

survey of VD knowledge among young people

Infectious syphilis rates are increasing annually. The number of gonorrhea cases is at epidemic proportions and increasing. Cases of nonspecific urethritis and vaginitis, also on the upswing, are at times being misdiagnosed as gonorrhea. In other instances, gonorrhea is being misdiagnosed as a nonspecific infection (1). Even crab lice infestations (*Phthirus pubis*) are on the increase, especially among college students (2).

The fact that more young people are seeking treatment at "free clinics" and other facilities, and thus reporting their cases of venereal disease, offers some hope. However, since there are no vaccines or mass screening tests available to intervene in the present "VD scene," we must turn to more realistic venereal disease education than that being offered our young people today.

Questionnaire Survey

To determine the extent of venereal disease knowledge among young males and females, we conducted a questionnaire survey at the Ventura (Calif.) County Fair in October 1971. The questionnaire, a modified version of one which I used in a 1967-68 study (3), was designed to uncover possible new avenues for venereal disease education, to provide data which might help in developing new educational materials and classroom curriculum, and to determine the information

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sources of young people as well as the effectiveness of these sources in communicating venereal disease information.

The 21-item questionnaire used in this study (see box p. 398) was partially influenced by questionnaires used by Torribio and Glass (4) and Rosenblatt and Kabasakalian (5). Our questionnaire dealt not only with transmission, symptomatology, diagnosis, and treatment of venereal disease but also with prevention alternatives and other "troublesome" diseases. It also questioned how the respondent felt about contributing to the survey and the future of venereal disease educational materials.

Of course, a true-false test has limitations. Although respondents have a 50-50 chance of answering right or wrong, this may be somewhat cancelled out by the nature of the subject matter studied. Unfortunately, the discussion of human sexuality and venereal disease is not as commonplace as, say, the discussion of drugs, alcohol, and tobacco. Furthermore, the discussion of sexuality and venereal disease is often hindered by a complex set of personal and societal attitudes that negatively affect free-flowing communications about these topics. The resulting situation is that the amount of venereal disease information that young people are exposed to and internalize is generally less than the other information for living they receive throughout their educational process. Under these circumstances, it is conceivable that the percentage of right answers will be lower than the percentage of wrong answers; but this is speculation.

However, we do know that the types of respondents to a true-

false test vary considerably: (a) the "guessers" who are sometimes right and sometimes wrong, (b) the "knowers" who are right because they know the information sought, (c) the "self-assured" who are sure they know the right answer but often do not (3), (d) the "dreamers" who may know the correct answer but mark the wrong one because they daydream while taking tests, (e) the "speeders" who race to be the first done with the test and therefore make errors, and (f) the "semanticists" who spend so much time on words they lose the meaning of the questions. These various types of responders must be kept in mind when reading the results of a true-false test, although their influence on the findings is not certain.

The Sample

The sampling was conducted during 3 days of the fair. Questionnaires were completed by 302 persons. Twenty persons turned in questionnaires without answering any of the questions and with no explanation for their noncompliance; these questionnaires were discarded.

A cluster-type sampling procedure was used; that is groups of two or more persons walking close together by the exhibit were asked to participate. We began with a group of teenagers. They were seated at a table and provided with the questionnaires and pencils. A green fluorescent poster asking "What do you know about venereal disease? Find out!" was suspended over the table. After the first group completed the test, a new cluster or several clusters of people (12-30 years of age) were gathered and asked to participate.

At the end of each test, the respondent was given an answer sheet with which to score himself and, to take home, a venereal disease pamphlet and a "free clinic" flyer.

Findings

The percentages of respondents who gave wrong answers to individual questions are shown in the box on p. 398. These percentages indicate that there are still knowledge gaps among teenagers and young adults concerning in particular broad symptomatology of both syphilis and gonorrhea, the diagnosis of gonorrhea (implied in question 7), and available prevention alternatives.

An unusually high percentage of young people still believed that syphilis could be caught from toilet seats, eating utensils, or towels, and that once the symptoms of syphilis and gonorrhea go away a person cannot infect others. To my dismay, one-fifth of the respondents believed that information on venereal disease was hard to obtain. Somewhere, it seems, we have failed.

Another consideration clearly pointed out by the findings is that as teenagers, especially females, pass into adulthood they tend to become more knowledgeable about venereal disease. The average number of questions answered incorrectly, by age and sex, was as follows.

Age	Females	Males
13	11.2	8.0
14	8.4	9.0
15	7.1	6.5
16	5.4	5.8
17	5.4	6.0
18	4.6	6.3
19	4.6	6.9
20-24	4.4	5.4
25+	5.0	5.3

The analysis of the value of information sources presents some interesting observations. The following are the various information sources cited with the corresponding average number of questions incorrectly answered by the 888 respondents in the 1967-68 study and the 302 respondents in the 1971 study. (The 1967-68 questionnaire contained 16 questions.)

Source	1967-68	1971
Parents	6.8	9.1
Parents and friends ...	6.4	8.3
Parents and school ...	4.1	7.8
Parents, friends, and school	4.1	5.1
Friends and school ...	4.2	5.9
Friends	6.0	7.8
School	3.5	5.2
Other (mass media) ...	7.1	5.7
School and other	5.1
None	7.4	7.8

The following conclusions can be drawn from this analysis:

- Respondents who stated that their parents were their only source of information answered more questions incorrectly, on the average, than any other group of respondents.
- Respondents who received their information from friends only, as well as parents and friends, scored low on the questionnaire.
- Respondents who received their information from other sources (television, radio, books, and so on) scored commendably compared with the preceding two groups.
- Respondents who received their information at school tended in each instance to do better on the test.

A further analysis of the questions incorrectly answered by respondents who cited various information sources indicated that:

- Females whose parents were

their only source of information tended to know very little about the prevention of syphilis or gonorrhea or the symptoms of these diseases.

- No particular information source showed any consistency in prevention education. However, those who stated they received education in the armed services seemed to know about prevention alternatives.

• Those who received their information from schools tended to know more about symptomatology and transmission than did the other groups in general.

The preceding tabulation which shows the average number of incorrect answers for respondents citing various information sources in my 1967-68 study suggests one change of importance today. In the earlier questionnaire, much easier than the 1971 one, the respondents who cited the mass media as their information sources had considerably lower scores than the 1971 respondents. Since the earlier study, the amount of venereal disease information on television and radio and in newspapers and magazines has increased. Thus, it would seem that we should look more seriously toward the value of the mass media in venereal disease education.

Discussion

Surveys on any subject are of little use unless they are first carefully analyzed, the "suggestiveness" of their content explored, and their final contributions implemented. Careful analysis of a survey takes into account not only the results of the questionnaires used but also the survey takers' experiences with the respondents in the study.

In this study, we were pleased that most of the young people

were interested in finding out more about venereal disease; among these were two children, 10 and 11 years old, who stopped by simply to learn about venereal disease. In one instance, a 35-year-old woman and her teenage son were asked to help with the survey. The mother agreed to participate, but her son did not. In other instances, people who were asked to participate immediately said, "I don't have VD."

The interest that young people have in helping to develop new educational materials by participating in the survey was revealed in their responses to the final question of the questionnaire. On this semantic differential, 50 percent felt extremely good about helping, 30 percent felt pretty good, 16 percent expressed mostly good feelings, and about 4 percent said they felt terrible.

While exploring the "suggestiveness" of this study, we must explore its possible implications. The most striking implication in the findings is that schools in general and the mass media are able to offer factual information about the venereal diseases more objectively than are parents or friends. Unfortunately, parents and friends tend to convey their information with emotional and social connotations—probably each on different ends of the same continuum. A further possibility is that more young people would be aware of alternatives if the schools would include discussions of prevention through prophylaxis in their venereal disease education programs.

Finally, we must implement the findings that we interpret to be contributions. We know that although traditional venereal disease education has not conclusively proved to be a major

factor in disease prevention, it has led infected people to seek early medical care (6), to advise their contacts, and to report their contacts.

From the findings of this and other studies, it is clear that the content of venereal disease education programs in both the schools and the community must be modified toward more realistic presentations. This has been done in the District of Columbia, where venereal disease programs in the schools even include instruction in the use of condoms. According to a District public health adviser, Myron Arnold, "Our purpose is to teach the student something he'll remember on a Saturday night, not necessarily on an examination" (7).

Conclusions

The findings of this study point up three major factors:

1. Knowledge gaps exist among teenagers and young adults concerning in particular broad symptomatology of both syphilis and gonorrhea, the diagnosis of gonorrhea, and available prevention alternatives.

2. The schools and the mass media seemed to be the most effective sources of venereal disease information for the respondents in this study.

3. Parents and friends, alone or in combination, seemed to be the worst sources of venereal disease information for the respondents in this study.

Realistically, none of the information sources reported in this study seemed to communicate all the facts that are needed.

As new philosophies of venereal disease education are expounded, new content will be included in the curriculum. For example, I have developed a new philosophy which regards overall



Samples of venereal disease educational materials which are being issued by health agencies and civic groups throughout the nation

venereal disease education as a process in itself composed of different progressive elements. These elements include anatomy of male and female pelvises, cultural and personal attitudes and practices of human sexuality, infectious disease process, the dynamics of each type of venereal

disease (cause, symptoms, transmission-contraction, diagnosis, treatment, followup, epidemiologic approach, effect on children, factors relating to spread, and, most importantly, prevention).

An important consideration of the philosophy is the avoidance of "word games"—that is, educa-

How Much do You Know About Venereal Diseases?

Questions	Percent of wrong answers	Questions	Percent of wrong answers
1. Open sores on lips and in the mouth are usually the first sign of early syphilis . . .	47	12. (a) Gonorrhea is more apparent in females than in males	33
2. You can usually catch syphilis from toilet seats, towels, and eating utensils that an infected person has used	25	(b) Syphilis is more apparent in females than in males	29
3. The signs of syphilis and gonorrhea will go away even if a person does not have adequate treatment	53	13. If a pregnant woman is infected with syphilis, she can pass the disease to her unborn child if she does not receive treatment soon enough	11
4. If you have syphilis, chancre (open) sores on your genitals (male, penis; female, vagina) appear about 3-6 months after you got it	57	14. Once you have had syphilis or gonorrhea you are immune and will not get them again	7
5. (a) The symptoms of syphilis are painful for both males and females	36	15. Once the symptoms of syphilis and gonorrhea have gone away and you have not been treated, you cannot infect others . .	19
(b) The symptoms of gonorrhea are painless for males	29	16. Penicillin is one of the drugs used in the treatment of syphilis	16
6. You can tell if people have either syphilis or gonorrhea by looking at them	8	17. There are other troublesome infections that affect your sexual organs and are somewhat like syphilis and gonorrhea . .	19
7. A blood test can be used to diagnose both gonorrhea and syphilis	73	18. I have received no information on venereal disease	—
8. Syphilis can cause blindness, insanity, loss of hearing, paralysis, and even death	16	19. Information on venereal disease is hard to obtain	20
9. You may have gonorrhea and not show any signs	21	20. I have received venereal disease information from my parents____, my friends____, my school____, other (books, pamphlets, newspapers, radio, etc.) _____	—
10. Gonorrhea can cause sterility in males and females	17	(please state)	
11. (a) The condom (rubber), when used, is helpful in preventing gonorrhea infection	32	21. How do you feel about contributing to this survey and helping us to develop new educational materials?	
(b) Washing of the genitals with warm water and soap immediately following intercourse is helpful in preventing syphilis infection	42		
		Extremely pretty good not too terrible	
		good good good	

tors using scientific words that have little meaning to students or cause them considerable confusion.

In addition to the preceding elements, there is also a need for talk about nonspecific vaginitis and urethritis, crab lice infestations, trichomoniasis, and other related infections.

The call for the future is more exploratory efforts at a venereal disease educational philosophy

through the use of surveys along with professional and student discussion and exploration.

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