

**Address.****THE ANNUAL DISCOURSE: THE BURDEN OF FEEBLE-MINDEDNESS.\***

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The methods of patient research and collective investigation which have led to such brilliant results in the study of various diseases in general medicine and surgery are now beginning to be applied to the study of the causation, extent, significance, treatment and prevention of feeble-mindedness, — the synonym of human inefficiency and one of the great sources of human wretchedness and degradation.

The past few years have witnessed a striking awakening of professional and popular consciousness of the widespread prevalence of feeble-mindedness and its influence as a source of wretchedness to the patient himself and to his family, and as a causative factor in the production of crime, prostitution, pauperism, illegitimacy, intemperance and other complex social diseases.

The exact number of the feeble-minded in the community is not known. There are probably 2 to 1,000 of our population, over 7,000 in this state alone. These cases are found in the families of the rich and of the poor, in the city and in the country. There is scarcely a village or a school district in this state where one or more will not be found. There is no reason for believing there is a greater proportion in this state than in other states or countries.

The fact that feeble-mindedness is the result of pathological conditions of the brain, either gross lesions caused by faulty development or by the destructive results of disease, or perhaps numerical deficiency or imperfect evolution of the ultimate cortical cells, makes it obvious that the resulting mental defect is incurable and permanent. If a nerve cell is damaged or destroyed by traumatism or disease, it is gone forever. It is never replaced by the multiplication of other similar cells, as may happen in other bodily tissues.

The various known causes of feeble-mindedness occur in two main groups, — the hereditary and the accidental. The hereditary cases are those where the person is feeble-minded because his parents or other ancestors were feeble-minded. The accidental group includes those who are feeble-minded as a result of environmental causes, without hereditary influence.

The hereditary cases are the most numerous. The recent intensive study of the family histories of large numbers of the feeble-minded by Goddard, Davenport and Tredgold show that, in at least 80% of these cases, the mental defect had been preceded by other cases of defect in the immediate family line. Goddard finds that 65% of his institution cases had one or both parents actually feeble-minded. It is believed that this

hereditary defect is the result of protoplasmic defect in the germ plasm of the family stock.

There is no doubt as to the potency and certainty of this hereditary tendency. Often the feeble-minded child represents a feeble-minded family. Davenport believes that aside from the Mongolian type, probably no imbecile is born except of parents who, if not mentally defective themselves, both carry mental defect in their germ plasm.

So far as is known, if both parents are feeble-minded, all the offspring will be feeble-minded. If one parent is feeble-minded, it is probable that some of the offspring will be feeble-minded, and the children who are themselves normal will be likely to beget defectives. These normal persons in tainted families who are potential "carriers" of the defective germ plasm may keep up the sequence. If both parents come from tainted families, the probability of defect in the children is much increased. The normal members of tainted families who mate with healthy individuals with no family taint are not so likely to have defective children; indeed, the tendency may be eradicated by judicious breeding-up for several generations. This tendency may be expressed by one or more cases in every generation, or it may skip one generation to reappear in the next. Inheritance is not merely a question of fathers and mothers, but the family tree goes further back.

Among the probable accidental or environmental causes of feeble-mindedness are injuries to the head at birth, blows or falls in infancy, inflammatory brain disease, toxemia from infectious diseases, abnormal mental or physical conditions of the parents, etc., or the absence of certain vital substances from the blood, as in cretinism. Cases of feeble-mindedness often occur in families where there has been no mental disease or defect for several generations, but even where the exciting cause is undoubtedly accidental, there is often a strong hereditary predisposition. Similar injuries or causes in sound families do not result in feeble-mindedness. In the majority of these cases the environmental causes are only accessory. The real origin of the disease lies in the defect of the germ plasm.

Certain types of defect are usually if not always due to accidental or sporadic causes, viz., the Mongolian, hydrocephalic, post-meningitic, the cerebral hemorrhagic, etc. Acquired characteristics are not likely to be transmitted, but there is reason for the belief that alcoholism, syphilis, tuberculosis and other environmental factors may initiate germinal variation which may become hereditary. The cases of purely accidental origin with no morbid heredity are not likely to be followed by other cases in that family. The purely accidental cases themselves would probably beget normal progeny.

To sum up, there is a large number of feeble-minded persons in our community. The great majority of these persons are feeble-minded because they come from a stock which transmits feeble-mindedness from generation to generation

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in accordance with the laws of heredity. Many of the members of these families are not defective themselves, but to a certain extent these normal members of tainted families are liable to have a certain number of defectives among their own descendants.

There is a popular belief that feeble-mindedness is greatly on the increase. We do not know, and are not likely to know, whether or not there is now relatively more feeble-mindedness than there was fifty or one hundred or five hundred years ago. There is some reason for the belief that the remarkable shift of population from rural to urban conditions in the last half-century, with the resulting industrial and social stress, and a greater liability to syphilis, tuberculosis and alcoholism, has increased the ratio of defectives in the families with hereditary predisposition. It is certain that the feeble-minded girl or woman in the city rarely escapes the sexual experiences that too often result in the birth of more defectives and degenerates. At the same time the steady withdrawal of the more sturdy and virile individuals from the country to the towns leaves the ineffective and defective men and women in the country to marry and beget offspring even less efficient than themselves. Recent study of certain isolated rural communities in this state where the more vigorous families have migrated for several generations shows a marked deterioration in the quality of the population, with a large number of the feeble-minded and a notable amount of immorality, intemperance and shiftlessness. The defective persons in these communities are very apt to be attracted to each other, and to marry or to intermarry, thus intensifying the degenerative process. The members of this society are only too familiar with these rural foci of feeble-mindedness, immorality, crime and destitution.

The social and economic burdens of uncomplicated feeble-mindedness are only too well known. The feeble-minded are a parasitic, predatory class, never capable of self-support or of managing their own affairs. The great majority ultimately become public charges in some form. They cause unutterable sorrow at home and are a menace and danger to the community. Feeble-minded women are almost invariably immoral, and if at large usually become carriers of venereal disease or give birth to children who are as defective as themselves. The feeble-minded woman who marries is twice as prolific as the normal woman.

We have only begun to understand the importance of feeble-mindedness as a factor in the causation of pauperism, crime and other social problems. Hereditary pauperism, or pauperism of two or more generations of the same family, generally means hereditary feeble-mindedness. In this state there are families who have been paupers for many generations. Some of the members were born or even conceived in the poorhouse.

Every feeble-minded person, especially the high-grade imbecile, is a potential criminal, needing only the proper environment and opportunity for the development and expression of his criminal

tendencies. The unrecognized imbecile is a most dangerous element in the community. There are many crimes committed by imbeciles for every one committed by an insane person. The average prison population includes more imbeciles than lunatics. The term "defective delinquent" is applied to this special class of defectives where the mental lack is relatively slight, though unmistakable, and the criminal tendencies are marked and constant.

At least 25% of the inmates of our penal institutions are mentally defective and belong either to the feeble-minded or to the defective delinquent class. Nearly 50% of the girls at the Lancaster reformatory are mentally defective. The class of "defective delinquents" of both sexes is well known in every police court, jail, reformatory and prison. There is a close analogy between the defective delinquent and the instinctive criminals who form a large proportion of the prison rounder type. Under present conditions these irresponsible persons are discharged at the expiration of their sentences to lay tribute on the community, to reproduce their own kind, to be returned to prison again and again.

A very large proportion of the neglected and dependent children in the care of the state are feeble-minded and are the offspring of the feeble-minded.

Many of the immoral and diseased girls found in rescue homes and shelters are defective and absolutely incapable of reform or of self-support. Many prostitutes are mentally defective. A large proportion of the mothers of illegitimate children at Tewksbury and elsewhere are feeble-minded. In one county almshouse in Pennsylvania there were 105 mothers of illegitimate children, and of these mothers 100 were feeble-minded.

A majority of the parents prosecuted by the Society for the Prevention of Cruelty to Children for abuse of their own children are feeble-minded.

In England, 70% of the habitual drunkards who are dealt with under the "Inebriate Act" are mentally defective.

The modern intensive study of the family trees of individual degenerates, the insane, epileptics, criminals, prostitutes, hereditary paupers and the feeble-minded has emphasized the fact that these various conditions of degeneracy are often merely different phases or expressions of the same fundamental inferiority. In these degenerate families the form of defect varies from generation to generation, feeble-mindedness in one generation, pauperism or criminality in the next, and then some form of insanity, alcoholism, etc.

It has been truly said that feeble-mindedness is the mother of crime, pauperism and degeneracy. It is certain that the feeble-minded and the progeny of the feeble-minded constitute one of the great social and economic burdens of modern times.

The realization of these truths and the recognition of the strong tendency to hereditary transmission has produced a sort of panic on the part of those who have just learned of these facts. Visions of a feeble-minded peril in future genera-

tions are seen, and have resulted in a "wild panic for instant action." There is no occasion for hysterical, ill-considered action.

It is probable that intelligent study of the whole problem on a large scale will furnish data for adequate treatment and control. The full problem should be stated by a complete and permanent census of the feeble-minded of the entire state. This is possible by the co-operation of physicians, teachers, social workers, court and prison officials, local authorities, etc. Such registration would be analogous to the required notification and registration of contagious and infectious diseases, and would be the first step in the regulation and elimination of defective strains from the community. The State Board of Insanity has already begun an informal and tentative census of this sort.

In the light of our present knowledge, the only way to reduce the number of the feeble-minded is to prevent their birth. The perpetuation of defective family stocks should be inhibited. This would be possible to a great extent if every feeble-minded person and every potential "carrier" of the defective germ plasm could be prevented from parenthood.

There is already a strong popular demand for the logical and thorough application of our present knowledge of the laws of morbid heredity in the way of prevention. This state has begun the policy of the segregation of the feeble-minded, especially those of childbearing age. This segregation carried out thoroughly for a generation would largely reduce the amount of feeble-mindedness. The high-grade female imbecile group is the most dangerous class. They are not capable of becoming desirable or safe members of the community. They are never able to support themselves. They are certain to become sexual offenders and to spread venereal disease or to give birth to degenerate children. Their numerous progeny usually become public charges as diseased or neglected children, imbeciles, epileptics, juvenile delinquents or later on as adult paupers or criminals. The segregation of this class should be rapidly extended until all not adequately guarded at home are placed under strict sexual quarantine. Hundreds of known cases of this sort are now at large because the institutions are overcrowded.

Only 2,000 feeble-minded persons are now cared for in institutions in this state, and over 1,000 applicants are awaiting admission to the institutions. There is an urgent demand for greatly increased institutional provision for this class. The cost of this provision will be great, but not as great as the present cost of caring for these same persons, to say nothing of their progeny, in future generations. It would cost less money, be more economical in social life, and of immense value morally. These people are never self-supporting, but are eventually supported by the public in some way. From the economic standpoint alone no other investment could be so profitable, not even in canals or railroads or factories. The present generation is the trustee for the inherent quality as well as for the material welfare of future generations.

In a few years the expense of institutions and farm colonies for the feeble-minded will be counterbalanced by the reduction in the population of almshouses, prisons and other expensive institutions. When the feeble-minded are recognized in childhood and trained properly, many of them are capable of being supported at low cost under institution supervision.

Not that we regard the institution as the panacea for feeble-mindedness. If adequate institution provision were available to-day, it would not be feasible to secure the detention of large numbers of defectives, and those the most dangerous class, where parents or friends are unable or unwilling to see the necessity for such segregation. We have no laws compelling this action. The Anglo-Saxon respect for the liberty of the individual would make it difficult to enact laws compelling such custody. This difficulty could be approached by the suggested registration of the feeble-minded which would afford a basis for some sort of extra-institutional supervision and control. The observed misconduct and incapacity of many of these people would soon show the need of legal provision for their forcible segregation.

In a rational policy for controlling feeble-mindedness it is essential that we recognize the condition in childhood. Our compulsory school laws bring every child to official notice. Every case of feeble-mindedness should be recorded. At the proper time the parents should be informed of the condition of the child, of the necessity for lifelong supervision, and of the probable need of institution treatment. Sooner or later the parents will probably be willing to allow their child to be cared for in the institution. The parents who are not willing should be allowed the custody of their child, with the understanding that he shall be properly cared and provided for during his life, that he shall not be allowed to get into mischief and that he shall be prevented from parenthood. Whenever the parents or friends are unwilling or incapable of performing these duties, the law should provide that the child shall be forcibly placed in an institution, or otherwise legally supervised.

There are now special public-school classes for the feeble-minded in most of our cities and large towns. These classes insure diagnosis and treatment at an early age, they help to inform the parents as to the dangers of the condition and they admirably serve as clearing-houses for permanent segregation before adult life is reached. They should be extended and increased in number.

The mental defectives in our penal institutions should be recognized and transferred to permanent custody in suitable institutions and farm colonies and not discharged at the expiration of their sentences, to beget other defectives and to re-enter their careers of crime. We now have a law in this state authorizing the permanent control and custody of this criminal imbecile class which only needs the provision of suitable buildings to become effective. No other state or country has yet made similar legal recognition of these so-called "defective delinquents." The logical application

of this law would materially modify our present methods of dealing with certain classes of so-called "criminals" in the prisons, jails, reform schools and the courts. The elimination of these defectives from the prisons would increase the opportunities for reforming the normal offenders who are really capable of reform.

Compulsory surgical sterilization of all defectives is proposed as a radical method for preventing the hereditary transmission of feeble-mindedness. At least six states have passed laws authorizing or requiring this operation. In no state, however, has this remedy been applied on a large scale. There are many objections to this plan. The friends of the patients are not willing to have the operation performed. The normal "carriers" of defect would not be affected. The presence of these sterile people in the community, with unimpaired sexual desire and capacity, would be a direct encouragement of vice and a prolific source of venereal disease. Sterilization would not be a safe and effective substitute for permanent segregation and control.

It is probable that education in the broadest sense will be the most effective method in a rational movement for the diminution of feeble-mindedness. The public generally should be intelligently informed as to the extent, causation and significance by means of suitable literature, popular lectures and other means. There is now great demand for such information from women's clubs, church societies, charitable organizations, etc. General knowledge of this subject in a community will insure the rational protection and control of the feeble-minded persons in that community.

The principles of heredity, as they are unfolded, and especially of morbid heredity, should be taught in the colleges, the normal schools, and, indeed, in the high schools. The adolescent has a right to be informed on a subject which is of supreme importance to himself, to his family and to his descendants. The great majority of these young people will later marry and become parents. The dangers of a marriage with persons of diseased stock should be presented plainly. The young woman about to marry should be taught that her most important duty to herself and to her race is to choose a man of good heredity as the father of her children. The young man should be taught that the quality of the family stock of his future wife largely determines the health and efficiency and sanity of his children, and of his children's children. Those who have been privileged to address groups of young people on these subjects can but be deeply impressed with the breathless interest and appreciative understanding of their auditors.

The biological, economic and sociological bearings of feeble-mindedness have overshadowed the fact that it is fundamentally and essentially a medical question. Feeble-mindedness is a condition which is the result of certain permanent lesions of the central nervous system.

This subject should receive more attention in the medical schools. At the present time, only a

few schools in this country give any instruction whatever in the subject. General hospitals and dispensaries should have out-patient departments for the diagnosis and treatment of feeble-mindedness. These clinics would also provide for the instruction of students. No medical student should graduate until he has a general knowledge of the causes, varieties, prognosis and treatment of feeble-mindedness.

Every physician in general practice will find cases of feeble-mindedness among his patients. He has the unwelcome task of informing the parents of the misfortune of their child. He is called upon to advise as to treatment and life-long care and protection.

The prevention of the accidental type of feeble-mindedness largely depends upon the knowledge and skill of the physician in recognizing and in removing or modifying the environmental conditions which may cause the defect.

The recognized field of mental defect has been gradually extended and widened, and clinical types and degrees of feeble-mindedness are recognized by the alienist which are not yet familiar to the medical profession generally. It is most important that the physician should recognize the so-called "border-line" cases, where the intellectual defect is apparently slight, and is overshadowed by the immoral and criminal tendencies. These cases may be glib and plausible, often bright-looking and attractive, but are unable to apply themselves at school or at work without constant supervision, and are wholly indifferent to the consequences of their behavior and actions. The inability to get or keep a situation or to support themselves is most significant. These cases often present a bad family history, a personal history showing backwardness in infancy and school life, and the presence of various physical stigmata of feeble-mindedness. Psychological tests of these adolescents or adults show that they have a mental age of only seven or eight or nine years. In fact, they are cases of real feeble-mindedness differing only in degree and not in kind from the more obvious varieties.

The growing appreciation of the medico-legal bearings of feeble-mindedness, the increasing tendency of the courts to inquire into the mental status of persons accused of crime, and the widespread movement to recognize and treat mental defect in the public schools have created an urgent demand for the services of physicians skilled in the diagnosis of mental defect which cannot be met at the present time. Indeed, the social worker, the charity visitor, the teacher and the court official often recognize cases of feeble-mindedness which they are unable to properly treat and control because they cannot secure the co-operation of suitably qualified physicians. A medical diagnosis of feeble-mindedness is necessary before a case can be properly or legally considered.

If, as we believe, the prevalence of feeble-mindedness can be most effectively reduced by educational methods, the remedy largely depends upon the medical profession. The physician has

knowledge of family histories and tendencies. He has access to family councils. His advice in individual cases is eagerly sought and generally followed. He has exclusive opportunity to teach and inculcate certain accepted principles of practical eugenics.

The most important point is that feeble-mindedness is highly hereditary, and that each feeble-minded person is a potential source of an endless progeny of defect. No feeble-minded person should be allowed to marry, or to become a parent. The feeble-minded should be guarded or segregated during the childbearing period.

The normal members of a definitely tainted family may transmit defect to their own children, especially if they mate with one with similar hereditary tendencies. These potential "carriers" of defect should mate with sound stock, if they marry at all. If the hereditary tendency is marked and persistent, the normal members of the family should not marry. Certain families should become extinct. Parenthood is not for all.

Persons of good heredity run a risk of entailing defect upon their descendants when they marry into a family with this hereditary taint. Intelligent people are often willing to forego a proposed marriage if the possibilities of heredity are fully understood. The immediate sacrifice is less painful than the future devoted to the hopeless care of feeble-minded children. What can be more tragic than the familiar cry of the agonized mother, "If I had only known"?

The well-informed physician has the pleasant privilege of allaying the fears of those who misinterpret and magnify the possibilities of morbid heredity in their own families. It should be remembered that a single case of defect of accidental origin, with no hereditary tendency, is not likely to be followed by other cases in the same family. Indeed, a case of this sort may be found in a family where the other members are of exceptionally brilliant and gifted mentality. The ordinary family is safe and sound and whole, and is extremely unlikely to produce feeble-minded children.

In the annual discourse for 1907, Dr. Adams said: "A medical practitioner is, to a greater or less extent, a missionary. He is always finding and doing some work, unpaid or underpaid, for his fellow men, because his training and his position make such work possible and natural. In all philanthropic measures, he is to be relied upon as a helper, and in those pertaining to public health he is naturally a leader. He has unequalled facilities for disseminating knowledge, for awakening interest, and for guiding benevolence. The evidences of this influence are to be seen on every hand."

The imminent problem of dealing effectively with this burden of feeble-mindedness presents a fertile and pertinent field for the exercise of these extra professional activities and obligations of the medical practitioner. The community looks to him for education and guidance on this subject. Concerted action by the medical profession will surely create the strong public senti-

ment which will demand a prompt and effective plan for the proper care of all the feeble-minded of the state, and for the elimination of feeble-mindedness so far as that is possible.

### Original Articles.

#### EFFICIENCY TESTS OF OUT-PATIENT WORK.

BY MICHAEL M. DAVIS, JR., PH.D.,

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THE stream of poverty, suffering and disease which pours into an out-patient clinic presents us daily with the question, "What results are we achieving?" From the medical standpoint, the out-patient department is usually the poor relation of the hospital, but in direct influence upon the masses of the people, it is actually the more important. The throng of patients pass to the clinical physicians, are seen by them and are gone; sometimes they come back for treatment, but often they do not. How correct is the diagnosis and how much ultimate benefit the patient derives from the treatment are matters which, in a large proportion of cases, are not ascertained nor even inquired into. We have as yet no organized standards of judging our accomplishments. Of the hundreds of thousands of dollars spent in maintaining out-patient clinics, — the annual expenditure in every large city would be several times this sum, — has a single thousand been devoted to systematic study of the results achieved, with a view to estimating efficiency, establishing standards and improving methods?

Literature on the public relations of out-patient departments is largely filled with discussion of so-called "abuse" of dispensaries by patients who are able to pay for a private physician. Diverse opinions and standards are current, but, with a few exceptions, such as a recent interesting attempt in Cleveland, no out-patient department has undertaken a study of the facts showing the actual social classes which are treated, graded on an economic scale and in proportion to relative numbers. Yet, without such facts we do not know the amount or kind of "abuse" which really exists, nor whether it can be remedied without either injustice to the medical profession or to persons of limited means who require the services of specially skilled physicians or surgeons.

In 1875 an interesting paper was read by George S. Hale, of Boston, before a meeting of the Social Science Association in Detroit. Mr. Hale saw that discussion in general terms was inadequate. As he said, "The first step is to get information"; that is, knowledge about the *people* who are receiving medical relief. The following questions, prepared by Mr. Hale for circulation among out-patient departments, show that he was endeavoring to measure the results achieved per unit of effort expended:

"Number of physicians and surgeons on duty.

"Average number of patients per doctor per week.

"Average time per patient per day, distinguishing old and new cases if possible.