

Health Needs of High School Students in Detroit

Paul T. Giblin, Marilyn L. Poland

ABSTRACT

This project identified the health care needs and information concerns of high school students who were potential patients for a new adolescent health clinic in Detroit. Questionnaires assessed current health problems, information needs, and factors affecting use of health services by 613 predominantly black, urban, high school students at a regional high school ($n=187$, \bar{X} age = 16.8) and a neighborhood high school ($n=426$, \bar{X} age = 15). Reported health problems included eating the proper foods, school problems, acne, depression, and headaches. Expressed health information needs included skin problems, drugs, gender, and birth control. Differences among school, age, and gender were noted. Subjects preferred continuity of provider care and receiving health information by private, direct, patient-physician contact. The findings were used in staff training and in program planning for the adolescent health clinic for high-risk youth.

INTRODUCTION

In 1981, the Robert Wood Johnson Foundation awarded a four-year grant to a coalition of Detroit health and community agencies to develop comprehensive health services for high-risk young people ages 15-24 and to provide resident training in ambulatory adolescent medicine. Service and teaching were provided by faculty from Wayne State University, and Henry Ford Hospital, and health professionals from the Detroit Health Dept. representing pediatrics, gynecology, internal medicine, nursing, psychology, social work, and nutrition. A clinic, the Young Detroit Health Center, was established in the center of Detroit and accessible both by car and bus. The five health risk areas targeted for service were sexually transmitted diseases, drug and alcohol addiction, pregnancy, depression, and suicide.

As an initial step in developing the health program and clinic, the health care needs, both current health problems and health information needs, of students from high schools close to the clinic were identified. Additionally, student evaluations of health care delivery in the clinic's location were assessed. Effective use of this information would enhance patient satisfaction by providing an empirical guide for developing clinic services and providing health information through staff and resident training.¹⁻⁵ High school students needed the services due to curtailment of school health care and the morbidity of Detroit youth in the five identified health risk areas.

This article describes a questionnaire developed to assess high school students' health problems, information needs, and factors affecting health services utilization, and how to use the information to develop and implement programs.

METHOD

Subjects

A convenience sample of students from two schools located within three miles of the Center volunteered to complete the questionnaire. The schools were a regional health sciences vocational high school ($n=187$) and a neighborhood high school ($n=426$). Regional high school (RHS) students were predominantly black (84%), female (78%), and juniors (74%) with an average age of 16.8 years. Students who attended the RHS were bused to the school from regions in Detroit from which patients were recruited. Due to the broad representation of Detroit youth, this school was particularly appropriate to provide guidelines for establishing basic service.

Paul T. Giblin, PhD, Dept. of Pediatrics, and Marilyn L. Poland, PhD, RN, Dept. of Obstetrics and Gynecology, Wayne State University, Children's Hospital of Michigan, 3901 Beaubien, Detroit, MI 48201. This project was supported in part by a grant from the Robert Wood Johnson Foundation.

Neighborhood high school (NHS) students were predominantly black (91%), female (53%), and freshmen and sophomores (75%) with an average age of 15 years. They were representative of a cross-section of students from a typical neighborhood high school.

Health Questionnaire

The health questionnaire asked about students' use of health services, current health problems, and information needs, and the qualities they valued in health professionals and clinic settings. Items were selected from previous studies that identified health problems and information needs of adolescents and factors influencing use of health services.^{3,6-9} A brief explanation was used to introduce the survey:

In a few months, a health clinic for young adults will open in Detroit. This clinic will provide a wide range of services. We want these services to be the ones you need. We also want the clinic's hours to fit into your schedule and for you to be comfortable when you are at this clinic. To help us set up this clinic, we would like to ask you a few questions about your health needs, the kind of clinic you want, your ideas about the way the clinic staff should act, and ways we can make the clinic easy for you to use.

The survey took about 10 minutes to complete. Student names were not recorded. Age, gender, race, and grade level were obtained by self-report.

RESULTS

Initial analyses compared health problems and information needs of students from the regional and neighborhood high schools. *T*-test comparisons identified significant differences between these samples on age (RHS M age = 16.8 years, NHS M age = 15.0 years), and total percentages of reported current health problems (RHS = 23%, NHS = 19%), and total health information needs (RHS = 56%, NHS = 38%). Despite differences on health problems and information need, rank orderings of concerns were significantly correlated between schools (problems' $r = .74$, $p < .001$, information needs' $r = .67$, $p < .05$).

Additional analyses assessed effects of age and gender. Students from NHS 16 years or older ($n=75$) were compared to those less than 16 years of age ($n=214$) by X^2 analysis. Older students reported significantly more current problems with drugs, alcohol, sexually transmitted diseases (STD), urination, smoking, relationships with adults, and problems at work. Two health information needs also were significantly different. Younger students wanted more information on sports injuries, older students had more questions about STDs. To compare the two high schools controlling for the effect of age, NHS students 16 years or older ($n=75$) were compared to the same age RHS students ($n=184$) by *t*-test analyses. No significant difference was found for reported current health problems. However, RHS students reported a greater percentage of health information needs than NHS students (RHS = 54%, NHS = 40%, $t = 5.77$, $p < .001$).

Several differences between males and females on health problems and health information needs were identified by X^2 analysis. Females expressed more problems and needs than

males in the four health concern categories of sexual activity and fertility (birth control, sex), emotional problems and psychosomatic complaints (depression, nervousness, headaches, health worries, feelings-self, often tired), social interactions (feelings-other, getting along with parents), and appearance (losing weight, overweight, skin problems). Males' concerns exceeded females only in the jobs area.

Despite differences on health problems and information needs by school, age, and gender, no significant differences were found by these same comparisons on the number of annual physician visits or evaluations of the importance of clinic and physician characteristics. Females reported an average of 1.82 visits each year, males 1.84 ($T = -.23$, NS). In subsequent results, specific differences between schools are reported only for health problems and information needs.

Table 1
Frequency of Visits to Physician Per Year

Frequency	Number	Percent
Less than 1	66	10.8
Once	127	20.7
Twice	205	33.4
3 or more	173	28.3
None	42	6.8
Total	613	100.0

Note: Mean visits per year: 1.8

Table 2
Frequency of Reasons For Not Seeing a Physician

Reasons	RHS	NHS
Costs too much	41	87
Fear of doctors	31	57
Bad clinic hours	26	81
Bad clinic location	12	38
No transportation	19	67
Didn't know how	15	36

Note: Question to RHS read "when needed."
Question to NHS read "if needed." At RHS 46 or 187 reported not seeing a physician when needed; 426 students responded at NHS.

Table 3
Percentage of Students Choosing Topics About Which They Would Want a Clinic to Provide Information

Topic	RHS (n=187)	NHS (n=426)
Birth control	71.1	39.7
Skin problems	66.3	47.9
Drugs	62.5	44.0
Sex	62.0	44.0
Jobs	61.0	45.0
VD	56.0	42.7
Losing weight	53.5	47.7
Alcohol	52.4	30.8
Child abuse	46.5	25.9
Getting along with parents	46.0	31.5
Depression	41.7	29.3

Note: Items to which more than 30% of both samples indicated interest are listed for clarity.

Table 4
Rank-ordering of Top Five Topics About Which an Adolescent Health Clinic Should Provide Information

Quebec ^a (1986) (n = 1408)	Galveston ^a (1976) (n = 3255)	Private School ^a (1978) (n = 404)	Urban School ^a (1978) (n = 247)	Detroit (RHS) (n = 187)	Detroit (NHS) (n = 426)
Sex education	Drugs	Drugs	Drugs	Birth control	Skin problems
Drugs	Sex education	Birth control	Sex education	Skin problems	Losing weight
Venereal disease	Venereal disease	Venereal disease	Alcohol	Drugs	Jobs
Alcoholism	Birth control	Alcohol	Venereal disease	Sex	Drugs
Family planning	Alcohol	Sex education	Birth control	Jobs	Sex

Health Utilization

Health services utilization was assessed by established patterns of seeking health care and by clinic characteristics that may influence patient satisfaction. Most students (81%) visited a physician at least annually (Table 1). RHS students (n=46) failed to see a physician in the past year "when they needed to" because of cost, fear of physicians, and limitations of clinic time and location. At NHS, "reasons you might not see a doctor when you need to" most often included fear of doctors and clinic times (Table 2).

The clinic was located in a well-known and centrally located public health facility. All health services were provided without charge. Most of the RHS sample (83%) were aware of the health center, but few (34%) had used its services. Fewer NHS students (56%) knew of the health center, and fewer (19%) had visited it. Most students from both schools reported they already had a physician (47%) or clinic (37%) they attended, that the health center was difficult to reach (19%), and that it had a "bad reputation" (15%). The bad reputation was attributable to its past history as a tuberculosis treatment facility, its current use as a social hygiene clinic, and its location in a high crime area.

Many factors contributed to general patient satisfaction. Figures 1 and 2 show the importance to students of various clinic and physician characteristics. While others^{3,7} have reported that cost and confidentiality are important clinic characteristics, the students in this sample rated the comfort and cleanliness of waiting areas and the consistent presence of specific health care providers as the most important qualities of a clinic. Physician characteristics rated important to students included the ability to communicate effectively and professional competence. Issues of personality and style were less important. Many students (48%) preferred a physician age 26-40, but others (36%) had no age preference. Gender, race, and dress of the physician also were of little concern.

HEALTH STATUS AND NEEDS

Health Problems

Students from both schools cited many problems needing attention. The percentage of students reporting specific problems for each school is in Figure 3. Many problems were psychosocial or psychosomatic in origin such as depression, school problems, nervousness, headaches, stress, and often being tired. Other areas included lifestyle issues of health maintenance such as eating the right foods, being overweight, and worries about general health. Most notable, in terms of establishing a high-risk clinic, was the relatively low frequency of reported problems with suicide, pregnancy, venereal disease, and substance abuse. Between 10% to 20% of the sample reported problems with three of these areas.

Health Information Needs

Health issues that currently are not perceived as problems may be areas of health information concern. Health topics about which students desired information are reported in Table 3. Students frequently identified high risk areas of birth

control, substance abuse, and venereal disease. Also, most students (60%) preferred that the information be available in a private session with a physician rather than by group presentations or written material.

DISCUSSION

The findings reported here are based on responses from a limited number of students. However, the evaluation was intended to assess the health care needs of a representative sample of the clinic's potential patient population. While this procedure was an appropriate step in program development, the findings may not reflect the health care needs of high school students in general. Also, the questionnaire assessed health problems and information needs; it did not determine if the concerns resulted in a clinic visit or test the effectiveness of different methods of imparting health information.

These results of the assessment were an integral part of developing and implementing the clinic services. According to Giblin and Poland,¹ planning primary care programs for adolescent health care begins with describing potential patients and assessing their health care needs. From these initial findings, service and educational objectives were determined, and available health care resources were reviewed. Five points illustrate the usefulness of this procedure in establishing the clinic.

Student reports of high health care costs and inadequate knowledge of how to obtain health services were addressed by developing an adolescent health service wallet-size card which was widely distributed by the public schools and other community agencies in Detroit. The location, clinic hours, and telephone numbers of various free health services, including the clinic, were listed on the card.

Students reported a variety of health problems. These findings encouraged recruiting a comprehensive, multidisciplinary staff for the clinic. Physicians and other health professionals from different disciplines were present. The assessment of health care needs and the different responses from the students at each high school also emphasized the need to continue to assess present complaints of clinic patients. A computerized data base was established¹⁰ from which quarterly summaries of patient complaints, diseases, and treatments by encounters was derived, allowing adjustment of services to meet current health needs. Patient complaints that result in a clinic visit also can be identified.

While commonalities existed among students on health problems and information needs, individual differences systematically related to school, age, and gender were ob-

served. Similarly, comparisons of these findings with prior assessment of adolescents' health concerns^{4,5,8} reveal both commonalities and differences. A comparison of health information needs of six samples of adolescents including this study is contained in Table 4. While each sample generally reported similar needs, the rank ordering of needs varies. The

Figure 2
Ratings of the Importance of Physician's Characteristics

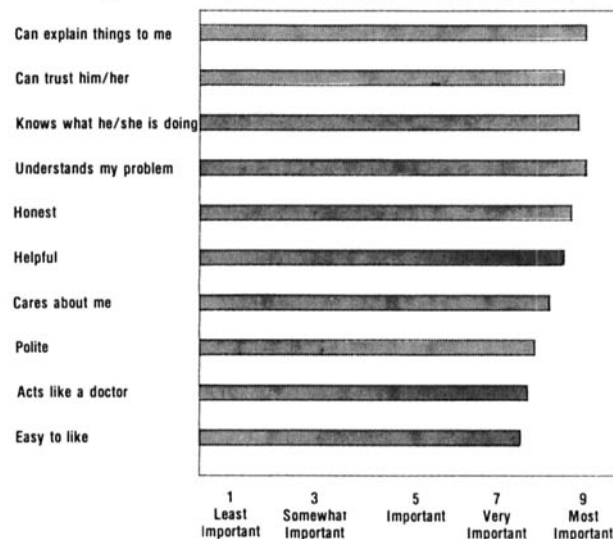


Figure 3
Percentages of Students Reporting a Problem for which They Currently Need Help

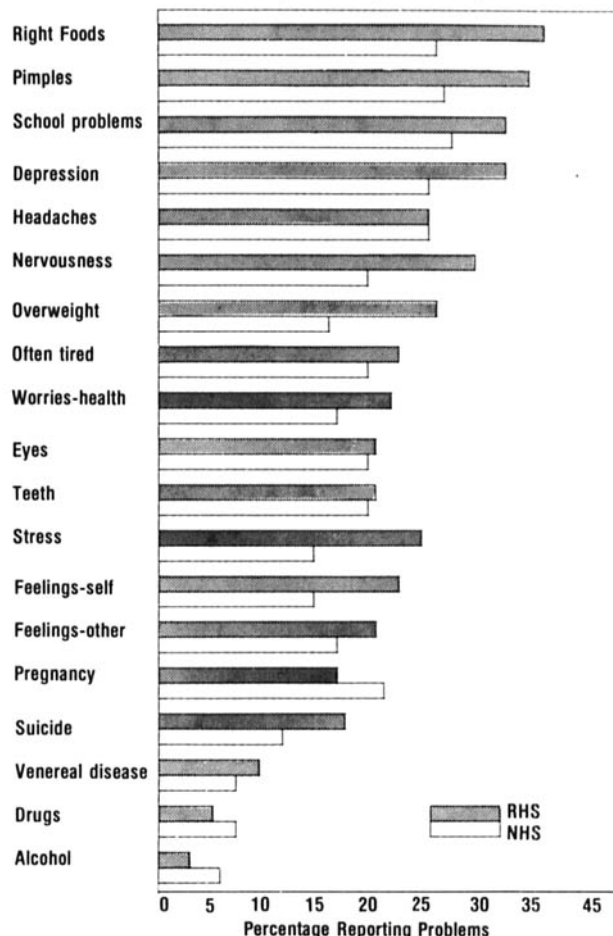
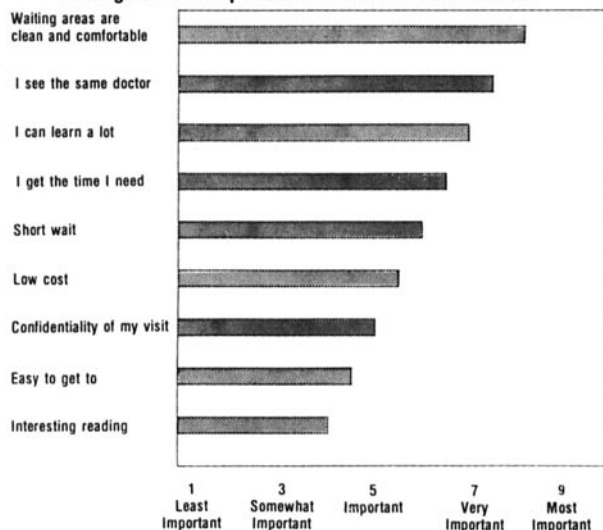


Figure 1
Ratings of the Importance of Clinic Characteristics



samples from this study gave priority to skin problems and jobs.

Individual differences in health concerns have several consequences for health education. First, recognizing an individual's unique needs enables one to offer information relevant to present concerns, optimizing instructional value. Second, assessments of health information needs may identify topics that students may resist and, therefore, require special educational strategies. Finally, age and gender differences in students' concerns indicate developmental and sex-appropriate considerations in designing clinical programs. Older students were more likely to report problems with substance abuse, sexuality, and interpersonal relationships. Females were more likely to express needs relating to sexuality, emotional problems, appearance, and interpersonal relationships.

Relatively few students reported problems in the high risk categories for which the clinic services were funded. Therefore, In addition to recruiting patients from local high schools, the clinic had to establish referral patterns with agencies already serving high-risk populations, such as substance abuse programs, STD clinics, and juvenile detention programs. Procedures to screen patients needing comprehensive health services and to refer these patients to the clinic were established, and patient education is emphasized in clinical services and resident training.

Students preferred receiving health information in a private session with a physician who could "explain things to them." Many health problems and concerns were related to adolescent life adjustment issues such as self-image, separation from parents, and future orientation. Staff orientations and resident training emphasized provider-patient communication and a behavioral and developmental orientation for diagnosis and treatment.

Residents are exposed to three general areas of communication skills and patient assessment: history taking and data collection in which a complete bio-psychosocial history, including life concerns, is taken; assessment of the individual's history of illness in terms of health beliefs, cultural and ethnic differences, and relationships to family members; and patient education and counseling emphasizing clarity of instruction, determination of patient comprehension, and concerns and barriers to compliance.

CONCLUSION

This project identified health care needs and information concerns of a high school population likely to frequent an adolescent health clinic. The utility of assessing health concerns systematically to aid the development and implementation of appropriate clinic services was demonstrated. Programmatic responses to student concerns and characteristics were described including health care costs, accessibility of services, multiple health care needs, individual differences in health care concerns, and the desirability of direct patient-physician contact. Evaluations of patient needs and concerns are an essential element of primary care. Such evaluations are especially relevant in a high school population where health concerns may be influenced by a changing and unique societal context.

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