

and also positive laboratory findings, *viz.*, Wassermann plus with 0.2 c.c. of spinal fluid, paretic gold curve, globulin, excess albumen and cell count near 100.

Solomon believes that thorough treatment of general paralysis results in prolonged remissions of two to six years with restoration to good economic ability and efficiency. In 1916, of the cases treated 25 *per cent.* were discharged on remissions. Age does not seem a criterion—cases *æt.* 65 have done well, but one cannot be dogmatic in prognosis. A young man with good heart and kidneys may do badly, probably from loss of immunity from a virulent infection.

The methods used were injections of arsphenamin 0.6 gm. intravenously twice a week for three to four months, but intensive continuance is essential. The author feels that he has been over-conservative in limiting the doses to .6, .8 and 1.0 gm.; larger doses do not appear to approach the tolerance of the patient, and at the worst excessive dosage would but shorten a life which *per se* would extend a few months at most.

In combination with this method is used the intraspinal route, and the intraventricular (cistern puncture) route of Ayer. In inflammatory conditions of brain or cord the latter method revolutionises treatment; and when used in conjunction with the other routes, it necessitates a revision of our ideas of prognosis. Spinal drainage is also advisable in some cases.

Ruggles confirms this view of Ayer's intra-cistern method, and in his hands a series of fifty cases have revealed a lessened reaction, ready co-operation on the part of the patients, and absence of bad results. Where intravenous treatment plus spinal drainage, or intravenous plus intraspinal injections fail, the intracistern route should be adopted.

In the absence of these treatments the patients concerned would, it is believed, either be dead, or be still in institutions.

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6. Mental Hygiene.

Childhood: The Golden Period for Mental Hygiene. (*Ment. Hygiene, April, 1920.*) White, W. A.

Mental illness is a type of reaction of the individual to his problems of adjustment which is conditioned by (1) the nature of those problems, and (2) the character equipment with which they are met.

As regards the first of these factors, the general statement may be made that if the stress of adjustment be sufficiently great any individual may break down. The second factor, the character equipment, is the important one for consideration. It may be enforced by mental hygiene. Mental illnesses depend upon defects in the personality make-up, and this latter is what it is as a result of its development from infancy onward. Mental illnesses are the outward and evident signs of intrapsychic difficulties (conflicts). Conflicts depend upon traits of character originating in childhood. The peculiar trait of character with which the individual has been struggling all his life—suspicion, cruelty, jealousy, timidity, curiosity, over-consciousness, etc.—is conditioned early in life as a result of the influences exerted by the members of the

family or their surrogates. The child is peculiarly plastic. Childhood is therefore the period *par excellence* for prophylaxis. The germ-plasm theory of heredity and certain derivatives of this theory are too fatalistic. Even if fundamental traits are inherited, they may be turned into a useful direction; for instance, intense curiosity may be turned into scientific investigation.

The points of attack are as follows: First, a real understanding and development of child psychology. Study what the child is trying to do in terms of the child psyche, not as if it were a small adult.

Second, an understanding of the nature of the child's relations to its environment, particularly its personal environment, and specifically to the members of the family. The family situation contains within itself certain elements of a disruptive nature. It is as essential that the child should ultimately escape from its bondage to the family as it is that, for a time, it should be a part of that family and more or less subject to its direction.

Thirdly, a full understanding of these matters must reach their application in education. Education needs to be developed as a scheme for assisting and guiding the developing personality. And, finally, as the child cannot acquire all this information and then apply it to itself, it is essential to develop some means whereby such information can be translated into effectiveness. As the family is less accessible, such approaches must come largely through the schools, although there are many problems that cannot be approached in this way. Much knowledge must also be acquired about the child before it is of school age. In Washington this work is done in connection with a private charity, which helps the mother during pregnancy and the child for the first six years.

Serious breaks in adjustment do not ordinarily occur without the co-operation of some lack of balance in the personality make-up; they are rarely accounted for by the influence of extraneous circumstances alone. We should correlate the sick adult with the knowledge we have that his illness is traceable in its beginnings to his early life.

Much work now being done has mental hygiene implications—the determination of the minimum requirements of food, clothing, wages, etc. Here also come in the care of the pregnant woman, child labour, sex education, school sanitation, and more specifically the problems of the atypical child and juvenile delinquency, all of which can be better dealt with in proportion to our increased knowledge of child psychology, while such social problems as marriage, divorce and birth control have direct bearings.

The child is the unfinished product of the past through heredity of the innumerable elements, largely personal, of its environment, of its instincts as they work out in that environment, of social and family traditions, and of the social standards of its time and place, and all of the various approaches indicated can be made more effective in the light of such knowledge.

As many of the breaks occur in the adolescent period or the period of early adulthood, the author recommends that in school or college there should be an adviser skilled in matters psychological, and sympathetic and understanding of the problems of the young.

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