

Use of Behavioral Research in Venereal Disease Control

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IN 1961 the Surgeon General of the Public Health Service appointed a task force to review the efforts being employed to control syphilis in the United States and to recommend principles and methods which could be used to eradicate syphilis as a public health problem (1). Among the recommendations of the task force committee was a proposal for more research in adolescents' attitudes toward venereal disease and sex behavior patterns as reported by young adults. The purposes of this paper are to review some observations resulting from recent research concerning the attitudinal and behavioral aspects of venereal disease control and to show how behavioral research studies can be used in a communicable disease control program (2).

Evaluation of VD Information Materials

First a pilot study was designed to evaluate all the educational materials which the Venereal Disease Program had prepared and made available for dissemination to the public. Since reported cases of venereal disease indicated that infectious cases were disproportionately distributed throughout the population, Venereal Disease Program personnel were particularly interested in examining the impact of informational materials on high-risk groups—adolescents and young adults. With this in mind, a

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sample of youngsters averaging 19 years of age was selected to review the materials (3).

Results of this study showed that the film considered most entertaining, a melodrama concerning the introduction of a venereal disease infection to a high school clique, was also rated as the best liked of the eight films reviewed. However, the film which was rated as the most informative in terms of providing facts on the history of venereal disease control and the natural course of untreated syphilis was a historical documentary.

Since the melodrama featured a middle class, all-white cast, it was not surprising that its major supporters were middle class, white, and also female. Greatest support for the documentary as the best liked film came from the highest and lowest social classes, the older age groups, and Negroes.

Racial differences also appeared to be significant in terms of student reactions to the informative value of the motion pictures reviewed. While both Negroes and white persons favored the historical documentary as the film which gave them the most information about venereal disease, differences were observed in the selections for the runner-up in this category. The white youngsters rated as second best the melodrama with the all-white cast in preference to a somewhat dated melodrama featuring an all-Negro cast by a three to one ratio. No differences were detected among the Negro youngsters concerning the informative value of these two melodramas.

The eight films together with a self-teaching

device, a programed instruction workbook, were selected by the youngsters as the best means of obtaining information on the problems of venereal disease. Articles and pamphlets, network television spot announcements, medical slides, and information provided on matchbook covers were not well received by the group.

Since this study of venereal disease information materials was limited to a small sample of young men and women residing in a major metropolitan area in the Deep South, the specific findings obtained could not be generalized without risk of serious error. However, this preliminary study produced evidence which suggested that public health officials should always be aware of the publics that they serve. While one audience might be more receptive to one type of presentation than another, it is important also to consider the impact of the material presented. The most entertaining presentation will not always be the most informative.

Continuities in Evaluative Research

As a followup to the pilot study conducted in the Deep South, a research project was designed to evaluate the teaching effectiveness of a series of three films, one of which was new and attempted to blend entertainment with objectivity. Unlike the population selected in the Deep South, the target population in the followup study consisted primarily of 11th grade students from three all boys and three all girls parochial schools and representing the distinctive socioeconomic and ethnic characteristics of a metropolitan population in the Northeastern United States (4).

Half of the students were randomly assigned to an experimental group and half were randomly assigned to a control group. A before and after research design was used. There were no differences between the two groups' test scores obtained before the films were shown. Both groups answered about half of the questions correctly. Then the films were shown to the experimental group but were not seen by the control group.

Results of this investigation demonstrated the value of the three-film package. While no changes in the test scores were observed among the control group, the students who saw the films increased their test scores by 26.5 percent.

The significant increase in the knowledge about venereal disease shown by the experimental group was attributed to the teaching effectiveness of the three films.

Perhaps even more important was the fact that the new film which had been developed by public health workers to provide a factual, entertaining presentation of the problem of venereal disease among teenagers was selected overwhelmingly by the girls as the most entertaining, realistic, informative, and appropriate of the three films reviewed. The boys agreed that the new film, "A Quarter Million Teenagers," was the best teaching device, but the melodrama featuring a middle class, all-white cast which was rated as the most entertaining film in the Deep South was also rated as the most entertaining by the boys in the North. Surprisingly, no significant differences among the groups characterized on the basis of socioeconomic status, academic aptitude, or ethnic background were observed in this investigation.

While the most entertaining presentation will not always be the most informative (as the Deep South study showed), the most informative film can be made most entertaining (as the Northeast study showed). Furthermore, when differences among groups (such as the white-Negro differential noted in the Deep South and the boy-girl differential noted in the Northeast) can be identified, public health workers with limited time and money at their disposal can structure services according to different programs based on the needs of the publics they serve.

By carefully analyzing the material learned and the material not learned and by evaluating the specific criticisms made by the teenaged film critics, personnel in the Venereal Disease Program are now in a better position to evaluate alternative plans for its activities and to develop selected materials which are more appealing and convincing to the high-risk groups.

Disorganization Among Teenagers With VD

The first two studies discussed deal with general considerations concerning the provision of venereal disease information to teenagers. The purpose of a third study was to identify those social, cultural, and psychological characteristics which distinguished adolescent

patients with venereal disease from their noninfected peers (5).

The research design for the third investigation called for personal interviews with teenaged patients infected with gonorrhea and admitted to selected social hygiene clinics in a major eastern metropolitan area. For comparative purposes, a matched group of noninfected teenagers was similarly questioned. Both samples were drawn from a lower social class population.

Results of this study showed that a significantly greater degree of personal disorganization existed among the infected adolescents than was revealed among the noninfected peer group. More specifically, the youngsters who had gonorrhea tended to come from broken homes, reported a higher degree of residential mobility, and indicated a less satisfactory adjustment to school or vocational responsibilities than the noninfected control group.

Adolescents who experienced a greater degree of conflict with their parents and siblings tended to have a higher incidence of venereal infection. Concomitantly, a higher incidence of neurotic and psychosomatic symptoms was reported among the group of patients with venereal disease, especially among the girls who had reported to the clinics for medical attention.

The differences between the two groups which were detected by the research team were interpreted in terms of social disorganization theory. The patients with venereal disease seemed to include the most rootless, asocial, and disadvantaged members of the lower class metropolitan community.

This interpretation would suggest that an all-out attack on the social conditions of poverty and deprivation would lead to a beneficial effect on the personality of the potential venereal disease patient entering adolescence. This, in turn, would be expected to curtail feelings of normlessness, hopelessness, and despair, decrease the number of impersonal promiscuous sexual relationships, and successfully reduce the reservoir of venereal infection.

Urbanism and Venereal Disease

Results of a fourth study conducted in the eastern city accord with the observations resulting from an earlier study of venereal disease

patients who were migrants to a southern urban area. Among the sample of patients with venereal disease examined in the South, it was observed that rural immigrants had fewer sex partners after they moved to the city than when they lived in the country. However, the number of pickups increased.

The data showed that it was not the number of exposures but the type of sexual contact which seemed to determine the probability of contracting a venereal disease. The higher frequency of casual sexual contacts reported in the city was regarded by the investigator as a function of the urban way of life, typically characterized by anonymity and secondary personal relationships (6).

Summary and Conclusions

Public health administrators responsible for the direction of disease control programs must make decisions continually. To make these decisions, they must rely on the evidence obtainable through the resources available to them. Budgetary and temporal restrictions are always a major consideration. Behavioral research, even on a modest scale, can be used to evaluate certain aspects of a public health program and to demonstrate how research can be used to identify problems and suggest practical solutions.

In the first two investigations we reviewed, behavioral scientists were able to provide information on the comparative effectiveness of available venereal disease information materials. The lesson learned at the outset was that the most entertaining presentation will not always be the most informative. A subsequent study showed that a most informative film could be made most entertaining. While complete success in combining information with entertainment was not realized in the new film, considerable improvement was reported. Perhaps the failure to attain total success was the more important lesson; namely a public health agency must serve not one but many publics.

The second two studies attempted to go beyond a mere description of the patient with venereal disease. Probability of venereal infection was interpreted in terms of more general sociological concepts. More personal disorgani-

zation was recognized among the patients with venereal disease than among their noninfected peers. This disorganization was related to characteristics of the metropolitan social structure. Rural immigrants were observed to alter their patterns of sexual behavior after establishing residence in the city. Again, metropolitan dynamics were related to the current venereal disease problem in the United States. The implications for greater cooperation and coordination among Federal and nonfederal resources in an effort to solve the problems of an urbanizing society were underlined by the results of these studies.

The single most important contribution of the behavioral scientists to the Venereal Disease Program has been direction. Evaluative and predictive types of studies take much of the guesswork out of administrative decisions. The administrator can review data presented by the social scientist and plan future programs accordingly. The behavioral scientist cannot provide an exact picture of the future, but the day of the educated guess is fast dying out in modern programs of public health.

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