# SEX DIFFERENCES IN HEALTH KNOWLEDGE, BEHAVIOR AND OPINION OF HEALTH INSTRUCTION IN A COEDUCATIONAL HEALTH PROGRAM

*by*

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In the education systems of many provinces there is considerable controversy in regard to the place, importance and type of health education. One of the areas of concern focuses on how students are grouped for health instruction. The reasons for classes being either segregated or coeducational are due to the combination of health classes with physical education classes (which are usually segregated.) The physical education classes have traditionally been segregated by sex and this separation was found to be administratively expedient to carry-over to the health classes.[1]

The provision of separate classes was found to be the most common practice in the School Health Study with the rationale given for this separation as problems of administration.[7] The Ontario Department of Education in their Curricular I-29 (1966) "suggested that these courses be taught to boys and girls in separate classes."[5]

Paterson[6] found in his survey of schools in south-western Ontario that fourteen of the thirty-five schools (40 percent) conducted some form of coeducational health instruction. Approximately one-quarter of the fourteen schools initiated this program in grades nine and ten with all of these schools having grade twelve health classes coeducational.

A survey of 100 physical educators in Ontario by Gelinas[2] showed that these teachers felt health education should be coeducational. Twenty-seven per cent thought it should be true for all grades while seventy per cent believed it should be coeducational in grades eleven and/or twelve.

In view of the foregoing, this study investigated variations in opinion of health classes and teachers, health knowledge, and health behavior between the boys and girls enrolled in health classes in secondary school after three year exposure to a coeducational program.

## Procedure

A Personal Inventory, (9) a Health Behavior Inventory (4) and selected Scales from Jackson's Personality Inventory (3) were administered to ninety-nine grade twelve males and sixty-six grade twelve females in a metropolitan secondary school conducting a coeducational health education program. The tests were administered to half of the grade twelve students presently enrolled for the current semester in health classes; the other half were enrolled in physical education and were not tested.

The Personal Inventory contained items dealing with demographic data, opinion of teachers and course, influence of course on health behavior and self evaluation of present and future health concerns in four selected areas. (Complete Inventory found in Appendix A, Reference 9)

Fifty-two of the seventy-five items from the Health Behavior Inventory[4] were used to evaluate the health knowledge of the respondents in the four health areas indicated. The twenty-three item reduction was due to time limitations and the relevance of the questions to the topics under investigation.

The third instrument consisted of three scales (health concern, self-esteem, social participation) selected from Jackson's Personality Inventory [3] relating primarily to non-physical aspects of health.

**Results and Discussion**

Control variables were analyzed by $X^2$ and showed no statistically significant differences between the males and females on the following items: a) course in school, b) length of course, c) occupation and education of father, d) number of hours studying and e) number of hours sleeping.

A difference of opinion concerning the importance of the health classes compared with other classes was found to exist between the sexes. Females considered the health classes to be equally or more important much more frequently than did the males. (Table I)

Reasons given to support such an evaluation are included in Table 2. Positive reasons supporting the importance of health were selected significantly more often by girls. Several variables may influence such a difference e.g. different maturation levels, type of approach to topics included in the course, etc.

The respondents were asked additional questions about four health areas, namely a) activity and physical fitness, b) smoking, c) food and nutrition, and d) mental health. For each of the areas the students were asked the following:

1. Have health classes contained helpful new material?
2. Have classroom experiences and information influenced you in improving health habits?
3. What degree of interest do you have in each of these topics?
4. Do you believe there will be a problem for you now or in the future related to these health areas?
5. If you expect a problem how serious do you consider the consequences?

In all cases, with one exception as noted, there was no significant difference between the male and female responses. The girls indicated that they had received significantly more helpful material related to mental health than did the boys. In both groups the answers tended toward little or no helpful material, interest, influence, or problem.

Despite the fact that girls considered health classes to be more important than did the boys, there was no significant difference in the number who would elect health, given such a choice. Fifty-one per cent of the males would elect given a choice, while only fifty-nine per cent of females would elect if this choice provided. This raises questions concerning the consistency of the female response in this area.

The extent to which the school learning situation was projected beyond the classroom is indicated in the likelihood of discussing health topics with others as shown in Table 3. It is apparent that girls discussed health topics significantly more often than did boys and for both groups the teacher was least likely to be involved beyond the classroom. This may be for a variety of reasons such as teacher's choice not to be involved, extra curricular work load, therefore no time, etc. The sex differences may also have implications for methodological approaches to health problems.

Of particular interest was the fact that girls reported being exposed to more different teachers than were the boys. Despite this variation, as indicated in Table 4, there was no difference in the opinion held concerning the teachers. These results differed from the results found between two intensity levels of instruction where fewer different teachers appeared to be related to a more positive opinion of the health teachers (9:70).

The views of students concerning the selected characteristics of their teachers and classes are shown in Table 5. There was only one item significantly different between the two groups. (organization of classes considered higher by the girls)

One important indicator was the small number of both sexes who considered the teachers to be enthusiastic, enjoy teaching and be exceedingly well informed. One other cause for concern was the number of students who were not stimulated or in fact discouraged from thinking for oneself by the health teachers.

Questions relating to smoking behavior, athletic participation and normal activity patterns showed no differences between the boys and girls.

The Health Behavior Inventory test scores for girls were significantly higher for the total test and for health topic areas with the exception of excercise and rest. (Table 6) This is consistent with the findings for both segregated or coeducational classes. (7, 8)

The final instrument was used to determine personality traits that might be related to health and influenced by health education. Three scales from Jackson's Personality Inventory [2] were used and the results are shown in Table 7.

Females tended to score significantly lower on the health concern and self-esteem dimensions. The opposite result was true for social participation but it was not statistically significant.

### Summary

The results of the study tended to show the following:

1. Health classes were considered to be more important by women than men.
2. There was no difference in their opinion of the health teachers or the influence health classes had upon their behavior.
3. There was no significant sex differences in the number of students who would elect health given such a choice.
4. Girls were much more likely to discuss health topics with others (excluding teachers) thus raising questions re type of approach with segregated or coeducational classes.
5. There was no significant differences in the health behavior patterns, as reported by the students, in the areas of fitness and activity, smoking, and nutrition.
6. Girls were significantly more knowledgeable yet tended toward lower health concern and self-esteem than boys.
7. A high concern for social participation and a greater degree of discussion with others on the part of the girls suggests topic variations as well as method or approach variation.

In view of the increasing tendency to develop coeducational health programs in secondary schools, it would appear that several questions need to be raised and at least partially answered before this new approach is "accepted" as being "better" than segregation of the sexes. Certainly no conclusive answer can be given at this time regarding the relative merits, in general, of either approach. Hopefully the next few years will provide some answers.

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