Summer 1971

A Study of Health Misconceptions among Elementary and Secondary Teachers

Robert Clyde Davidson
Central Washington University

A STUDY OF HEALTH MISCONCEPTIONS AMONG ELEMENTARY AND SECONDARY TEACHERS

A Thesis

Presented to

the Graduate Faculty

Central Washington State College

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

---

by

Robert Clyde Davidson

August, 1971

APPROVED FOR THE GRADUATE FACULTY

_____

Alan B. Davidson, COMMITTEE CHAIRMAN

_____

Eric R. Beardsley

_____

Byron DeShaw

ACKNOWLEDGMENTS

The writer would like to express his sincere appreciation to Alan B. Davidson, committee chairman, for his helpful suggestions and guidance throughout this study. Appreciation is extended to Dr. Byron L. DeShaw and Eric R. Beardsley for serving on the committee.

Acknowledgment is also given to Dr. James Monasmith and Darwin J. Goodey for their invaluable assistance throughout this study.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

During the past few years a limited number of studies have been completed related to health misconceptions. Some have investigated health and safety misconceptions, while others have reported various testing procedures.

Studies involving all populations (general public, elementary, secondary, and college students) have pointed out existing inadequacies in health knowledge and the prevalence of health misconceptions. As a result, the writer felt the need to investigate and measure the prevalence of health misconceptions among teachers.

Borozne (6:387) states:

> It is the responsibility of the school to help children acquire the correct concepts concerning healthful living during their formative years . . . . A teacher who subscribes to health misconceptions or who is not aware of their harmfulness may easily pass on erroneous information to many children.

STATEMENT OF THE PROBLEM

It was the purpose of this study to determine the prevalence of health misconceptions among elementary and secondary teachers.

DEFINITION OF TERMS USED

Grade level clusters--Are grade groupings of K through 3, 4 through 6, 7 through 9 and 10 through 12.

Health--According to the World Health Organization, "health is a statement of complete physical, mental, and social well being, and not merely the absence of disease."

Health education--Health education is the development of attitudes, understandings, values, and skills which help the individual make intelligent choices regarding his health behavior or the health behavior of others (15:48).

Health misconception--A health misconception is an inaccurate or erroneous conception which is not supported by current scientific research (16:492).

Teacher--A teacher is defined as any individual certified by the State Board of Education.

HYPOTHESES

This study is designed to test the following hypotheses:

1. There will be no statistically significant differences between the scores of elementary and secondary teachers.

2. There will be no statistically significant difference between the scores of male and female teachers.

3. There will be no statistically significant difference between teachers by grade level clusters.

4. There will be no statistically significant difference between teachers by area of academic training.

IMPORTANCE OF THE STUDY

According to Dzenowagis (11:150), it is the responsibility of the schools to aid individuals in acquiring concepts of healthful living consistent with desirable behavior. Specifically, teachers must help individuals to identify and correct acquired misconceptions inconsistent with such behavior.

A review of the literature on health misconceptions reveals that a limited number of research studies have been conducted over the past three decades. Dzenowagis (23:57) states:

> The research, which was conducted on a variety of populations, has established that the prevalence of belief in health and safety misconceptions is high among all populations studied regardless of the educational level achieved.

LIMITATIONS OF THE STUDY

This study was conducted on the campus of Central Washington State College during the summer session of 1971. The basic criteria established for selecting the participants was as follows:

1. At least one year of teaching experience at the elementary or secondary level.

2. Teachers participating in the study were attending class when the Health Opinionnaire was administered.

3. Participants were selected from Education classes 507--Introduction to Graduate Study.

The study was also limited in scope to include the following areas of health: (1) personal health, (2) nutrition, (3) rest and exercise, (4) care and prevention of disease, (5) habit-forming substances, (6) first aid, (7) consumer health, (8) family living, and (9) mental health.

ORGANIZATION OF REMAINDER OF THE THESIS

In Chapter II a review of current literature and related research is presented pertaining to health and safety misconceptions.

The procedures and instrument used to measure health misconceptions is defined in Chapter III.

In Chapter IV the analysis of the data is presented and the results of the Opinionnaire are discussed.

Results of the study are summarized, conclusions are stated, and recommendations are given in Chapter V.

CHAPTER II

REVIEW OF LITERATURE

Much of man's belief about any subject is based upon misconceptions and superstitions. The field of health education is no exception. In recent years limited attempts have been made to systematically study the degree to which misconceptions permeate thinking in health education. This study represents an attempt to measure health misconceptions among elementary and secondary classroom teachers.

Salt's (1936) study was the first reported attempt to measure health misconceptions among public school students. Results from his study of seventh, tenth, and twelfth grade Florida students revealed that formal schooling did little to eliminate misconceptions about health. Furthermore, he found that girls accepted certain health misconceptions to a greater degree than did boys, and Negro students held certain health misconceptions to a stronger degree (21:50).

Sanchez (1937) administered a questionnaire containing sixty-eight health superstitions to seventy-six secondary students in Colorado. This study found that more than 50 percent of the students

believed nineteen of the sixty-eight superstitions about health practices (22:51).

Blanchet (1950) studied the prevalence of belief in science misconceptions among practicing teachers in Georgia. His study revealed a widespread belief in science misconceptions among the majority of these teachers (4:226).

Yancy (1952) studied the extent to which health misconceptions existed in eleven major health problem areas among 1100 teacher education students in Negro colleges in North Carolina. His study revealed that the factor of college attended, sex, or field of specialization influenced very little their endorsement of unfounded beliefs. Sixty percent of the subjects subscribed to more than one-fourth of the unfounded beliefs (33:41).

Dzenowagis (1953) constructed an instrument consisting of 187 harmful health misconceptions and 29 harmful safety misconceptions. Before administration of this instrument to 2210 fifth grade children and 1881 sixth graders in Massachusetts, a jury of experts in the medical field helped to validate his instrument. His jury revealed that 50 percent or more of the fifth grade children agreed with 72 of the harmful health and safety misconceptions and 50 percent or more of the sixth grade children subscribed to 72 of the 130 misconceptions (6:388).

In 1959, Synogitz studied health misconceptions among 630 college students in basic health education classes offered at various

Indiana colleges. He found that (a) a mean score of 28.69 for students in the sample held significant harmful health misconceptions; (b) Negro students needed more assistance in eliminating harmful health misconceptions from their health knowledge than did white students; (c) it seemed that students majoring in physical education, liberal arts, business, and secondary education needed greater assistance in eliminating health misconceptions than did students majoring in related science fields and elementary education.

The prevalence of specific safety misconceptions was studied by Dzenowagis in 1963. The safety information inventory that he developed was administered to 880 Michigan sixth-graders. Twenty-eight percent or more of the students in the study sample subscribed to nineteen of the fifty dangerous safety misconceptions (30:10).

In a paper presented at the American School Health Association in 1961, Sutton reported results of several selected studies on health misconceptions. In such diverse areas as nutrition, body weight and control, dental health, alcohol and drugs, first aid and safety, diseases, consumer health, and bodily functions. Sutton reported ratios of college students holding misconceptions in each of the previously mentioned areas. He advised fellow health educators to "be alert to the misconceptions which are common to children and youth, take positive action to eliminate these misconceptions and in

their place substitute scientifically accurate information as a basis for making decisions about one's health" (29:347).

A Health Knowledge Inventory was designed, validated, and administered to 4,852 junior high school students by Harrison (1962). His research found that 30 percent or more of those students in the sample subscribed to twenty-eight of the seventy health misconceptions he had identified (16:491).

Kilander (1964) studied health food frauds and the misconceptions held by junior and senior high school youth, college students, and adults. He found that the greatest amount of accurate information about nutrition was held by senior high school and college students, and the greatest number of misconceptions about nutrition were held by junior high school students and elderly persons (17:220).

Perhaps the largest attempt to measure health misconceptions among school age youth was the School Health Education Study which culminated in 1965. Designed to determine the effectiveness of health education programs in public schools in the United States, the study sample consisted of 135 school districts: twelve large, twenty-three of medium size, and one hundred smaller school systems from thirty-eight-eight states. In each school system 100 sixth, ninth, and twelfth grade students took the inventory. The study found the following number of misconceptions based upon the total number of problem situations for each specified content area: five of eight on consumer

health, five of six on nutrition, five of seven on community health, and four of seven on exercise, sleep, and relaxation, and consumer health (25:4-6, 66).

Greenburg (1966), utilizing the instrument designed and validated by Dzenowagis (1954), tested health misconceptions among New York City high school students in 1966. Sixty-four male students in the fifth, sixth, seventh, and eighth grades were tested. His research found that 37 percent believed at least ten of forty-nine misconceptions and 22 percent believed twenty or more of the misconceptions (13:62).

Benell (1967) studied the prevalence of sexual misconceptions among 543 elementary and secondary teachers in California. Her study revealed that teachers were apt to hold misconceptions in the socio-psychological areas rather than in the biological areas of sex-related topics (2:15).

Consumer health misconceptions were studied by Gaines (1968). Classifying consumer health into twelve content areas, she found that the percentage of correct responses fell below 50 percent on eight of the twelve areas studied (12:489).

SUMMARY

Investigations dealing with health misconceptions were initiated in the 1930's. Various attempts have been made to measure

health misconceptions among public school youth, college students, practicing teachers, and elderly persons. Most studies found that all age groups held misconceptions regarding specified content areas in health education.

Most studies undertaken have been local in scope and limited to smaller sample groups. Only one national effort to date, the School Health Education Study, has been attempted.

CHAPTER III

PROCEDURES AND INSTRUMENT USED

SELECTION OF TOPIC

The problem investigated in this study was to determine the prevalence of health misconceptions among elementary and secondary teachers. The problem was selected from a list of "Possible Dissertation Topics" (31:2).

RESEARCH INSTRUMENT

Discovery of Instrument

While investigating the review of literature, the writer found an article written by Stephens (28:161). The study involved the development of the Health Opinionnaire to measure the prevalence of harmful health misconceptions in Colorado High School seniors. The author also compared the prevalence of misconceptions as they were related to sex, grade-point average, level of father's education, level of mother's education, father's occupation, and public high school formal health instruction.

The Health Opinionnaire was validated by a selected jury of experts in the field of health education and medicine. The jury was

composed of four health educators, four physicians, and two school nurses.

There are 85 misconceptions found in the Health Opinionnaire, which were selected from an original list of 155.

There are 15 camouflage items in the Opinionnaire. These are true statements related to the field of health. This procedure was necessary to prevent the respondents from merely checking the disagree column for all the statements. In this study, the camouflage statements were not scored as part of the results (27:2).

Permission to Use Instrument

A letter was written to the author asking permission to use the instrument she had developed and validated. Permission was given and a copy of the Health Opinionnaire was sent to the writer (see Appendices A, B, and C).

Permission to Administer Instrument

Permission to administer the Health Opinionnaire to students enrolled in Education 507 classes at Central Washington State College during the week of July 12-16, 1971, was obtained from the Education Department and the instructor of each class.

COLLECTION AND TREATMENT OF DATA

Administration of Instrument

One hundred and forty-seven copies of the Health Opinionnaire were reproduced and personally administered by the writer to 135 elementary and secondary teachers. A total of 135 teachers made up the sample responding to the Health Opinionnaire used in this study. Twelve people responding to the opinionnaire were undergraduate students and were eliminated from the sample.

Treatment of the Data

The treatment of the data was limited to the hypotheses tested for this study. They are as follows:

1. There will be no statistically significant differences between the scores of elementary and secondary teachers.

2. There will be no statistically significant difference between the scores of male and female teachers.

3. There will be no statistically significant difference between teachers by grade level clusters.

4. There will be no statistically significant difference between teachers by area of academic training.

The data collected from the Health Opinionnaire was submitted to the RCA Specktra 70/45 computer at Central Washington State

College. A scientific subroutine package called t test was used to determine the means, standard deviation, and t test for this study.

In Chapter IV, analysis of the data will be presented.

CHAPTER IV

ANALYSIS OF THE DATA

The purpose of this study was to determine the prevalence of health misconceptions among elementary and secondary teachers. In accomplishing this aim, the Health Opinionnaire was administered to teachers selected from classes in Education 507--Introduction to Graduate Study, during the summer of 1971 at Central Washington State College.

The Health Opinionnaire was scored with a minus score indicating the number of incorrect responses to the 85 misconception items. The camouflage items were not scored at all. This study was concerned only with the misconceptions to which teachers subscribe.

MEAN VALUES COMPARING ELEMENTARY AND SECONDARY TEACHERS

The Health Opinionnaire was administered to 135 elementary and secondary teachers. The mean values of incorrect responses for elementary teachers was 9.99; the mean values for secondary teachers was 11.00. The *t*-test ratio was -1.1778, not significant at the 1.96 level. The mean number of incorrect responses comparing elementary and secondary teachers can be found in Table 1.

Table 1

Mean Values of Incorrect Response Scores for Elementary and Secondary Teachers

Grade Level	No. of Cases	Mean	STD	t test
K-6	74	9.99	6.02	
7-12	61	11.00	6.25	-1.1778

MEAN VALUES COMPARING MALES AND FEMALES

In Table 2, the means for males and females can be found. A t-test ratio of 1.94 was determined and the level necessary for significance at the .05 level is 1.96.

Table 2

Mean Values of Incorrect Response Scores Comparing Males and Females

Sex	No. of Cases	Mean	STD	t test
Males	80	10.81	6.00	
Females	55	9.91	6.32	1.94*

*t-test ratio is significant at the 1.96 level.

MEAN VALUES ACCORDING TO GRADE LEVEL CLUSTERS

The mean number of incorrect responses for the total population tested was 10.44. The mean value of incorrect responses for teachers at the primary level was 10.97; the mean value of incorrect responses for teachers at the intermediate level was 9.19; the mean value of incorrect responses for teachers at the junior high level was 12.17; and the mean value of incorrect responses for teachers at the senior high school level was 9.87. The mean number of incorrect responses according to grade level clusters (K-3, 4-6, 7-9, and 10-12) can be found in Table 3.

MEAN VALUES OF ACADEMIC TRAINING

In Table 4, the mean values were given for each of four major academic levels investigated. The mean value of incorrect responses for Humanities was 11.29; the mean value for Social Sciences was 9.76; the mean value for History and Area Studies was 10.50; and the mean value for Pure and Applied Sciences was 10.40. There was no significant difference found among academic areas.

DISCUSSION OF THE RESULTS

Although the study revealed that elementary and secondary classroom teachers showed evidence of belief in health misconceptions,

Table 3

Comparing the Means of Grade Level Clusters

K-3 (N = 33)		4-6 (N = 41)		7-9 (N = 30)		10-12 (N = 31)		Difference of Means	t test
Mean	STD	Mean	STD	Mean	STD	Mean	STD		
10.97	7.02	9.19	5.03					1.78	- .9335
10.97	7.02			12.17	7.00			1.20	-1.7681
10.97	7.02					9.87	5.30	1.10	- .3155
		9.19	5.03	12.17	7.00			1.98	- .8343
		9.19	5.03			9.87	5.30	.68	.6488
				12.17	7.00	9.87	5.30	1.30	1.5236

Table 4

Comparing the Means of Academic Training

Humanities (N = 44)		Social Sciences (N = 54)		History and Area Studies (N = 12)		Pure and Applied Sciences (N = 25)		Difference of Means	t test
Mean	STD	Mean	STD	Mean	STD	Mean	STD		
11.29	6.85	9.76	6.31					1.53	-1.3344
11.29	6.85			10.50	5.61			.79	-1.1109
11.29	6.85					10.40	4.75	.89	- .2425
		9.76	6.31	10.50	5.61			.84	- .1023
		9.76	6.31			10.40	4.75	.74	.9056
				10.50	5.61	10.40	4.75	.10	.8181

results tabulated showed there were no significant differences between the means of groups tested.

In Chapter 5, the summary, conclusions, and recommendations will be discussed.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to determine the prevalence of health misconceptions among elementary and secondary teachers.

With the use of a Health Opinionnaire, health misconceptions were measured among 135 elementary and secondary teachers to test the following hypotheses:

1. There will be no statistically significant difference between scores of elementary and secondary teachers.

2. There will be no statistically significant difference between the scores of male and female teachers.

3. There will be no statistically significant difference between teachers by grade level clusters.

4. There will be no statistically significant difference between teachers by area of academic training.

CONCLUSIONS

Utilizing a t test to test for significance between the mean for each population, this study found:

1. There was no significant difference between mean values of incorrect responses for elementary and secondary teachers at the 1.96 level of significance.

2. A t-test ratio of 1.94 was determined for male and female teachers. Significance is 1.96 at the .05 level.

3. The mean values according to grade clusters was determined and there were no significant differences at the 1.96 level.

4. The mean values for academic training were determined and there were no significant differences at the 1.96 level.

RECOMMENDATIONS

As a result of this study, the writer feels the following recommendations are justifiable:

1. Additional studies involving the measurement of health misconceptions should be continued with a larger sample to increase the power of the t test.

2. School health educators should begin to systematically measure health misconceptions among students as a basis for curriculum planning.

3. After systematically measuring the prevalence of health misconceptions among the student population for purposes of curriculum design, in-service education programs should be prepared for prospective teachers of health education courses. This in-service

education program should be designed to overcome specified weaknesses identified.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Baker, Barbara; Frank, Jim; and Pangle, Roy. "A New Approach in Determining Health Misconceptions," Journal of School Health, 34:300-303, June, 1964.

2. Benell, Florence E. "Frequency of Misconceptions and Reluctance to Teach Controversial Topics Related to Sex Among Teachers," Research Quarterly, 40:11-16, March, 1969.

3. Beyer, Mary K., and others. "A Bibliography on Misconceptions Related to Health," Journal of School Health, 32:412-15, December, 1962.

4. Blanchet, W. W. E. "Prevalence of Belief in Science Misconceptions Among A Group of In-Service Teachers in Georgia," Science Education, 36:226, October, 1952.

5. Borozne, Joseph A. "A Determination of the Prevalence of Certain Harmful Health Misconceptions Among Freshmen Prospective Elementary School Teachers Attending State Teachers Colleges in New England." Unpublished Doctor's dissertation, Boston University, 1957.

6. _____ and Irwin, Leslie W. "Prevalence of Certain Harmful Health Misconceptions Among Prospective Elementary School Teachers," Research Quarterly, 31:387-91, October, 1960.

7. Downie, N. M., and Heath, R. W. Basic Statistical Methods. Second edition. New York: Harper and Row, 1965.

8. Dzenowagis, Joseph G. "Prevalence of Certain Dangerous Safety Misconceptions Among a Group of Sixth-Grade Children," Journal of School Health, 33:26-32, January, 1963.

9. _____; Borozne, Joseph A.; and Irwin, Leslie W. "Prevalence of Certain Harmful Health and Safety Misconceptions Among Prospective Elementary School Teachers," Research Quarterly, 26:44-48, March, 1955.

10. _____; McPherson, Patricia V.; and Irwin, Leslie W. "Harmful Health and Safety Misconceptions of a Group of Tenth-Grade Girls," Journal of School Health, 24:240-245, November, 1954.

11. _____, and Irwin, Leslie W. "Prevalence of Certain Harmful Health and Safety Misconceptions Among Fifth- and Sixth-Grade Children," Research Quarterly, 25:150-63, May, 1954.

12. Gaines, Josephine. "Some Possible Psychological Dynamics of Consumer Health Misconceptions," Journal of School Health, 38:489-493, October, 1968.

13. Greenberg, J. S. "Health Misconceptions Study," High Points, 48:61-64, February, 1966.

14. Haag, Jessie Helen. "Health Knowledge of Prospective Teachers," Journal of School Health, 33:350-53, October, 1963.

15. Harnett, Arthur. "Teacher Preparation in Health Education in Pennsylvania," Journal of School Health, 25:48, February, 1955.

16. Harrison, Price E. Jr., and Irwin, Leslie W. "Certain Harmful Health Misconceptions of Junior High School Students Attending Public Schools in Metropolitan Areas," Research Quarterly, 35:491-96, December, 1964.

17. Kilander, H. Frederick. "The Public's Beliefs in Nutrition Facts and Fallacies," Journal of School Health, 34:218-221, May, 1964.

18. Osmon, Jack D. "Nutrition Misconceptions of College Freshmen." Unpublished Master's thesis, University of Maryland, 1967.

19. Perlioni, Thomas A. "Health Misconceptions Among Students." Unpublished Master's thesis, Bowling Green State University, 1967-68.

20. Salt, Ellis Benton. "Health Misconceptions of Seventh-, Tenth-, and Twelfth-Grade Students," Science Education, 22:312-13, November, 1938.

21. Salt, Ellis Benton. "A Study of the Prevalence of Certain Health Misconceptions and Superstitions as Subscribed to by Boys and Girls in Florida Public Schools." Unpublished Doctoral dissertation, New York University, 1936. Quoted in School Health Education Study Committee, Synthesis of Research in Selected Areas of Health Instruction, School Health Education Research Monograph, ed. C. Harold Veenker. Washington, D.C.: National Education Association, 1963, 50 pp.

22. Sanchez, G. "Commonly Held Superstitions Which May Affect Health Practices." Unpublished Master's thesis, Colorado State College, Greeley, 1937. Quoted in School Health Education Study Committee, Synthesis of Research in Selected Areas of Health Instruction, School Health Education Research Monograph, ed. C. Harold Veenker. Washington, D.C.: National Education Association, 1963.

23. School Health Education Study Committee. Synthesis of Research in Selected Areas of Health Instruction, ed. C. Harold Veenker. Washington, D.C.: National Education Association, 1963.

24. Shaffer, Thomas E. "Misconceptions in Athletics and Physical Education," Journal of School Health, 33:346-50, October, 1963.

25. Sliepcevich, E. M. (Chairman). School Health Education Study: A Summary Report, 1961-1963. Washington, D.C.: School Health Education Study, 1964.

26. Stanley, Jacquelyn B. "A Comparative Investigation of Misconception in Health Among Students Completing a Health Course and a Combined Health and Physical Education Course in the Same College." Unpublished Master's thesis, Glassboro State College, New Jersey, 1969.

27. Stephens, Gale E. "Prevalence of Harmful Health Misconceptions in Colorado High School Seniors." Unpublished Doctoral dissertation, University of Colorado, 1971.

28. _____. "Prevalence of Harmful Health Misconceptions in Colorado High School Seniors," Journal of School Health, 41:161-163, March, 1971.

29. Sutton, Wilfred C. "Misconceptions About Health Among Children and Youth," Journal of School Health, 32:347-51, November, 1962.

30. Synovitz, Robert Joseph. "The Use of Harmful Health Misconceptions as a Basis for the Selection of Subject Matter Areas and Course Content in College Health Classes," Research Quarterly, 31:650-57, December, 1960.

31. Trucano, Lucille. "Possible Dissertation Topics." Olympia, Washington: Office of Superintendent of Public Instruction, Health Education Division, 1971. (Unpublished list.)

32. Van Dalen, Deabald B., and Meyer, William J. Understanding Educational Research. Rev. and enl. New York: McGraw and Hill, 1966.

33. Yancey, M. J. "A Study of Some Health Misconceptions of Prospective Teachers in Negro Colleges of North Carolina." Unpublished Doctoral dissertation, University of Michigan, Ann Arbor, 1952. Quoted in School Health Education Study Committee, Synthesis of Research in Selected Areas of Health Instruction, ed. C. Harold Veenker. Washington, D.C.: National Education Association, 1963.

APPENDICES

APPENDIX A

June 28, 1971

Dr. Gale E. Stephens

Dear Dr. Stephens:

I am investigating the areas of misconception in health education. At the present time I am having some difficulty finding an adequate instrument to measure this area in health. The specific area I wish to investigate is health misconceptions among elementary and secondary teachers.

Is it possible that your instrument could measure the harmful misconceptions of teachers? If so, would it be possible for you to send me a copy of your Health Opinionnaire? At the same time may I get your permission to use this instrument in my study?

Sincerely,

Bob Davidson

BD:dw

Please Note: Addresses were redacted due to privacy concerns.

APPENDIX B

July 2, 1971

Mr. Bob Davidson

Dear Mr. Davidson,

I am in receipt of your letter of June 28 requesting a copy of the Health Opinionnaire used in my research study. It is my opinion that this instrument could easily be used for elementary and secondary teachers as the research for the misconceptions was conducted through professional periodicals, college health texts, and other research studies.

Enclosed find three copies of the Opinionnaire--one marked as a Key with the true or camouflage statements being marked. (In scoring I marked all U or Undecided responses as errors and justified this by my definition of a health misconception.) Please understand no instrument is perfect, and this will no doubt require some revisions by now. For example, #36 is obsolete, #s 40, 44, and 67 proved to be somewhat confusing. I used a cover sheet to obtain the other variables as indicated by the abstract.

It would be my suggestion that you request the Library there to send for a copy of my dissertation on an interlibrary loan basis from the University of Colorado, Boulder, Colorado. I think you would find the Review of Related Literature and the Bibliography most helpful and as current as you will find. Also, it would give you a chance to see the list of about 200 misconceptions that I sent to my jurors to be validated.

You have my permission to use any or all parts of the Health Opinionnaire. I would request you send me an abstract or let me know the results of any research for which it might be used. Good luck in your endeavor.

Yours truly,

/s/ Gale E. Stephens
Gale E. Stephens
(Mrs. John F. Stephens)

Enclosures

Please Note: Addresses were redacted due to privacy concerns.

APPENDIX C

HEALTH OPINIONNAIRE

Administered by: Bob Davidson
Summer 1971

As partial fulfillment of the requirements for a Master of Education degree I am making a study in health education. This Health Opinionnaire will be administered to elementary and secondary teachers.

You are invited to participate in the study. All information will be held strictly confidential. Your interest and assistance are appreciated.

Teaching Experience? Yes___ No___ Number of years taught _____

Circle grade level you teach:

K 1 2 3 4 5 6 7 8 9 10 11 12

Subject area you teach_____ School District_____

Age _____ Male_____ Female _____

Teacher Training

Undergraduate Major_____ Minor_____

Approximate number of quarter hours in health_____

College(s) attended_____

Graduate of _____

HEALTH OPINIONNAIRE

Instruction

These statements are designed to determine your opinions about health. Following each statement you will find the letters A, D, and U.

A	D	U
Agree	Disagree	Undecided

If you agree with the statement, mark an X through the letter A; if you disagree with the statement, mark an X through D; if you are undecided, mark an X through letter U. Only one response should be made for each statement.

Sample
Celery is a good nerve tonic. A D U
(In this example, the student agrees with the statement.)

Do not try to hurry. You will have adequate time to complete the entire opinionnaire. When you finish, check to see that no statement has been omitted.

Thank you for your time and your opinions.

1.	It is best to expose a child to mumps early in order that he may get it over with before going to school.	A	D	U
2.	A daily bowel movement is always necessary for good health.	A	D	U
3.	A pregnant woman must eat twice as much since she is eating for two.	A	D	U
4.	A reputable physician uses case histories and testimonials to advertise his skill.	A	D	U
5.	Mental illness usually happens suddenly.	A	D	U
6.	Brandy should be administered to revive a person who has fainted.	A	D	U

7. Athlete's foot can be cured rapidly by soaking the feet in hot water.	A	D	U
8. Chewing gum takes the place of brushing the teeth.	A	D	U
9. Cigarettes are the most commonly used nicotine-containing agents today.	A	D	U
10. Legislation guarantees the reliability of any advertised medicine.	A	D	U
11. Exercise followed by a hot bath will cure a cold.	A	D	U
12. Epilepsy is a forerunner of mental illness and should be recognized as such.	A	D	U
13. The changes in adults reflecting the aging process are mainly results of habits of living.	A	D	U
14. Boils are caused by bad blood.	A	D	U
15. All children with heart murmurs will have heart trouble later on in life.	A	D	U
16. Patterns of eating are influenced by culture and family background.	A	D	U
17. The onset of face pimples in the adolescent is evidence of masturbation.	A	D	U
18. Physical fitness is dependent upon exercise alone.	A	D	U
19. One effective way to indicate emotional maturity is to disregard social convention.	A	D	U
20. Products advertised as "recommended by doctors and nurses" are safe and effective to use.	A	D	U
21. One shot of heroine inevitably leads to drug addiction.	A	D	U
22. A person always comes up to the top of the water three times before he drowns.	A	D	U

23. Due to recent discoveries, infectious hepatitis has almost disappeared in this country. A D U

24. Wearing sunglasses will give your eyes complete protection from the sun. A D U

25. Both syphilis and gonorrhea are frequently acquired by contact with any object an infected person has used, such as toilet seats, lipsticks, and towels. A D U

26. Since tonsils serve no apparent function, they should be routinely removed during childhood. A D U

27. During frontier days man survived by his ability to adjust to his environment; today it is the environment that must be adjusted in order for man to survive. A D U

28. The lethal gas in automobile exhausts is carbon dioxide. A D U

29. Iodine is the best treatment for infection caused by stepping on rusty nails. A D U

30. Popular brands of toothpaste are effective in killing germs in the mouth and in preventing cavities and loss of teeth. A D U

31. Causes of alcoholism are centered in physical factors exclusively. A D U

32. It is a bad health habit to drink water while you exercise. A D U

33. The umbilical cord is a hoselike organ through which air passes into the baby's lungs. A D U

34. Smog can always be eliminated by the presence of sunlight. A D U

35. Skin problems may relate to severe emotional and social problems. A D U

36. There is no radiation danger in the use of fluoroscopic shoe-fitting machines. A D U

37. Because of the television code of good practice, all advertising on television about what is good or bad for health is true. A D U

38. A mature love relationship once reached is forever propelled under its own power. A D U

39. "Feed a cold and starve a fever" is a good health rule to follow. A D U

40. Whenever a physician speaks of "curing cancer," he means the patient has not had a sign of the disease for five years after diagnosis and treatment. A D U

41. Thyroid deficiencies account for the majority of the cases of obesity. A D U

42. Moles are always a forerunner of skin cancer. A D U

43. Vaccination for measles is unnecessary since it is a common childhood disease of no consequence. A D U

44. One of the ways of reducing the effects of stress and tension is to engage in some kind of physical effort. A D U

45. The best protection from lightning accidents outdoors is to seek the protection of trees. A D U

46. LSD increases creativity and helps achieve self-understanding. A D U

47. There is no difference in the treatment of the eyes given by the opthalmologist, the optometrist, and the optician. A D U

48. Foot troubles of various kinds may produce poor posture. A D U

49. Vomiting is one of the symptoms of oral poisoning and not a treatment. A D U

50. Every drug addict who takes "the cure" stays cured permanently. A D U

51. Every American today suffers from a vitamin or mineral deficiency and needs diet supplement. A D U

52. Amnesia is a form of purposeful forgetting under the control of the individual. A D U

53. The most frequent drug used in the treatment of arthritis is aspirin. A D U

54. An athlete's performance is weakened by nocturnal emissions or "wet dreams." A D U

55. All insurance companies advertising and selling health insurance policies must be licensed by the Federal government. A D U

56. All bacteria are pathogenic or disease-producing. A D U

57. If you have a good tan you cannot get sunburned. A D U

58. Mental tension and the inability to relax is the greatest hindrance to restful sleep. A D U

59. Alcoholics Anonymous offers a sure and permanent cure for the alcoholic. A D U

60. "Age of consent" refers to the age at which a young person knows enough about sex to agree to premarital sexual relations. A D U

61. A coronary heart attack is always fatal. A D U

62. A large majority of narcotic addicts began their drug-taking with marijuana. A D U

63. The desire for alcohol is passed on from parent to child. A D U

64. Because of the high economic standards and farm surpluses, nutritional problems in the United States are practically non-existent. A D U

65. A heavy cigarette smoker runs no greater risk of death from lung cancer than his nonsmoking counterpart. A D U

66. Physical disorders never lead to emotional disturbances. A D U

67. Cataracts are treated surgically by the removal of the entire lens of the eye. A D U

68. A pregnant woman who drinks olive oil will bear a child whose hair is curly. A D U

69. Heat exhaustion and heat stroke are the same thing and require identical treatment. A D U

70. The mid-morning coffee break has effectively replaced breakfast for daily nutritional requirements. A D U

71. Syphilis can be inherited and passed on for generations. A D U

72. Because of the federal food and drug act, all cosmetics are healthful to use. A D U

73. It is a fallacy that electric razors or telephones should not be used while bathing. A D U

74. Nose drops will cure a cold which is causing a stuffy nose. A D U

75. Fluoridation of water may help prevent decay, but it alters the taste, odor, palatibility, and appearance of that water. A D U

76. Barbiturate and aspirin are two of the leading accidental poisoning substances in the United States. A D U

77. Anxiety always tends to handicap an individual, eventually producing neurotic reactions. A D U

78. A good way to treat frostbite is to rub the frostbitten part with snow. A D U

79. Oral contraceptive pills prevent pregnancy by producing permanent sterility. A D U

80. Insanity and mental illness mean the same thing; the terms can be used synonymously. A D U

81. A high school girl who is underweight should regularly take vitamin pills to ensure adequate nutrition. A D U

82. The use of "pep pills" or "goof balls" is a minor problem among teenagers in comparison to marijuana, heroin, or LSD. A D U

83. Recessive genes are the undesirable traits. A D U

84. It has been proved that most mental sickness is inherited. A D U

85. Health articles printed in popular magazines are always checked for their scientific and medical accuracy before they are published. A D U

86. As an individual develops emotionally, he passes from one stage to another, leaving each previous stage behind as if the stages were a flight of stairs. A D U

87. Running stream water is always safe to drink. A D U

88. Caloric needs for adults usually decrease with age. A D U

89. There is no chromosomal explanation for Mongolism. A D U

90. Any exercise is bad for persons who have heart trouble. A D U

91. The predictability of the effects of LSD has decreased the danger in the use of this drug. A D U

92. People should walk on the right hand side of the road if there are no sidewalks. A D U

93. Tuberculosis occurs only in the lungs and therefore is diagnosed by chest X-ray. A D U

94. Emotions should always be suppressed A D U

95. It is usually safe to go swimming alone if you know how to swim. A D U

96. A drink of whisky following a snakebite will prevent any ill effects from the bite. A D U

97. Life insurance tables have indicated the most favorable health expectation is associated with the weight normally achieved at age 25, hence a desirable weight for this age is a proper weight to maintain through adult life. A D U

98. Drug addiction and drug habituation are one and the same thing. A D U

99. Very intelligent children are usually weak physically. A D U

100. The code of ethics of most medical and dental professional societies promotes the advertising of services by its members. A D U