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HEALTH WORK IN OUR PUBLIC
SCHOOLS

The effect of malnutrition on mental development has long been recognized. Experiments have shown that when an undernourished child is put on a nourishing diet, there is a marked improvement in his mental development. It is true also that teachers find it easier to teach a well-nourished child, and that he has greater powers of concentration and attention. It is not hard to understand this, for a starved brain cannot work any more efficiently than a starved body; and it is not surprising to find considerable retardation in malnourished children. It has been shown that in instances where it was thought to have been a case of mental deficiency, the retardation has been caused by malnutrition, and as soon as the subject was treated he became mentally normal.¹

Physical defects seem to go hand in hand with malnutrition. In children who are habitually undernourished, signs of stunted growth, nervousness, anemia, irritability, and diminished energy are soon visible. Any child who develops any of these symptoms is father to the man who is handicapped because of low vitality and a poorly developed body, and is therefore unable to do his part in this world's work. Proofs of this were shown when man after man was turned down as unfit for army service in the World War because of physical incapacities.

And the serious result of malnutrition is shown in increased susceptibility and lack of resistance to disease. If an epidemic of an infectious disease should attack a community, the difference would soon be shown between the properly nourished and the malnourished child. Of course it is possible, and not unlikely, that the child in good physical condition may contract the disease, but he has every chance of recovering; whereas the child in poor physical condition has a more serious case and recovers very slowly, if at all.

¹"What is Malnutrition?" by Lydia Roberts. Bureau Publication, No. 59. Children's Bureau, U. S. Department of Labor, Washington, D. C.

TEACHERS' QUALIFICATIONS

Especially in the lower grades, teachers can do much to promote good health, and have a large share in building up the health welfare of the state. But the teacher must have certain qualifications, some of which may be acquired.

To be a successful teacher of health, one should look the part and practice what one preaches. "It is inconsistent for an anemic, stoop-shouldered, disgruntled, and underweight teacher, or a heavy, flabby, loggy, one to teach health," says one authority. Health is best taught by contagion, and only the teacher who is healthy, both mentally and physically, can do it. "Every teacher should try to build up for herself a vigorous body, a serene and well-balanced mind, and a buoyant spirit." If a teacher is going to try to teach others to become healthy, she should follow the Rules of the Game herself. It is almost inevitable that a teacher who is interested in health teaching becomes robust and establishes a more normal weight. It becomes fun to play the Game with the children, who are thus inspired to build up or preserve their health. To be a good teacher of health means being a better teacher of other subjects.²

There are a great many schools in our state without school nurses or physicians, in buildings that are inadequate or unhygienic, and in communities where there is no interest taken in bettering the welfare of the children. Yet even thus handicapped every teacher can do something to remedy the situation. Here are a few suggestions made by Andress and Bragg:

1. Read the pamphlets on health teaching issued by the United States Bureau of Education, Washington, D. C.
2. Read at least one good book on health each year.
3. Get children interested in forming health habits, like cleaning their teeth, bathing more than once a week, eating green vegetables, and sleeping and resting properly.
4. Try to weigh and measure all your pupils. If you do not have scales, perhaps somebody in the neighborhood has some you might use—a groceryman or farmer.
5. Try to get co-operation of parents. Organize a parent-teacher association, or, if

²These ideas are adopted from *Suggestions for a Program for Health Teaching in the Elementary Schools*, by J. Mace Andress and Mabel C. Bragg. U. S. Bureau of Education, Washington, D. C.

you already have one, see that health topics are introduced. Invite your county superintendent of schools or a physician in good standing in the community to speak. Try to get parents to the school house, so that they may see unhygienic conditions and take an interest in their correction; also in discussing the health of the children and what they may do to help.

6. Have the children discover the conditions and plan the remedies by their own work and by enlisting the co-operation of the community.

A large number of school buildings are poorly lighted and ventilated, and have very poor seating arrangements. A teacher cannot expect the best work from her pupils under these adverse circumstances, and should, in so far as possible, do her best to overcome the difficulties. She cannot always change the windows in her schoolroom, but she can rearrange the seating plan so that the light will fall properly on children's desks. *Healthful Schools*, by Ayres, Williams and Wood, contains definite directions for adjusting desks and chairs for school children. There are ways, too, of improving ventilation.

Sanitation is so often a big problem, especially in rural schools. If this is the case, the teacher can do no better than write at once for bulletins on this to the State Health Department, Richmond, Virginia.

The organization of a Health League among the children in schools is a splendid means of interesting them in becoming more healthy. In this way, too, the parents' co-operation may sometimes be gained. Explicit instructions for the organization of such a league may be obtained from *Virginia Health Bulletin* No. 1, Vol XIII, for January, 1921.

SCHOOL NURSES AND PHYSICIANS

Wherever possible the services of a nurse and physician should be secured for the school. Only in the larger cities and towns are school physicians employed; they are exceedingly rare in rural districts. The reason for this is that they are poorly paid and work only on a part-time basis. When this is the case the work is nearly always superficial. There is great need for good school physicians, who will do their work efficiently. They are highly desirable because of the great work they are able to do toward building up vigorous health for boys and girls. They should have adequate time to advise teachers, nurses, and parents, and should be adequately remunerated for their services.

If a community cannot support both a physician and a nurse, let it by all means have a nurse. She can do a great work in advising parents of the defects of their children, so they can take them to their family physician. The nurse is needed as a connecting link between the school and the home. Besides examining pupils, in case there is no physician, and notifying their parents, she gives instructive talks on mental and personal hygiene, helps the teacher in her health work by placing charts, posters, etc., in the schoolroom, encourages vaccination, and recommends that children having any communicable disease be sent home. She is invaluable in instances where epidemic breaks out in communities.

In order to afford some idea of the splendid work of a nurse, the following reports from Virginia nurses are given:

"Miss Margaret Lambert, Red Cross public health nurse for Tazewell county, in her report for December, 1920, shows a large number of children examined besides other good work. During the month she spent fifty hours in the schools and examined 618 children. Among these she found the following defects: defective vision, 91; defective hearing, 4; nasal obstructions, 50; enlarged tonsils, 77; defective teeth, 208; malnutrition, 69; and mentally defective, 2. She referred 208 of these to a dentist, 91 to an oculist or optician, and 75 to a physician. Besides this the nurse paid 21 home visits and 4 miscellaneous visits, and gave three talks to the pupils in class. During the month 282 pupils were examined by a physician."

And again—

"Miss Hope Harris, public health nurse for North Holston, Smyth county, Virginia, sent in a very good report for December, 1920. During the month she inspected 82 pupils and found 69 of them to have defects. Defects of teeth 57, defects of tonsils 48, defects of speech 2, cervical glands 1, and malnutrition 10. She paid instructive visits to 137 pre-school children, 88 school children, 255 general patients, 20 pre-natal patients, 115 babies, and 15 tuberculosis patients, making a total of 635 instructive visits paid. She gave bedside care to 47 pre-school children, 35 school children, 141 general patients, 5 maternity patients, 11 pre-natal patients, and 28 babies, making a total of 267 people to whom bedside care was given. She gave twelve talks to pupils and visited sixteen homes of school children."

Virginia's state supervising nurse, Miss Nannie J. Minor, carries on an active program. Her work includes general supervision of public health nurses who are already in the field, stimulating communities to see the need of public health nurses where there are none, and assisting in every way

possible the general program of public health in the state.

Some of the counties in our state have public health nurses, and it would be a fine

thing if all of them had nurses. Below is a list of the twenty-eight county nurses engaged in public health work on October 21, 1921, as listed by Miss Minor:

COUNTY	NURSE	HOW FINANCED
Albemarle	Miss Martha Oakes	Supported by health unit in county.
Arlington	Miss Ella Whitten Mrs. M. A. Rudasill	Supported by County Health Unit.
Amherst	Miss Theresa Ambler	
Augusta	Miss Ruth Allison	Employed by county.
Botetourt	Miss Betty Robinson	Employed by Red Cross Chapter as county school nurse.
Brunswick	Miss Helen Brockway	Employed by Red Cross Chapter as County Public Health Nurse.
Caroline	Miss Lillian Gorton	Employed by county.
Chesterfield	Miss Gertrude O'Connell	Employed by Red Cross Chapter.
Clarke	Miss Lillie B. Groves	Employed by Chesterfield Health Association, to which the Red Cross contributes largely
Elizabeth City	Miss Bertha M. Winne	Employed by Red Cross.
Essex	Miss Ann Meek	Employed by county.
Fauquier	Nurse Daisy Greene	Goes on duty in Essex county Nov. 15, 1921, paid by the Red Cross Chapter.
Giles	Miss Lou London	Supported by private contributions from colored people.
Goochland	Miss Juliet Scott	Supported by Red Cross Chapter.
Greensville	Miss Lucy Hamilton	Supported by county.
Halifax	Miss Draper Fultz Miss Alice Carson	Supported by the Red Cross, but affiliated with county Health Unit.
Henry	Mrs. Freda Drewry	
Loudoun	Miss Anne Gulley	Supported by county.
Mecklenburg	Miss Mary F. Roth	Paid by private contributions.
Norfolk	Mrs. R. S. Dick Miss Ada B. Davis	Employed by Red Cross Chapter.
Prince Edward	Miss Mamie Rice	
Prince George	Miss Alice B. Dugger	Supported by School Board.
Princess Anne	Miss Mary Patrick	Supported by private subscriptions.
Roanoke	Miss Sarah Earhart	Supported by Red Cross Chapter.
Rockbridge	Miss Rubie Venable	Supported by Red Cross Chapter.
Southampton	Miss Isla Bragg	Employed by Red Cross.
Wise	Miss Rachel McNeil Miss Jane Morgan	Supported by Red Cross Chapter.
Wythe	Miss Powhatan Stone	

Thirteen of these counties have nurses supported by the Red Cross. The Red Cross and similar organizations can do no better work than to furnish school nurses and physicians until the need of health work is realized by the people in the community, and until the responsibility is assumed.

The above list, it will be noted, contains only the names of the county nurses. Of course many cities maintain health nurses that are doing an equally wonderful work, but it has not been possible to obtain a complete list of these.

PHYSICAL EDUCATION

Physical exercise plays its part in the upbuilding of the health of the children. "Vigorous, happy, physical activity is a necessity for health. It develops strong

muscles, good lungs, a keen appetite, good digestion and elimination, stimulates efficient mental activity, is a preventive of bad posture, gives standards of good posture, and promotes robust health."³ If the proper amount of activity can be gotten through plays and games, especially in the open air, so much the better. Formal gymnastics may be desirable, but they are often regarded as work, unless the teacher makes them sufficiently interesting and puts enough of the element of play in them.

The physical director, if there be one in the school, has a powerful influence that may touch the whole school system. He can uplift the morale of the whole school, and instil

³Suggestions for a Program for Health Teaching in the Elementary Schools. J. Mace Address and Mabel C. Bragg.

in his pupils an everlasting love for the activities out of doors.

Mr. G. C. Throner, State Supervisor of Physical Education, when asked about the work of that department replied: "Briefly stated, this department is working with the State Board of Health in an attempt to have universal inspection of all school children. After this I am concerned with physical education 'which sees in measures insuring bodily health and the right kind and amount of motor activity, an avenue of approach through which the whole individual may be influenced for good in mind and character, as well as in body.'

"I am attempting to have set up twenty minutes gymnastics daily", he says further, "in addition to play, games, and athletics."

Almost all of the cities of any size now have physical directors for their schools except Danville, Bristol, Charlottesville, Harrisonburg, and Staunton. Staunton is now looking for a well-qualified man. Mr. Throner states that there are several counties that now employ physical directors towards whose salary the state gives financial aid up to \$1000.00. He says he expects to see five additional counties added to the list another year.

CLINICS

Teachers, nurses, and doctors can do a wonderful work toward building up the health of our school children, but that work can go only so far. They must have something to support them, and this is what the clinics do. If the cities support clinics, so much the better; if not, then local clinics can be arranged for by the school or county nurse. These clinics give most valuable service to children who otherwise would still remain handicapped; they are being operated in various sections of the state. Some last two days, some three or four days, and others for a week perhaps. The services of the nurses, and sometimes of the doctors, are usually free, and patients pay only as they are able. Various means are used to provide for anesthetics, medicines, gauze, etc. In some instances the children are so eager to have the clinic that they devise plans whereby money may be raised. Numbers of interesting reports are to be had on clinics that have been held, and the almost primitive conditions under which they were operated. The story is told of a child who

walked six miles to a school in Mecklenburg county to have her teeth treated. She said she would have walked six miles more if necessary to have her teeth attended to, as she had been having the toothache, and had lost lots of sleep. As her parents were poor she was treated free of charge. Nose and throat clinics are held, as well as those for dental work, and are instrumental in removing a large number of children from the invalid list.

Of the city clinics probably not one is doing any better work than that of Danville, under the supervision of Dr. P. W. Garnett. Each year a large number of school children, both white and colored, are examined and treated. Following is a brief synopsis of the work as outlined by Dr. Garnett.

Having definitely recognized that medical inspection of school children without aggressive measures in the way of follow-up work for getting corrective work done, is worth but little, we started out more than two years ago to organize clinics in order to accomplish this aim. Being at that time unable to secure funds from the city for undertaking this new line of work, for which the popular mind had not been prepared, we appealed to the local Red Cross to appropriate funds out of its balance left after the war, to enable us to begin this work and make demonstration of its value.

The first clinic that we organized was in February, 1919, and was an effort to deal with the Venereal Disease problem. We have managed to keep this going with greater or less success ever since. A little later we organized a Baby Welfare station, bought equipment and paid a special nurse for three months out of Red Cross funds. Later on we secured city appropriation for continuation of this work and established three stations at different points in the city to which mothers were urged to bring their little children for weighing, measuring, and other examinations and for advice as to proper care.

A little later we undertook to organize a dental clinic for school children and secured from the Red Cross funds with which to buy a fair dental equipment.

At first we tried out the plan of having dentists give two hours each on certain days coming in rotation. For several reasons this plan proved to be a failure and we did not succeed in getting this work going satisfactorily until we secured an appropriation from the City Council with which to employ one dentist for definite hours. At present our Dental Clinic is doing excellent work for white children.

We undertook at the beginning of this session to have the dentists of the city give their services to the extent of visiting each school for examination of the children's teeth and

charting same. We classify these charts under three heads, designated A, B, and C, depending upon the teacher's knowledge of the family economic conditions.

In class A are those children who, we believe, would have their work done privately and whom we urge to go to their own dentists. In class B are those children who we believe should have dental work done free. In Class C are those who should come to the clinic, but who should pay small fees for getting the work done. These latter two classes are therefore urged to take advantage of the opportunity offered by the clinic. One difficulty that we have at present is lack of funds to employ the dentists for a sufficient number of hours to get all the work done. We are hoping soon to be able to remedy this defect in a measure at any rate.

We are undertaking to get work started for the colored children also and have bought a portable chair and have arranged with the colored dentists to do some work in the schools themselves, getting their compensation from the small fees that Class C children can pay. We believe that this Dental Clinic is proving to be of decided value in an educational way as well as for the amount of corrective work that it actually gets done. The activities along these lines of course result in getting a considerable number of children to private dentists as well as to the clinic.

We have also been conducting Adenoid and Tonsil Clinics with a fair degree of success. We secured the use of three large rooms in a building belonging to the city. One of these rooms we fitted up for operations, the other two we used as wards, one for boys and the other for girls. Arrangements were made with a first class specialist of the city to do these operations on Friday afternoons. We usually handle five children at one clinic. They are instructed to take a laxative Thursday night, to have milk only for breakfast, and to come to the clinic at 10 o'clock Friday morning. About one-third of the children are free cases and the remaining two-thirds pay from \$5.00 to \$20.00 each.

After paying the actual expenses of extra nurse, etc., we turn the remainder of the income of the clinic over to the specialist. This clinic has handled some 125 cases at an average price of about \$5.00 and has directly or indirectly been the means of stimulating attention to the importance of having this work done for those children who need it.

SCHOOL LUNCH ROOMS

Another factor, not only in building up but also in keeping up, the health of our children of school age is the school lunch room. Startlingly large numbers of children go to school every morning without having had any breakfast, or one of such food as was probably worse than no meal at all. It has been found by teachers that children do far better work after having had a whole-

some nourishing lunch. Any teacher anywhere can provide her pupils with a simple but nourishing lunch at noon if she is interested enough. Even if she is in a country school she can cook wholesome foods like macaroni with cheese sauce, a meat and vegetable stew, or make cocoa right on top of the stove in her school room.

Small sums should be charged children who can afford to pay for their lunches, and in this way some of the expenses of a lunch room can be met. Sometimes benevolent organizations can be persuaded to contribute something toward the up-keep of a school lunch room.

Wherever there is a lunch room the difference can be noted in the appearance of the children. It isn't because children don't always get enough food at home, at least in the case with some of them, but because they don't get the right kind of food. Whether it be this cause or some other, the school lunch room, if properly conducted, can do much toward correcting it.

HOME CO-OPERATION

All corrective measures should not come from without the home, however. Teachers, nurses, and others can only advise and encourage treatment, but without the co-operation of parents or guardians very little can be done for the children. In many instances parents are grateful to the teacher or nurse who notifies them about a defect in their child and will take steps immediately to have that defect corrected. On the other hand, strange as it may seem to some of us, there are some people who do not care whether they have their children's defects remedied or not. So long as they are able to go to school and drag listlessly through day after day the parents seem perfectly satisfied, and would probably consider it money wasted were they to spend it to have tonsils and adenoids removed, or teeth and eyes treated. It is this last class that the teacher and nurse must work to win over to their side, and it will take a great deal of hard work and tact to do it, but for the sake of the children it is well worth the effort.

SUGGESTIONS FOR TEACHING HEALTH

There has been so much talk and writing about how to teach health that I hesitate to give any suggestions along that line. How-

ever, any teacher interested in the welfare of the children she has under her care can easily learn how to teach health. One of the best pamphlets a teacher could have is *Suggestions for a Program of Health Teaching in the Elementary Schools* by J. Mace Andress and Mabel C. Bragg. This is Health Education Bulletin No. 10, and can be obtained from the U. S. Bureau of Education, Washington, D. C. Then there have been a number of books written about all phases of health. A splendid bibliography may be found on the last page of the above mentioned bulletin.

The Child Health Organization, whose headquarters are in New York, is always ready and willing to help. They have numerous pamphlets and posters that are invaluable in health work, and a price list will be sent on request.

Our own State Health Department, also, is at the service of teachers. The very best thing any teacher can do for herself and her pupils is to enroll in the correspondence course that is given by a director at Richmond, who is under the State Board of Health. In order that the nature of the course be well understood, a copy of the regulations is given below.

Purpose of this Course: The provisions of the West Law have made it necessary for the State Board of Education to require from all who desire certification a course in preventive medicine and the physical inspection of school children. This course has been conducted jointly by the State Board of Health and the State Board of Education at the various state normal schools and other institutions actively engaged in preparing teachers, and at the several summer schools in the state. It has been impossible for all teachers to avail themselves of these opportunities, and inasmuch as a full certificate cannot be issued without the qualifying certificate, a correspondence course has been arranged to supply opportunity for home study to those who cannot take advantage of other means of instruction.

Scope of Instruction: This course will consist of twelve lessons covering the following subjects: Physical inspection of school children; School sanitation, or control of communicable diseases; Personal Hygiene; First aid to the injured; Physical education; Practical work; Methods of teaching Hygiene.

How to Enroll: (1) Write to Director of Correspondence Course, State Board of Health, Richmond, Va., for application blank.

(2) Fill out the blank, being careful to give all the information requested.

(3) Mail the application blank to Director of Correspondence Course, State Board of Health, Richmond, Va.

Text-books: Ritchie's *Primer of Sanitation and Physiology*; State Board of Health Bulletins, especially *The Health Manual for Teachers*, and *The Sanitary School*; State Board of Education Bulletins: *The Course of Study for Elementary Schools*, and *Physical Education*.

Method of Instruction: After the student has enrolled and secured the necessary text-books, the instruction is begun. Each lesson will contain directions for study and questions to test the student's method of work and his understanding of the subject.

After the student has thoroughly studied the lesson, he should write out his answers to the questions on good paper, in ink, together with the statement of any difficulties he has met or questions he desires to ask. These answers should be mailed to the *Director of Correspondence Course, State Board of Health, Richmond, Va.* These answers are then corrected and returned to the student accompanied by necessary explanations, together with the next lesson. In this way the student receives personal guidance and instruction throughout the course.

The director will read and criticize all papers with care, not only correcting errors, but also making such suggestions as will be helpful to the student in gaining a clear comprehension of the subject. The corrections will include errors in form, spelling, and English, because these subjects are of great importance in the work of a teacher. A passing grade of 75% is required on all lessons.

Fees: There will be no charge for this course, but all papers sent in to the director must be accompanied by return postage.

As is stated the course is free to any who desire to enroll, except for the small sum that is expended on textbooks and postage. The lessons are sent one at a time and when the course has been satisfactorily completed the student receives a certificate signed by Mr. Harris Hart, State Superintendent of Public Instruction, and Dr. E. G. Williams, State Health Commissioner. The course may be taken at any time during the year, and there is no time limit. Credit is given for this work by the State Board of Education on requirements for first and second grade certificates.

Let every teacher wake up to the fact that something must be done about the health of our state and nation. We follow the fashion is dress and conventions; now let's make it a fashion to be healthy. Shall we adopt as our slogan, as one system of schools did, "LET'S MAKE HEALTH FASHIONABLE"?

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