

ALCOHOLISM AND CHILDHOOD.

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IT is a mere truism to state that "a nation's greatest asset is to be found in the well-being of its rising generation." When the environment of our child life is considered, it is by no means easy to isolate and impeach one factor as the only or chief cause for the lack of physical, mental, and moral vigour.

There are, indeed, many influences at work which separately and in combination make for impediment and impairment of our coming citizens. Widespread ignorance prevails in all ranks of society regarding matters relating to health; especially disastrous is the want of knowledge on the part of women and mothers regarding the hygiene of child life. Improper feeding is largely responsible for a vast amount of sickness and suffering amongst the young. Factory life by day and club life or the pursuit of unregulated dissipation by night ill prepares a girl for assuming the responsibilities of a wife and a mother.

With little or no knowledge as to the relative value of foods, nor of methods for preparing the same, and unconscious that her own health and habits must profoundly affect the yet unborn child, many a woman learns only by the experience of rearing and often burying her offspring, facts which vitally affect her happiness, the welfare of her child, and the efficiency of the nation.

* This article is expanded from a chapter contributed to the recently published work on "Childhood," being vol. ii. of "The National Health Manuals," edited by Dr. T. N. Kelynack, and published by Charles H. Kelly, 25-36, City Road, and 26, Paternoster Row, E.C. 1910. 1s. net.

THE INFLUENCE OF ALCOHOL ON CHILD LIFE.

No serious study of childhood can afford to neglect the widespread influence of our drinking habits on the life of the coming race. In alcohol and the evils inseparably associated with its use and abuse in the form of intoxicating drinks we have powerful factors hindering and hampering normal development. Were the baneful effects of our drinking habits more appreciated, it is not too much to expect that greater sacrifice would be shown by parents, at any rate during the child-bearing periods of life. It is essential that all social workers should carefully study the relationships of alcoholism to childhood.

ALCOHOLISM AND ACQUIRED DEFECTS.

The rapidly-growing cells of the infant and young child are particularly susceptible to morbid conditions of all kinds. In the adult there may, and often does occur, peculiar resistance and tolerance to noxious influences and poisons. In the child, organic defects are occasioned by comparatively small quantities of alcohol. It is by no means rare to hear of children who have acquired the drunkard's lust for alcohol through their having been first allowed to sip the dregs of "dinner beer" out of their parents' glasses. Even among the so-called educated classes it is by no means rare to find that boys and girls are allowed to become familiarized to the use of beer and wines, although the wines are of low potency and usually well watered. This custom of giving alcoholic beverages to children is so prevalent abroad, that at the recent International Congress on Alcoholism held in London, 1909, it was stated that the school children of Hungary were frequently found at school in a dazed condition, due to the beverages taken at breakfast and during the dinner hour.

Cirrhosis of the liver and other affections caused by drink are met with from time to time in children, and there is reason to believe that some of the mental backwardness occurring in school children is due, though possibly unsuspected, to toxic influence.

Dr. Imre Doczi, the representative of the Hungarian Government at the Twelfth International Congress on Alcoholism in London, gave the results of carefully prepared statistics* based

* Doczi, I. : The Proceedings of the Twelfth International Congress on Alcoholism, 1909. London : National Temperance League, 1910.

upon data obtained by his Government as to the drinking habits of all the children (about half a million under eighteen) in all the schools of all classes; whilst 20 per cent. of the children were total abstainers, it was by no means rare to find schools where pupils were given alcohol daily by their parents, and amongst the poor Slav population this was given in the form of grain or potato spirit. As to the scholars, it was found that 36 per cent. of the children were careless and idle; 11 per cent. dull of comprehension; 13 per cent. incapable of prolonged attention; 10 per cent. during the first school hours gave confused answers; 18 per cent. were very backward in subjects requiring special mental effort; and 10 per cent. only showed no evil effects. In only 3 per cent. was alcohol prescribed for them by medical men. As to the bodily health of these children, three-fifths were found to be of colourless complexion and pale, with sunken cheeks; one-fifth showed arrested development; and in one-fifth the disturbing effect of alcohol was unnoticed.

But little comfort can be obtained from the fact that this inquiry was made in Hungary and not in England, for, according to figures recently published* regarding an investigation dealing with children attending some of the London County Council Schools, 40 per cent. of the infants under eight years of age are said to drink alcohol more or less regularly. In one school of 300, 11·8 per cent. were said to drink alcohol daily, 34·1 per cent. occasionally, and 54 per cent. were "Band of Hope," but apparently even amongst these some occasionally were indulged.

The first school was in a district where most of the mothers who drink visit the public-house; the second had better surroundings, and the mothers obtained their liquor from the grocers or direct from the drink-seller.

Sir Victor Horsley, in an inquiry† amongst the large secondary boys' schools of the United Kingdom, found that 72 per cent. were conducted as total abstinence schools; but in 28 per cent. there was a persistence of old customs, and alcoholic beverages were given to the boys. In one school 50 per cent. of the boys

* Mackereth, F. G.: "The Drinking Child," *British Medical Journal*, August 7, 1909.

† Horsley, Sir V.: Proceedings of the Conference on the Teaching of Hygiene and Temperance in the Universities and Schools of the British Empire. London: John Bale, Sons and Danielsson. 1907.

were given alcoholic beverages regularly, and all the boys on six saint days in the year had the opportunity of indulging in alcohol.

Experiments on all the lower forms of life—plant, lowly cellular organisms, such as the amœbæ, cyclops, developing frog's spawn, fish, puppies—uniformly show the same reaction when alcohol is present in the water surrounding them, or given in small doses in food—namely, that the young growing cells composing their structure are inhibited to a greater or less degree in their growth, and that the final result is a stunted physical condition and a high mortality. Though this evidence may be allowed only as an analogy, yet proof is conclusive that the plastic cells characteristic of the human organism during the earlier periods of life are strangely susceptible to the deteriorating influence of alcohol, and it seems probable that in after-life such poisoned elements never reach their fullest development.

The incidence of infectious disease is also said to be greater amongst those children accustomed to the daily use of wines and other alcoholic beverages. This was exemplified by Professor Demme of Zurich* in his account of an epidemic of diphtheria occurring in the Jenner's Children's Hospital.

The brain and nervous system, perhaps beyond any of the organs, quickly manifest the effects of alcohol when introduced into the system of children, and Dr. Alexander McNicholl, in his inquiry amongst the children of American schools, found that much of the weariness, mental inability, and failure in mental effects was due to alcohol supplied to children in their houses or elsewhere. A case of alcoholic paralysis is on record,† a child four and a half years of age who had been given from the age of six months a half to one tumbler full of beer daily.

DEFECTS IN CHILDHOOD DUE INDIRECTLY TO ALCOHOLISM.

By the term *alcoholic abiotrophy* is indicated a congenital defect in the capacity and potentiality of the various tissue-cells to develop normally and fully, due to the influence of alcohol acting through the parents. Some of the most interesting work recently accomplished in connection with the subject of alcoholism has

* Demme: Quoted in Horsley and Sturge's "Alcohol and the Human Body," pp. 304, 324, 331. London: Macmillan. 1909. 2s. 6d.

† *Lancet*, August, 1899.

been in the direction of determining whether parental faults impress the germ-cell and beget "faults" in the offspring. In order to develop "stock" to full perfection, it is a universally recognized principle to select progenitors of the most perfect type obtainable. Experience shows that the same principle and the converse is true of the human offspring, that pre-natal influences on the germ-cell are of the most important character to bless or curse the unborn child. The growing embryo is nourished by the mother's blood, and is therefore exposed to and affected by any noxious influence present; it is known that alcohol may be carried to the placenta, and must therefore affect the embryo.

As may be surmised, the influence of maternal conditions are the more important, though under certain conditions the paternal influence is the determining factor. Professor Adami* has recorded that in thirty-two cases of lead-poisoning in men (the mothers being unaffected), their offspring showed increased mortality and signs of mental disease.

Dr. W. C. Sullivan,† in his inquiry into the children of female drunkards, carefully selected so as to eliminate all other factors making for degeneracy, showed that of 600 children born of 120 female inebriates, 335, or 55·8 per cent., died under two years of age (or were dead-born), chiefly from convulsions; comparing this mortality with the mortality in children born of sober mothers, the death-rate is nearly two and a half times greater than amongst children of sober stock.

There appears, also, as successive children are born to inebriate parents, to be a decrease in the vitality of these children: the first-born may be healthy, then come more or less defective children, who live beyond infancy, then still-births, and finally abortions. Maternal inebriety is peculiarly noxious to the vitality of offspring. The alcohol acts primarily on the mother, but also directly upon the developing embryo.

Dr. E. W. Hope,‡ Medical Officer of Health for Liverpool,

* Adami: Quoted in Horsley and Sturge's "Alcohol and the Human Body." London: Macmillan. 1909. 2s. 6d.

† Sullivan, W. C.: "The Children of the Female Drunkard," *British Journal of Inebriety*, January, 1909. London: Baillière, Tindall and Cox.

‡ Hope, E. W.: Proceedings of the National Conference on Infantile Mortality, 1908, p. 139.

drew the same lesson in his address on Infantile Mortality before the National Conference held in London, 1908, when he recorded his investigations into the infantile death-rate amongst 874 families taken consecutively in the inquiry.

Among the many causes influential in the production of "infantile marasmus, or wasting," alcoholism in the mother must be definitely indicated as a common one.

The offspring of alcoholized mothers is often born apparently healthy, but shows little power of growth, or power of assimilation of food or of nourishment. There is lack of vitality, continual peevishness, dusky or earthy tinge of the skin, and gradual wasting, unaccompanied by any definite physical signs of disease, precede the final scene of convulsions, or inanition, the precursor of death. It is to this condition of want of vitality and retrogressive change in the infant so frequently following the history of maternal inebriety that the writer suggests the name of *alcoholic abiotrophy*.

Nor can the subject of parental inebriety and its effects on the offspring be left without reference to the very important relation it bears to the production of the *feeble-minded*. In 1901 Dr. MacNicholl* studied the mental deficiency in school children for the New York Academy of Medicine. Fifty-five thousand school-children were examined, and the parental habits as regards alcohol reported in over 20,000 cases, with the following results :

Class of Child.	Number.	Dullards.
Children with drinking parents -	6,624	53 per cent.
Children with abstaining parents -	13,523	10 ,,

The family history of 3,711 children was treated through *three* generations as to the taking of alcohol with this result :

Family.	Children Proficient.	Children Dullards.	Showing some Neurosis or Organic Disease.
Free of family taint -	96 per cent.	4 per cent.	18 per cent.
With family taint -	23 ,,	77 ,,	76 ,,

* MacNicholl : Quoted by Horsley and Sturge, "Alcohol and the Human Body." London : Macmillan. 1909.

beyond their infancy, 9 out of 219, or 4·1 per cent., became epileptic.

Other inquiries have also shown that alcoholic parents often have more children per family, but a much greater proportion of miscarriages, premature labours, and still-born children.

Enforced sobriety during imprisonment led to a favourable reinforcement of vitality of the infant organism, when earlier-born children had succumbed.

Many instances have been collected of the disastrous effects of bouts of drinking in the case of newly-married couples, feeble or imbecile first-born children being the result.*

Reference must be made to the report recently issued from the Galton Research Laboratories by Miss E. M. Elderton and Professor Karl Pearson.†

Their conclusions differ in many respects from those advanced in this article. Their report is fully and effectively criticized elsewhere, but it may be here pointed out: (1) That whilst their title states "offspring," a sufficiently comprehensive term, the data which formed the basis of their calculations dealt only with children of *school age*, and these very restricted and selected. No information is given *re* the infantile death-rate, or prevalence of premature births in the families concerned. (2) For the purposes of the research, the few *total abstainers* were classified with *sober* and *temperate* people, the meanings of which terms vary with persons and circumstances. The comparison made, therefore, is between the children of *moderate* or *temperate* drinkers and those of *addicted* or *intemperate* drinkers. There is therefore a consequent fatal vitiating in the value of the inquiry. (3) No details are afforded as to the habits of the parents at the time of the conception of the children, a factor of immense and essential importance, though necessarily difficult to obtain. The conclusions of the authors cannot be accepted without great reserve. The data of

* Andriezen, W. L. : "The Problem of Heredity, with Special Reference to Pre-embryonic Life," *Journal of Mental Science*, January, 1905. See also paper by Dr. W. A. Potts and other communications on "The Relation of Alcohol to Feeble-mindedness," *British Journal of Inebriety*, January, 1909.

† "First Study of the Influence of Parental Alcoholism on the Physique and Ability of the Offspring." By Ethel M. Elderton, with the assistance of Karl Pearson, *Eugenics Laboratory Memoirs*. London: Dulau. 1910. Price 4s.

this investigation require to be revised and extended before any reliable deductions can be drawn.

MATERNAL INCAPACITY FOR NURSING.

Professor Bunge, of the University of Basle, in 1905 published a most interesting report relating to an inquiry that he had made into the causes of inability of women to suckle their offspring.*

In this research he had the assistance of 100 medical men, and based his inferences upon full statements made in answer to a very searching inquiry on 1,629 families. The report is too long to even quote *in extenso* in this article, but Professor Bunge claims to have satisfied himself that the following propositions are statements of fact: That the inability to nurse children is hereditary; that when this capacity for suckling is lost, the loss is irretrievable for coming generations; that the paternal influence in the causation of the hereditary incapacity of the daughters to nurse is most marked. In 78 per cent. of the cases where the mother could nurse but the daughter could not, the father of the daughter was found to be in the habit of drinking excessively; in 42 per cent. of the cases he was a notorious drunkard.

According to Carpenter,† alcohol can be traced in the milk of a woman or animal twenty minutes after its ingestion, and for seven to eight hours afterwards. Other observers have not fully corroborated this statement, except as to the condition of drunkenness.

The following table shows very strikingly the influence of the father's alcohol consumption on the daughter's inability to nurse:

The Father Consumes Alcohol.	Daughters able to Nurse.
Not habitually - - - - -	91·5 per cent.
Habitually in moderation - - -	88 ,,
Habitually immoderate - - -	31·4 ,,
Inebriate - - - - -	10 ,,

* Bunge: "Alcoholergiftung und Degeneration." Leipsic. 1904. English translation: "Alcohol Poisoning and Degeneration." London. 1905.

† Carpenter: "Alcohol and Children," *Journal of State Medicine*, vol. xii., No. 10. London.

Also, as Bunge* points out : "The inability to nurse is not an isolated phenomenon ; it goes hand in hand with other symptoms of degeneration, especially with a lack of power to resist against all sorts of diseases, with tuberculosis, nervous diseases, and decaying of the teeth ; the children are insufficiently fed, and thus our race, deteriorating from generation to generation, will, after suffering an infinity of pain, be ultimately tortured to death."

ECONOMIC CONSIDERATIONS.

Economically, the expenditure on alcoholic beverages is essentially wasteful. Statistics show that amongst the working classes about one-third of the total earnings is often spent in liquor, of which stout, ale, porter, gin, whisky, are the favourite forms ; this of necessity means curtailment in the necessities of life, let alone any luxuries for the children, whilst the tendency is for them to be taken into surroundings of a degraded, sordid character, where, morally and physically, they are adversely affected.

It must also be remembered that there is a certain amount of evidence to show that 10 to 15 per cent. of all moderate drinkers finally develop into inebriates, and the misery and wretchedness becomes infinitely more marked ; whilst the average is probably a great deal higher if spasmodic or holiday outbreaks were included in the test of inebriety as compared with moderation. These customs lead to both mothers and fathers dosing their own children, from sheer ignorance or callousness, with no thought for their future welfare.

"In one room, thronged to excess with men, women, and children, one woman was seen to hold a glass of spirits to the lips of her baby ; another woman dipped the corner of her pocket-handkerchief in the liquor and let her baby suck it ; while in a third house a clean, respectable-looking and youngish woman was giving two pretty babies alternately biscuits and beer. 'Let me sup again, mamma !' said a poor, miserable-looking little boy of about four to his boozy, blear-eyed mother—'let me sup again !'"†

* Bunge : "Die zunehmende Unfähigkeit der Frauen ihre Kinder zustehen." Abstract in *Medical Temperance Review*, December, 1903.

† Johnston, J. : "Alcoholism and the Wastage of Child Life," *British Journal of Inebriety*, January, 1909.

ALCOHOLISM AND ACCIDENTS.

Another fertile source of danger to infants through the maternal inebriate habits is that of "overlying or suffocation."

A much greater proportion of such cases takes place on Saturday nights than at any other time during the week. Of 461 cases that came under observation of Dr. Templeman during twenty years, 219, or 47 per cent., occurred between Saturday night and Sunday morning.

The late Dr. Barnardo has shown in his reports that 85 per cent. of those admitted to his homes owed their social ruin to the drinking habits of their parents or other near relatives.

The same cause must be cited as the greatest factor in the occurrence of neglect or cruelty to children.* In the years 1907-8 the National Society for the Prevention of Cruelty to Children dealt with 46,212 cases, involving the neglect of 125,674 children. Of these cases 90 per cent. were due to the drinking habits of parents.

By the destruction of the bread-winner, another cause of untold misery and sorrow is manifest. On the most conservative estimate based on the alcohol death-rate of 14 per cent., alcohol makes in England and Wales 45,445 widows and orphans every year, or 124 every day. Morel truly said: "Whatever deteriorates the individual, deteriorates the race." May the darkness of ignorance disappear before the light of truth, reason, and self-control, so that the baneful and far-reaching influences of alcoholism may be stayed, and the full responsibilities of parenthood be understood.

* Parr, R. J. : "Alcoholism and Cruelty to Children," *British Journal of Inebriety*, October, 1908.