MENTAL DEFICIENCY AND SOCIAL MEDICINE.*

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This paper is based upon the data obtained in a survey undertaken to ascertain the incidence of mental deficiency in England and Wales. My observations will be restricted to those data that are of most interest to students of social medicine.

For the benefit of those who have not read my Report (1) I will outline briefly the nature of the survey made by my colleagues and myself. We ascertained the number of mental defectives in six areas in England and Wales, each with a population of 100,000 approximately. Two of these areas were urban—one the Extra-Metropolitan Borough of East Ham, the other Blackburn. Two areas were partly urban and partly rural—Exeter with the rural area between the two Devon moors, and Chesterfield with the rural mining area in Derbyshire. The two completely rural areas were the western part of Norfolk, and the two Welsh counties of Merioneth and Cardigan. Over four years were required to do the field work and analyse the data.

The incidence of mental deficiency in England and Wales was found to be about 8 per thousand population. Therefore it is estimated that there are approximately 300,000 mental defectives in this country. This is almost double the estimate given by the Royal Commission which made surveys 25 years earlier. The disparity raises the issue whether the incidence of mental deficiency has increased in this country during the last few generations—an issue that will be recognized as one of great importance to social medicine. Much of the disparity between these two estimates, I am convinced, can be attributed to the fact that my colleagues and I were enabled to make a more thorough and complete ascertainment than the earlier investigators could possibly have done.

Whilst I do not think our data prove conclusively that there has been an increase in the incidence of mental deficiency in England and Wales in the course of the last few decades, I believe they give sound ground for asserting that there has been an increase in certain sections of the population.

One of the most definite results of our survey was the disparity between the incidence in rural and urban areas. The incidence in rural areas was at least 50 per cent. higher than that in urban areas. From whatever angle we examined our data a marked disparity was evident. Of one section of the

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population, that of school-children aged 7 to 14, we can claim that our investigation was almost complete, although not to the extent of that made subsequently by Fraser Roberts (2) of the school-children of Bath.

It is of interest to note in passing that the incidence for lower grade defectives, that is idiots and imbeciles, in rural areas is only 24 per cent. higher than that in urban areas, whereas the incidence for higher grade defectives, the feebleminded children, is 54 per cent. higher.

When attention is first drawn to this marked disparity, it is but natural to challenge its accuracy. Surely, we say, it is easy to confuse rusticity with low intelligence, especially if the investigator be an urbanite imbued with the scholastic bias of a university education. It would lead me away from the main theme of this paper if I were to attempt to deal with such doubts, but I would refer anyone who shares them to Chapter II in my Report on "The Standards and Criteria of Mental Deficiency" that I applied in this survey.

It is not difficult to explain how this disparity in the incidence of mental defect in rural and urban areas has come about. It is associated with the rapid urbanization of England and Wales during the last century. One hundred years ago the rural population of our country was equal to its urban; to-day it is only one-fourth of the urban. During the latter half of the 19th century many a district of our countryside was almost denuded of its best human stock, and was left with a residual population which contained an unduly large proportion of persons of low intelligence. The inbreeding of such a residual population has undoubtedly resulted in an increase in the number of feebleminded children born in these districts. It is significant that what deterioration has occurred in the intellectual calibre of our nation during the last few generations has been due, not to the deleterious environmental conditions of our large industrial towns, but to the selective biological process that has taken place in our rural areas. We should bear in mind, however, that our survey was restricted to the ascertainment of mental defectives, and did not include, as did the surveys of Sjögren and Strömgren, persons suffering from psychoses and neuroses.

Another fact that emerges from our data is the difference in the incidence of mental defect in the various social classes. In order to appreciate the significance of this difference it is necessary to emphasize the distinguishing features of higher and lower mental grade defect. The lower grade comprises idiocy and imbecility, and is of the nature of a pathological or abnormal mental condition. Higher grade deficiency, that is feeblemindedness, is not abnormal, but merely subnormal intelligence or other mental endowment. The distribution of intelligence in the general population corresponds to the normal curve, and the feebleminded are represented in the lowest 1 per cent. of this curve. The feebleminded person differs from the normal person chiefly in that he is endowed with a lower measure of intelligence; the difference is of a quantitative and not of a qualitative nature and there is no clear line of demarcation.

A classification according to social status of the homes of more than 3,000 defectives ascertained in our survey demonstrates a marked contrast in the distribution of lower and higher grade mental defect. Our classification of the

homes corresponds closely to the five-fold classification generally adopted by the Registrar-General, namely :

Class I : Economically independent class.
Class II : Middle classes.
Class III : Skilled workers.
Class IV : Semi-skilled workers.
Class V : Unskilled workers.

The following table summarizes our classification of the homes. For the sake of simplicity, homes in Classes I and II will be grouped together as " good " homes, those in Class III will be regarded as " average," and those in Classes IV and V as " poor " homes.

Classification of the Homes of Mental Defectives. Percentages.

A. CHILDREN.

Class and grade.	I.	II.	III.	IV.	V.
Feebleminded .	1·2	10·1	27·0	36·5	25·2
Imbeciles . .	5·9	23·7	36·2	19·5	14·7
Idiots . .	9·5	23·0	40·5	21·6	5·4

B. ADULTS.

Feebleminded .	1·9	10·4	34·8	28·5	24·4
Imbeciles . .	6·8	19·9	49·2	17·4	6·8
Idiots . .	8·0	28·0	38·0	16·0	10·0

This table indicates that the lower grade defectives, i. e. imbeciles and idiots, were fairly evenly distributed in good and poor homes. The approximate numbers are—30 per cent. in good, 40 per cent. in average, and 30 per cent. in poor homes. The figures relating to idiots show that the proportion in good homes is definitely higher than that in poor homes—approximately 33 per cent. as compared with 27 per cent. This is probably to be attributed to the better chance of survival the idiot child has in the good home, but possibly this is not the complete explanation.

The distribution of higher grade defectives, i. e. the feebleminded, is very different. Only about 10 per cent. were found in good homes, 30 per cent. in average, and as large a proportion as 60 per cent. were in poor homes. As many as 25 per cent. of all the feebleminded were in the lowest group—Class V homes. It is such a fact as this that makes the feebleminded of primary importance to social medicine.

Although the higher grade defectives outnumber the lower grade in the proportion of three to one, hitherto clinical medicine has paid most attention to the smaller group. Doubtless this is due to the fact that imbeciles and idiots present many conditions of great interest to the neurologist, the biochemist and the endocrinologist. For the student of social medicine, however, the higher grade or feebleminded are of dominant interest because such large

numbers of them are found in the poorest homes. All the diseases associated with chronic poverty, overcrowding and unhygienic home conditions are very common amongst the feebleminded. The large majority of the home visits my colleagues and I made in the course of our survey were in the slum areas of the towns and to the poorest cottages in the rural areas.

Our visits to the homes made us realize one other feature in which higher and lower grade deficiency contrast greatly. Since some of the factors causing imbecility and idiocy are inherited, we were given occasionally the history that a cousin, uncle or aunt had been known to have a similar condition to the defective ascertained; but seldom did we find more than one idiot or imbecile in the same home. Usually the idiot or imbecile was the only abnormal person in the home; the other members of the family were normal and, not infrequently, of superior intelligence. In contrast to this it was our common experience to find several feebleminded persons in the same home. A child attending school had been found to be feebleminded; on visiting the home we found other children of the family also feebleminded, or very dull, and the parents, if not actually feebleminded, of low intelligence. It is scientifically correct to speak of "feebleminded families." For the purpose of ascertainment I was often confronted with a dilemma of regarding all or none of the members of the family as feebleminded.

We use the term "familial" advisedly, since it does not prejudice the question of aetiology—that is, whether the mental condition is due to inherited or environmental factors. Our survey, being so extensive, was too superficial to give any reliable data on such an important issue. Penrose (3) has made a thorough and comprehensive survey to elucidate the relative importance of these factors. He concludes that 29 per cent. of his cases could be attributed solely to heredity, 9 per cent. solely to environmental factors, but that in 62 per cent. of his cases both inherited and environmental factors played some part in producing the defect.

Investigators who have made surveys of mental defectives soon realize how arbitrary is the distinction between feeblemindedness and dullness. From the scientific standpoint feeblemindedness, as interpreted in this country, is a legal artefact. Blacker (4) has indicated the necessity for a standard nomenclature. Work in the field of mental deficiency is much embarrassed by our vague terminology. The term "oligophrenia," as interpreted on the Continent, is a better term than feeblemindedness because it is applied to all persons whose social failure is primarily due to poor mental endowment. It applies to a much larger group of the community than the term feebleminded. Since, however, we British are somewhat conservative in adopting foreign nomenclature, I intend referring to this larger group as the "mentally inefficient"—admittedly a clumsy and ambiguous term.

As yet we have no reliable estimate what proportion of the population of this country is mentally inefficient. Probably the best index of the number in any community is the incidence of feeblemindedness, because the feebleminded are an integral part of this larger section of the population. There is, however, another way of making an approximate estimate. Educational psychologists have made extensive surveys of the distribution of intelligence amongst school-

children. These surveys agree in estimating that from 8 to 12 per cent. of the school-children have less than 85 per cent. of normal intelligence. Amongst teachers there is a consensus of opinion that a child with less than 85 per cent. intelligence is incapable of learning the rudiments of education—reading, writing and counting—by the methods of instruction that have proved suitable to normal children. Unfortunately few Local Education Authorities make proper provision for the special instruction of these subnormal children, with the result that they leave school with the handicap of poor intelligence aggravated by neglect during school years. Is it not reasonable to assume that a large proportion of this 8 to 12 per cent. group of children will prove to be socially inefficient when they become adults? The point that needs emphasizing is that these men and women are social failures primarily because they are handicapped with poor mental endowment. It is the numbers in this larger group of the socially and mentally inefficient, and not the feebleminded, who form but a small section, that give rise to many of our chronic social problems, e. g. slumdom, recidivism and child neglect. In a community based upon free competition these people are handicapped from the outset, and as nothing fails like failure, environmental factors such as physical diseases and unemployment increase their handicap in the economic and social struggle.

The men and women who gave evidence before the Royal Commission of 1904 were very hopeful that a Mental Deficiency Act would solve many of our social problems. Amongst those who gave evidence were distinguished men of the medical profession and prominent social leaders. The Mental Deficiency Acts have been in force since 1914, that is for over 30 years. It must be admitted that the hopes of the Royal Commission have not been fulfilled. Why is this?

Let us consider the application of the Mental Deficiency Acts to criminals. Several who gave evidence before the Royal Commission expressed the opinion that a high proportion of criminals were mentally defective. One of the more conservative estimates was that given by Dr. Parker Wilson; he said that 20 per cent. of prisoners admitted to Pentonville Prison showed signs of mental deficiency. Dr. Charles Goring, in his voluminous report on the "English Convict," states that "defective intelligence is one of the primal sources of crime in this country." When we come to examine the number of criminals actually dealt with under the Mental Deficiency Acts what do we find? Norwood East, who for many years was Medical Officer of Prisons in Liverpool and London, and later became Medical Commissioner of Prisons, tells us that only ·42 per cent. of the total number admitted to the Prisons during the ten-year period ending December, 1931, were certified as mentally defective.

We have not far to seek for an explanation. Doctors who have had much experience of giving evidence in Court on the mental condition of criminals find that magistrates and members of the jury usually have their own standard of what constitutes feeblemindedness. Seldom will they recognize an adult with a mental age higher than nine as feebleminded. But large numbers of recidivists who make frequent appearances in Court have mental ages between ten and twelve, and therefore are not brought within the jurisdiction of the Mental Deficiency Acts.

It is necessary to emphasize that when we speak of the mentally inefficient we have in mind not only the feebleminded, but also large numbers of persons who are outside the scope of the Lunacy and Mental Deficiency Acts. These persons are on the borderline, and have 70 to 80 per cent. intelligence. Our discrimination of the mental capacities of our fellow men is so poor that the majority of persons in this group pass in the crowd as normal, and their record of social failure is attributed to laziness or moral turpitude, or projected on to the broad back of a capitalistic or some other form of economic or social organization.

Without making any claim that this paper contains material that is new, I believe it is fair to say that its main theme, the problem of the mentally inefficient, is one that has received but little attention from psychiatry or social medicine. Further surveys are necessary to elucidate the nature of the problem presented by this section of the community. At present it is impossible to propound any comprehensive solution. The problem raises such far-reaching issues as the relative claims and duties of the State and the individual; and nations have very different attitudes to such issues.

We British are by nature empiricists, not only in our national, but also in international affairs. It is only very recently that the word "planning" has come into our national vocabulary. I am inclined to think that for some time yet we shall attempt to solve the medical and social problems presented by the mentally inefficient by our traditional empirical methods. We shall deal with specific problems as they become urgent. Diseases associated with insanitary home conditions attributable to ignorance and low intelligence, delinquency and high infantile mortality are some of these urgent problems. To be consistently, or rather persistently empirical—because consistency is not expected of the empiricist—in our approach to these problems we should look for individuals who are chiefly responsible for or give rise to them. There is one person who is in a key position, namely, the mentally inefficient mother. Without any wish to appear facetious, I suggest it would be well if some doctor of great experience were to give medical students, soon after they qualify, a talk on the problems the unintelligent mother presents to the general practitioner, the medical officer of health, and the psychiatrist. In passing we may note that such mothers are not altogether absent from the wealthy classes. I feel sure such a talk would do much to prevent the young doctor wasting a great deal of his skill, time and energy. One instance may be cited here—the disheartening experience of the medical officer of health in the eradication of scabies. A school child found to have this condition can usually be cured in a few days; but when this child lives in a home that is filthy, because of the mother's incapability, then the permanent eradication of the disease becomes a difficult problem. Even when medicine has discovered a sure remedy, there is much to be done before the remedy can be effectively applied in the general community.

The newly formed body, known as the Family Service Unit, organizes a voluntary service to assist mothers who find themselves unable to cope with their domestic and family responsibilities. Presumably much of the voluntary work will be done in what is now known as the homes of "Problem Families." This experiment is of great interest, and whether it succeeds or does not, it

cannot fail to give us valuable information about the mentally inefficient mother.

At a joint meeting of the Sections of Psychiatry and Social Medicine, it is natural to ask the question, "What contribution can the study on mental deficiency make to social medicine?"

After reading some of the text-books and recent contributions on social medicine, the general impression received is that at present its philosophy is essentially that of the environmentalist. This is not surprising. So many diseases and premature deaths are attributable to environmental factors which should and can be eliminated that social medicine focuses its attention, for the present, upon these. There are still many conditions in the homes of the working classes, in factories and mines, that can be much improved.

Statistics show that in recent decades rapid strides have been made in reducing the mortality and morbidity rates of many diseases. The specific feature that interests us at the moment is that with several diseases the rates fell rapidly for several decades in succession, but for several years recently little progress has been made. It is as if a residuum or hard core has been reached that cannot be eliminated by the methods hitherto successful. I suggest that the study of mental deficiency may prove helpful to social medicine when it comes to deal with these residua or hard cores.

To illustrate this, let us consider the statistics of infant mortality in England and Wales. The infant mortality rate, i. e. the number of deaths of infants less than one year of age per thousand live births, was 153 for the decade 1891 to 1900. This rate fell to 100 in the decade 1911 to 1920, and to 72 in 1921 to 1930. In 1939 it was only 50, that is, less than one-third of the rate in 1900. Since 1939, however, the rate has remained much the same; it seems as if we are getting near or have actually reached the hard core of this problem.

At the moment we have in mind more especially the differential infant mortality rates of the various social classes. This is best exemplified by restricting our attention to the mortality rate of children between the age of four weeks and one year. It is amongst children of these ages, and not for still-births or neo-natal cases, that the rates in the five social classes differ most.

The mortality rate amongst these children for the period 1906–1910 was 77 per thousand live births. In 1920 the rate had fallen to 53, and in 1930 it was only 36. By 1939 it had fallen to 22 per thousand live births, but since then there has been little reduction. An analysis of these mortality rates for the five social classes is of special interest. In 1939 the figures were approximately as follows:

Class I (independent)	Rate per 1,000 live births		8
Class II (middle class)	,,	,,	11
Class III (skilled workmen)	,,	,,	19
Class IV (semi-skilled workmen)	,,	,,	24
Class V (unskilled workmen)	,,	,,	30

The infant mortality rate for the poorest social class is about four times that for the best social class. Moreover, statistics show that although the

general infant mortality rate has been decreasing rapidly during the last 50 years, the disparity between Classes I and V has increased. A reasonable interpretation of this increasing disparity is that the normal and more intelligent mothers have derived immense benefit and have taken full advantage of the medical knowledge disseminated amongst the general public and of the pre-natal and infant clinics that have been established, whereas the mothers of the poorest social grade have not benefited to nearly the same extent. It is to this lowest social grade that the mentally inefficient mothers belong, and their importance in this particular problem is greatly increased by the fact that they are the most fertile group of mothers. Probably some new method of procedure will be necessary before any further substantial reduction can be made in the mortality rate of the children of these mothers.

REFERENCES.

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