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ABSTRACT

Since neither the provision of contraception, nor exhortations to preserve premarital chastity serve the adolescent's need to integrate their now-present biological capacity to procreate into their operational self concept, this study utilized experiential learning about fertility to facilitate the integration of biologic maturity with adolescent emotions, cognition, capacity, life goals, and behavior. Teen STAR (Sexuality Teaching in the Context of Adult Responsibility) was developed to encourage the prevention of teenage pregnancy by offering teen women experiential learning of their normal fertility patterns, coupled with value-oriented discussions for both sexes of the implications of their capacity for becoming a parent on their relationships and life goals. Males and females are separated during the first portion of the two semester long course, so that each group's members can learn about their own bodies and that of the opposite sex. During the second portion of the course, the students are brought together to discuss the social, relational and procreative aspects of sexual relations. Four tables present data and statistical analysis of the effects that the Teen STAR program has upon the behaviors and attitudes of program participants. (TS)

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# The Teen STAR Program

Teen STAR, Page 1

Hanna Klaus

The United States has one of the highest teen pregnancy and abortion rates in the world, despite ever increasing availability of contraceptives on the one hand, and increasingly energetic exhortations to maintain premarital chastity, on the other. Since neither the provision of contraception, nor exhortation to preserve chastity serve the adolescent's need to integrate their now-present biological capacity to procreate into their operational self concept, we utilized experiential learning about fertility to facilitate the integration of biologic maturity with adolescent emotions, cognition, capacity, life goals, and behavior.

An emphasis on contraception dichotomizes sex and procreation, thus facilitating fragmented, often solely or largely genital relationships which do not lead to growth. On the other hand, while teens are often exhorted to moral (chaste) behavior, many have not yet reached a level of personal integration to accept this teaching, even when disposed to do so. The adolescent personality task of establishing an ego identity requires at least a theoretical distancing from the "parental ego" in order to discover which values are their own, and which are passively incorporated from their parent(s). These youngsters cannot "hear" adults when they say that genital union can only have its full meaning within marriage, because they still need to master the preliminary adolescent personality tasks. A high priority for teens is to understand their sexuality as well as their procreative capacity. Until youths can "own" their fertility more than intellectually they cannot integrate their sexuality and become more mature. Only after coming to terms with the fact that one is now biologically capable of becoming a mother or a father, can awareness of this capacity be integrated into choices about present behavior which are consistent with future life goals.

A developmental curriculum in human sexuality (now titled "Teen STAR" - Sexuality Teaching in the context of Adult Responsibility) was developed in the early 1980's to encourage the prevention of teenage pregnancy by offering teen women experiential learning of their normal fertility patterns coupled

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with value-oriented discussion of the implications of their capacity for becoming a parent on their relationships and life goals.

Program components include informed consent, parental permission, individual charting and subsequent analysis of female fertility patterns (mucus secretion), recording of any genital contact, parent meetings, oral and written class work, questionnaires, and evaluation. Confidentiality of teens' communication is assured. Teens were taught to recognize the signals their bodies give, by using the same methodology as is used in the Billings Ovulation Method of natural family planning: as the ovum begins to ripen in the follicle the follicular lining cells produce an increasing amount of estrogen. As estrogen rises, it causes, among other bodily changes, a flow of mucus in the cervix, which reaches the vulva very quickly. Once the girl or woman feels or sees this mucus, she must know that she is ripening an egg, and that the mucus will keep sperm alive in her body until ovulation. Couples who use this as a method of family planning are taught several rules. The youngsters are also acquainted with the rules because they need complete information in order to make intelligent choices. Males and females are separated during the first portion of the two semester long course, so that each can learn about their own body and that of the opposite sex. After the body has been studied, the students are brought together to discuss the social, relational and procreative aspects of sexual relations. Classes need to meet once a week. Girls learn to record their mucus/fertility cycle patterns, and are seen in individual interviews by the teacher every two months. Both girls and boys keep a simple chart of their emotions. The boys discuss their emotions at their individual interviews also. At the interview we remind each participant of the confidentiality of individual reporting and group discussion. Each group explored the emotional, physical, intellectual, social and (where appropriate) spiritual implications of growing into manhood or womanhood.

Parents were invited to meetings before the program was offered to the teens, three months later and at the end of the second semester. Attendance by parents of junior high school students was high, while high school sessions attracted only 5-35% parental attendance. Attendants had many questions and

reported changes in their daughters' behavior beginning at the third cycle. Mothers noted that daughters were "no longer following the group" and "making their own decisions." Frequently, parents reported that their daughters avoided activities where sexual encounters were likely.

At the follow-up meeting, parents of males reported that while their sons did not talk about their class, the mothers knew class had met because the boys were noticeably more considerate to them and to their sisters. Parents have gone to considerable lengths to encourage us to continue the program. Less than 1% of students have failed to obtain parental permission to participate.

Since beginning this program in 1980, more than 10,000 teens have been served in the United States and in the Philippines, Chile, Slovakia, Poland, and several other countries. Statistics from the 1993-1994 United States group are shown in Table 1. Even though a number of the students experimented sexually, the practice of intercourse did not necessarily continue. Program data were obtained with a Lykert-type questionnaire which included questions about age at sexual debut and the time of last intercourse, after obtaining informed consent. Table 2 shows that the women especially were very likely to discontinue intercourse once they understood its broader implications. Boys were significantly slower to initiate sexual activity, while the girls were significantly faster to stop. Long-term follow-up (Table 3) showed a significantly lower rate of intercourse compared to the general population. Two years after the program, 20% of females were currently active, compared to 41% in the general population, while three years later, 17% of program females were sexually active compared to 53% in the general population. Males showed similar program effects. Two years after the program 28.5% of males were sexually active, compared to 39% in the general population; three years after the program, 36.7% of program males were sexually active, compared to 52.7% in the general population.

Because of costs, only post-questionnaires were administered to the 1994-1995 group while retaining questions about the first and last dates of sexual relations. The data are presented separately

in Table 4. A large urban high school for males offered Teen STAR to half of the freshmen class, but administered the exit questionnaire to the whole class, thus providing a control group. The transition rate is significantly higher in the control group. Discontinuation of previously begun sexual activity, defined as no intercourse within the last 3 months is shown in global figures in Table 5. No pre-post linkage was possible. In the Philippine group, sexual debut was also retarded and rates of discontinuation were similar to those of U.S. groups. Over 80% of our subjects come from intact two parent families, similar behavioral outcomes are obtained from one school of high risk girls, 95% of whom were sexually active at entry, while only 22% were active at exit. Two programs for single teenage mothers report analogous results.

Teen STAR teachers must believe in the philosophy of the program because they will have to interact with the teen in a deep way. Inauthenticity has no place here because teens see through it. Teachers want good things for their students. When they see that the program helps the youngsters to become self-determining and to make good choices, many want to help. Slowly the program grows. Anyone who cares about the health of young people will welcome a way of helping them avoid the complications of premature sexual behavior, while at the same time, avoiding the as yet unknown long-term effects of contraceptive steroid hormones or risking sexually transmitted disease. We invite anyone who would like to offer this program to contact us to find out about training workshops.

**TABLE 1: Transition Rate<sup>#</sup> Comparisons - Proportion of students who, at pretest, were not sexually active but by post test time had become sexually active (1993-94 pre-post sample, Age 14 years at entry into program)**

Group n size (matched)	Sex.Act.Rate	Sex.Act.Rate	Sex.Act.Rate	Transition Rate % virgin to non-virgin	Significance vs. controls	U.S. population % currently active, <sup>a</sup> age 15
	PRETEST	POST TEST	POST TEST			
Program (males)	325	19.1% 63/325	27.4% 89/325	13.7% 36/263	p=0.05	29.6%
Program(females)	285	17.2% 49/285	23.2% 66/285	8.9% 21/236	N.S. <sup>b</sup>	30.7%
Control (males) <sup>c</sup>	68	13.2% 9/68	30.9% 21/68	23.7% 14/59	p = 0.05	
Control (females) <sup>c</sup>	34	11.8% 4/34	17.6% 6/34	6.7% 2/30	N.S. <sup>b</sup>	

<sup>#</sup> Transition rate: % of non-virgins at exit compared to virgins at entry.

<sup>\*</sup> Trends in Sexual Risk Behavior among High School Students, US 1993. Centers for Disease Control (CDC) and Prevention, Youth Risk Behavior Surveillance System, courtesy Charles W. Warren, Ph.D.

<sup>a</sup> The Centers for Disease Control define "currently sexually active" as at least one act of intercourse within the past three months.

<sup>b</sup> Control group too small for valid comparison.

<sup>c</sup> Students from same school who were not in the program, mostly transfers.

**TABLE 2: Recency and discontinuation rates for 14 year old males and females, 1993-94 pre-post data set**

	last intercourse		prior to program		Significance
	3 mos. ago	4-6 months	> 7 months		
Males pre-	31/50 = 62%	16.0% 8/50	22.0% 11/50		
Males post	34/50 = 68%	14.0% 7/50	18.0% 9/50		N.S.
Females pre-	10/16 = 61%	12.5% 2/16	25.0% 4/16		
Females post	5/16 = 31%	6.3% 1/16	62.5% 10/16		p = 0.05

Table 2 shows the percent of students who reported sexual activity prior to the program and tracks discontinuations of sexual activity. The CDC definition of "current sexual activity" is at least one act within the last three months.

**TABLE 3: Students who had Teen STAR as freshmen  
Follow-up 2 and 3 years later, spring 1994**

TOTAL	Ever had sex		Last act within 3 mos.		US population currently active (%) **
	(N)	(%)	(N)	(%)	
Grade 11 - 2-year follow-up, Females					
N	52	21 (40.4%)	14	(27%)	40.9
Grade 12 - 3-year follow up, Females					
N	41	12 (29%)	7	(17%)	53.2
Grade 11 Males					
N	84	39 (46.4%)	24	(28.5%)	39.1
Grade 12 Males					
N	128	74 (57.8%)	47	(36.7%)	52.7
Non-program females* - Grades 11 & 12					
N	43	17 (39.5%)	13	(30.2%)	
Non-program males - Grades 11 & 12					
N	101	69 (68.3%)	43	(42.5%)	

\* Grades 11+12 aggregated. N = too small for further breakdown.

\*\* CDC, see Table 1 for reference.

**Note:** Program students' level of current sexual activity is considerably lower than the rate for the general population, but only slightly lower than the non-program students, who were a much smaller group – half as large as the program group. When a small number joins a larger group the mores of the larger group are often taken on by the smaller, the so-called "lunch room effect." Nonetheless, we recommend reinforcement two years after the initial program, perhaps as a one semester seminar, reteaching Units 8-13 in seminar form.

**TABLE 4: 1994-1995 Teen STAR Program Statistics (U.S.)**  
(Transition from virgin to non-virgin status)

**GIRLS**

Age	N	Sex. active at entry	Last act 4-6 mos. before end of program	Sex. act. in last 3 mos.	Transitions (N)	Rate
13	16	0	0	0	0	0
14	111	12 (10.8)	8 (7.2)	8 (7.2%)	0	0
15	<u>83</u> 210	15 (18.0%)	12 (14.4%)	12 (14.4%)	3	3.1%

**BOYS (STUDY GROUP)**

13	30	1 (3%)	1 (3%)	2 (6.6%)	1	6.9%
14	191	37 (19.4%)	22 (11.5%)	24 (12.7%)	10	6.5%
15	108	22 (20.3%)	15 (12.7%)	16 (15.5%)	1	0.9%
16	<u>6</u> 324	3 (50%)	-	2 (33.3)	0	0

**CONTROL GROUP**

13	5	2 (40)	1 (20)	3 (60)	1	33.4%
14	80	19 (23)	1 (1)	20 (25)	1	2.7%
15	32	6 (18)	7 (22)	6 (18)	7	27.0%
16	<u>16</u> 118	1 (100)		1 (100)	0	

**TABLE 5: Non-virgin subjects whose last act of intercourse was > 3 months prior to the end of the 1994-1995 Teen STAR course**

Age	Female	Male
14	50%	65%
15	33%	72%

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