N.S.					
Girls	2	2	–	–	2G.
Boys	5	4	1	–	3L., 1G., 1Q.
Total	7	6	1	3	3L., 3G., 1Q.
Percentage	..	85·7%	14·3%	43%	..
Psychotic Group.					
Girls	8	–	8	8	1G., 3Q., 4S.
Boys	11	2	9	10	6G., 1Q., 4S.
Total	19	2	17	18	7G., 4Q., 8S.
Percentage	..	10·5%	89·5%	94·7%	..

L. = Lifelong. G. = Gradual. Q. = Quick. S. = Sudden.

Further Analysis of Tables XII and XIII.

1. All cases reached physiological puberty about the normal time except for the few boys who were physically immature, but who were evenly distributed throughout the series and not confined to any one group. Physically, such boys were at various stages of puberty.

2. Psycho-neuroses began before physiological puberty in 54·2 per cent., and after puberty in 45·8 per cent. In those with severe personality disorders or the sequelae of organic disease of the central nervous system, such illnesses began in 85·7 per cent. before puberty, and in only 14·3 per cent. afterwards. In contrast psychoses began before puberty in only 10·5 per cent., and after puberty in 89·5 per cent.

3. The onset was more frequently gradual in psycho-neuroses, often of very long standing in severe personality disorders, but more often of quick onset in psychoses.

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The relationship of the onset of mental disturbance to puberty is of interest, and the chi-square test confirms a significant difference between the non-psychotic group, counting the psychoneuroses and personality disorders together, and the psychotic group. There is no significant difference between the sexes. This indicates that although neurotic illness often starts after physiological puberty, it is more likely to start before this epoch; psychotic illness, on the other hand, is far more likely to begin after puberty. (These aspects will be further discussed in the next section.)

4. The findings in regard to symptoms of emotional disturbance prior to the onset of the present illness appear to be significant. In the psycho-neurotic group they were found in 83·3 per cent.—only 4 out of 24 cases were free from such symptoms in varying degree prior to their illness. In those with severe personality disorders they occurred in 43 per cent., but all of this group were of very long standing, and those who were not of long standing all showed these symptoms. In psychotic cases they occurred in 94·7 per cent.

In all three groups these results form a high percentage, and although they cannot be compared with normal controls, they are of probable importance in relation to the onset of mental breakdown or abnormal behaviour showing in adolescence of whatever kind. The chi-square test confirms there is no significant difference between the non-psychotic and psychotic groups, nor between the sexes. Thus mental breakdown or abnormal behaviour in adolescence is likely to be preceded by symptoms of instability in childhood, and adolescence cannot be isolated with validity from those earlier years, either in the aetiological or symptomatological senses.

In view of this evidence of a high incidence of symptoms of emotional disturbances in the past, it was decided to consider the relationship between them and the symptoms of the present illness, and for this purpose they were placed in six groups. Some overlapping occurred, but as this applied equally to the emotional disturbances of childhood and to the illness showing in adolescence, it did not invalidate the findings.

These symptoms are listed in their groups, and will be followed by their tabulated incidence in the past history, and in the present mental breakdown or abnormal behaviour. They include both functional and organic symptoms.

List of Symptoms shown by these Patients.

(1) *Disorders of Function.*

(*a*) Disturbances of consciousness: Faints, epileptic fits, and hysterical disturbances of consciousness, including fugue states.

(*b*) Disturbances of the motor system: Hyperactivity, restlessness, fidgetiness, tics and choreiform movements. Also, on the other hand, motor retardation and slowness.

(*c*) Disturbances of appetite: Over-eating, lack of appetite, or faddiness.

(*d*) Disturbances of alimentation: Constipation or diarrhoea.

(*e*) Disturbances of micturition: Increased frequency without physical cause, enuresis.

(*f*) Disturbances of sleep: Difficulty in sleeping, or oversleeping.

(*g*) Gratification habits: Thumb-sucking or "rocking."

(*h*) Tension habits: Nail-biting, nail-picking.

(*i*) Assertive or aggressive habits: Temper tantrums, stubbornness, quick temper, breath-holding attacks, roughness, spitefulness.

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(2) *Psychoneurotic Traits.*

(*a*) Anxiety: Expressed as fear, fright or nervousness, various phobias; the somatic symptoms thereof—dizziness, palpitations, choking, tenseness, agitation.

(*b*) Obsessional traits: Excessive guilt, troublesome conscience, over-conscientiousness, excessive cleaning or scrubbing. In the present illness there were various more definite obsessional symptoms.

(*c*) Hysterical traits: Symptoms or behaviour which were deemed purposeful in character.

(*d*) Hypochondriacal traits: Complaints and interest in physical disease in the absence of evidence for it.

(3) *Marked Emotional Attitudes.*

(*a*) Timid, shy, solitary attitudes. These were symptomatic as used here, but they have also been considered under personality.

(*b*) Aggressive or assertive attitudes, e.g. boisterousness.

(4) *Disturbed Family and Social Relationships.*

(*a*) Towards the mother.	Aggressiveness, disobedience, unaffectionate behaviour, rejection, contemptuousness, demanding and domineering behaviour. On the other hand, overdependence, fear.
(*b*) ,, ,, father.	
(*c*) ,, ,, siblings.	
(*d*) Towards the school.	Disobedience, aggressiveness, troublesomeness, truanting or delinquency. On the other hand, unhappiness, timidity, avoidance.
(*e*) ,, work.	
(*f*) ,, society.	

(5) *Conduct Disorders.*

(*a*) Lying.
(*b*) Truanting or running away.
(*c*) Stealing.
(*d*) Disobedience or out of control.
(*e*) Destructiveness.
(*f*) Arson.
(*g*) Excessive or perverted sexuality.

(6) *Miscellaneous Symptoms.*

A heterogeneous group, often more serious and less often functional in character, and seldom seen before the present illness began. They include symptoms of interest to the adolescent period, e.g. excessive phantasy or hypnagogic sensations. The main psychotic symptoms are grouped together, as they were too numerous to separate:

(*a*) Depression: reactive to adequate stimuli or psychotic in character.
(*b*) Elation or excitement: always serious in character.
(*c*) Suicide: attempted or planned.
(*d*) Depersonalization or unreality feelings.
(*e*) Day-dreaming or excessive phantasy.
(*f*) Hypnagogic sensations.
(*g*) Ideas of reference.
(*h*) Miscellaneous psychotic symptoms.

In Table XIV these symptoms have been divided into the non-psychotic and psychotic groups, and in both they are shown before and then during the present illness. The dates of onset of the illness were given in each case in Table XII.

Analysis of Table XIV.—A wide range of symptoms occurred in these cases in childhood, including disorders of function, psychoneurotic traits, "emotional attitudes," and disturbances of family and social relationships. Conduct disorders and those in the miscellaneous group are rare. They occur with

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equal frequency in both the non-psychotic and psychotic groups, and the chi-square test shows no significant difference between them.

In disorders of function there is a significant difference between the sexes in both groups. This is confirmed by the chi-square test, and they are thus more common in boys than girls.

With the onset of the present illness these symptoms become more common in the non-psychotic group, and also "spread" to show conduct disorders. In the psychotic group they are replaced by the more ominous psychotic symptoms. In view of the different nature of the illness in the two groups they cannot be compared statistically, but between the sexes there is again a significant predominance of disorders of function amongst boys in non-psychotic cases.

Adolescence as a Factor in Abnormal Behaviour or Mental Breakdown and the Assessment of its Importance.

The study of physiological and psychological development reveals that emotional disturbances of varying severity may ensue in adolescence, although it is not clear how often they occur. As these cases were chosen for their temporal relationship to adolescence, such disturbances were to be expected whatever the nature of the illness from which they were suffering, or the many other independent factors that led up to it.

The intrinsic influences of development in adolescence are obscure at present, and there is no further means of assessing them than by clinical examination of the patient. It is highly probable that in many cases they are important, as shown by the rise in incidence of serious mental disorder at the age of sexual maturity.

Amongst these cases the date of menarche was known in most of the girls, and their degree of sexual maturity could be gauged from this. In boys the establishment of the date of puberty is uncertain. Some boys and girls, scattered throughout the series, were noted to be physically immature in relation to chronological age, although no obvious relationship to the illness from the physical point of view could be established from this. Emotional difficulties did, however, sometimes arise therefrom, and were detectable in such instances. Again, emotional immaturity was noted in some cases, mostly psycho-neurotics, and although not always coincident with physical immaturity, it seemed likely that the influence of physical development was closely bound up with it.

Tables XII and XIII on pages 612 and 614 showed the cases in which physical or emotional immaturity were noted, and they gave the ages at which the present illness began in its relationship to menarche in girls. Such needs to be examined in each individual, although in boys it must be in relation to the expected age of puberty. Thus the connection between physical maturity and the mental breakdown or abnormal behaviour can be determined, although it needs to be remembered that the prepubertal physical changes have started two or three years before. It is only below the age of 11 perhaps that this important intrinsic factor can be ruled out of the aetiology, and even in an illness beginning before this age it will in due course come to play its part.

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TABLE XIV.—*Table of Symptomatology.*

		Disorders of function.									Psychoneurotic traits.				Marked emotional attitude.		Disturbances of family and social relationships.					
		Disturbance of consciousness. 1	Disturbance of motor system. 2	Disturbance of appetite. 3	Disturbance of alimentation. 4	Disturbance of micturition. 5	Disturbance of sleep. 6	Gratif. habits. 7	Tension habits. 8	Ass. aggr. habits. 9	Anxiety. 10	Obsessional. 11	Hysterical. 12	Hypochondriacal. 13	Timid, shy, etc. 14	Aggr., etc. 15	To mother. 16	To father. 17	To siblings. 18	To school. 19	To work. 20	To society. 21
Non-psychotic Group (Total, 31 cases).																						
Symptoms before present illness.																						
Girls	16	–	–	–	–	–	–	1	2	5	4	1	2	1	4	4	8	2	3	4	2	1
Boys	15	–	3	5	–	5	3	–	6	2	6	4	1	1	6	1	8	2	4	7	3	–
Total	31	–	3	5	–	5	3	1	8	7	10	5	3	2	10	5	16	4	7	11	5	1
Percentage	..	..	9·7	16·1	..	16·1	9·7	3·2	25·8	22·6	32·3	16·1	9·7	6·4	32·3	16·1	51·6	12·9	22·6	35·5	16·1	3·2
Symptoms of present illness.																						
Girls	16	3	1	1	–	–	2	–	1	3	8	2	6	2	1	6	12	7	9	6	8	2
Boys	15	–	6	4	–	1	3	–	1	4	8	4	2	2	2	6	8	3	4	4	10	5
Total	31	3	7	5	–	1	5	–	2	7	16	6	8	4	3	12	21	10	13	10	18	7
Percentage	..	9·7	22·6	16·1	..	3·2	16·1	..	6·4	22·6	51·6	19·3	25·8	19·9	9·7	38·7	67·7	32·3	41·9	32·3	58·1	22·6
Psychotic Group (Total, 19 cases).																						
Symptoms before present illness.																						
Girls	8	–	–	–	–	2	1	–	–	1	2	–	–	–	2	–	4	2	2	2	1	–
Boys	11	–	1	–	–	1	1	1	1	2	3	–	–	–	7	1	2	1	1	3	–	1
Total	19	–	1	–	–	3	2	1	1	3	5	–	–	–	9	1	6	3	3	5	1	1
Percentage	..	..	5·3	..	..	15·8	10·5	5·3	5·3	15·8	26·3	..	..	..	47·4	5·3	31·6	15·8	15·8	26·3	5·3	5·3
Symptoms of present illness.																						
Girls	8	–	–	–	–	–	–	–	–	1	5	–	–	1	–	1	2	2	1	1	4	3
Boys	11	1	3	2	–	1	5	–	–	5	4	3	–	–	2	1	3	3	–	4	3	1
Total	19	1	3	2	–	1	5	–	–	6	9	3	–	1	2	2	5	5	1	5	7	4
Percentage	..	5·3	15·8	10·5	..	5·3	26·3	..	..	31·6	47·4	15·8	..	5·3	10·5	10·5	26·3	26·3	5·3	26·3	36·8	21·0

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TABLE XIV (*continued*).

		Conduct disorders.							Miscellaneous symptoms.							
		Lying.	Truanting.	Stealing.	Disobedience.	Destruction.	Arson.	Excess or perverted sex.	Depression.	Elation or excitement.	Suicide att. planned.	Depersonalization.'	Exc. phantasy.	Hypnagog. sensation.	Ideas of reference.	Miscellaneous psychotic symptoms.
		22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Non-psychotic Group (Total, 31 cases).																
Symptoms before present illness.																
Girls	16	1	1	1	1	–	–	–	–	–	–	–	–	–	–	–
Boys	15	1	1	–	–	–	–	–	–	–	–	–	1	–	–	–
Total	31	2	2	1	1	–	–	–	–	–	–	–	1	–	–	–
Percentage	..	6·4	6·4	3·2	3·2	..	..	..	..	..	..	..	3·2	..	..	..
Symptoms of present illness.																
Girls	16	4	4	4	6	–	–	7	6	1	2	–	3	2	2	–
Boys	15	2	4	3	3	1	1	4	8	1	3	2	2	1	4	–
Total	31	6	8	7	9	1	1	11	14	2	5	2	5	3	6	–
Percentage	..	19·3	25·8	22·6	29·0	3·2	3·2	35·5	45·2	6·4	16·1	6·4	16·1	9·7	19·3	..
Psychotic Group (Total, 19 cases).																
Symptoms before present illness.																
Girls	8	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Boys	11	–	–	–	–	–	–	1	1	–	–	1	1	1	–	–
Total	19	–	–	–	–	–	–	1	1	–	–	2	1	1	–	–
Percentage	..	..	..	..	..	..	..	5·3	5·3	..	..	10·5	5·3	5·3	..	..
Symptoms of present illness.																
Girls	8	–	–	–	1	–	–	–	3	3	2	1	–	1	5	8
Boys	11	–	4	2	–	2	–	1	6	5	–	–	1	1	6	11
Total	19	–	4	2	1	2	–	1	9	8	2	1	1	2	11	19
Percentage	..	..	21·0	10·5	5·3	10·5	..	5·3	47·4	42·1	10·5	5·3	5·3	10·5	57·9	100

It was seen that in psychoneurotic cases the present illness began before physiological puberty in 54·2 per cent., and after puberty in 45·8 per cent. Even so, in the majority of those occurring before puberty it began in what were the prepubertal years. Thus it is probable that adolescence must be counted an aetiological factor of definite if varying importance in a high proportion of this group.

In the smaller number of cases with severe personality disorders or the sequelae of organic disease of the central nervous system, the present illness began before puberty in 85·7 per cent. of cases and after puberty in only 14·3 per cent. Most of such illnesses dated from early childhood, and in these cases adolescence could not play a part until the later stages when adolescence supervened.

Amongst psychotic patients, on the other hand, the illness began before puberty in only 10·5 per cent., whereas it started in 89·5 per cent. after puberty. Thus it seems that physical maturity was an important factor in this group.

Apart from the effects that the changes of adolescence have on the illness in the aetiological sense, adolescent traits were expected to colour the illness at this age. Van der Horst has suggested that adolescent disturbances may have a special nature (4), and there is a body of literature describing the behaviour said to be characteristic of adolescence. It is therefore necessary to look for such traits, to assess how far they colour the symptoms, although how far such traits are normal or abnormal is not clear.

To do this it is necessary to isolate them—inevitably an artificial process—and they must lose some significance, as they are closely interwoven with the other symptoms. However, the following adolescent traits could be picked out mostly in non-psychotic cases:

(*a*) The onset or an increase of disturbance in relation to the parents or their substitutes (refs. 1, 16, 17, 18). This was expressed as aggression, indifference, rejection or, on the other hand, an increase in overdependence.

(*b*) The onset or an increase of disturbance in relation to the siblings (1, 16, 17, 18). This was always expressed as aggression.

(*c*) Evidence of increased independence, as shown in truancy, running away or being "out of control" (1, 16).

(*d*) Sexuality marked enough to be notable (1, 18, 19, 20). This was expressed overtly or in excessive phantasy, and included heterosexual behaviour, perversions or well-marked masturbation. On the other hand, fear or prudishness were noted.

(*e*) Homosexual interests or behaviour shown (18, 19, 20).

(*f*) Excessive anxiety over menstruation (18).

(*g*) Neglect of personal hygiene or appearance (18).

(*h*) Increased self-consciousness or introspection (1, 21).

(*i*) Excessive idealism, intellectualism, religious interests or phantasy (1, 22).

Each case was examined for their presence and their incidence determined where ascertainable, as shown in Table XV.

Analysis of Table XV.—These traits occurred with some frequency in all but three of the non-psychotic cases, although they varied from case to case

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in frequency and in their degree. There was no significant difference between psycho-neurotics and those with severe personality disorders or the sequelae of organic disease of the central nervous system. There was also no significant difference between the sexes.

In the psychotic group they were much less in evidence, although some cases showed a sexual colouring or preoccupation. Those present usually occurred before the psychotic symptoms became severe, when they became hidden or replaced by the profound changes in behaviour that occurred. No conclusion could be drawn between the non-psychotic and psychotic groups in view of the differences in their illnesses, but the comparative lack of such traits in the latter was to be expected.

TABLE XV.—*Adolescent Traits shown by these Patients.*

	Case No.	Sex.	Onset or increase of disturbance to parents.	Onset or increase of disturbance to siblings.	Increased independence or overdependence.	Overt or phantasied sexuality or fear thereof.	Homosexuality shown.	Excessive anxiety over menstruation.	Neglect of personal hygiene or appearance.	Increased self-consciousness and introspection.	Excessive idealism, etc.
Non-psychotic Group.											
Psycho-neurotic	1	F.	+	..	+	..	..	..	+	..	..
cases	2	F.	..	..	..	+	..	..	+	..	+
	3	F.	+	..	+	..	..	..	..	..	..
	4	F.	+	..	..	..	..	..	..	..	..
	5	F.	..	..	..	..	..	+	..	..	..
	6	F.	..	..	..	+	..	..	..	..	..
	7	F.	..	..	..	..	..	..	..	..	..
	8	F.	+	+	..	+	..	..	..	..	..
	9	F.	..	+	+	+	+	..	..	..	+
	10	F.	..	..	..	+	+	..	..	..	..
	11	F.	+	+	+	+	+	..	..	..	..
	12	F.	+	+	+	..	..	..	+	..	+
	13	F.	+	..	..	+	+	+	..	..	..
	14	F.	+	..	+	..	..	..	..	..	..
	15	M.	+	..	+	+	+	..	..	..	+
	16	M.	+	..	..	+	..	..	..	..	+
	17	M.	+	..	..	..	..	..	+	..	..
	18	M.	+	..	..	..	..	..	..	+	..
	19	M.	..	..	..	..	..	..	..	..	..
	20	M.	+	..	+	..	..	..	..	..	+
	21	M.	..	..	..	+	..	..	..	..	+
	22	M.	+	+	..	..	..	..	..	..	..
	23	M.	+	..	..	+	..	..	..	..	+
	24	M.	+	+	..	+	..	..	..	..	..
Total cases . .	24	..	16	6	8	12	5	2F.	4	1	8
Percentage . .	..	..	66·7	25	33·3	50·0	20·8		16·7	4·2	33·3
Non-psychotic Group.											
Severe personality	25	F.	..	..	+	+	..	..	..	..	..
disorders, etc.	26	F.	..	..	+	+	+	..	..	..	+
	27	M.	+	+	..	..	..	..	..	..	..
	28	M.	..	..	..	..	..	..	..	..	..
	29	M.	..	..	..	+	..	..	..	..	..
	30	M.	+	..	+	..	..	..	..	..	..
	31	M.	+	..	..	..	..	..	..	..	..
Total cases . .	7	..	3	1	3	3	1	..	..	..	1
Percentage .	..	..	42·9	42·9	13·9	42·9	13·9	..	..	..	13·9

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TABLE XV—(*continued*).

Psychotic Group.	Case No.	Sex.	Onset or increase of disturbance to parents.	Onset or increase of disturbance to siblings.	Increased independence or overdependence.	Overt or phantasied sexuality or fear thereof.	Homosexuality shown.	Excessive anxiety over menstruation.	Neglect of personal hygiene or appearance.	Increased self-consciousness and introspection.	Excessive idealism, etc.
	32	F.	..	..	..	..	..	..	..	..	..
	33	F.	..	..	..	+	..	..	..	+	..
	34	F.	..	..	..	..	..	..	..	..	..
	35	F.	..	..	..	..	..	..	..	..	..
	36	F.	..	..	..	..	..	..	..	..	..
	37	F.	..	..	..	..	..	..	..	..	..
	38	F.	..	..	..	+	..	..	..	..	+
	39	F.	..	+	..	..	..	+	..	+	..
	40	M.	+	..	..	..	..	..	..	..	..
	41	..	..	..	..	..	..	..	..	..	..
	42	M.	..	..	..	..	..	..	..	..	..
	43	M.	..	..	..	..	..	..	..	..	..
	44	M.	..	..	..	+	..	..	..	..	..
	45	M.	..	..	..	..	..	..	..	..	..
	46	M.	+	..	..	+	+	..	..	..	..
	47	M.	..	..	..	+	..	..	..	..	..
	48	M.	..	..	..	..	..	..	..	..	..
	49	M.	+	..	..	+	..	..	..	..	..
	50	M.	..	..	..	..	..	..	..	..	..
Total cases . .	19	..	3	1	..	6	1	1 F.	..	2	1
Percentage . .	..	..	15·8	5·3	..	31·6	5·3	..	..	10·5	5·3

It is to be noted that in non-psychotic cases an onset or increase of disturbances in relation to the parents and sexuality were the most common traits to be observed.

DISCUSSION OF THE RESULTS.

These patients have been examined in detail in regard to aetiology, for the symptoms that they showed both in childhood and in their present illness, and for the part played by adolescence in the aetiological and symptomatological senses. It now remains to bring them together to form a co-ordinated whole, and to attempt to balance their relative importance.

It was found in the aetiology of these cases, of both sexes and with non-psychotic or psychotic illnesses, there lay in nearly every instance a number of varying factors of constitutional and environmental importance. It was not possible to isolate any as of exclusive importance, although some were likely precipitants of the illness; but some aspects, such as disturbance or the lack of maternal influence, and the number with abnormalities in the previous personality, were very frequent. These equally applied to all types of cases, and statistical analysis confirmed the heterogeneous nature of the factors in the background. Their frequency and importance confirmed the views expressed by Finesinger (2) that the troubles of adolescence had their origin in the previous stage of development, and that they could not be considered separately from what had happened in earlier childhood.

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The most striking finding of the symptomatology was the high incidence of emotional disturbance in varying degree in childhood and its relationship with the illness showing in adolescence. Such symptoms were closely interdependent on the aetiological background and arose out of it, and one needed to be considered with the other.

Other findings were that the functional disorders were more common in boys, and that emotional disorders increased and spread with the onset of the present illness in non-psychotic cases. In psychotics there was a change to a new range of psychotic symptoms. In addition, in non-psychotics the illness developed gradually more often than not, whereas in psychotics there was more often a quicker onset.

Adolescence itself was considered to be an important intrinsic factor, contributory in varying degree to most psycho-neurotic and psychotic illnesses, but much less in evidence in those cases with long-standing severe personality disorder, or the sequelae of organic disease of the central nervous system. This was based on the relationship of the illness to physiological puberty. Again in regard to the symptoms these patients showed, adolescent traits were found closely interwoven in a high proportion of non-psychotic cases, but they were in comparison lacking or hidden in those children with psychoses.

Adolescent mental disorders are very varied, and many factors both before and during adolescence intermingle and combine to form the whole picture. Their relative importance differs from case to case, but it is their combination that is decisive in leading to mental breakdown or abnormal behaviour. To view, therefore, this picture of the mental disturbances of adolescence in perspective, consideration of all these factors is required.

Summary.

A group of 50 adolescents with mental disturbances was examined, including 24 cases with psycho-neurotic disorders, seven cases with severe personality disorders or the sequelae of organic disease of the central nervous system, and 19 cases suffering from psychoses.

They were examined in detail to determine their aetiology, what symptoms there were in their previous life and their relationship to the present illness; and finally, to what extent adolescence was causative to their illness or coloured it. Statistical methods were used where applicable.

The aetiology in all cases was found to be wide and variable, with a number of constitutional and environmental factors of importance. No special factor could be singled out except as a probable precipitant of the present illness. Certain factors, however, such as a disturbance or lack of maternal influence, or abnormalities of personality, were particularly frequent.

The symptoms were equally varied, and a high proportion of all cases showed symptoms of emotional disturbance in earlier childhood. The present illness was more often of gradual onset in non-psychotics, and appeared to evolve from the earlier disturbance of childhood by an increase and spread of the symptoms then shown. In psychotic cases the illness began quickly as a rule, and there was a change of symptoms to those characteristic of the psychosis.

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Adolescence was considered to be an intrinsic factor of importance in most psycho-neuroses and psychoses. In cases with long-standing personality disorders or the sequelae of organic disease of the central nervous system it was not so apparent.

Finally, adolescent traits were found to colour the symptoms in most non-psychotics, but were much less evident in the psychoses.

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