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**STRATEGIES FOR THE DESIGN AND
EVALUATION OF A COMMUNITY
SEX EDUCATION PROGRAM**

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INTRODUCTION

Despite the emergence of an extensive literature on the outcomes of specific sex education courses, little information is available on the optimal design for such programs. After an extensive review of over 2,000 articles on sex education, Kirby et al. concluded that a major deficiency of the literature is the failure to "identify the major goals of sex education and then systematically map out the features and outcomes of programs that may contribute to those goals" (1979:19).

Given the broad goals of most sex education programs, this is a difficult task, but also an essential one. Changes in knowledge, attitudes or behavior will not magically occur at the mere mention of sex-related topics in a classroom. If we hope for sex education to have an effect, then it is important to specify the desired outcomes and to design curricula which meet them. Too often program planning occurs the other way around. Instructors begin by outlining a broad curriculum which includes topics considered "important" by teachers, students and parents, and omits others felt to be too controversial, or inappropriate for a particular age group. (See, for example, Hale and Philliber, 1978). In such cases, rather than being a means to reach a desired outcome, the curriculum becomes an end in itself: one which meets only the implicit objective of acceptability to several diverse groups, but which may or may not have any effect upon the students.

Although many authors have emphasized the importance of careful goal-setting and the need to match evaluation strategies

with program plans, how to accomplish these tasks is not always clear to program planners. Therefore, we present a general framework for program design and demonstrate its application to a specific sex education program -- Health Education for Youth (HEY) in New York City. Although the decisions involved at each step are specific to our project, the general process is relevant to other educational programs.

PROGRAM DESCRIPTION

The HEY project is the sex education outreach component of a larger program designed to avert unwanted adolescent pregnancies in the Washington Heights Area of Northern Manhattan. The larger program began in 1977 with the establishment of a contraceptive and counseling clinic for adolescents at the Presbyterian Hospital. In the first three years of operation this clinic had 10,000 visits by nearly 4,000 female and male adolescents.

In 1979 the educational outreach program was begun with a staff consisting of a program director, a training director and two community health educators. The project immediately received requests for sex education from parents, teachers and community agencies. Before responding to these requests the staff met to determine program objectives and priorities.

A PROGRAM PLANNING MODEL

Nine tasks were identified as leading from the specification of the program goal to the determination of objectives, target groups and curricula:

1. Establish overall program goal.
2. Develop a model of the antecedents of this goal.
3. Identify possible points of overlap with other program components, and modify project goal accordingly.
4. Establish criteria for choosing among various intervention points in the model.
5. Evaluate all possible intervention points by these criteria.
6. Develop program objectives from the chosen intervention points.
7. Evaluate alternative target groups using program objectives.
8. Review what is known about the selected target groups to choose appropriate curricula.
9. Develop evaluation indicators with which to measure the extent to which specific program objectives have been met.

Each of these steps is reviewed in some detail below.

Step 1: Establish Overall Program Goal

Both the clinical program and the HEY outreach established to meet a general goal of reducing the incidence of unwanted adolescent pregnancies in the Hospital's catchment area of Northern Manhattan. The initiative for this goal was staff concern over the numbers of teenagers, both nationwide and in our own area, who become pregnant without consciously intending to do so.

Step 2: Develop a Model of the Antecedents of this Goal

Attention to the program goal of reducing unwanted pregnancy among sexually active teenagers in the community guided our selection among specific alternative activities for the HEY outreach project. In order to utilize our resources for maximum

impact, we wanted to choose activities with the most direct link to the program goal. To aid in this selection process, we developed a rough model of the antecedents of adolescent pregnancy (See Figure 1)

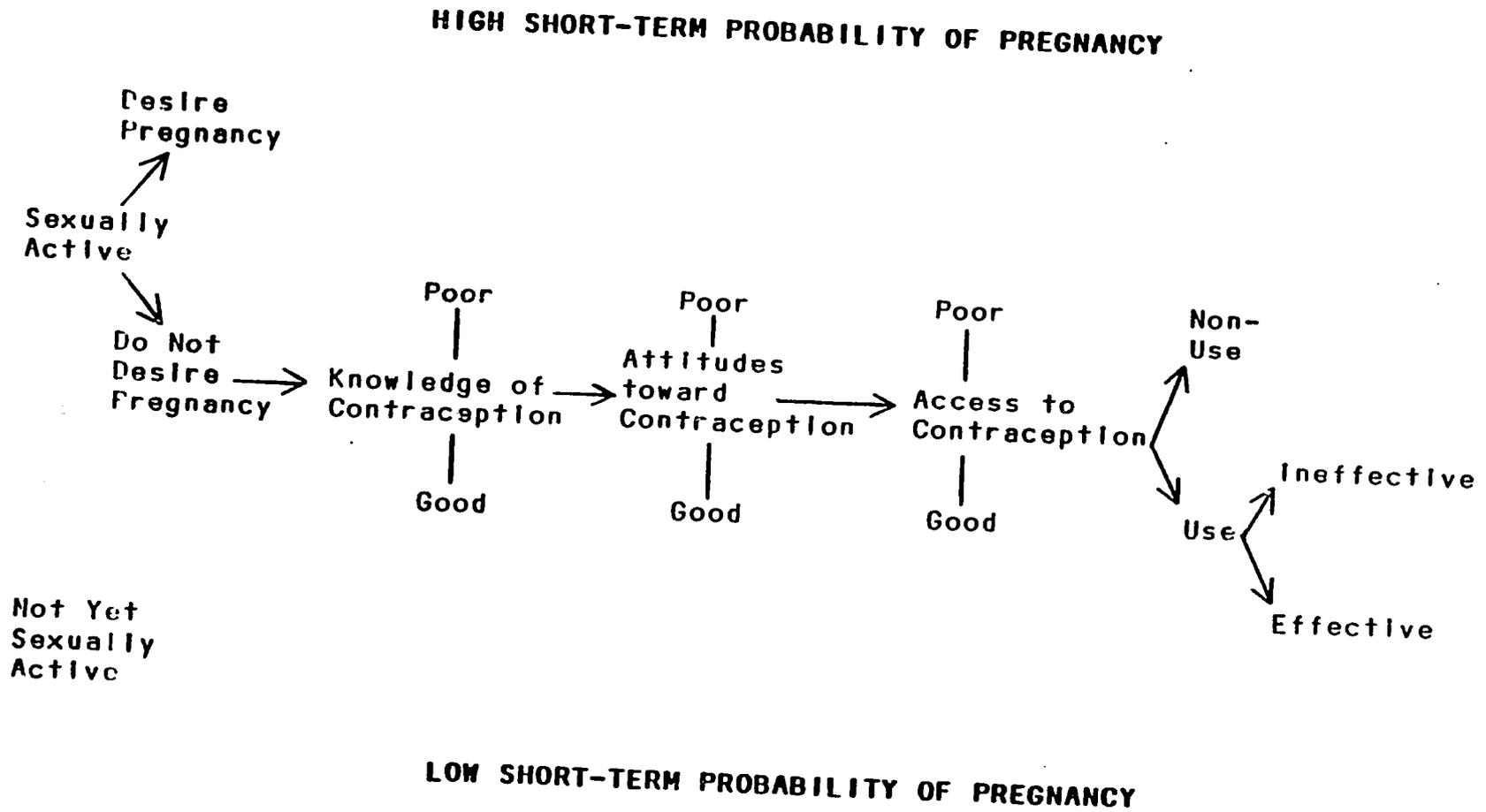
In our model, the teenage population is divided into two groups: those who are currently sexually active, and those who have not yet initiated sexual activity. In the sexually active population, some young women wish to get pregnant, while others do not. Of those who do not wish to become pregnant, the lowest probability of pregnancy will exist among women who have high knowledge of contraception, positive attitudes toward contraception, unimpeded access to birth control methods, who obtain an effective method, and use it correctly. Teenage males can follow the same paths in the model in terms of their desire for their partners to become pregnant and their own knowledge of, attitudes toward, access to and use of contraception.

Step 3: Identify Points of Overlap and Modify Project Goal

In the HEY program the general model suggested a point of overlap between the goals of outreach and clinical service. Once a young person comes into the clinic, clinic personnel provide counseling to facilitate the selection of an effective method and its correct use. Thus, within the context of a general goal to reduce adolescent pregnancy, a more specific goal of the outreach program would be to increase clinic utilization. Using the model in Figure 1, this was to be accomplished by affecting the points preceding a visit to the clinic.

Figure 1

Model of the Antecedents of Adolescent Pregnancy



Although not all access is clinical access, utilization of the clinic (rather than other services or non-clinical methods) was chosen as the most directly measurable program objective, and one which complemented service activities.

Step 4: Establish Criteria for Choosing Intervention Points

At this point it was possible to evaluate alternative intervention points in relation to the general outreach objective of increasing clinic utilization. Our main criterion was the selection of strategies which were most directly linked to this objective. For pragmatic reasons, we added the additional criteria of selecting educational objectives because they are easy to carry out and to measure. Like most programs, we have limited resources and must demonstrate our project's success in order to compete for funds. Thus, we cannot afford the luxury of pursuing unmeasurable or unrealistic long-term objectives.

Step 5: Evaluation of Possible Intervention Points

In Figure 2 we assess each possible intervention point in the model, and weight it according to the degree to which it meets our general selection criteria. Influencing the behavior of adolescents who are not yet sexually active received the lowest weight since it has the most indirect link with increasing clinic utilization in the short term, is difficult to achieve, and would require long-term follow-up to be adequately measured. All of the remaining intervention points meet the criteria of direct linkage to the project goal and short-term measurability, but vary in the degree to which they are attainable. Altering the desire for pregnancy was accorded the lowest weight on attainability.

Figure 2

Step 5: Evaluation of Possible Intervention Points by Selection Criteria

Degree of Difficulty Weights for Intervention Points *

Selection Criteria	Influence Teens Not Sexually Active	Alter Desire for Pregnancy	Increase Knowledge of Contraception	Change Attitudes About Contraception	Enhance Access to Services
Short-term Increase in Clinic Utilization	1	3	3	3	3
Easily Attainable in the Short Term	1	1	3	2	3
Easily Measurable in the Short Term	2	3	3	3	3
Total Score	4	7	9	8	9

* Degree of difficulty weights were assigned as follows:

- 1 = Does not meet selection criterion
- 2 = Partially meets selection criterion
- 3 = Fully meets selection criterion

Of the three remaining points, two (increasing knowledge of contraception and the providing information on and referrals to the clinic) were deemed easiest to accomplish, based upon the experience of other sex education programs. The remaining intervention point (changing attitudes toward contraception) is somewhat more difficult to achieve, although some successes have been reported by other researchers (see for example, Zuckerman et al., 1976).

Step 6: Develop Program Objectives from Intervention Points

The intervention points chosen for the HEY program were easily translated into specific program objectives for our teenage population:

Priority level 1:

Increase knowledge of contraception.

Enhance access to services through the provision of information about the clinic and through referrals.

Priority level 2:

Change attitudes toward contraception

Step 7: Evaluate Possible Target Groups

The next question was which target groups should receive priority in order to meet these program objectives. Certainly working with the adolescents themselves would be the most direct route. Since sexual activity is more likely among older teens, our first priority target group became adolescents 16 or older.

Selection of the next levels of priority involved thinking through the roles of peers, parents, teachers and community agency workers in relation to our objectives. Figure 3 shows the results of this analysis.

ASSESSMENT OF THE ROLES OF POTENTIAL TARGET GROUPS IN INFLUENCING KNOWLEDGE, ATTITUDES AND ACCESS TO CONTRACEPTION AMONG SEXUALLY ACTIVE TEEN-AGERS

Priority Level	Target Group	Reasons for Priority Rating
1	Peers	Peers were deemed to be an important source of attitudes and information regarding contraceptive methods and services. After training, peer resource people could be used to correct misinformation and negative attitudes and to refer teens to the clinic.
2	Community Agency Workers	Workers in sports clubs, service agencies, etc. have frequent contact with our adolescent target group and are potential sources of referral. To the extent that they earn the confidence of the teens they work with, they may also be informal sources of information and attitude change.
3	Teachers	Teachers are viewed as potential sex educators who could serve as sources of both information and values clarification for their students. However, their role is indirect in the sense that before accomplishing this they must have the opportunity to teach, master the content, be able to teach the content well, and thus affect their students.
4	Parents	Once teenagers are sexually active, it may be ambitious for us to hope that parents will directly affect their children's information and attitudes toward contraception. However, they are potential sources of resistance or support for their children's actions, and HEY staff see their main objective in working with parents as facilitating communication with their children on sex-related issues.

The priority rankings are somewhat arbitrary, and may well be different in other programs. Based upon evaluation by project staff of the potential of each target group, it was determined that the training of peers and adult community agency workers would be the most direct means of increasing clinic utilization by sexually active teens.

Step 8: Review What Is Known About the Target Groups

In order to select appropriate content for our priority target group -- older adolescents -- we sought information on their knowledge of and attitudes toward contraception. A recent study in New York City provided this information in the form of responses by sexually active adolescents to the question "why don't you use birth control?" (Ross, 1978). Although the ordering of the responses varied slightly by sex and ethnicity, in general the reasons given were remarkably consistent. They also could be easily divided into three categories corresponding to our educational objectives:

Lack of Basic Information on Contraception and Pregnancy Risk

Pregnancy:

- I don't have sex often enough.
- I am too young to get pregnant.
- I can't get pregnant.

Contraception:

- It is bad for my health.
- I don't know enough about it.
- It doesn't work for me.
- It is too difficult to use.
- I never thought about it.

Lack of Information on Contraceptive Services

- I don't know where to get it.
- It is a hassle to get.
- It is too expensive.

Attitudinal Barriers to Contraceptive Use

My partner doesn't like it.
I'm afraid my parents will find it.
It makes sex seem too planned.
It is too embarrassing to buy.
It is too embarrassing to use.
I'm afraid of it.
I didn't expect to have sex.
It interferes with pleasure.
It is unnatural.

The first category includes several responses which indicate a misunderstanding of the likelihood of pregnancy. That such misunderstanding constitutes a barrier to contraceptive use among adolescents has been confirmed by national studies. (Zelnik, 1979). The second category includes responses which result from inadequate information concerning the availability of contraceptive methods and services. The third consists of a variety of unfavorable attitudes, including difficulty dealing with other people's resistance to contraception.

To overcome these informational and attitudinal barriers, we developed a "core curriculum" to be used with older adolescents. It emphasizes the following topics:

1. The likelihood of pregnancy among sexually active teenage women in the U.S.
2. The time of greatest risk of pregnancy during the menstrual cycle.
3. The effectiveness of various contraceptive methods.
4. Perceived advantages and disadvantages of contraceptive methods.
5. Coping with peer and parent resistance to contraception.

Step 9: Develop Evaluation Indicators

Two indicators were chosen to assess the impact of our adolescent sex education program. In order to evaluate changes in knowledge of and attitudes toward contraception as a result of the outreach program, participants were administered a pre-test and a post-test. The test instrument included items on background characteristics, sexual activity, knowledge and utilization of the clinic, changes in attitudes, and in knowledge of topics covered in the core content. We will not report the results of this test here, since they are presented elsewhere (Darabi et al, 1982) and our present purpose is to discuss the development of strategies. Suffice it to say that the results of the tests clarified the strengths and weaknesses of the core curriculum, and helped guide our continuing efforts to improve the program.

Since the goal of this program was to increase clinic utilization, we devised a system for identifying teenagers from the outreach program without violating their confidentiality. Each teenager attending an outreach education session was given a distinctive blue card inviting him or her to the clinic. At the clinic, counselors were instructed to ask all new patients whether they had received such an invitation, and if so, where. In this way we were able to calculate the percentage of outreach participants who came to the clinic, and the percentage of new clinic patients referred through the education program. This is likely to be an underestimate of contraceptive use prompted by the outreach program, since teenagers may have been motivated to seek contraception elsewhere. In addition, some outreach patients may not mention their source of referral, although this effect

may be offset by clients who attended outreach programs but whose later clinic attendance was motivated by other events or persons). However, it provides us with a rough estimate of the relative behavioral impact of outreach work with different groups at different sites.

CONCLUSION

This paper describes a framework for the selection of sex education objectives, target groups and curriculum components which is applicable to a variety of projects. Like many programs, our overall goal was the reduction of unwanted adolescent pregnancies. In order to incorporate such a broad goal within a feasible program, we developed a model of the antecedents of adolescent pregnancy and assessed possible intervention points in terms of their congruence with the model and their feasibility. The application of a similar decision-making framework in other programs would enhance the possibility of producing measureable results from sex education programs.

REFERENCES

- Darabi, K., J. Jones, P. Varga and M. House (1982) "Evaluation of Sex Education Outreach." Adolescence. 37 (65): 57-64.
- Hale, C. and S. Philliber (1978) "The subtle points of controversy: A case study in implementing sex education." Journal of School Health. 48 (10): 586-591.
- Kirby, D., J. Alter and P. Scales (1979) "An Analysis of U.S. Sex Education Programs and Evaluation Methods." Atlanta, Ga.: Center for Disease Control, Bureau of Health Education.
- Ross, S. (1978) The Youth Values Project. Washington, D.C.: The Population Institute.
- Zelnik, M. (1979) "Sex Education and Knowledge of Pregnancy Risk Among U.S. Teenage Women." Family Planning Perspectives 11 (6): 355-357.
- Zuckerman, M., R. Tushup and S. Finner (1976) "Sexual Attitudes and Experiences: Attitudes and Personality Correlates and Changes Produced by a Course in Sexuality." Journal of Consulting and Clinical Psychology 44(1): 7-19.