HEALTH HABITS OF HIGH SCHOOL GIRLS

by

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CHAPTER I

THE PROBLEM

Since health has been recognized as one of the objectives of education, it is important that schools teach how health can be attained and preserved. Pupils should be provided with a background of health information which will lead them to intelligent self-direction in living. In order to provide pupils with such a background, it was deemed wise to determine first what habits had already been acquired. With that in mind, the writer has made, by means of a questionnaire, a study of the health habits of 237 girls in Brazil High School. The results of this study should indicate where to place the emphasis in health training.

The study of health habits is important in that it can show us what progress our schools are making. This study of the health habits of the high school girl is made in the hope that the results found may help in this great problem at last undertaken by the schools. It is a question of "the development of a complete understanding of the problems of healthful living, the physiology and hygiene of the human body, and a sustaining life philosophy built upon worthwhile habits,"
knowledge, and attitudes for the girl approaching early womanhood.  

A healthy body is as desirable as a trained mind, and it must also be recognized that health is conducive to greater mental alertness and efficiency. To teach health in the ideal manner, no phase should be ignored. By health one ordinarily means the well-being of each cell and organ of the body and its harmonious functioning. But this well-being depends on the way in which these cells are fed and exercised, and how the organs are used, that is, on certain kinds of behavior. For instance, the nutrition of the body depends upon what and how one eats. But eating is a form of behavior. The maintenance of health requires a certain amount of physical exercise and sleep. Again, physical exercise and sleep are both forms of behavior. Behavior, like all other conduct, is the result of learning. Consequently, the maintenance of health becomes a problem in applied psychology and the concern of education. Psychology is the science which deals with mental activity, and one form of mental activity concerns the


control of conduct. Education is concerned with the guidance of learning, and since health, thought of as behavior, is a form of learning, it becomes a real and vital concern of education.

Health has much to do with happiness. Good health favors—it does not insure—personal efficiency. It aids the attainment of personal ambitions. It permits more of us to live longer lives, and better still, more cheerful and useful lives. Ill-health is a millstone about our necks. It diverts our energies. It discourages ambitions. It brings sorrow and misfortune and decreases earning capacity. It retards social progress. It may shorten life. It is waste. Health is influenced by many factors—inheritance; economic resources which govern the ability to provide those things that favor health; care in early life; climate; geographical location; occupation; availability of medical advice; availability of corrective facilities, such as hospitals and clinics; knowledge of what promotes or impairs health; judgment and self-direction on the part of the individual; community provisions for protecting health, which are beyond the power of the individual alone to provide. Health, then, is to a degree controllable. Health advancement for the country as a whole is dependent largely on informed public opinion. The schools can assist in shaping attitudes with respect to health as well as in establishing good health conduct.
W. R. P. Emerson says, "The word health is generally accepted to mean a condition of body free from physical diseases,"\(^3\) but such a definition is much too limited.

Other health definitions are excellent from the physiological viewpoint; whereas some give specific reference to "mind or soul". Andrew F. Currier\(^4\) approaches more closely to a definition which gives due weight to the objective considerations of biology, physiology, and pathology, to cellular and organic health, but also does not overload the subjective aspects of the feelings of the individual. Jessee Feiring Williams\(^5\) reminds us that: "It is of value to think of health as that condition of the body that makes possible the highest enjoyment of life, the greatest constructive work, and that shows itself in the best service to the world. It involves keeping the body and mind at the highest level, living at one's best and not being satisfied with mere absence from the hospital and the sickroom."


Here for the first time we find health expressed in terms of an ideal, not for itself, but as a means of service to the community and the race.\(^6\)

From these and many other definitions we might conclude that:

"Health is a state of feeling well in body, mind and spirit, together with a sense of reserve power. It is based on normal functioning of the tissues and organs of the body, a practical understanding of the principles of healthful living and a harmonious adjustment to the physical and psychological environment, together with an attitude which regards health not as an end in itself, but a richer life as measured in constructive service to mankind."\(^7\)

Miss Gibson further says:

In an average hundred people, about ten are really ill and know it, and need something done for them; about ten are splendidly well and living so that they are likely to be better and better. The rest, the big careless eighty, think they are well, but are really subject to all sorts of little, unnecessary, more or less neglected ailments—stumblings—lapses from the righteousness of real health. Poor ten per cent at the bottom, really sick—let the doctors and surgeons do everything they can to help them


\(^7\)Ibid., p. 23.
up. Happy ten per cent at the top—congratulate them, with all your heart, and get up and join them if you are not already there. Eighty per cent in the middle—let them start off on their road as soon as they possibly can, drop off the burdens they bend under, and not be content one moment till they have made their own habits, their home surroundings, their work, and their play and their relations with other people, all into helps by which they mount to the joyous portals of real health, 100 per cent good. 8

A strong, graceful, and active body; an alert, inquisitive, and discriminating mind; a sincere, happy, and generous spirit—these are the evidences of sound health and they are not separate but one. 9 Even though for convenience we speak of body, mind, and spirit, they do not exist apart on this earth and cannot be separated. It is the whole man, the unit of life, that walks, thinks, feels, acts, meditates, inspires—and weakness at any point in his being lessens his total effectiveness. One should look at himself in this comprehensive way and try to give himself a chance. One should try not to do things which will make it impossible to be his best tomorrow, but, no matter what the crowd does, hold fast to ways of daily living which are right and which will enable him to realize his highest self.


For the child at all ages there are certain fundamentals which go to make a healthy body and a well-adjusted mind. There may be differences of opinion as to which of them is more important, but these differences in themselves are of small importance, because all the factors necessary for good mental and physical health are of approximately equal significance. These factors may be mentioned as follows: good nutrition, adequate rest, satisfactory play, protection against disease, protection against accidents, and good emotional adjustment.

Sensible clothing habits may also contribute both to the physical and mental health of an individual. For this reason it is desirable that health education include both consideration of the principles involved in the relationship of clothing and health, and guidance in the establishment of sound habits and attitudes with respect to clothing. Consciousness of appropriate dress increases self-respect and self-confidence and thus may be a contributing factor to mental health.

Good health is also reflected in the sparkle of one's eyes.¹⁰ These proverbial "mirrors of the soul" constitute

a prominent feature of attractiveness eulogized by poets of all eras. If you want beautiful eyes, you must enjoy a state of good health. The eye muscles are the tiniest muscles of the body; they are the first, therefore, to show fatigue and illness. We are all aware of the dull eyes of the ill or unattractive. We speak in contrast of the shining, sparkling eyes of the well and attractive.

A broad, flashing smile is another important feature of one's personal attractiveness. Strong, regular teeth--possible only through the proper diet and care which accompany good health--are a most essential qualification of that same smile. The vitamins and minerals which assist in the maintenance of good health produce lustrous, luxuriant hair and beautiful nails which, in turn, make their contribution to one's personal attractiveness. Therefore a very important factor related to attractiveness is that of good health.

Health is not to be interpreted in the limited definition as freedom from disease. Dr. Jessee Feiring Williams of Columbia University supplies a far more significant definition of health when he defines it as "that quality of life which enables an individual to live most and to serve best."11

Health so conceived is broad in its scope, qualitative rather than quantitative in its implications. In other words, health is to be considered as a broadly functioning quality, with mental and social as well as physical aspects. These physical, mental, and social aspects of good health have definite implications, in turn, for the cultivation of personal attractiveness.

To be attractive one must be alive, mentally as well as physically. That mental aliveness adds vivacity to the expression of one's face. Optimism, courage, self-confidence without braggadocio, initiative without aggressiveness—these are attributes of good mental health which, in turn, contribute to one's attractiveness. The individual who is beset by fears or conflicts manifests her maladjustment in a furrowed brow and lines of dissatisfaction which detract appreciably from the attractiveness of her face. We rarely feel drawn toward a tense, "jittery," nervous individual. The woman who is high strung, who "flies off the handle" readily, creates an atmosphere of tension about her which robs her of any attractiveness which she might otherwise possess. On the other hand, the well-integrated, poised individual is attractive. Adequate sleep and rest are essential for such poise and relaxation. Shakespeare long ago voiced this truth when he wrote of:

Sleep that knits up the ravelled sleeve of care,
The death of each day's life, some labour's bath,
Balm of hurt minds.
Physical fitness is not only an individual, a national, but a racial obligation.\textsuperscript{12} How well are women meeting this obligation? Health is the birthright of every woman as well as of every man; but until she rids herself of some of the hampering traditions in regard to women, the average woman will not attain this birthright, and not only the individual and the nation, but the race will be robbed of its due.

Nor can we expect to have the best physical conditions in woman so long as she spends her leisure time making tatting to decorate her clothes or knitting or embroidering while her brother is playing ball.

The splendid modern woman, with her sound and perfectly functioning body, her trained mind, is beginning to have the freedom to express her genius in whatsoever form she chooses. She does not recognize that being a woman is a handicap unless she is made conscious of some of the economic barriers raised against her by the traditional view of her weakness and incapacity.\textsuperscript{13}

The woman of tomorrow will pay for her still greater freedom by greater obligations of service, demands which we


\textsuperscript{13}\textit{Ibid.}, p. 81.
of today may not even imagine. Born into a world of unlimited opportunity, the woman of the rising generation will answer the question of what woman's real capacities are. What are her handicaps? What are her abilities? She will measure up against the men of her generation and be weighed in the balance of equal opportunity. She will have physical, economic, racial, and civic freedom. What will she do with it?

Today woman is offered unlimited freedom, unhampered by any tyranny except the tyranny of fashion, which rests with her alone to remove. The college woman has chosen, and is today an inch and two-tenths taller than she was thirty years ago, free from periodic incapacity, fit for any work at any time.

"Health education may be defined as all the physical conditions, experiences, information, and counsel in and outside of school which produce desirable changes in personal, racial, and community health."14 Thus defined, health education is clearly recognized as a continuous series of learning experiences built around the whole life of the child. In addition to the systematic health instruction provided by the school, the total program includes health services, the

provisions for physical education and recreation, the mental-hygiene atmosphere of the school, and even certain aspects of the school plant.

The aim of health instruction is to assist in the development of desirable habits, wholesome attitudes, and adequate knowledge relating to personal, community, and racial health.\textsuperscript{15}

From the school viewpoint, health instruction is not new. For many years both health and safety have been taught in a limited degree with emphasis being placed on the preventive measures. Rules and regulations were freely stressed and rehearsed. We were extremely liberal with our use of admonition and the other usual devices. With the changes in modern educational philosophy, health education has assumed a new meaning. Now we are less interested in a regulated regimen and more interested in the development of the whole student. We teach those things that assure adjustment to the social life of which each of us is the part. We must teach the child to approach life with intelligent insight and understanding rather than with fear and quaking.

\textsuperscript{15}Floyd I. McMurray, "Health and Safety Education," \textit{Indiana State Course of Study}, 1939, p. 4.
The general aims and objectives of health education are definitely a part of the objectives of all education.

We must provide the students with a background of health information and help them develop habits and attitudes which lead to intelligent self-direction in living.

"The aims of health education may briefly be stated as follows: 16

1. To instruct children and youth so that they may conserve and improve their own health.

2. To establish in them the habits and principles of living which throughout their school life and in later years will assure that abundant vigor and vitality which provide the basis for the greatest possible happiness and service in personal, family, and community life.

3. To influence parents and other adults, through the health education program for children, to better habits and attitudes, so that the school may become an effective agency for the promotion of the social aspects of health education in the family and the community as well as in the school itself.

4. To improve the individual and community life of the future; to insure a better second generation, and a still better third generation; a healthier and fitter nation and race.

5. To supplement school health instruction for those whose formal education has been terminated, in order that they may be kept abreast of progress in modern medicine and public health, both as regards knowledge and practice.

6. To afford opportunities for practical health knowledge to those who were deprived of education, or whose education was acquired prior to the development of modern conceptions of health education in the schools which they attended. Perhaps the greatest value of school health instruction comes from the development of a scientific attitude toward problems of health and disease and a realization that the principles of biology, physics, and chemistry are as applicable to the human body as to matter or material elsewhere. It is believed a scientific attitude toward health and disease can break down superstitions and fads and thereby fit pupils to analyze critically the tremendous amount of misleading advertising presented in magazines and over the radio. Practice in distinguishing between fact and fallacy in health problems, learning where to find scientific data and authentic opinions, and studying various types of problems related to quackery and patent medicines are methods to be employed in developing a scientific concept of personal and community health problems.

CHAPTER II

REVIEW OF THE LITERATURE

Miss Virginia Hall in a study made in 1938 found that no other subject in the curriculum has been so widely discussed and written about as health education and that there is probably no other subject which still has such diversity in subject matter content, method of instruction, and place in the program of studies in secondary schools throughout the country. Although health education has been set as one of the primary objectives in education, Miss Hall reports, in no other subject would the hit or miss methods employed in health education be tolerated. 18

Some form of health education, good or bad, has been in existence probably as long as man, Miss Hall declares. Much that was taught by primitive peoples was based upon superstition and was not only valueless but exceedingly harmful, she says. While superstition has not been entirely eradicated in the health beliefs of civilized peoples, the remarkable progress which has been made in the field of medicine and public health has done much to replace superstition with

scientific fact. Although it is true that progress could not have been made without the aid of science, Miss Hall believes it is equally true that the contributions of science would have failed in much of their usefulness without the aid of education.

The physical condition of school children and the health of the adult population in general indicate a definite need for a more effective health education program both in the school and in the community. Present-day trends in the school program are toward a better correlation and integration of health teaching in other subjects rather than as a separate subject, the writer declares, with more attention paid to the hygiene of teaching and of the school room, an attempt to have the student practice healthful living throughout his school day, a shift away from a service to an advisory program of medical supervision, and a greater effort to prepare the individual to meet his future health problems through information regarding community resources which are available for medical and surgical care.

Miss Hall says that much of the effectiveness of health teaching depends upon the attitude of the student. It was, in fact, from a desire to learn the attitudes of secondary school students toward the subject of health hygiene that Miss Hall's study was undertaken. She was interested in
learning whether the majority of senior high school students are interested in or antagonistic toward the subject in general and the reasons for their attitude. She felt it desirable to learn the particular phases of the subject which are interesting or uninteresting and for what health knowledge the students feel a real need. While making this study, she also deemed it advisable to determine, if possible, how much false information students had which needed to be replaced with scientific fact. In order to judge the effectiveness of the teaching which the students here studied had received, a test of their knowledge of health information and a survey of actual health practices was also included in the study.

The questionnaire method was selected by Miss Hall as the best means of obtaining information about interests and attitudes and actual health practices. A health information test was used to obtain data of the health knowledge of students. Twenty-four questions concerning superstitious beliefs and eight questions suggesting the influence of advertising on health information were included in the test. The two questionnaires and the health information test were given to 483 seniors in three high schools, one in Seattle, Washington, one in Aberdeen, Washington, and one in San Diego, California. Miss Hall hoped by this method to determine the extent of health knowledge, superstitious beliefs, lack of
knowledge, and the suggested influence of advertising on health knowledge of high school seniors.

The following conclusions were drawn by Miss Hall from the results of the study:

"1. That the majority of students like the study of health and that failure of interest is due primarily to poor teaching methods.

"2. That certain specific phases of health education are more interesting than others, prevention and control of disease, first aid, and personal health habits ranking highest in interest.

"3. That students would be interested in a discussion class in health problems in which they might choose the topics for discussion, those suggested by them in the study representing real health problems and showing worth while interests.

"4. That need of further instruction is indicated in certain phases of health education which were found conspicuously lacking.

"5. That the reasons given by students for the importance of health education indicate an appreciation of its value.

"6. That much of the health teaching as given is not found practical and that students do not always apply their health knowledge in daily living."
"7. That the health knowledge of the majority of the students is as good or better than their knowledge of other school subjects.

"8. That the majority of students have fairly good health practices.

"9. That there is sufficient belief in superstitions to cause concern and indicate the need of correction with scientific fact."

From the conclusions drawn from this study the following recommendations were made by Miss Hall:

"1. That teachers be given a better foundation in health education and better training in methods of health teaching.

"2. That some provisions be made so that all students will be given the fundamentals of health education, which will include not only health information but practice in healthful living.

"3. That students be given scientific facts as criteria for judging the claims of advertisers, and that an effort be made to stimulate critical judgment rather than blind acceptance.

"4. That superstitious beliefs be studied and scientific facts presented as proof of their fallacy.

"5. That the problem of sex hygiene be more adequately met in frank, scientific discussion, free from emotional bias."
"6. That health education for parents be included in the school program.

"7. That the entire school personnel be made more health conscious, so that the whole school program may be made to contribute to health education.

"8. That the aim of all health education be to give the student a real understanding of the meaning of health, and an adequate knowledge of the basic principles which will enable him to solve his own health problems and to create in him a desire for good health which will be sufficient motivation to turn adequate health knowledge into skill in health practices."

A survey of 125 accredited Michigan high schools made by Mabel E. Rugen revealed: 19 (1) Nearly 100 per cent of the children of larger schools had a health examination sometime during their school years, while only 54.4 per cent of those in the smaller schools had such examinations; (2) follow-up programs exist in only 66 and 32 per cents respectively; (3) most school children had experienced first aid at some time; (4) the content of most health instruction courses is rather vague.

A study was made to determine if health knowledge functions in practice.\textsuperscript{20} The conclusions were that there is a low correlation between health knowledge and health practice.

Miss Steele\textsuperscript{21} compared the results of a health knowledge survey of January, 1935, with the results of a survey made in January, 1933, and because the ratings made by the elementary and junior high school pupils in 1935 were so much lower than in 1933, analyzed the test items and the course of study to determine the reasons for the low ratings. She found that the school children ranked low in food knowledge, in knowledge of structure and functions of the body, and of disease, items which were not covered thoroughly in the course of study; and that they ranked high in knowledge of wholesome living habits, on which a great deal of emphasis is placed in the course of study.

The \textit{Journal of Health and Physical Education} reported in a study in 1940 that some secondary schools have provided health instruction one period a week over several years, and


others have had health talks given to physical education classes on rainy days. These were regarded by the committee making the study as being unsatisfactory administrative arrangements. Direct health instruction should be in regular classrooms and laboratories, with classes comparable in size to other academic classes, the committee declared. Provision should be made for modern health and science textbooks and visual aids, and the best present day methods of instruction should be used. Consideration was suggested of a plan whereby, in addition to units presented in various subjects, direct health instruction is offered five periods per week for one semester at the junior high school level and five periods per week for one semester during the senior high school year. Credits should be given for these courses comparable in amount to those given for the satisfactory completion of other courses, the committee recommended.

As a policy it was recommended by the committee that schools recognize and acknowledge responsibility to educate pupils regarding the acquirement and improvement of health, the prevention of disease, and the coping with community health problems. For the educated person the first requirement in the field of health is an inoculation against

superstition, voodooism, witchcraft, and humbug in the fields of medicine and human biology, the committee emphasized. The best serum now available for this purpose, the committee stressed, is a scientific knowledge concerning the human mind and body as a functioning organism. Health teaching in the schools may result in a modification of the immediate present environment of the pupils to a limited extent only. However, the report added, improvement of the living conditions of the future depends upon the interest and intelligent effort of future citizens and their support of legislation and activity for the public welfare. By establishing attitudes and ideals in school children which will stimulate them now and later to give such interest and support, and by supplying to them the necessary scientific basis, health education may be a means of bettering the living conditions of the future, it was concluded. As a policy regarding health examination, it was suggested that schools assume responsibility for developing a program of periodic health examination, and that this program encourage examination of pupils by their private physician. In following such a policy, the committee recognized that it


will be necessary for schools to provide examinations for large numbers of pupils whose parents cannot or will not arrange examination otherwise. Such examinations as are provided by schools, it was stated, should be planned particularly for assisting in understanding the pupil, for estimating the pupil's ability to progress with his school work, and for determining what adaptations in the school program may be desirable.
CHAPTER III

A STUDY OF THE HEALTH HABITS OF SENIOR HIGH SCHOOL GIRLS

The data for this study of the health habits of senior high school girls were collected from questionnaires given to 237 girls of Brazil senior high school. Of the 237 cases, 75 were in grade 10, 85 in grade 11, and 77 in grade 12.

This study has been undertaken with a three-fold purpose in view. The results may be used as (1) a basis for planning a course of study in health education; (2) a survey of a local situation, showing whether or not the teaching of this subject has been a success; and (3) an indication of where to place emphasis in health education.

A list of 98 questions was prepared covering the following points: nutrition, rest, exercise, cleanliness, clothing, and general health habits. Insofar as possible the questions were so stated that the individual might answer yes or no. Others were stated so as to help the writer determine whether habits were desirable or undesirable. A copy of the questionnaire may be found in the appendix.

Students were classified as sophomores, juniors, and seniors. The questions were checked for each group with a view to determining desirable or undesirable habits. The totals were made for each class and for the entire group.
This made possible the presentation of tables showing percentages of desirable and undesirable habits of each class as well as the total percentages for the entire group.

The results of the questionnaire, as indicated in Table I, show that 81 per cent of all the girls ate three meals a day, a practice which doctors have found to be ideal provided each individual has the type of food that represents all the food essentials necessary to carry on the bodily functions and has them in the right proportion for each individual requirement. Scientists have found that different types of individuals require different amounts of food, as some use more energy than others. Three ordinary meals a day do not over-load or over-work the various organs. A large percentage of the girls went home for a noon meal, a situation which is satisfactory, as the majority of students that do eat in town do not choose meals very wisely. Usually for lunch, they choose a hamburg sandwich and a bottle of Coca-Cola or an ice cream sundae and a bottle of Coca-Cola, which are not desirable foods for growing girls for a noon meal. The test revealed 81 per cent drank Coca-Cola. A small per cent brought a lunch from home, which, although it was cold, was no doubt a better balanced meal than the meal eaten down town. Some of the pupils who had money given to them for food spent it for candy. Seventy-three per cent ate candy between meals.
### TABLE I

PERCENTAGES OF DESIRABLE AND UNDESIRABLE HEALTH HABITS ACCORDING TO EACH ITEM ON THE CHECK LIST

<table>
<thead>
<tr>
<th>Questions</th>
<th>Per Cent Desirable</th>
<th>Per Cent Undesirable</th>
<th>Per Cent Blank</th>
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<td></td>
<td></td>
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<tr>
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<td>3</td>
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<td>B.</td>
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*The alphabetic letters included in the column headed questions correspond to letters preceding questions included in the questionnaire which was used as a basis for this study. A copy of the questionnaire is to be found in the appendix on page 52.
TABLE I (continued)

PERCENTAGES OF DESIRABLE AND UNDESIRABLE HEALTH HABITS ACCORDING TO EACH ITEM ON THE CHECK LIST

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TABLE I (continued)

PERCENTAGES OF DESIRABLE AND UNDESIRABLE HEALTH HABITS ACCORDING TO EACH ITEM ON THE CHECK LIST

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TABLE I (continued)

PERCENTAGES OF DESIRABLE AND UNDESIRABLE
HEALTH HABITS ACCORDING TO EACH
ITEM ON THE CHECK LIST

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</tr>
<tr>
<td>K.</td>
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Fifty per cent ate at least one bar a day, which, although it furnishes valuable energy, should not take the place of a noon meal. Since man belongs to the carnivorous race, he needs meat to supply body building food that meat alone furnishes. The questionnaire showed 80 per cent ate fresh meat daily. Scientists have found that fresh fruit furnishes some of the vitamins and bulk so essential to good health. Sixty-five per cent had fresh fruit every day. Only 3 per cent admitted doing without food to reduce. Most high school girls are very desirous of a good complexion, glossy hair, pretty teeth and nails, and a good figure. They have learned that proper food will help to make them attractive. Milk is one of the most important of these foods. The survey showed 62 per cent drank milk daily.

High school pupils need at least eight hours of sleep. Eighty-four per cent of these questioned had that much or more, which is very good considering the number of outside attractions which tend to interfere with a proper amount of sleep. Nine-thirty was taken as a suitable hour for pupils to arise over week-ends, and 69 per cent revealed they did arise by that time. Since the tardy bell rings at 8:10, a pupil who stays in bed later than 7:00 on school mornings does not have time for the proper morning toilet and to eat a leisurely breakfast. Only two pupils did not arise this early. One
night a week was considered enough for a student to devote to school activities. Some were not out any school nights, while others wrote little notes on the questionnaire explaining that during practice for plays they were out five nights a week for a month, which is too much for most pupils as they do not obtain their proper amount of rest and sleep to repair their bodies for the next school day. Eighty per cent said they felt rested in the mornings.

A girl in school should easily walk two miles a day. It was revealed that 97 per cent walked that much or more. Swimming is one of the best forms of exercise, requiring the use of more muscles of the body than are used in any other sport. Only 58 per cent of the girls participated in this sport, but this fact could be accounted for in several ways. Some do not have access to water; others who live in town do not have sufficient funds to pay for swimming at the park. Tennis gives exercise but not as much as swimming. Thirty-nine per cent took part in this sport. Just 10 per cent played golf, which is the lowest percentage for any sport, but that can be attributed to the expense involved. Roller skating gave exercise to 68 per cent of the girls. Dancing was the favorite sport, a fact which may be due to the convenience and the low cost of engaging in such a sport. This sport has been sponsored by such school organizations as Hi-Y and Blue Tri. Eighty-three
per cent of the girls had exercise from doing home duties.
The fact that some did not can be accounted for in various
ways; some ride the buses leaving home early in the morning
and returning late; others work outside the home, in the even­
ings and over the week-ends; and still others have too many
outside activities.

The questionnaire showed that 60 per cent took at least
two baths per school week, indicating that the majority are
comparatively clean. Cosmetics were used by 90 per cent, a
fact which shows the girls are interested in improving their
personal appearance. Many of them are becoming brand conscious,
because of their work in home economics and chemistry. In the
former course they learned the art of correct make-up and in
the latter the ingredients used and ways of combining them. A
girl has more self-esteem when she knows she is made up attrac­
tively and not gaudily. Most girls admire and long for a
beautiful skin, and they have learned that by thoroughly
cleansing the face at night before retiring they can help
eliminate blackheads and pimples. Seventy per cent reported
having these forms of skin blemishes at times. Evidently some
have not yet learned that borrowing a powder puff is a practice
which helps to carry these germs. This is a habit indulged in
by 32 per cent.

Most girls take a pride and interest in their hair.
This was shown by the fact that 99 per cent had desirable habits in shampooing it. The survey showed 71 per cent had "permanents". Notes revealed that 27 per cent had either naturally curly hair or a type that didn't need a "permanent" to make it manageable. A "permanent" gives a girl more self respect, as she knows her hair will look well for all occasions. The survey showed 99 per cent did not dye or bleach their hair. Evidently some do not understand that dandruff and various skin diseases are carried by combs, as 43 per cent still borrowed or lent combs.

Interest in their eyes was revealed by 76 per cent of the girls questioned having had them tested. Twenty-seven per cent of those whose eyes had been tested needed glasses. Sixty per cent did not have headaches after studying. Some either rested or did nothing for the headache. Approximately one-third took aspirin, a practice which is not desirable among pupils, as it only deadens the pain and does not remedy the cause. Only 5 per cent used mascara, a fact which proves that the majority value their eyesight. The girls realize that sun is hard on the eyes and makes lines in their faces. Therefore 68 per cent have worn sun glasses.

Only 26 per cent ever had ear trouble. All of these had received medical aid. Eighty-three per cent stated they could hear everything said in the class room. The questionnaire showed 86 per cent of the girls had had colds last winter and 37 per cent were absent more than two days on account of colds.
The survey revealed that 53 per cent visited a dentist once a year to have their teeth checked. Seventy-four per cent said a dentist had told them that no teeth needed to be extracted. Most of the girls had desirable teeth brushing habits. Half of the girls shared candy bars with others, while only 26 per cent shared their Coca-Cola bottle.

Most of the girls appeared to have good tonsils. Twenty-seven per cent reported a doctor advising them to have their tonsils removed. All of them had taken the advice and done so. A few more than half were not at all subject to sore throat.

The report showed 90 per cent always washed their hands, before eating. Although at the present time girls are taking much pride in their hands, one-third of them reported biting their nails. Because of much advertising and the desire to be in style, 75 per cent used nail polish. One can not say whether it is or is not desirable to use polish, as that depends on the taste, desires, and time and ability to apply it. Nevertheless it does encourage nail care. The survey indicated that 51 per cent did not have hang nails and 72 per cent kept the cuticle pushed back.

Girls at the present time are dressing for comfort and convenience for the active lives they lead. Nearly 100 per cent said their shoes were large enough. The girls surely enjoy comfort, as 97 per cent wore low heels for school and only 46 per cent wore high heels for dress. Many of the girls
preferred good looking sport shoes for all occasions. This
type of shoe is more sensible, as the body is kept in its
natural position and the organs are not thrown out of place
by the changing height of heels. Only 16 per cent said their
legs and back ached when they changed from low to high heels.
Sensible shoes prevent some ailments of the feet, and the
report showed 81 per cent did not have callouses, 91 per cent
did not have bunions, 78 per cent did not have corns, and 85
per cent did not have ingrown nails.

The fact that 86 per cent changed hose daily and 73 per
cent changed underwear daily seems desirable. Because of fads,
such as scarfs, that prevent the hair from becoming disarranged,
73 per cent covered their heads when they went outside, indicat­
ing they enjoy being comfortable as long as they conform to the
style. Wraps were worn by 96 per cent when they went outside.

With regard to general health, 82 per cent reported
having regular elimination, and 71 per cent did not take
laxatives. The menstrual period was regular in 80 per cent of
the cases, and 54 per cent did not cramp. A high percentage,
71 per cent, had had the tuberculin test, with 63 per cent of
them showing negative. Most of the girls had not had attacks
of appendicitis, and 94 per cent had not had their appendix
removed. Only one student admitted that she smoked and none
admitted drinking intoxicating liquors.
Figures I, II, and III show a comparison of the health habits as tabulated separately for sophomores, juniors, and seniors. On the whole there is very little difference in the percentage of desirable habits for the three classes. The seniors ranked highest in each of the main divisions of the questionnaire except in the point concerning rest. There the younger students, the sophomores, seemed to get the proper amount of rest in a larger percentage. In most cases the sophomores ranked second and the juniors third. The greatest difference appeared in general health habits, where the seniors had 16 per cent more desirable habits than the sophomores and 8 per cent more than the juniors.

The seniors had the lowest percentage of unanswered questions on the questionnaire and the juniors the greatest.

Figure IV shows the total percentages of all health habits. It will be noticed that 69 per cent of all the girls had desirable habits, 27 per cent had undesirable habits, and 4 per cent did not answer.
I. Nutrition

0  20  40  60  80  100
A. 
B. 
C. 

II. Rest
A. 
B. 
C. 

III. Exercise
A. 
B. 
C. 

IV. Cleanliness
A. 
B. 
C. 

V. Clothing
A. 
B. 
C. 

VI. General Health
A. 
B. 
C. 

FIGURE I

A GRAPHICAL REPRESENTATION ON PERCENTAGES OF DESIRABLE AND UNDESIRABLE HEALTH HABITS OF SOPHOMORES BASED ON 98 QUESTIONS DIVIDED INTO SIX MAIN GROUPS IN THE QUESTIONNAIRE

Key
A—Desirable   B—Undesirable   C—Blank
FIGURE II

A graphical representation on percentages of desirable and undesirable health habits of juniors based on 98 questions divided into six main groups in the questionnaire.

Key

A--Desirable  B--Undesirable  C--Blank
I. Nutrition

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II. Rest

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IV. Cleanliness

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V. Clothing

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VI. General Health

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**FIGURE III**

A GRAPHICAL REPRESENTATION ON PERCENTAGES OF DESIRABLE AND UNDESIRABLE HEALTH HABITS OF SENIORS BASED ON 98 QUESTIONS DIVIDED INTO SIX MAIN GROUPS IN THE QUESTIONNAIRE

**Key**

A--Desirable    B--Undesirable    C--Blank
FIGURE IV

A GRAPHICAL STUDY OF TOTAL PERCENTAGES ON ALL HEALTH HABITS COVERING 237 CASES BASED ON 98 QUESTIONS

Key

Desirable _____ Undesirable -- Blank ******

---
CONCLUSIONS

The survey showed that the percentage of desirable habits as compared with undesirable habits was well over half. The girls had more undesirable habits with regard to nutrition than they did with regard to rest, exercise, cleanliness, clothing or general health. Although 81 per cent had three meals a day, 73 per cent ate candy bars between meals, and 40 per cent ate just before retiring. Eighty-one per cent drank Coca-Cola. More students ate breakfast on Saturday and Sunday than on school days.

It was discovered that the sophomores had more rest than either the juniors or seniors. However 98 per cent of the entire group arose by 7:00 a.m. and 75 per cent retired by 10:00 p.m. Seventy-nine per cent felt rested when they arose. At certain times during the school year a small per cent were out every night for school activities. Over 50 per cent, however, were not out any nights during the school week.

Most modern girls receive a great deal of exercise. The results of the questionnaire showed that 34 per cent of the group walked from two to five and one-half miles daily. Fifty-eight per cent swam, 68 per cent roller skated, and 75 per cent danced, while only 10 per cent played golf, and 39 per cent played tennis.
Nearly 75 per cent of the girls showed desirable habits in regard to cleanliness. The general trend seems to be toward more emphasis being placed on care of the body and proper habits concerning clothing.

Concerning general health, perhaps the greatest source of difficulty with the average girl is in her inability to avoid the common cold. It was discovered that students, in some cases, were not familiar with such common terms as elimination, laxatives, cavities, and fillings.

The writer realizes that in some cases the questionnaire was not answered truthfully throughout. This was particularly noticed with regard to the subject of smoking. Only one girl admitted indulging in this habit, but the writer knows that many of them do so. No doubt there were other faulty answers due to a lack of understanding on the part of the girl or to a lack of clarity of the question asked.

The following conclusions may be drawn from the results of the survey:

1. That the majority of students have a larger percentage of desirable habits than of undesirable habits.

2. That most of the girls had undesirable habits with regard to nutrition.

3. That the girls are most interested in these aspects of health practice which they think produce physical attractiveness.
4. That the girls should be taught that much of their physical attractiveness depends on nutrition, rest, and exercise, and not entirely on care of body and clothing.

Knowledge of the care and use of the body is fundamentally important to everyone. It not only has to do with personal attractiveness, but it also underlies happiness and success in every phase of life. Physical control is as necessary as social and intellectual control. These truths are being recognized at present as never before. There is great national enthusiasm for health education. We know that development of personality, wise and whole-hearted participation in social and civic affairs, economic success, and even character and morals are so conditioned by health that physical ideals of living lie at the base of all human progress. There was never a time when science had so much to offer that would make life happy and abundant as now. There was never a time when there were such resources at hand for the upbuilding of individual health and public health.

A well proportioned body in good health and well-cared for is one of nature's noblest works. In such a body the posture and carriage are erect and graceful. The flesh is firm and well-rounded, not skinny or excessive. The skin is clear and of good color, revealing rich blood in full circulation. The hair is clean, free from dandruff, and well-trimmed.
Toe and finger nails are kept at proper length, clean, with the cuticle pushed back at the base. Corns and unnecessary skin blemishes are not tolerated. Teeth are clean and in repair. Elimination through bowels, kidneys, skin, and lungs is regular and keeps the body clean inside. A suitable variety of food is eaten in proper amounts at appropriate times. Infections and contagious diseases are avoided. A sensible daily routine gives security and strength—a feeling of physical and mental well-being.

If a girl can once be given a vision of what health means and how abundant life may be, she will never be satisfied with anything less than the best state of health she can attain. Health will become for her a positive state for which she is herself responsible, not the poor, negative substitute she has accepted in the past.

There are many factors in a public school to be considered in a complete health program. The time will come when the curriculum of any school of good standing will include a thorough and well-developed program of health education.

In schools where a program of health instruction at each grade level does not exist, there should be immediate steps to provide for it. Health instruction is one phase of the health program which does not necessarily depend on outside assistance. In the absence of specialized health teachers,
classroom teachers, science teachers, physical education teachers, or administrators can provide health instruction with a minimum of effort in preparation.

Health instruction, to be effective, must be placed on an equal basis with other school subjects. Sufficient time, facilities, and assistance for a successful program must be given. Attention should be given in developing health education on a substantial basis, for certainly it is important in a national preparedness program in that it teaches youth how to live and maintain health.

Health service involves more than an appraisal and the protection of the health of individual children; it is "definitely and fundamentally educational".\(^{25}\) As a result of the health-service program, changes in habits, attitudes, and knowledge should be effected not only in the child but also in the parent, the teacher, and health specialists. Thus the modern medical and dental examinations with parents present, activities concerned with the prevention of communicable diseases, first-aid and emergency treatments, and advisory service of doctor and nurse with respect to physically handicapped children are as much concerned with the impression made upon the child, parent, and teacher as with the discovery,

prevention, and treatment of health handicaps. Thus viewed, health service is an important part of health education.

The question of why some people are charming and others are not is a baffling one. To be attractive to others is a quality which every girl desires and which she prefers to beauty if she cannot have both. There are even some of the more sterling qualities of character which she would sacrifice on occasion if it would gain her end, and yet she finds it very hard to define that thing which she so much wishes to possess. In a sense, personal charm cannot be defined; it is a gift of the spirit for which one should be humbly thankful, if one has it, but about which nothing more can be done. In another sense, however, charm can certainly be cultivated, and it is an asset in life that every girl should consider. Partly, it is a matter of being the right sort of person inside and, partly, it is a matter of using the right method of expression.

To appear attractive one must begin on the inside and work out, and this is true physically, as well as mentally, or spiritually. Proper health habits and bodily care are so involved in personal appearance that they cannot be separated from it.

And what is one to do with attractiveness if one has it? Use it for selfish ends? The perfection of the individual has
only one excuse—to make that individual's contribution to, society worth more than it would have been otherwise. Charm must always be exerted on the right side, and the world and the people in it made better by it—an obligation which goes back again to social responsibility.

From the conclusion drawn from this study the following recommendations may be made:

1. That the entire school personnel become more health conscious.

2. That more health knowledge be required of every high school pupil.

3. That every teacher have a better foundation in health education so that it may be correlated with other subjects.

4. That pupils not only be given health information but that they be given a chance to put such information into practice.

5. That health education for the parents be included in the school program.

6. That the material included in the program should be presented in non-scientific terms in order that it may be clearly understood.

7. That special emphasis should be placed on teaching the prevention of the common cold.
8. That the aim of all health education be to give the pupil a real understanding of the meaning of health, an understanding which will help him to solve his own problems concerning health and to create in him the desire for good health.
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Advisory Committees, Health Education. National Education Association of United States, Washington, D. C.


Mosher, Clelia Duel, Personal Hygiene for Women. Stanford University Press, Stanford University, California.


B. PERIODICAL ARTICLES


B. PERIODICAL ARTICLES


F. ENCYCLOPEDIA ARTICLES


G. UNPUBLISHED MATERIALS


QUESTIONNAIRE

I. Nutrition
A. How many meals do you eat on school days?
B. Do you eat breakfast on school days? Yes(); No().
C. Do you eat breakfast Saturdays and Sundays? Yes(); No().
D. Do you have something warm for breakfast? Yes(); No().
E. Do you eat a noon meal? Yes(); No().
F. Do you go home for noon meal? Yes(); No().
G. Do you bring a lunch from home? Yes(); No().
H. Do you eat elsewhere? Yes(); No().
I. Do you eat fresh fruit each day? Yes(); No().
J. Do you eat fresh meat each day? Yes(); No().
K. How many times a day?
L. How much milk do you drink a day?
M. How much water do you drink a day?
N. Do you eat candy between meals? Yes(); No().
O. How much candy a day?
P. Do you drink Coca-Cola? Yes(); No().
Q. How much Coca-Cola a week?
R. Are you doing without food to reduce? Yes(); No().
S. Do you thoroughly chew your food? Yes(); No().
T. Do you eat just before retiring? Yes(); No().

II. Rest
A. How many hours of sleep do you get each night?
B. What time do you retire on school nights?
C. What time do you retire over week-end?
D. What time do you arise on school mornings?
E. What time do you arise over week-ends?
F. How many nights per week are you out for school activities?
G. Do you feel rested in the mornings when you arise? Yes(); No().

III. Exercise
A. Do you walk some each day? Yes(); No().
B. How far do you walk?
C. Do you swim? Yes(); No().
D. Do you play tennis? Yes(); No().
E. Do you play golf? Yes(); No().
F. Do you dance? Yes(); No().
G. Do you roller skate? Yes(); No().
H. Do you have any home duties that give you exercise? Yes(); No().
IV. Cleanliness
A. Care of Body

1. Skin
   a. How often do you take a full bath?
   b. Do you use cosmetics? Yes(); No().
   c. Do you always use the same brand of cosmetics? Yes(); No().
   d. Do you always thoroughly cleanse face before retiring? Yes(); No().
   e. Do you ever have blackheads and pimples? Yes(); No().
   f. Do you ever use another's powder puff? Yes(); No().

2. Hair
   a. How often do you wash your hair?
   b. Do you have "permanents"? Yes(); No().
   c. How many "permanents" a year?
   d. Do you dye or bleach your hair? Yes(); No().
   e. Do you ever use another's comb? Yes(); No().

3. Eyes
   a. Do you wear glasses? Yes(); No().
   b. Have you ever had your eyes tested? Yes(); No().
   c. If so, were you told that you needed glasses? Yes(); No().
   d. Do you have headaches after studying? Yes(); No().
   e. What do you take for headaches?
   f. Do you use mascara? Yes(); No().
   g. Do you wear colored glasses in bright sun? Yes(); No().

4. Ears
   a. Have you ever had ear trouble? Yes(); No().
   b. Did you receive medical care? Yes(); No().
   c. Can you hear everything that is said in the classroom? Yes(); No().

5. Nose
   a. Have you had colds this winter? Yes(); No().
   b. If so, how many?
   c. Do you use nose drops? Yes(); No().
   d. Do you cover your face when you sneeze? Yes(); No().
   e. How many days have you missed school on account of colds?
6. **Mouth**
   a. Do you visit a dentist once a year to have teeth checked? Yes(); No().
   b. Do you have any cavities? Yes(); No().
   c. Has a dentist told you that certain teeth should be extracted? Yes(); No().
   d. How many times a day do you brush your teeth?
   e. Do you take a bite from another's candy bar? Yes(); No().
   f. Do you ever share a Coca-Cola bottle with another? Yes(); No().
   g. Have your tonsils been removed? Yes(); No().
   h. Has a doctor advised you to have your tonsils removed? Yes(); No().
   i. Are you subject to sore throat? Yes(); No().

7. **Hands**
   a. Do you always wash your hands before eating? Yes(); No().
   b. Do you bite your fingernails? Yes(); No().
   c. Do you use fingernail polish? Yes(); No().
   d. Do you have hang-nails? Yes(); No().
   e. Do you keep the cuticle pushed back? Yes(); No().

8. **Feet**
   a. Do you wear large enough shoes? Yes(); No().
   b. Do you wear low heels for school? Yes(); No().
   c. Do you wear high heels for dress? Yes(); No().
   d. Do your legs or back ache when you change from low to high heels? Yes(); No().
   e. Do you have callouses? Yes(); No().
   f. Do you have bunions? Yes(); No().
   g. Do you have corns? Yes(); No().
   h. Do you have ingrown nails? Yes(); No().

V. **Clothing**
A. How often do you put on fresh hose?___________
B. How often do you put on fresh underwear?_________
C. Do you wear head covering in cold weather? Yes(); No().
D. Do you wear a wrap when you go out in cold weather? Yes(); No().

VI. **General Health**
A. Do you have regular elimination each day? Yes(); No().
B. Do you ever take a laxative? Yes(); No().
C. If so, how often?___________
D. Is your menstrual period regular? Yes(); No().
E. Do you cramp? Yes(); No().
F. Have you had a tuberculin test? Yes(); No().
G. If so, were you negative or positive?_________
H. Have you ever had attacks of appendicitis? Yes(); No().
I. Have you had your appendix removed? Yes(); No().
J. Do you smoke? Yes(); No().
K. Do you drink intoxicating liquors? Yes(); No().