

East Texas Abstinence Program
Evaluation Report
2006-2007

PART 1:

EQUIP and FACTS
in
Grades 7 through 12

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East Texas Abstinence Program 2006-2007 Evaluation Report: Executive Summary

Originally a Special Project of Regional and National Significance (SPRANS) grant recipient, the East Texas Abstinence Program (E.T.A.P.) of the Longview Wellness Clinic is now a Community-Based Abstinence Education (CBAE) program under the Administration for Children and Families (ACF). E.T.A.P. seeks to prevent premarital teen pregnancy and sexually transmitted disease while helping youth to make decisions that are physical, mentally, and emotionally healthy. Methods used included (a) the classes in public schools; (b) programs, activities, and special events in communities and alternative schools; (c) meetings of a supportive coalition of youth and adults; and (d) a multimedia campaign using a range of methods of outreach, including radio, television, posters, billboards, car bumper stickers, and a Web site, <http://virginityrules.com>. This year, a new curriculum, EQUIP (E.T.A.P., 2006), was pilot tested with positive results. For the evaluation of the interventions for students in Grades 7 through 12, matching Pre- and Post-Intervention Youth Solutions Questionnaires for Older Students were available for 2,559 secondary students. The average age, in years, of these students was 13.58 (SD = 1.67). The final evaluation includes information on the smaller groups, including a character-based health education curriculum for younger students and an intervention for older alternative students, using "Choosing the Best" material. For Part 1, the main report on students in Grades 7 through 12, key results were based on outcomes for the original six SPRANS performance measures, which have been monitored every year of this project, beginning in 2002. Current results are listed below:

Measure 1: Proportion of program participants who successfully complete or remain enrolled in an abstinence-only program. The YSS includes a section that is administered post-intervention to obtain students' perceptions about abstinence education classes using materials provided by E.T.A.P. Question 46 asks, "Did you personally attend class when the abstinence program was presented?" Most (77.92%) of the matched respondents who responded to this question reported that they attended the abstinence education classes. The others either were "not sure" (8.60%) or thought that they did not attend (13.48%).

Measure 2: Proportion of adolescents who understand that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy and sexually transmitted disease. Question 18 on the YSS asks about agreement or disagreement with the following statement: "The best way for teenagers to avoid unintended pregnancy, HIV/AIDS and other sexually transmitted infections (STIs) is to wait until they are married before having sex." In the 2006-2007 school year, after the E.T.A.P. interventions, 82.99% of the matched respondents indicated that they agree or strongly agree, up from 78.18% before the intervention, a statistically significant change ($p < .0001$).

Measure 3: Proportion of adolescents who indicate an understanding of the social, psychological and health gains to be realized by abstaining from premarital sexual activity. The "Future Orientation" scale is made up of the questions asking if sexual "abstinence as a teen-ager would make it easier" to (a) get a good education, (b) have a good marriage, and (c) have a good job or successful career in the future, all of which are relevant to this measure. Participants increased their awareness of the combined future benefits of abstinence in all these areas. For example, before the abstinence education classes using materials from

E.T.A.P., 56.68% reported that abstinence would “make it a lot easier” to get a good education (Question 9) while 22.94% said it “wouldn’t make any difference.” After the interventions, that changed, with 59.09% reporting it would, “make it a lot easier” and 18.76% saying it “wouldn’t make any difference” which was a statistically significant ($p < .0001$) change. Changes were similar for questions about the benefit of premarital teen sexual abstinence for future marriage (“a lot easier” changed from 55% to 61%) and “wouldn’t make any difference” from 20% to 14%) and future careers (“a lot easier” changed from 47% to 53% and “wouldn’t make any difference” from 33% to 23%). In addition, the percentage of respondents who agreed or strongly agreed that “a teen who has had sex would be better off to stop having sex and wait until later such as after high school or until marriage” (Question 15, see Figure 13) increased from 71.56% before the intervention to 74.44% after the intervention, also a statistically significant change ($p < .01$).

Measure 4: Proportion of participants who report they have the refusal or assertiveness skills necessary to resist sexual urges and advances. Question 37 on the YSS asks about agreement or disagreement with the following statement, "If someone tries to get me to have sex, I feel confident I can say no." "If someone tries to get me to have sex, I feel confident I can say no." In the 2006-2007 school year, after the E.T.A.P. interventions, 78% of the matched respondents marked agree or strongly agree, up from 74% before the intervention. This improvement was a statistically significant change ($p = .0003$).

Measure 5: Proportion of youth who commit to abstain from sexual activity until marriage. Question 41 of the YSS asks four questions beginning with this stem, "Whether or not you have ever had sex, in the future do you plan to:" and the last item, #41d, is "Abstain until marriage." In the 2006-2007 school year, after the E.T.A.P. interventions, 65.23% of matched respondents marked “Yes,” up from 61.89% before the intervention, a statistically significant improvement ($p < .0001$).

Measure 6: Proportion of participants who intend to avoid situations and risk behaviors, such as drug use and alcohol consumption, which make them more vulnerable to sexual advances and urges. Question 25 of the YSS asks for agreement or disagreement with the following statement, "My friends and I can have fun without sex, drugs, or alcohol." After the E.T.A.P. interventions in the 2006-2007 school year, 84% of matched respondents marked agree or strongly agree, up 82% before the intervention, a statistically significant improvement ($p < .0003$).

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INTRODUCTION

Originally a Special Project of Regional and National Significance (SPRANS) grant recipient, the East Texas Abstinence Program (E.T.A.P.) of the Longview Wellness Clinic is now a Community-Based Abstinence Education (CBAE) program under the Administration for Children and Families (ACF). E.T.A.P. seeks to prevent premarital teen pregnancy and sexually transmitted disease while helping youth to make decisions that are physical, mentally, and emotionally healthy. Methods used included (a) the classes in public schools, using the FACTS curriculum (see <http://www.facts.cc>); (b) programs, activities, and special events in communities and alternative schools; (c) meetings of a supportive coalition of youth and adults; and (d) a multimedia campaign using a range of methods of outreach, including radio, television, posters, billboards, car bumper stickers, and a Web site, <http://virginityrules.com>. During the 2006-2007 academic school year, a new abstinence education curriculum, EQUIP (E.T.A.P., 2006), was introduced and pilot tested. The current report includes a comparative analysis of the effects of the new curriculum as it was used in schools participating in the pre- and post-intervention survey.

E.T.A.P. has a long term vision, unlike many abstinence education programs, of a curriculum in the schools starting in elementary grades and continuing through high school. In addition, strength of the E.T.A.P. program is the combination of community-based and school-based efforts. Character and health issues are intertwined to the extent that physical health and healthy interpersonal relationships depend, in many situations, on actions and attitudes that pertain to values, attitudes, and self control. The Longview Wellness Clinic recognized this important relationship in developing the East Texas Abstinence Program, which provides (a) classes in the schools; (b) programs, activities, and special events in communities; (c) meetings of a supportive coalition of youth and adults; and (d) a multimedia campaign using a range of methods of outreach, including radio, television, posters, and a Web site, <http://virginityrules.com>. Abstinence education classes are provided to schools in 8 counties: Camp County, Gregg, Harrison, Marian, Panola, Rusk, Smith, and Upshur.

METHOD

Processes and Interventions

The East Texas Abstinence Education Program is designed to serve youth in multiple ways, including: (a) classes in public schools and in alternative settings; (b) programs, activities, and special events in communities; (c) meetings of a supportive coalition of youth and adults; and (d) a multimedia campaign using a range of methods of outreach, including radio, television, posters, and a Web site, <http://virginityrules.com>. The community-based programs and activities provided by E.T.A.P. are designed to support sexually resilient youth, both male and female, who can take leadership roles in changing cultural norms by their own personal standards and by developing multimedia materials in support of abstinence until marriage.

The classes on abstinence education deal with topics such as respect for others; violence

prevention and personal safety; setting standards for dating, activities, and parties; avoiding tobacco, drug, and alcohol use; developing communication, conflict resolution, and refusal skills; understanding peer pressure; developing positive self-respect; managing the influence of the media; understanding healthy relationships; and the advantages of premarital abstinence. Materials designed to facilitate communication between children and youth and their parents on these topics are provided. All materials are consistent with abstinence education as defined in Section 510 (a)(b) of Title V of the Social Security Act which has the following key aspects, often referred to as “A to H:”

- a) Has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
- b) Teaches abstinence from sexual activity outside of marriage as the expected standard for all school age children;
- c) Teaches that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
- d) Teaches that a mutually faithful monogamous relationship in context of marriage is the expected standard of human sexual activity;
- e) Teaches that sexual activity outside of the context of marriage is likely to have harmful psychological and physical effects;
- f) Teaches that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child’s parents, and society;
- g) Teaches young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances;
- h) Teaches the importance of attaining self-sufficiency before engaging in sexual activity.

All of the abstinence education materials used by E.T.A.P. meet the federal requirements listed above and address the following goals: (a) preventing pregnancies to unmarried adolescents by postponement of the initiation of sexual activity, (b) developing in teens a realistic future orientation that includes awareness that the consequences of early sexual activity may make it difficult to meet educational, career, and personal goals, (c) developing and maintaining attitudes and values favoring abstinence among teenagers, (d) increasing interpersonal skills, especially in the area of conflict resolution and refusal skills, and (e) increasing parent-teen communication about human sexuality.

A new curriculum, EQUIP (E.T.A.P., 2006), was developed by the E.T.A.P. staff to specifically address every aspect of the federal A-H definition and all related goals of ACF/Community Based Abstinence Programs. Although all of the materials used by E.T.A.P. over the years always have been in full compliance with the federal A-H definition, the new curriculum strives to expand and extend the details presented for each element of the federal definition and to emphasize objectives of ACF/Community Based Abstinence Programs. The new (2006-2007) 7th grade curriculum, EQUIP: Encouraging Students to Embrace Excellent Marriage (ESTEEM), from *VirginityRules*, East Texas Abstinence Longview Wellness Center, does this in ten lessons, with the following titles:

- Lesson 1 – Finding My Way

- Lesson 2 – The Media and Me
- Lesson 3 – STDs Are Not for Me
- Lesson 4 – What about Teen Pregnancy
- Lesson 5 – What Does the Law Say about Sex?
- Lesson 6 – Feeling the Squeeze [Peer Pressure]
- Lesson 7 – Drugs and Alcohol
- Lesson 8 – Having Freedom with Friends
- Lesson 9 – Relationships
- Lesson 10 – Setting your Goals

Schools working with E.T.A.P. traditionally have received, and most still receive, *Family Accountability Communicating Teen Sexuality* (FACTS), a set of textbooks, lesson plans, and other curriculum and parent-involvement materials for students of different age levels (e.g., Fuller & Asato, 1998; Fuller, Denman, & McLaughlin, 1997; Fuller & McLaughlin, 1998) developed by Northwest Family Services (NWFS). NWFS also developed materials for younger students, specifically, fifth and sixth graders (textbooks, teacher’s manuals, and a different version of the survey) with a character and health education focus (Fuller et al., 2000a, 2000b) designed to provide a foundation that will support the materials to be provided in the FACTS curricula when the students are older. E.T.A.P. has been using the materials for younger students in Grades 5 and 6 since 2002, so some of the middle and high school students in the current report had this foundation.

The two types of curricular materials, EQUIP and FACTS, are similar in content. For example, compare the chapter topics from the FACTS booklet for 7th graders with those listed above for the new EQUIP booklet for 7th graders:

- Lesson One It’s about Respect
- Lesson Two Self Confidence
- Lesson Three Building on Your Strengths
- Lesson Four Media Hype
- Lesson Five Influence of Peers
- Lesson Six Out of Harm’s Way – Part One [STDs & Teen Pregnancy]
- Lesson Seven Out of Harm’s Way – Part Two [Drugs & Alcohol]
- Lesson Eight Protective Skills
- Lesson Nine Having Fun
- Lesson Ten Making a Commitment

This evaluation did not have a research design with random assignment and a control group. The schools and students selected to receive EQUIP were not necessarily equivalent to the schools and students who continued to use FACTS. The purpose of the evaluation was to determine if E.T.A.P. was able to achieve its goals with each set of materials, not to compare the two sets of curricular materials directly. Any differences in the results may be due to differences in factors such as socio-economic status, local events in the different schools and communities, and a host of other elements that were not measured. However, as will be explained in more detail shortly, the same pre- and post-intervention questionnaire was used with a generous

sample of students for both groups. As part of the external evaluation of the E.T.A.P. program, which is presented in this report, students completed anonymous surveys administered at school in accord with approved policies of local school districts. E.T.A.P. project staff members go into the classrooms to administer the survey in a way that protects the anonymous nature of the survey and makes sure that the students understand the questions. Staff members read the questions to the students and collected the questionnaires and scantrons as they were completed, taking care to keep them secure. The *Youth Solutions Survey* (YSS) for Older Students was used; this is appropriate for students in 7th through 12th grades. (The questionnaire is located in the Appendix.)

Methods of Analysis

Computerized databases were sorted by birth date, gender, etc., to identify and link matching pre- and post-intervention questionnaires. Participant code numbers were then assigned. Statistical analyses were conducted using the linked pre- and post-intervention questionnaires. Changes in pre- and post-intervention responses to items on the questionnaire related to mediation factors were studied.

The evaluation procedures included (a) descriptions of pre- and post-intervention statistics for matched students in Grades 7 through 12, (b) a study of the effects of the new EQUIP curriculum, (c) analyses of data for younger students and older alternative students, and (d) school reports.

Methods of data analysis for pre- and post-intervention comparisons included comparisons of means and analyzing the percentages of youth who improved on repeated measures. Cronbach's alpha was again calculated for the scales, with the current (2006-2007) data, as has been done in the past. Statistical significance ($p < .05$) was calculated using McNemar-Bowker Tests (for comparing changes in percentages from pre- to post-intervention on responses to questions with the same number of response options) and repeated measures analysis of variance and related follow-up tests to study differences in group averages on scales over time and to assess similarities and differences in characteristics (using PROC GLM and/or PROC NPAR1WAY). Repeated measures analysis of variance and related statistical tests (e.g., Dunnett's T) have been sensitive measures in previous abstinence education program evaluations (e.g., Tobin, 2002, 2003). Multiple linear regression was used to study and to control for the effects of racial/ethnic differences. Where such differences were found, pre- to post-intervention average scores for specific questions were charted for the three largest racial/ethnic groups (White, African-American, Hispanic) by type of curricula used in the intervention.

Pre- and post-intervention responses on scantrons to the anonymous Older Students Youth Solutions Questionnaire were available for 2,559 matched students in Grades 7 to 12. Pre- and post-intervention survey responses for individual students were linked, using Excel spreadsheets for each school, on the basis of birth date first, and then, if birth dates were the same, by gender, ethnicity, and/or grade level. The number of students who responded varied slightly from question to question, which was accepted as an important aspect of the voluntary

nature of participation. Rather than attempting to impute values when students choose not to respond, the number responding and the number missing was monitored. For the scales, only students who responded to all questions in the scale on both the pre- and the post-intervention questionnaire (Time 1 and Time 2) were included.

Scales

Affirmation of Abstinence (AA)

- Indicates personal belief that abstinence before marriage is worthwhile
- Sum of responses to questions 12, 13, 14, 15, 16, and 18
- Possible Range of Scores: 6 to 30
- Low scores indicate attitudes favorable to abstinence
- *Cronbach's Alpha = .78*

Future Orientation (FO)

- Indicates awareness of the value of abstinence for attainment of future goals
- Sum of responses to questions 9, 10, and 11
- Possible Range of Scores: 3 to 9
- Low scores indicate attitudes favorable to abstinence
- *Cronbach's Alpha = .82*

Intent

- Indicates a conscious intention to abstain until specific goals are met
- Sum of responses to questions 41a, 41b, 41c, and 41d
- Possible Range of Scores: 4 to 8
- Low scores indicate attitudes favorable to abstinence
- *Cronbach's Alpha = .75*

Rejection of Permissiveness (RP)

- Indicates belief that unmarried teens should be abstinent
- Sum of responses to questions 17, 19, and 20
- Possible range of scores: 3 to 15
- High scores indicate attitudes favorable to abstinence
- *Cronbach's Alpha = .73*

RESULTS

The number of students with matched pre- and post-intervention survey data in the full sample (Grades 7 to 12) for this analysis was 2559. Results include (a) demographic information on matched respondents (students whose responses to the pre-intervention and the post-intervention questionnaires could be matched); (b) characteristics of the students; (c) analyses of average scores on scales by grade level and gender; (d) progress toward meeting original

SPRANS goals; and (e) students' evaluations of the classes and their reasons for choosing premarital sexual abstinence.

Demographic Statistics

The average age, in years, of students in the full sample of secondary school students with matched pre- and post-intervention responses was 13.58 (SD = 1.67). Male and female students were equally well represented in the full sample with 49.65% of the respondents being female and 50.35% being male. In Table 1, the number of students who reported being at specific grade levels is given for the matched respondents at Time 1 (pre-intervention).

Table 1. Grade Levels for Secondary Students (Grades 7 – 12)

Grade	Full Sample: Number	Full Sample: Percent Of Respondents
6 th or less*	5	0.20
7 th	897	35.45
8 th	1013	40.04
9 th	332	13.12
10 th	199	7.87
11 th	61	2.41
12 th	23	0.91
Number Responding	2530	100
Missing	29	
Total	2559	

*Probably these “6th grade or less” students accidentally “bubbled” in the wrong grade level on the scantron.

The students reported diverse racial and ethnic backgrounds, with the three largest groups being White (54%), Black (23%), and Hispanic (18%). Distributions race or ethnicity are shown in Table 2.

Table 2. Race or Ethnicity for Secondary Students (Grades 7 – 12)

Race or Ethnicity (code)	Full Sample: Number	Full Sample: Percent Of Respondents
Asian (1)	21	0.84
Black (2)	570	22.83
Hispanic (3)	456	18.26
White (4)	1337	53.54
Native American (5)	14	0.56
Other (6)	99	3.96
Number Responding	2497	100
Missing	62	
Total	2559	

Characteristics of the Secondary Students (Grades 7 – 12)

Some of the questions on the questionnaire for secondary students (grades 7 – 12) provide a background for understanding the characteristics of the students in the matched sample. Basic characteristics remained essentially the same before and after the intervention (Table 4). The response which the greatest number of students selected is shown in bold. (The questionnaire is located in the Appendix.)

Table 4. Basic Characteristics of Students (N = 2559)

Topic (Questionnaire Item Number)	Percent of Matched Respondents
Skipped School in Last 4 Weeks (Q6) Zero Days One Day Two Days Several Days Many Days	85.95 6.44 3.79 2.84 0.99
Education (Q7) Not important at all Not very important Somewhat important Quite important Very important	0.39 0.98 4.87 17.24 76.52
How often during the past year have your parents talked with you about what is right and wrong in sexual behavior? (Q22) Never One or two times Several times Many times	23.30 37.02 24.17 15.51
Would your friends approve or disapprove of people your age having sexual intercourse? (Q24) Strongly approve Somewhat approve Not sure Somewhat disapprove Strongly disapprove	14.78 21.02 31.05 15.57 17.58
I feel a true friend would not force me to go against my values (Q27) Strongly agree Agree Not sure Disagree Strongly disagree	65.63 24.83 7.21 1.18 1.14
Do you think that sexual feelings can be controlled? (Q28) Never Sometimes Usually Always	5.87 38.31 29.84 25.98
(Table continues.)	

Ever had sexual intercourse (Q31)	
Yes	23.23
No	76.77
Had sexual intercourse during past 4 weeks (Q32)	
Yes	10.74
No	89.26
My friends think it is okay for teenagers to have sexual intercourse (Q35)	
Strongly agree	11.84
Agree	20.59
Not sure	31.47
Disagree	15.95
Strongly disagree	20.15
My friends think teenagers should abstain (Q36)	
Strongly agree	21.39
Agree	19.78
Not sure	34.24
Disagree	15.41
Strongly disagree	9.18

Table 5 compares characteristics of matched students for questions where statistically significant changes ($p < .01$) occurred from pre- to post-intervention in the percentage of students selecting different response options. The response which the greatest number of students selected is shown in bold. (The questionnaire is located in the Appendix.)

Table 5. Student Characteristics that Changed (N = 2559)

Topic (Questionnaire Item Number)	Percent of Matched Respondents Pre- Intervention	Percent of Matched Respondents: Post- Intervention
In conflict situations, I give in (Q8) Strongly disagree, not true for me at all	42.76	*** 47.35
Disagree, usually not true for me	35.55	33.53
Not sure	15.32	13.14
Agree, usually true for me	5.19	4.16
Strongly agree, very true for me now	1.19	1.82
I can talk to my parents if I have questions about sex, love, and abstinence (Q21) Strongly agree	31.21	** 30.61
Agree	27.68	27.68
Not sure	16.75	20.36
Disagree	11.37	9.94
Strongly disagree	12.99	11.41
How often during the past year have your parents talked with you about what is right and wrong in sexual behavior? (Q22) Never	31.21	** 30.61
One or two times	27.68	27.68
Several times	16.75	20.36
Many times	11.37	9.94
Do your parents approve or disapprove of people your age having sexual intercourse? (Q23) Strongly approve	2.44	*** 3.71
Somewhat approve	4.77	4.73
Not sure	14.58	16.00
Somewhat disapprove	10.96	11.67
Strongly disapprove	67.24	63.89
My friends and I can have fun without sex, drugs, or alcohol (Q25) Strongly agree	65.19	** 61.36
Agree	21.41	23.51
Not sure	7.03	8.46
Disagree	3.71	3.04
Strongly disagree	2.65	3.63
(Table continues.)		

Have been forced to do more sexually than you wanted to (Q30)		***
Yes	10.23	12.79
No	89.77	87.21
Ever been pregnant (if female) or gotten someone pregnant (if male) (Q33)		**
Yes	3.00	4.19
No	97.00	95.81
I can explain the emotional consequences of premarital sex (Q34)		***
Strongly agree	17.77	22.73
Agree	22.50	27.58
Not sure	47.22	38.51
Disagree	5.64	5.13
Strongly disagree	6.88	6.04
If someone tries to get me to have sex, I feel confident I can say no. (Q37)		***
Strongly agree	49.94	52.72
Agree	24.06	25.41
Not sure	16.29	14.23
Disagree	6.10	4.48
Strongly disagree	3.61	3.17
About how many of your friends have had sexual intercourse? (Q38)		**
None of them	34.27	30.64
A few of them	40.86	42.40
About half of them	10.38	12.04
Most of them	10.82	10.62
All of them	3.67	4.30
Is there any support among your friends for you to be abstinent? (Q39)		***
No support at all	22.60	19.83
A little support	18.32	20.30
Some support	14.55	22.88
A fair amount of support	19.23	16.10
A great deal of support	20.30	20.90
Have you ever taken a pledge to abstain until marriage? (Q40)		***
Yes	39.95	45.94
No	60.06	54.06
(Table continues.)		

Attend religious services (Q42)		***
Never	12.96	11.65
< Once a Month	11.93	11.85
Once or Twice / Mo.	14.43	17.20
Once a Week	29.33	29.65
More	31.35	29.65

** $p < .01$. *** $p < .001$.

Comparison of EQUIP and FACTS Curricula

This year, special attention was given to the effectiveness of the new curriculum for 7th and 8th grade students, EQUIP (E.T.A.P., 2006), which was compared with the traditional curriculum, FACTS, which has established its effectiveness over the years, as reported in all the previous E.T.A.P. evaluations (e.g., Tobin, 2003, 2003) as well as in other reports (e.g., Carter-Jessop et al., 2000; Weed, 1995).

Analysis of Variance Results on Scales for Grades 7 and 8

Results for students in Grades 7 and 8 were of particular interest because the comparison of EQUIP and FACTS could be done only at these grade levels, as the EQUIP curriculum was for 7th and 8th graders. A series of FACTS curricular materials, developed for different age levels, were provided to secondary students in high school as well as in middle school and junior high schools. All of the students who received FACTS materials made up the full FA group. The average age in the EQ group was 13.01(SD = 1.53). For the full FA group the average age in years was 13.70 (SD = 1.69). This was a statistically significant difference by an independent-samples test (unequal variances), $t(1563) = -9.67$; $p < .0001$. Therefore, comparisons were not made for the entire groups across all grade levels, but rather, as will be explained in more detail below, for specific grade levels.

To determine if it would be necessary to separate the 7th and 8th graders, their average difference scores on the scales were compared (using the PROC NPARIWAY procedure in SAS 9.1 for Windows). The 7th and 8th grade students' average difference scores were not statistically significantly ($p < .05$) different from each other by grade level for any of the Scales. This was the case for students in those grade levels, whether they used the EQUIP or the FACTS materials.

In this section then, a new sub-group is created, the combined 7th and 8th grade students from the FA group, called the "78FA" group. These are 7th and 8th grade students in schools using the FACTS materials. This group is relatively comparable to the EQ group, which consists of 7th and 8th grade students in schools using the EQUIP materials. About 39% ($n = 750$) of the 7th and 8th grade students in the matched sample received the EQUIP materials and these students, for this analysis, formed the EQUIP Group (EQ). These students came from 5 schools in 4 counties in East Texas: Camp County, Gregg, Harrison, and Rusk County. (More than 5 schools pilot tested the new curriculum but these 5 had matched pre- and post-intervention survey respondents.)

The remaining 7th and 8th grade students in the matched sample (n = 1160) received the FACTS materials for those grade levels and these students formed the 7th and 8th grade students FACTS Group (78FA). These students came from different schools than the students who used the EQUIP materials. The 78FA group included students from 15 schools in 7 counties in East Texas: Gregg, Harrison, Marian, Panola, Rusk, Smith, and Upshur Counties.

The average age, in years, for the 78FA group was 13.08 (SD 1.27); for EQ it was 13.01 (SD = 1.53), not a statistically significant difference ($p < .05$). Females make up 52% of the 78FA group and 47% of EQ, also not a statistically significant difference ($p < .05$). However, the groups are different in other important ways. The EQ group was fairly equally divided between 7th and 8th graders, with 51% in 7th grade and 49% in 8th grade. The 78FA group, however, had more 8th graders, with only 44% in 7th grade and 56% in 8th grade. Another difference ($p < .0001$) between the EQ and the 78FA groups was the percentage of respondents at Time 1 (pre-intervention for 2006-2007) who reported that they had “been in a class or program in which abstinence (not having sex) was discussed” (Question 26). For EQ, 67.24% responded “yes” and for 78FA, 78.75% responded “yes.” In addition, the EQ and 78FA groups were different in terms of racial/ethnic diversity, primarily in that the 78FA group was more diverse. The effects of this difference will be examined later, using multiple linear regression. For the respondents who answered the question about their race/ethnicity, Table 6 shows the number and percent of each group by race/ethnicity category.

Table 6. Race/Ethnicity Information for EQUIP and FACTS (7th and 8th Graders Only) Groups

Race Or Ethnicity (Code)	EQUIP Group: 7 th & 8 th Graders (EQ): Number of Respondents	EQUIP Group: 7 th & 8 th Graders (EQ): Percent of Respondents	FACTS Group: 7 th & 8 th Graders (78FA): Number of Respondents	FACTS Group: 7 th & 8 th Graders (78FA): Percent of Respondents
Asian (1)	9	1.21	4	0.36
Black (2)	130	17.45	293	26.02
Hispanic (3)	102	13.69	244	21.67
White (4)	465	62.42	531	47.16
Native American (5)	7	0.94	5	0.44
Other (6)	32	4.30	49	4.35
Total	745	100	1126	100

In this section, the curricula are compared, using the scales and a repeated measures analysis of variance. In this analysis, only 7th and 8th grade students from the matched sample are included. The term “Group” refers to the comparison of the EQ and the FA groups. For each scale, a table presents the statistical test and is followed by a chart showing the group averages on that scale, at Time 1 (pre-intervention) and Time 2 (post-intervention).

Future Orientation (FO) Scale

For both groups, the average on the FO Scale changed in the intended direction (down, see Figure 1) after the intervention. The group averages were not statistically significantly ($p < .05$) different at Time 1 (pre-intervention) but were post-intervention. Both groups improved. The EQ group averaged changed more than the 78FA average did. On the FO Scale, the difference between Time 1 and Time 2, group differences, and the interaction between time and group, were all statistically significant, as shown in Table 7.

Intent Scale

For both groups, the average on the Intent Scale changed in the intended direction (down, see Figure 2) after the intervention. The 78FA group started higher and changed more than the EQ group. For the Intent Scale, the difference between Time 1 and Time 2 and group differences were statistically significant ($p < .05$), as shown in Table 8, but the interaction was not.

Rejection of Permissiveness (RP) Scale

For both groups, the average on the Rejection of Permissiveness (RP) Scale changed in the intended direction (up, see Figure 3) after the intervention. For the RP Scale, the difference between Time 1 and Time 2 and group differences were statistically significant, as shown in Table 9, but the interaction was not. In fact, the slopes, showing the way the group averages changed over time, were exactly parallel, as shown in Figure 3. In other words, although the groups started out and ended up in different places, the way they changed on attitudes toward permissiveness was the same for EQ and 78FA. Both groups improved.

Affirmation of Abstinence (AA) Scale

For both groups, the average on the Affirmation of Abstinence (AA) Scale changed in the intended direction (down, see Figure 4) after the intervention. For the AA Scale, group difference were not statistically significant, as shown in Table 10, but the interaction and time changes were.

Summary of Repeated Measures Analysis of Variance Outcomes

Both groups of 7th and 8th grade students, the ones using the EQUIP materials and the ones using the FACTS materials, on average, improved after the abstinence education lessons

in attitudes, intentions, and perceptions as measured by the Future Orientation, Intent, Rejection of Permissiveness, and Affirmation of Abstinence Scales.

Table 7. **Future Orientation**: Repeated Measures Analysis of Variance

Source	<u>df</u>	<u>F</u>
Between Subjects		
Group	1	3.86*
Error	1849 (6.95) ^a	
Within Subjects		
Time	1	58.21**
Time x Group	1	4.26*
Error (Time)	1849 (1.56) ^a	

^a Values enclosed in parenthesis represents mean square errors.

* $p < .05$. ** $p < .001$.

Note: Dunnett's t indicates that the group averages were not statistically significantly different at Time 1 but were at Time 2 ($p < .05$).

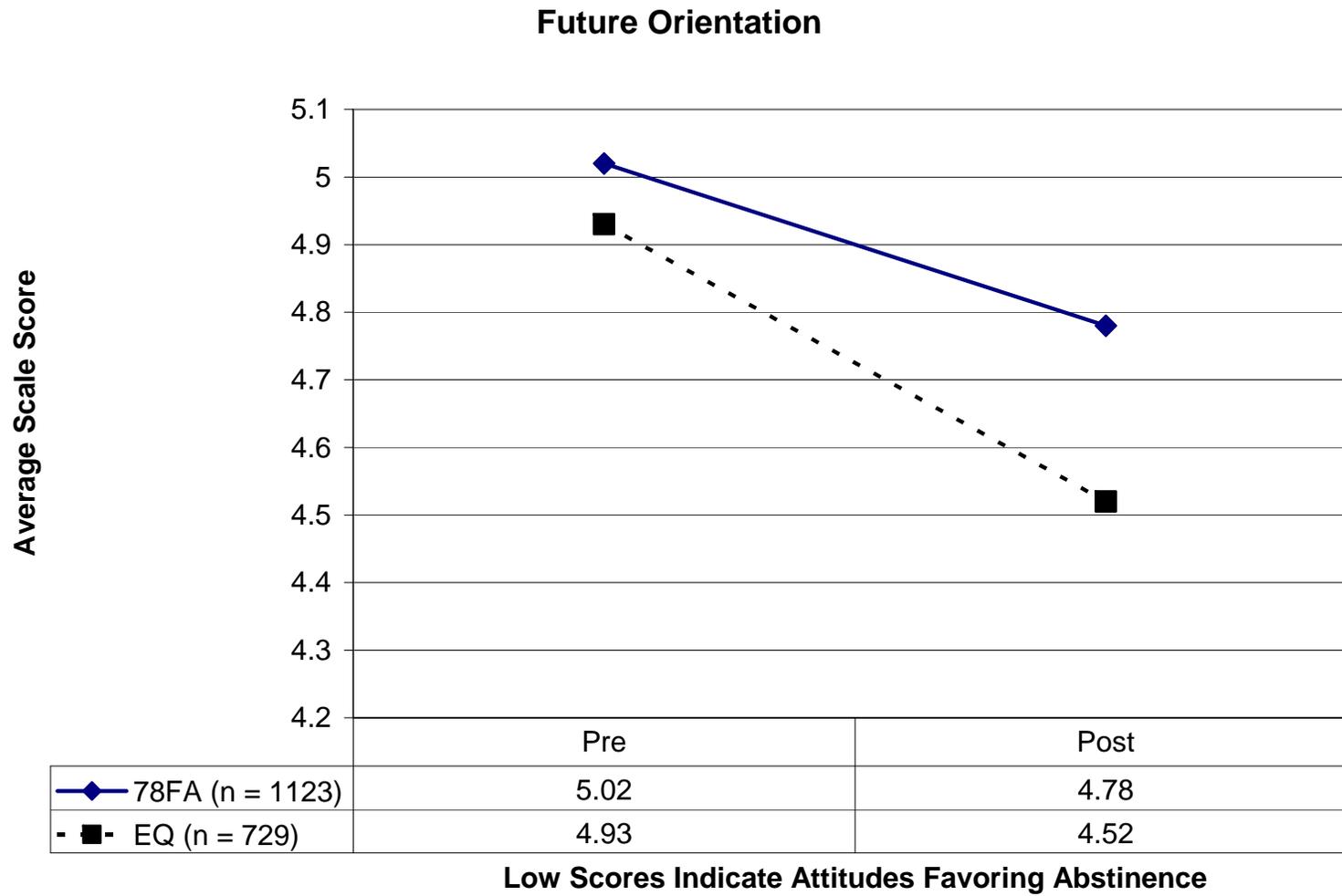


Figure 1. Average Future Orientation Scale scores.

Table 8. **Intent:** Repeated Measures Analysis of Variance

Source	<u>df</u>	<u>F</u>
Between Subjects		
Group	1	4.87*
Error	1752 (3.34) ^a	
Within Subjects		
Time	1	17.55**
Time x Group	1	1.25
Error (Time)	1752 (0.94) ^a	

^a Values enclosed in parenthesis represents mean square errors.

* $p < .05$. ** $p < .001$.

Note: Dunnett's t indicates that the group averages were statistically significantly different at Time 1 but not at Time 2 ($p < .05$).

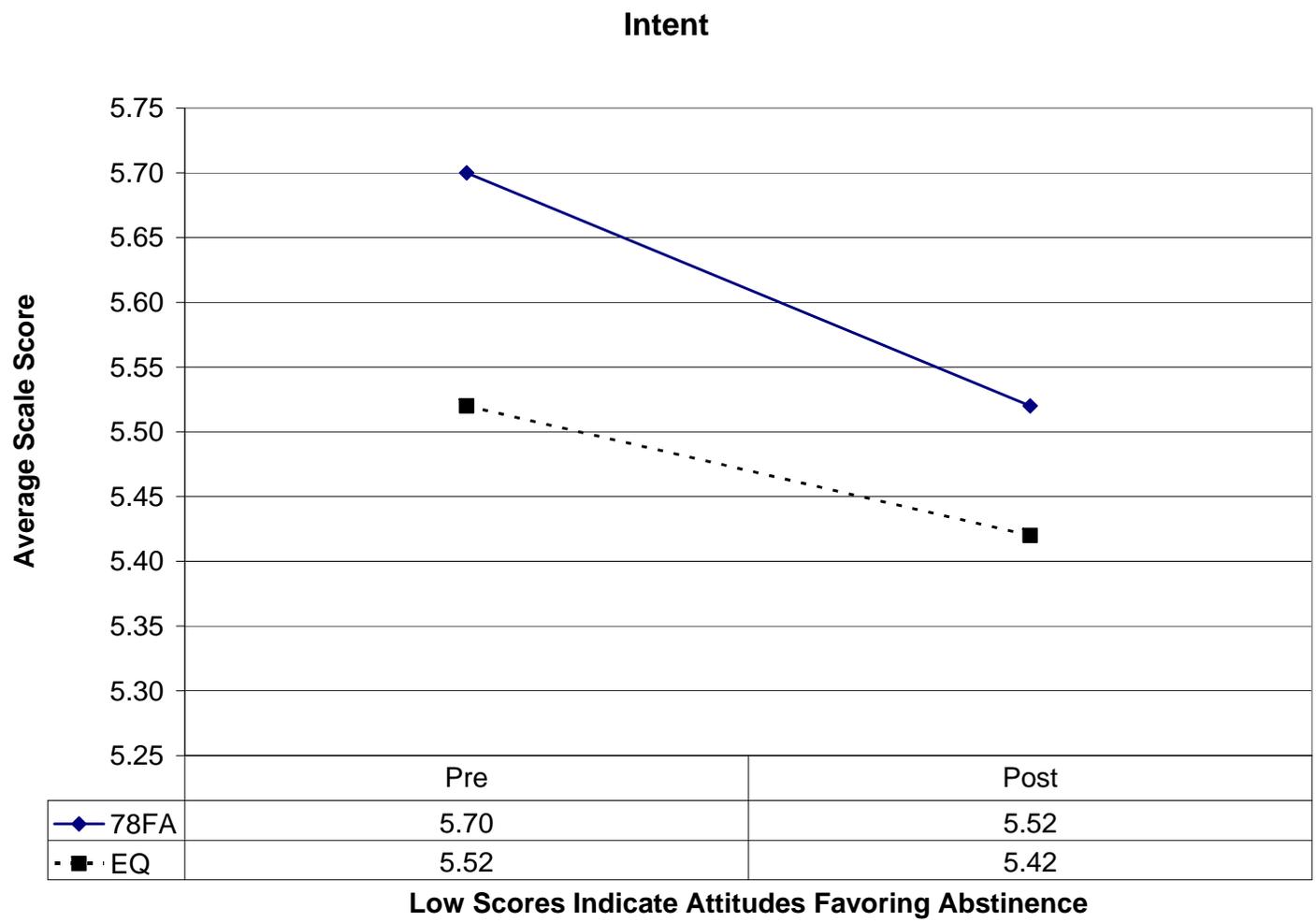


Figure 2. Average scores on the Intent scale.

Table 9. **Rejection of Permissiveness:** Repeated Measures Analysis of Variance

Source	<u>df</u>	<u>F</u>
Between Subjects		
Group	1	7.37*
Error	1856 (13.25) ^a	
Within Subjects		
Time	1	63.74**
Time x Group	1	0.00
Error (Time)	1856 (2.95) ^a	

^a Values enclosed in parenthesis represents mean square errors.

* $p < .05$. ** $p < .001$.

Note: Dunnett's t indicates that the group averages were statistically significantly different at Time 1 and at Time 2 ($p < .05$).

Rejection of Permissiveness
HIGH scores on this scale indicate attitudes favorable toward
abstinence.

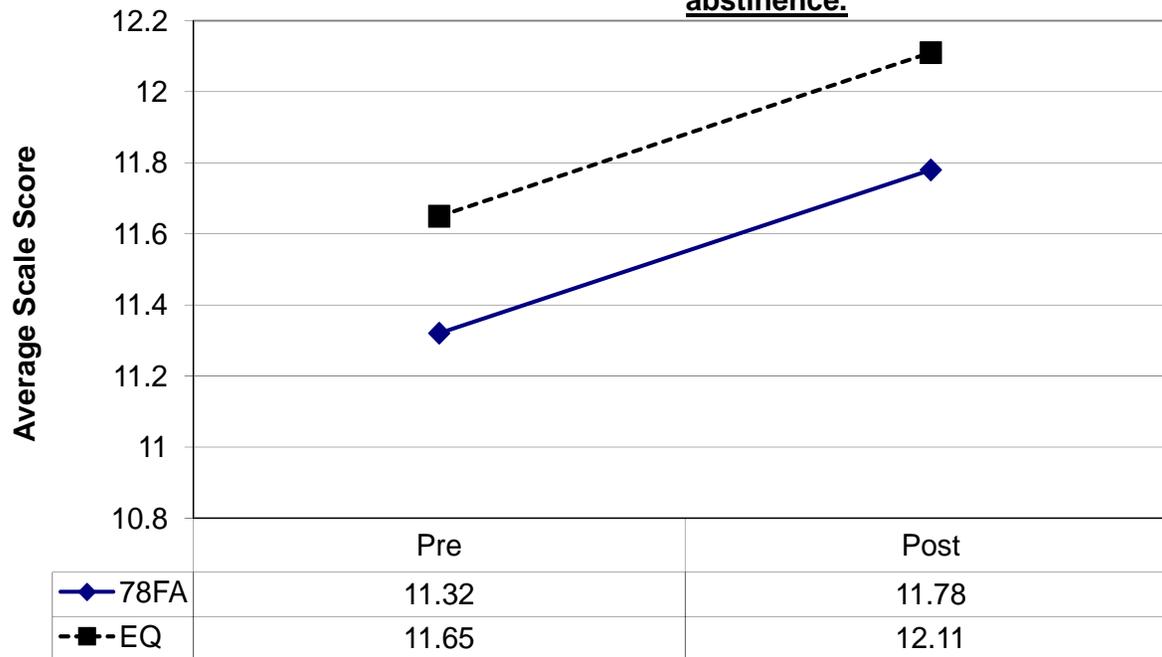


Figure 3. Average scores for Rejection of Permissiveness Scale.

Table 10. **Affirmation of Abstinence**: Repeated Measures Analysis of Variance

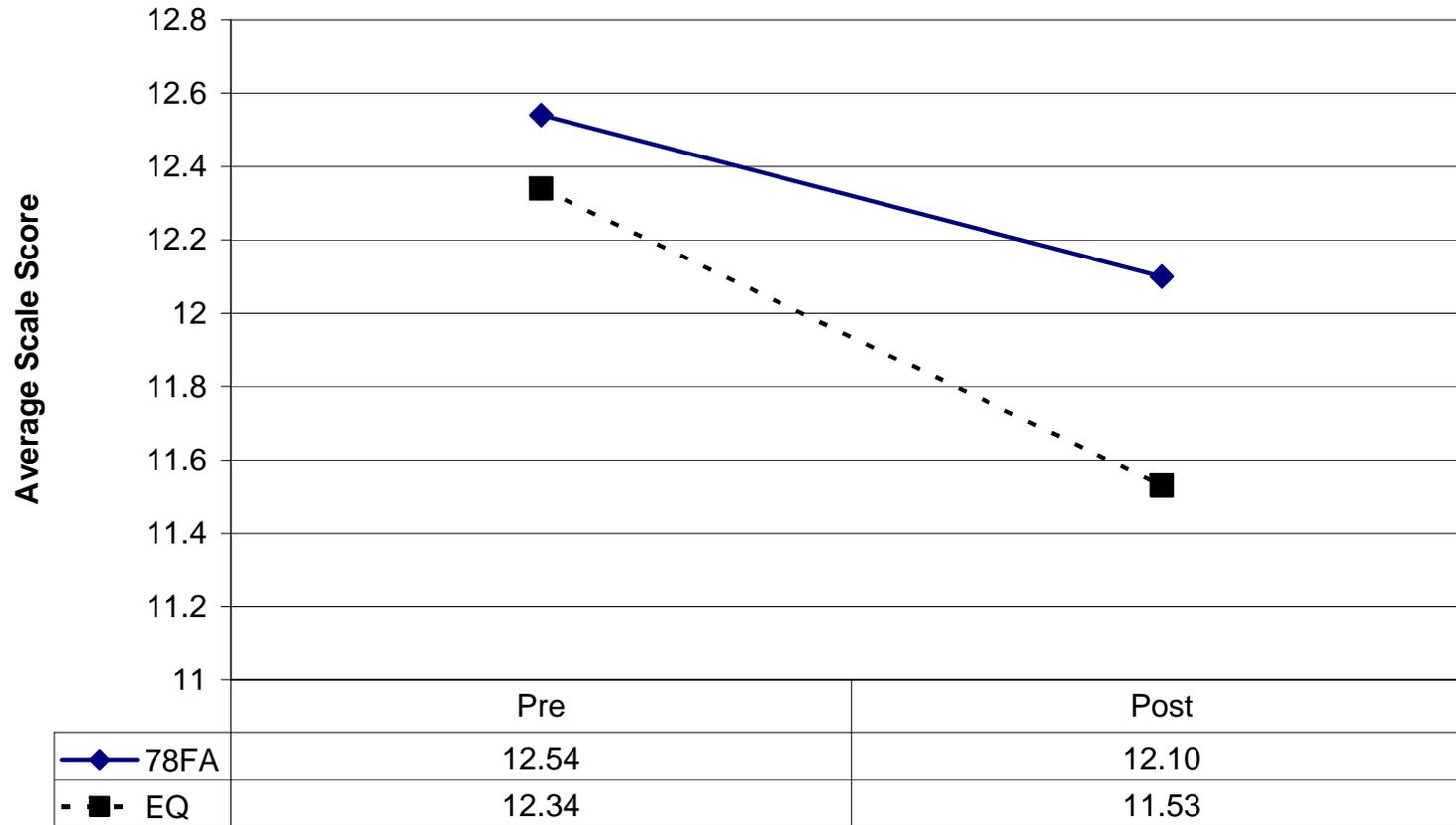
Source	df	F
Between Subjects		
Group	1	3.50
Error	1809	(37.10) ^a
Within Subjects		
Time	1	46.42**
Time x Group	1	4.12*
Error (Time)	1809	(7.20) ^a

^a Values enclosed in parenthesis represents mean square errors.

* $p < .05$. ** $p < .001$.

Note: Dunnett's t indicates that the group averages were not statistically significantly different at Time 1 but were at Time 2 ($p < .05$).

Affirmation of Abstinence



Low Scores Indicate Attitudes Favoring Abstinence

Figure 4. Average scores on the Affirmation of Abstinence scale.

Multiple Linear Regression Analysis

Multiple linear regression was used to assess the effect of differences in diversity on results for the comparison of curricula, EQUIP and FACTS, used with students in Grades 7 and 8. In these tests, post-intervention scale scores were predicted on the basis of (a) race/ethnicity, (b) pre-intervention scores, and (c) type of curriculum used (i.e., “group” being EQ or 78FA). Results indicated that the strongest predictor, for all the scales, was the pre-intervention score. Race/ethnicity was not always a statistically significant predictor of post-intervention scores. It was for Future Orientation (Table 11) and Intent (Table 12) but not for Rejection of Permissiveness (Table 13) or Affirmation of Abstinence (Table 14). Controlling for race/ethnicity first, and then for pre-intervention score, Group made a statistically significant ($p < .05$) difference for Future Orientation and Affirmation of Abstinence, but not for Intent or Rejection of Permissiveness.

Table 11. *Summary of Simultaneous Regression Analysis for Variables Predicting Post-Intervention **Future Orientation** (FO) Score (N = 1810)*

Variable	<i>B</i>	<i>SE B</i>	β
Race/Ethnicity	0.12	0.21	0.06*
Pre-Intervention Score	0.61	0.02	0.64*
Group	0.25	0.08	0.06*

* $p < .001$.

Note. $R^2 = .41$ ($F [3, 1806] = 418.60$), $p < .001$ for predictor variables.

Table 12. *Summary of Simultaneous Regression Analysis for Variables Predicting Post-Intervention **Intent** Score (N = 1714)*

Variable	<i>B</i>	<i>SE B</i>	β
Race/Ethnicity	- 0.06 ^a	0.03	- 0.04*
Pre-Intervention Score	0.58	0.02	0.57**
Group	- 0.02 ^b	0.06	- 0.01

^a Race/ethnicity was coded as shown in Tables 2 and 3.

^b Group codes: EQUIP = 1, FACTS = 2.

* $p < .05$. ** $p < .001$.

Note. $R^2 = .33$ ($F [3, 1710] = 276.61$), $p < .001$ for predictor variables.

Table 13. *Summary of Simultaneous Regression Analysis for Variables Predicting Post-Intervention **Rejection of Permissiveness (RP)** Score (N = 1819)*

Variable	<i>B</i>	<i>SE B</i>	β
Race/Ethnicity	- 0.05 ^a	0.05	- 0.02
Pre-Intervention Score	0.61	0.02	0.64*
Group	- 0.12 ^b	0.11	- 0.02

* $p < .001$.

Note. $R^2 = .41$ ($F [3, 1815] = 419.71$), $p < .001$ for predictor variables.

Table 14. *Summary of Simultaneous Regression Analysis for Variables Predicting Post-Intervention **Affirmation of Abstinence (AA)** Score (N = 1771)*

Variable	<i>B</i>	<i>SE B</i>	β
Race/Ethnicity	0.04	0.08	0.01
Pre-Intervention Score	0.68	0.02	0.68**
Group	0.41	0.17	0.04*

* $p < .05$. ** $p < .001$.

Note. $R^2 = .46$ ($F [3, 1767] = 497.89$), $p < .001$ for predictor variables.

Differences by Race/Ethnicity on Average Future Orientation Scale Scores

The multiple regression analysis indicated that race/ethnicity, as well as type of curriculum used, accounted for some of the variance in FO scores. To explore these relationships further, the differences in pre- and post-intervention Future Orientation Scale average scores, before and after the interventions, were grouped by response to the race/ethnicity question for students in the EQ group (Figure 5) and the 78 FA group (Figure 6). Changes were most noticeable for the African American and Hispanic students in the EQ group.

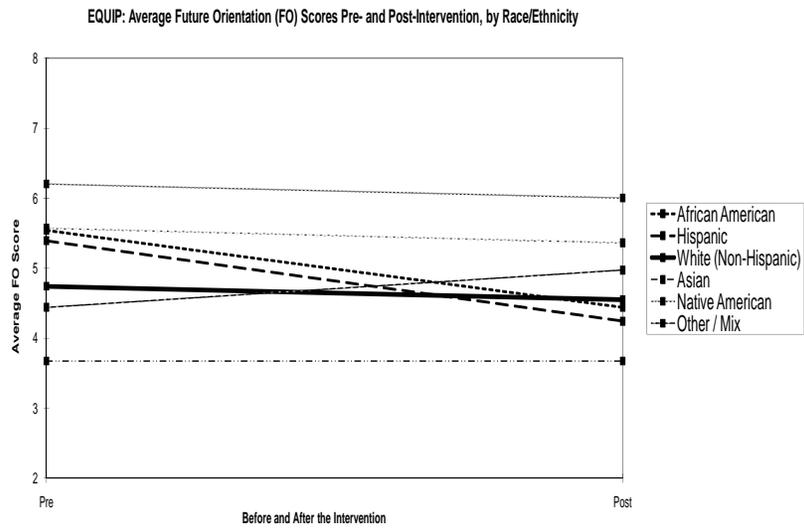


Figure 5. Average FO scores for the EQ group by race/ethnicity.

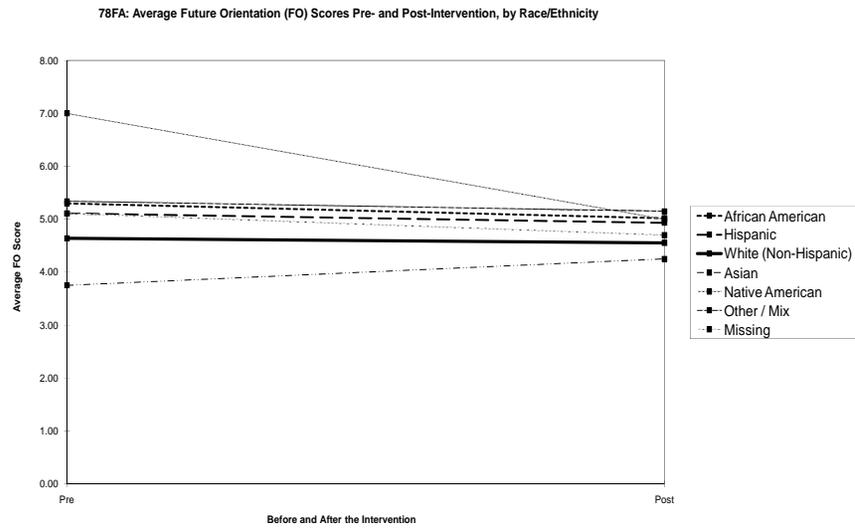


Figure 6. Average FO scores for the 78FA group by race/ethnicity.

Differences by Race/Ethnicity on Specific Future Orientation Questions

In this section, average pre- and post-intervention scores for specific Future Orientation questions, by curriculum groups (EQ or 78FA), are reported for the three largest racial/ethnic groups, White, African American, and Hispanic.

All the FO questions have responses that are coded so that lower numbers indicate attitudes favorable to abstinence, as shown below for Question 9, the “Education Question:”

Do you think that abstinence (not having sex) as a teen would make it easier for you to get a good education in the future?

- 1 It would make it a lot easier.
- 2 It would make it a little easier.
- 3 It wouldn't make any difference.

The two other FO questions have the same response options. Question 10, the “Marriage Question,” asks if “abstinence (not having sex) as a teen would make it easier for you to have a good marriage in the future?” Question 11, the “Job/Career Question,” asks if “abstinence (not having sex) as a teen would make it easier for you to have a good job or a successful career in the future?” The following charts show responses to these questions for the three main racial/ethnic groups.

African American students' responses to the Education Question changed more for the 78FA group than for the EQ group (Figure 5). Figure 6 illustrates responses of African American students to Marriage Question, showing a greater change for the EQ group than for the 78 FA group. The EQ post-intervention average score for African American students was below 1.5 for the Marriage Question, suggesting a greater impact for this group on this topic than is apparent for the other topics. Figure 7 illustrates responses of African American students to the Job/Career Question, showing greater change for the EQ than the 78FA group. For all three questions, the pre-intervention average scores of the EQ and the 78FA groups were not statistically significantly ($p < .05$) different but the post-intervention averages were.

Hispanic students' responses to the Education Question changed from an average of 1.6 to 1.4 for the EQ group (Figure 8). Figure 9 illustrates responses of Hispanic students to Marriage Question, showing a greater change (from 1.81 to 1.36) for the EQ group than for the 78 FA group. Figure 10 illustrates responses of Hispanic students to the Job/Career Question, showing greater change for the EQ than the 78FA group. For all three questions, the pre-intervention average scores of the EQ and the 78FA groups were not statistically significantly ($p < .05$) different but the post-intervention averages were.

White students' responses to the Education Question showed very little change for either group, with all average scores being about 1.5 (Figure 11). Figure 12 illustrates responses of White students to Marriage Question, with all average scores again being about 1.5. Figure 13 illustrates responses of White students to the Job/Career Question, with the EQ group showing a greater change than the 78FA group. For all three questions, neither the pre-

not the post-intervention average scores of the EQ and the 78FA groups were statistically significantly ($p < .05$) different.

African American Students' Average Responses to the Future Orientation Education Question (#9)

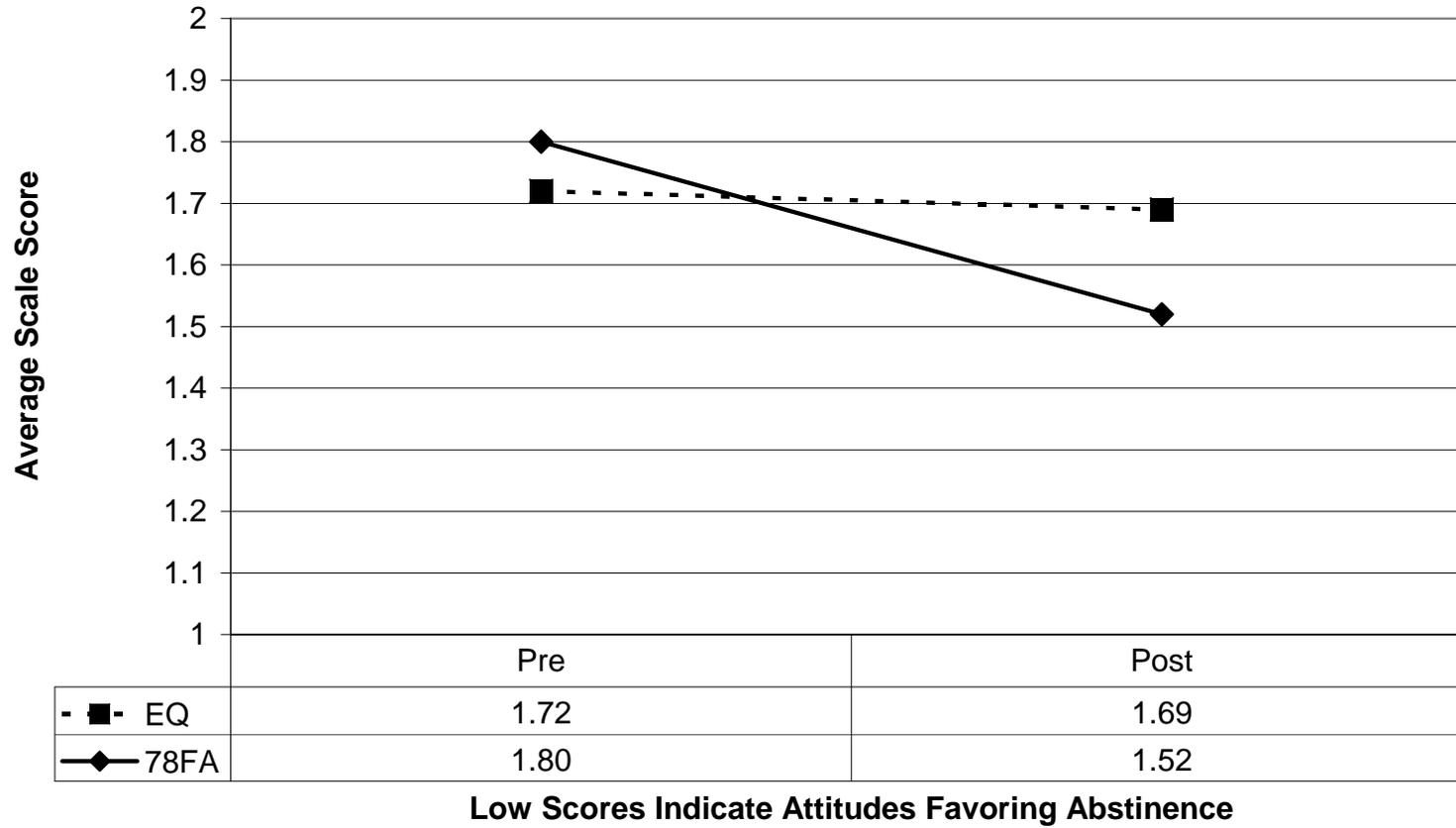


Figure 7. African American students' average scores on the FO Education Question.

African American Students' Average Responses to the Future Orientation Marriage Question (#10)

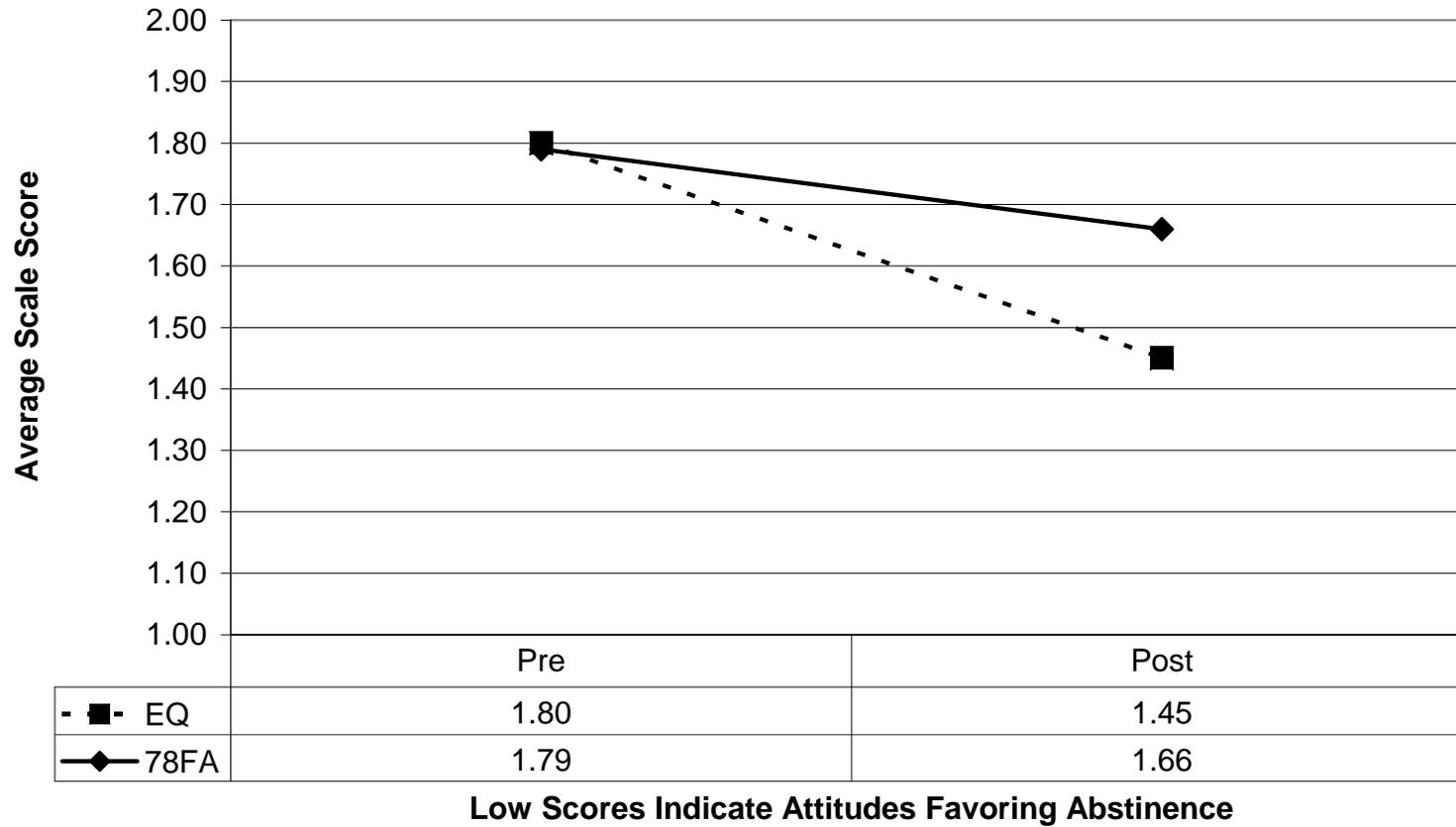


Figure 8. African American students' average scores on the FO Marriage Question.

African American Students' Average Responses to the Future Orientation Job/Career Question (#11)

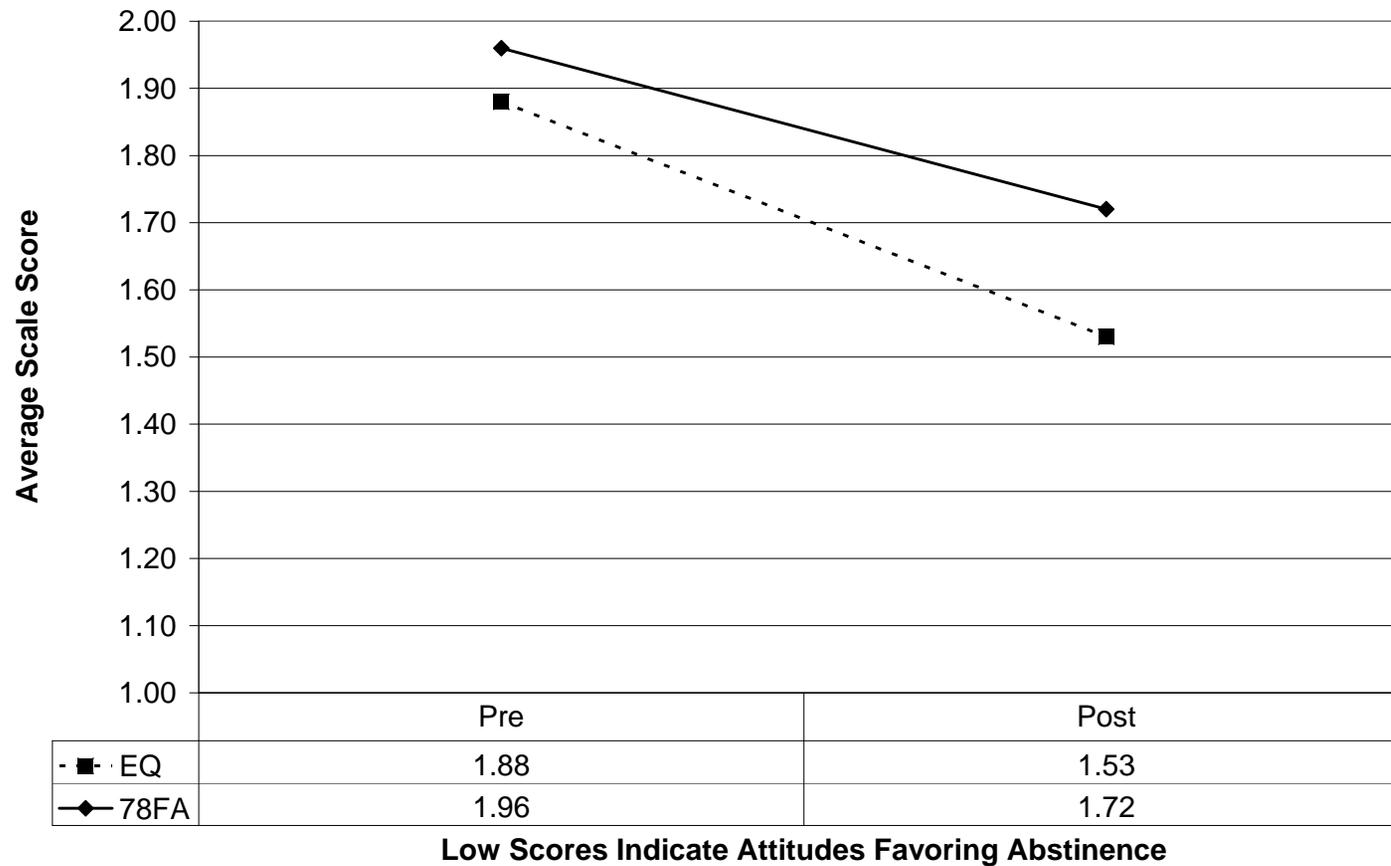


Figure 9. African American students' average responses to the FO Job/Career Question.

Hispanic Students' Average Responses to the Future Orientation Education Question (#9)

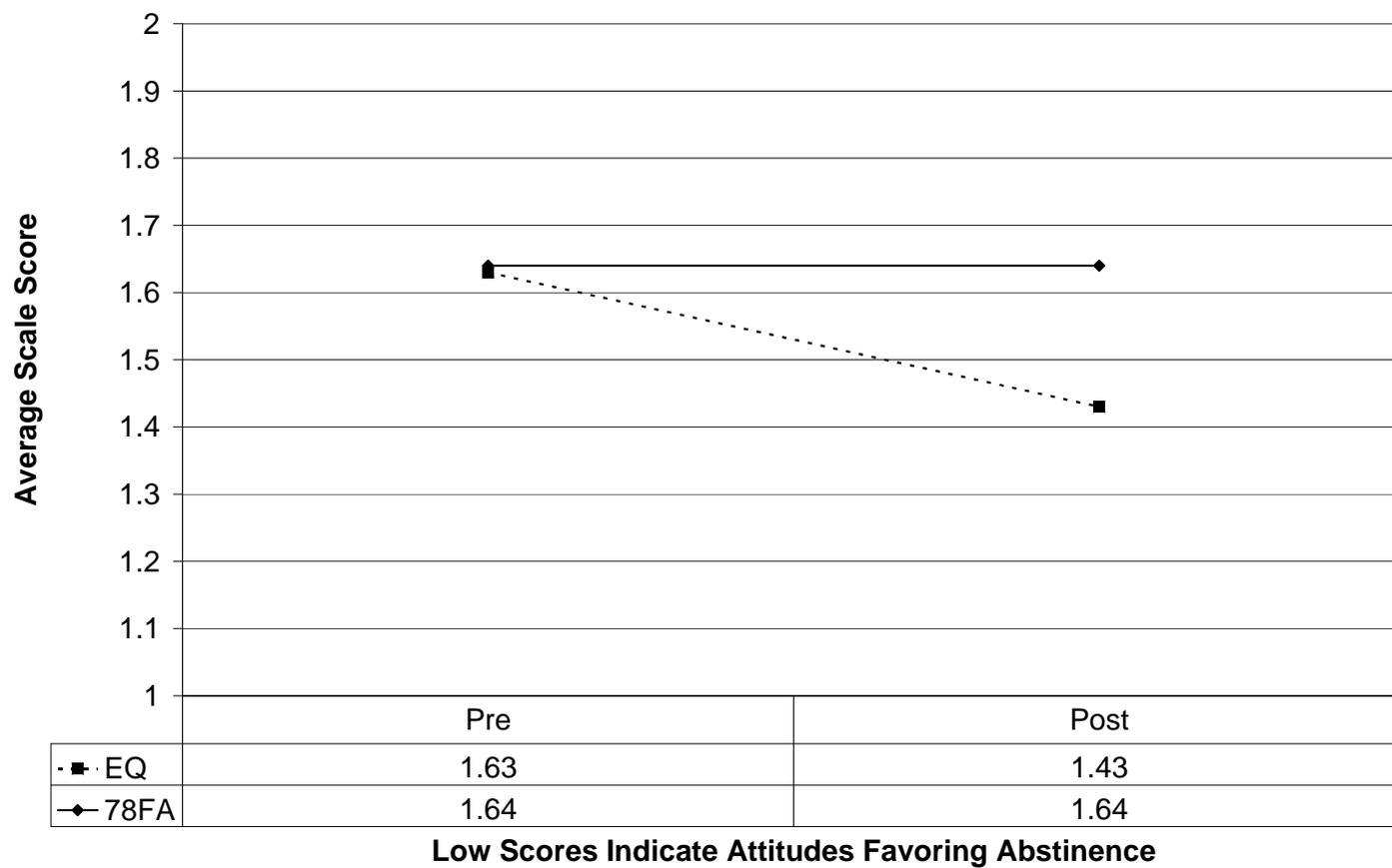


Figure 10. Hispanic students' average responses to the FO Education Question.

**Hispanic Students' Average Responses to the Future Orientation
Marriage Question (#10)**

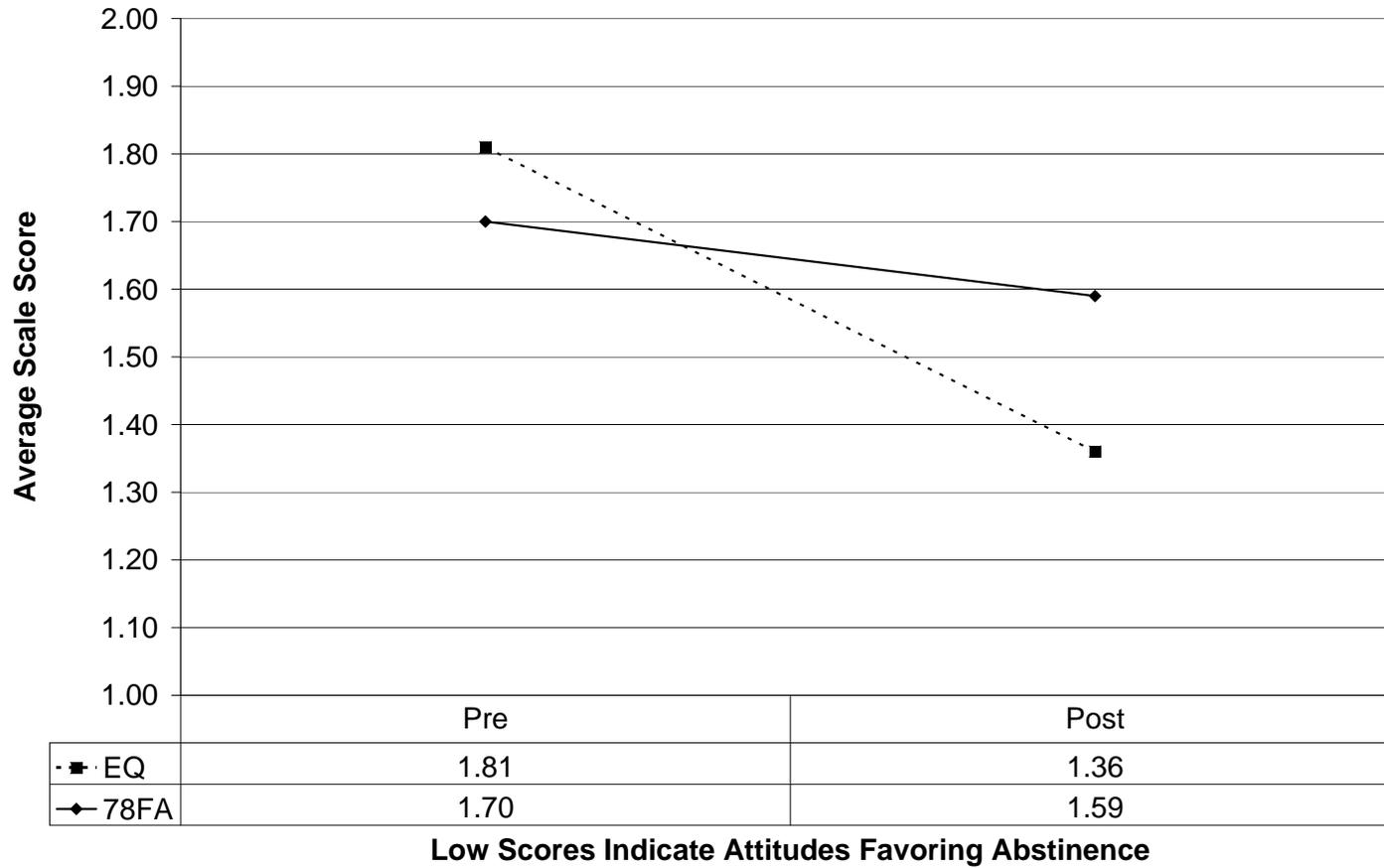


Figure 11. Hispanic students' average responses to the FO Marriage Question.

**Hispanic Students' Average Responses to the Future Orientation
Job/Career Question (#11)**

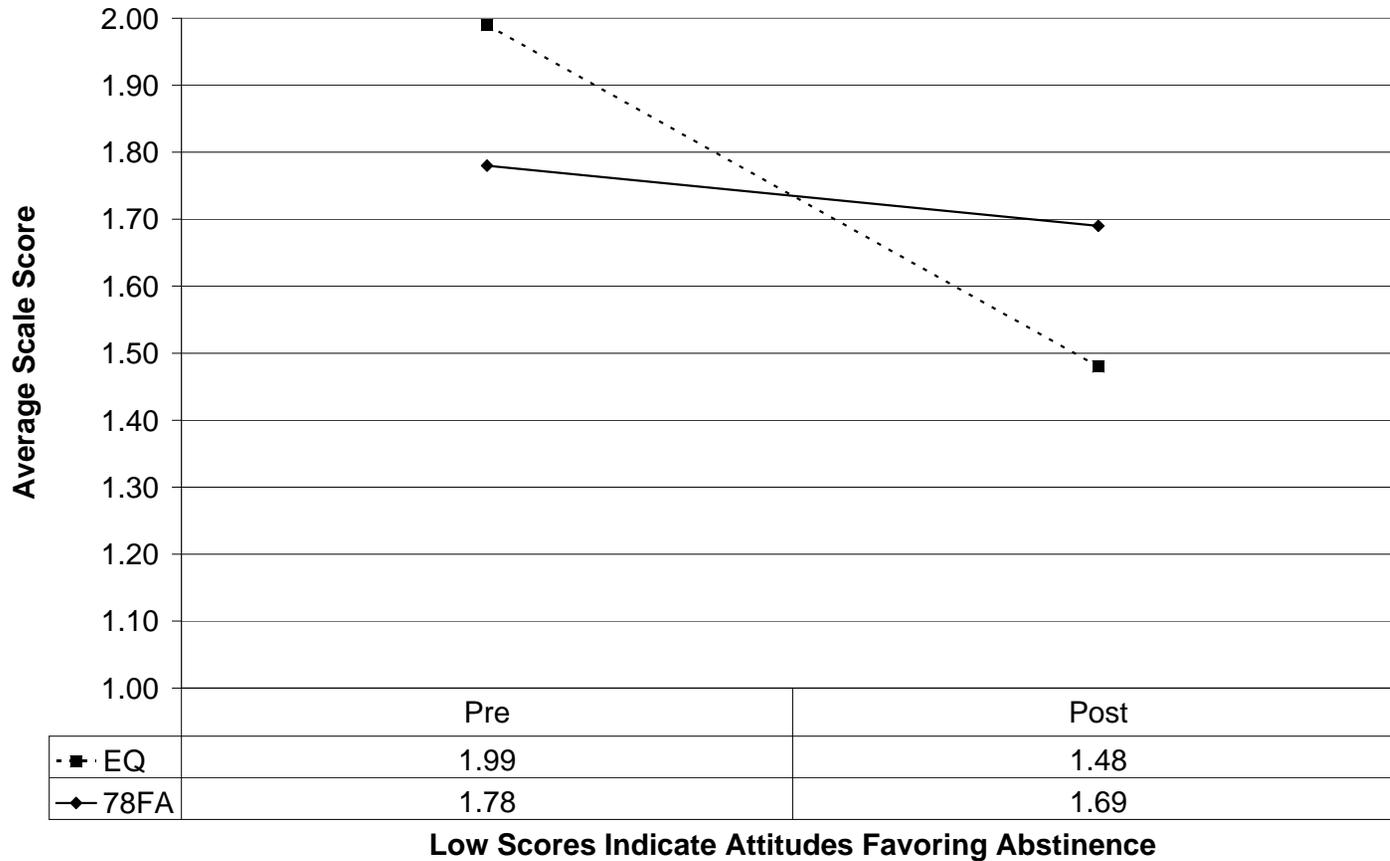


Figure 12. Hispanic students' average responses to the FO Job/Career Question.

White Students' Average Responses to the Future Orientation Education Question (#9)

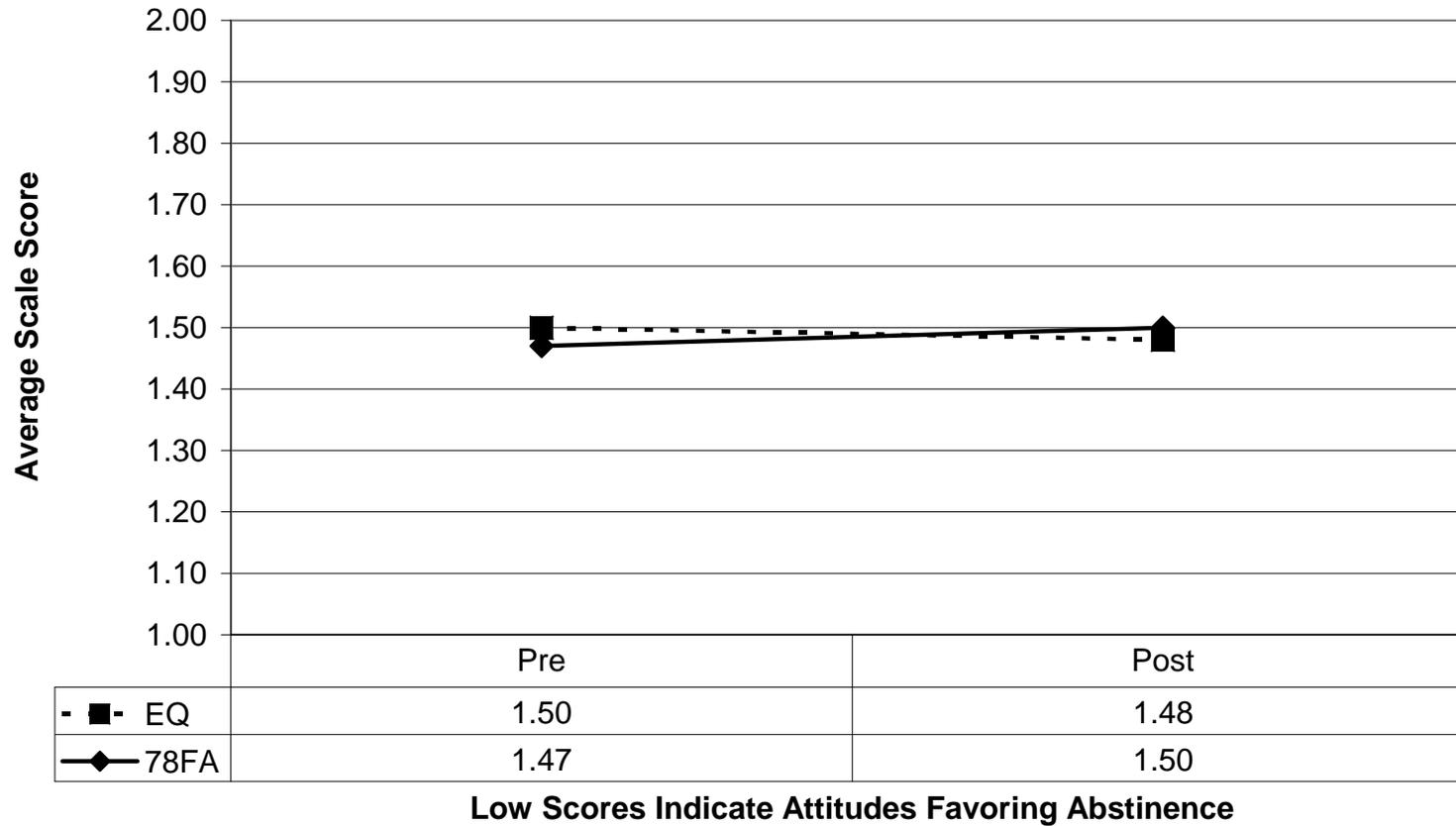


Figure 13. White students' average responses to the FO Education Question.

**White Students' Average Responses to the Future Orientation
Marriage Question (#10)**

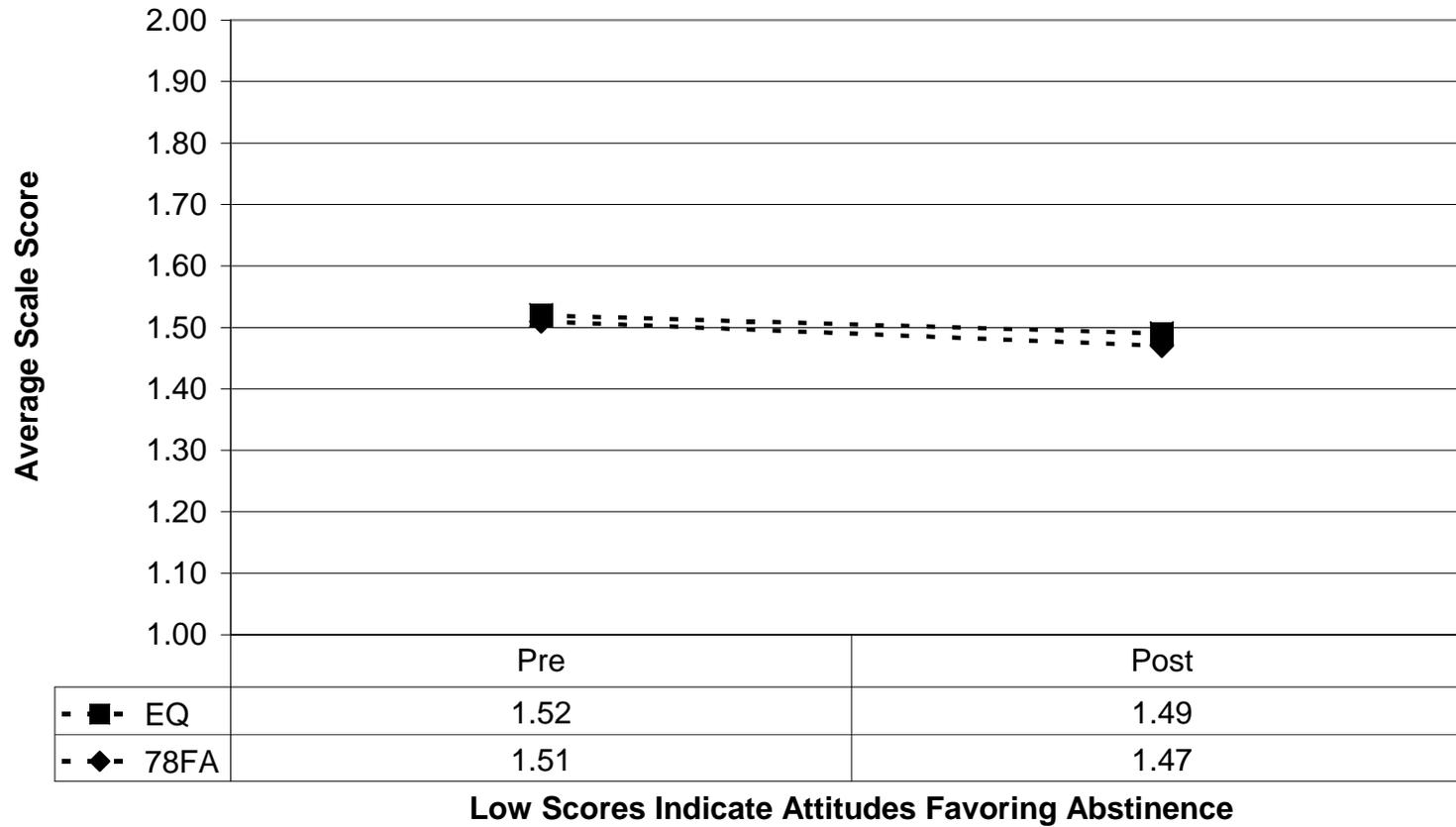
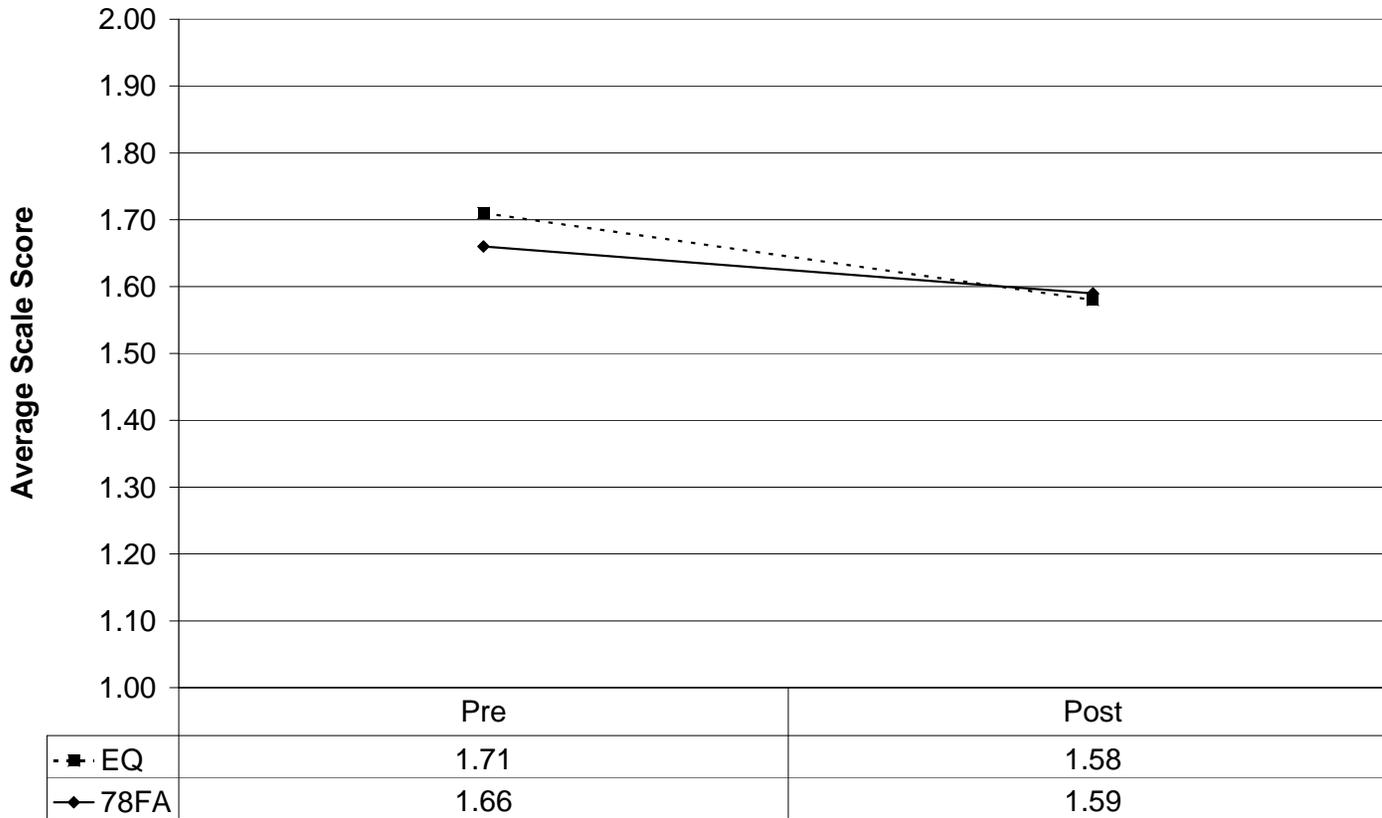


Figure 14. White students' average responses to the FO Marriage Question.

**White Students' Average Responses to the Future Orientation
Job/Career Question (#11)**



Low Scores Indicate Attitudes Favoring Abstinence

Figure 15. White students' average responses to the FO Job/Career Question.

Students' Input: The Students' Perceptions and Assessments

After the interventions, students rated the abstinence education programs on a scale of 1 (Excellent) to 4 (Poor). The EQ and the 78FA groups both were rated as good or excellent by 80% of respondents (Table 14) although the percentages selecting each response option was slightly different for the groups, $\chi^2(3, 1842) = 17.19, p = .0006$.

Table 14. *Percent of Students' Selecting Each Rating Response Option (Question 44)*

	Excellent	Good	Fair	Poor
EQ	25.93	53.38	16.00	4.69
78FA	34.47	44.76	15.76	5.01

Students also responded to a question about recommending the abstinence education program to a friend, this time on a scale of 1 (definitely would recommend) to 5 (definitely would not recommend). The EQ and the 78FA groups both would be recommended by a majority of respondents (Table 15) although the percentages selecting each response option was slightly different for the groups, $\chi^2(4, 1855) = 24.64, p < .0001$.

Table 15. *Percent of Students' Selecting Each Recommendation Response Option (Question 45)*

	Definitely Would Recommend	Probably Would Recommend	Not Sure	Probably Would Not Recommend	Definitely Would Not Recommend
EQ	23.08	35.71	25.14	10.44	5.63
78FA	32.44	35.40	19.61	7.45	5.06

Full Matched Sample of Students in Grades 7 to 12

Performance Measures

E.T.A.P. originally was implementing a *Special Projects of Regional and National Significance* (SPRANS) grant awarded by the U. S. Department of Health and Human Services under the Maternal and Child Health Bureau that had six specific performance measures, which we have continued to monitor as these measures are still relevant to the goals of the Administration for Children and Families' Community-Based Abstinence Education Programs. The E.T.A.P. program is making substantial progress toward meeting the SPRANS goals and objectives, which fit well with its mission. E.T.A.P. seeks to reduce the rising number of teen pregnancy and sexually transmitted disease while helping youth to make decisions that are physical, mentally, and emotionally healthy. The six SPRANS performance measures and results for students in High School are listed below and related to specific data from the Youth Solutions Survey (YSS).

Measure 1: *Proportion of program participants who successfully complete or remain enrolled in an abstinence-only program.* Although this is offered as a part of a school curriculum, so attendance would be expected to be mandatory, we know that students have ways of "tuning out" instruction. Therefore, being aware of the name of the curriculum and of having attended the classes is an indication of successful participation. The YSS includes a section that is administered post-intervention to obtain students' perceptions about abstinence education classes. The YSS includes a section that is administered post-intervention to obtain students' perceptions about abstinence education classes. Question 46 asks, "Did you personally attend class when the abstinence program was presented?" Most (77.92%) of the matched respondents who responded to this question reported that they attended the abstinence education classes. The others either were "not sure" (8.60%) or thought that they did not attend (13.48%).

Measure 2: *Proportion of adolescents who understand that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy and sexually transmitted disease.* Question 18 on the YSS asks about agreement or disagreement with the following statement: "The best way for teenagers to avoid unintended pregnancy, HIV/AIDS and other sexually transmitted infections (STIs) is to wait until they are married before having sex." In the 2006-

2007 school year, after the intervention, 82.99% of the matched respondents indicated that they agree or strongly agree, up from 78.18% before the intervention, a statistically significant change ($p < .0001$). As shown below in Figure 14, the greatest change was the percentage who “strongly agreed.”

Abstinence from sexual activity is the best way for teenagers to avoid out-of-wedlock pregnancy and sexually transmitted disease. (N = 2534)

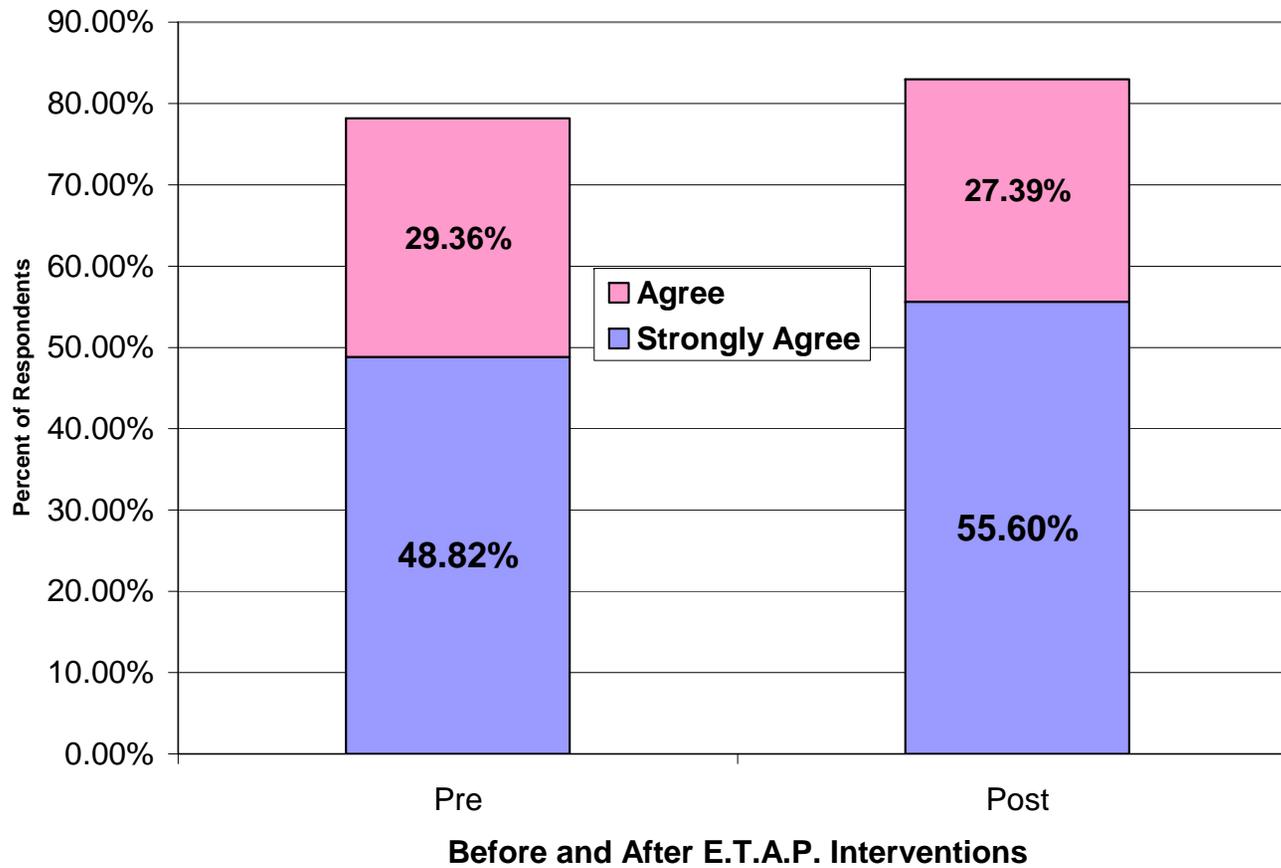


Figure 16. Understanding of the benefits of abstinence increased.

Measure 3: *Proportion of adolescents who indicate an understanding of the social, psychological and health gains to be realized by abstaining from premarital sexual activity.* The “Future Orientation” scale is made up of the questions asking if sexual “abstinence as a teen-ager would make it easier” to (a) get a good education, (b) have a good marriage, and (c) have a good job or successful career in the future, all of which are relevant to this measure. Participants increased their awareness of the combined future benefits of abstinence in all these areas. For example, before the abstinence education classes, 56.68% reported that abstinence would “make it a lot easier” to get a good education (Question 9) while 22.94% said it “wouldn’t make any difference.” After the interventions, that changed, with 59.09% reporting it would, “make it a lot easier” and 18.76% saying it “wouldn’t make any difference” which a was statistically significant ($p < .0001$) change. Changes were similar for questions about the benefit of premarital teen sexual abstinence for future marriage (“a lot easier” changed from 55% to 61%) and “wouldn’t make any difference” from 20% to 14%) and future careers (“a lot easier” changed from 47% to 53% and “wouldn’t make any difference” from 33% to 23%). In addition, the percentage of respondents who agreed or strongly agreed that “a teen who has had sex would be better off to stop having sex and wait until later such as after high school or until marriage” (Question 15, see Figure 15) increased from 71.56% before the intervention to 74.44% after the intervention, also a statistically significant change ($p < .01$).

A teen who has had sex would be better off to stop having sex and wait until later such as after high school or until marriage. (N = 2539)

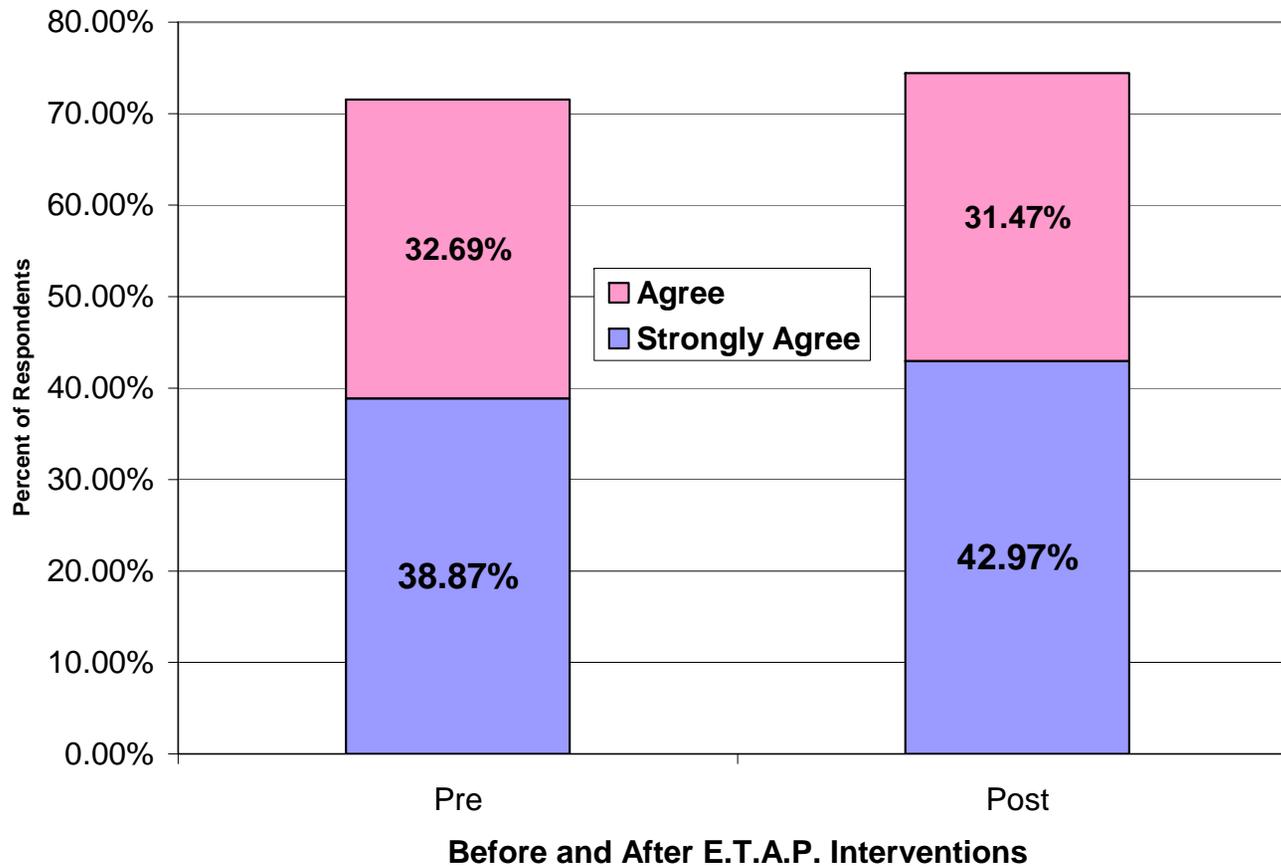


Figure 17. More agree on the value of abstinence, even after initiation of sexual activity.

Measure 4: *Proportion of participants who report they have the refusal or assertiveness skills necessary to resist sexual urges and advances.* Question 37 on the YSS asks about agreement or disagreement with the following statement, "If someone tries to get me to have sex, I feel confident I can say no." In the 2006-2007 school year, after the intervention, 78% of the matched respondents marked agree or strongly agree, up from 74% before the intervention. This improvement was a statistically significant change ($p = .0003$).

Measure 5: *Proportion of youth who commit to abstain from sexual activity until marriage.* Question 41 of the YSS asks four questions beginning with this stem, "Whether or not you have ever had sex, in the future do you plan to:" and the last item, #41d, is "Abstain until marriage." In the 2006-2007 school year, after the intervention, 65.23% of matched respondents marked "Yes," up from 61.89% before the intervention, a statistically significant improvement ($p < .0001$). Similar increases were seen in the percent of respondents intending to abstain until educational or career goals, as shown in Figure 16.

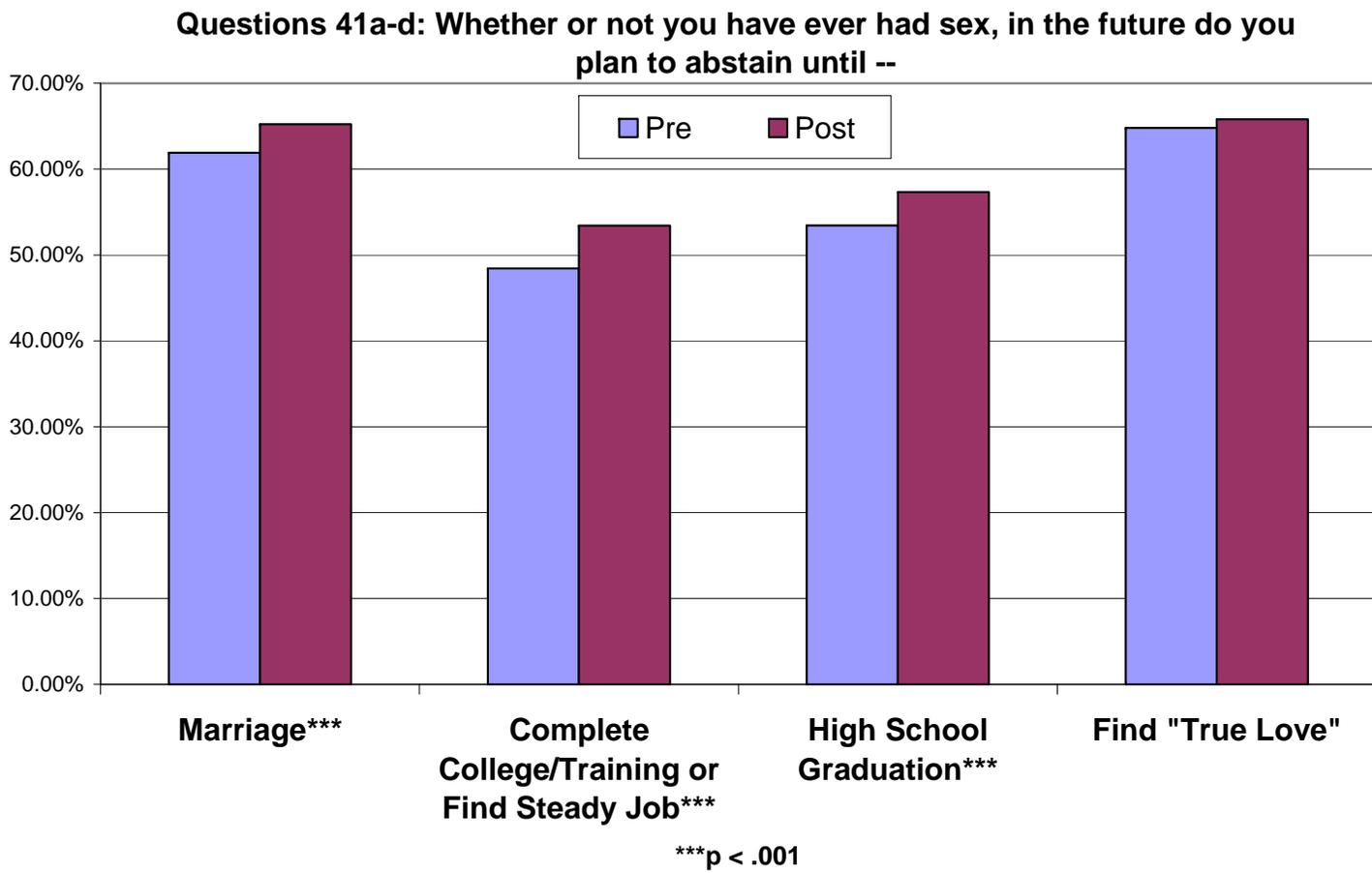


Figure 18. After the intervention, more youth intend to abstain until marriage.

Measure 6: *Proportion of participants who intend to avoid situations and risk behaviors, such as drug use and alcohol consumption, which make them more vulnerable to sexual advances and urges.* Question 25 of the YSS asks for agreement or disagreement with the following statement, "My friends and I can have fun without sex, drugs, or alcohol." After the intervention in the 2006-2007 school year, 84.87% of matched respondents marked agree or strongly agree, down from 86.60% before the intervention, a statistically significant change ($p < .01$).

Reasons for Choosing Abstinence

Healthy youth development is fostered by understanding the reasons for choosing abstinence. Question 43 asks, "If you haven't had sex, or are abstaining now from any further sexual contact at this time, choose all the reasons for abstaining that are important to you" and provides the following list of reasons: "(a) It is against my religious beliefs, (b) It just doesn't seem like a very smart thing to do, (c) I don't want to have to face the problems of an unintended pregnancy, (d) I don't want to get HIV/AIDS or some other sexually transmitted infection, (e) I haven't found the right person, (f) I haven't had the opportunity, (g) I wouldn't feel comfortable doing it, (h) I feel it is morally wrong, (i) I don't feel I am ready, (j) I don't want to disappoint my parents, (k) I don't want to be used or taken advantage of." The percentages of respondents selecting various reasons (#43) for choosing abstinence were remarkably consistent at Time 1 and Time 2, as shown in Table 16, with avoiding pregnancy and HIV/AIDS being the top reasons both times.

Table 16. *Reasons for Abstaining by Percent of Respondents Selected the Reason Pre- and Post-Intervention*

REASONS	PRE-INTERVENTION	POST-INTERVENTION
Religious beliefs	45.66	45.45
Not a smart thing to do	68.62	69.80
Pregnancy	84.38	83.60
HIV/AIDS	85.90	85.74
Not found right person	53.10	55.43
No opportunity	33.96	34.37
Not comfortable	53.54	55.10
Morals	55.76	56.70
Not ready	60.45	59.75
Not disappoint parents	71.60	71.40
Not be taken advantage of	73.48	74.07

Note. More than one item could be selected. Percents do not compare items to other items. Rather, percents compare students reporting that as one of their reasons vs. students who did not report that item as one of their reasons.

High School Students and FACTS

At the high school level, statistically significant differences ($p < .05$) by grade level were observed in the difference scores on the following scales: Affirmation of Abstinence (Figure 19), Future Orientation (Figure 20), and Intent (Figure 21). On these scales, low scores indicate attitudes favorable toward abstinence.

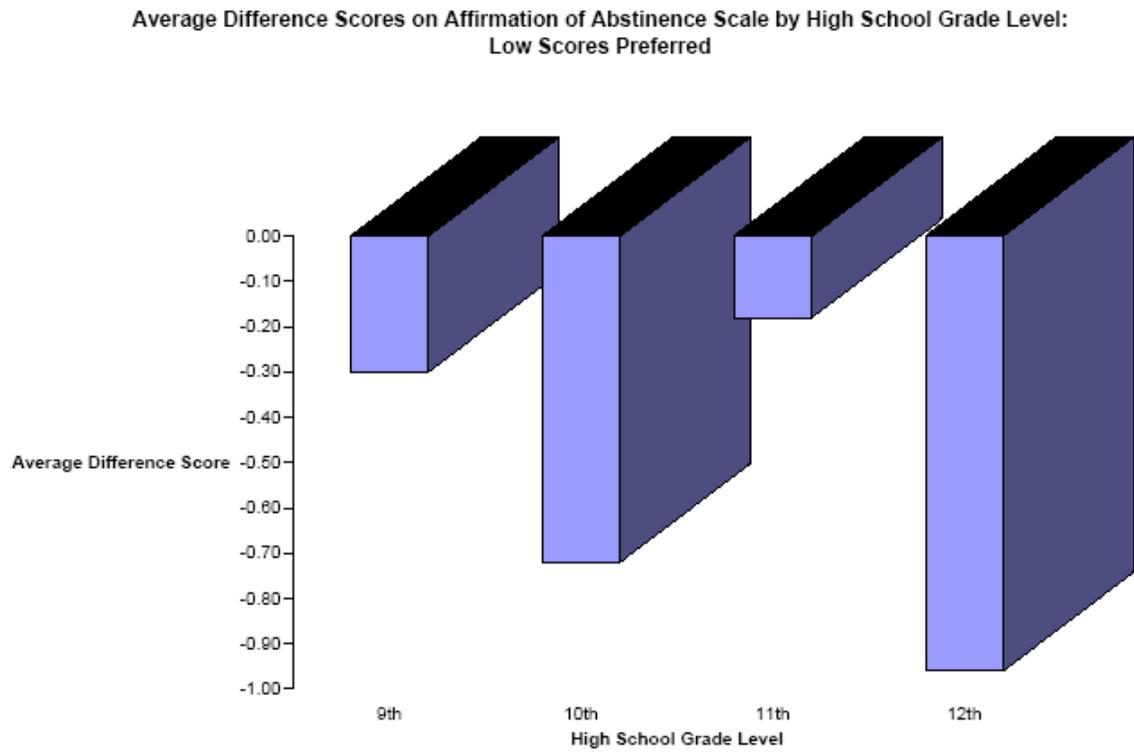


Figure 19. Average Difference Score on Affirmation of Abstinence by High School Grade Level

Average Difference Scores on Intent Scale by High School Grade Level: Low Scores Preferred

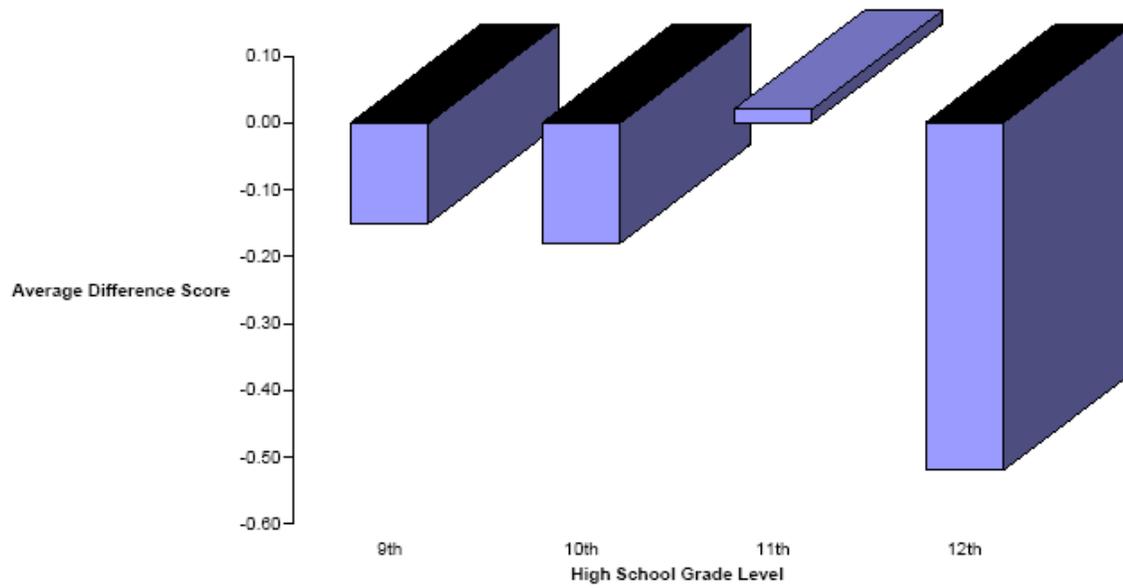


Figure 20. Average Difference Scores on Intent Scale by High School Grade Level

Average Difference Scores on Future Orientation Scale by High School Grade Level: Low Scores Preferred

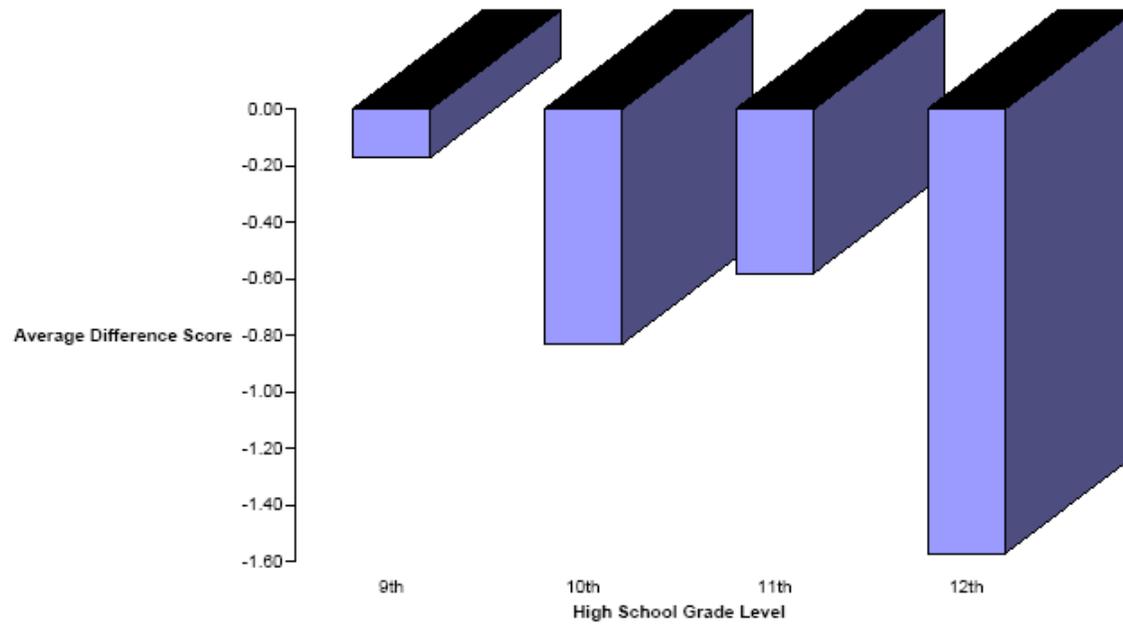


Figure 21. Average Difference on Future Orientation Scale by High School Grade Level

DISCUSSION

As in past years, E.T.A.P. achieved its goals and effectively implemented a range of abstinence education programs to a large number of youth. An exciting development in 2006-2007 was the preparation and use of new materials for students in Grades 7 and 8. E.T.A.P. is to be commended for this successful effort and particularly for making it possible to empirically test and evaluate the new materials in comparison with the traditional materials. The large sample size strengthened the evaluation and makes it possible to have confidence in the findings.

This evaluation indicates that the new EQUIP curriculum appears to be satisfactory for achieving E.T.A.P. objectives. This evaluation did not have a research design with random assignment and a control group, and the EQ and 78FA groups had some important differences in school and student characteristics. Therefore, we cannot compare the two sets of curricular materials directly. Any differences in the results may be due to differences in factors such as socio-economic status, local events in the different schools and communities, and a host of other elements that were not measured. However, it is clear that students in each group responded well and that both sets of materials are valuable abstinence education resources.

E.T.A.P. has been providing the schools with the FACTS curriculum since 2002. A series of materials were developed for different grade levels. When the program started, it was assumed that most of the students would not have previously had formal abstinence education lessons. Therefore, much of the content for students in grades 9 - 12 was the same as content for students in grades 7 - 8, although presented in an age appropriate manner. In the 2005-2006 survey, 72% of participants reported that they had previously had a class in which sexual abstinence was discussed in some detail. Probably a number of the students in grades 9 - 12 at this time had participated in the programs offered by E.T.A.P. when they were younger and may have had the same content presented repeatedly with little variation. The original intention had been to revise the materials for the upper grades as time went on, based on the concept of a scope and sequence for abstinence education, just as for other subject areas, with new content at each grade level that builds on and expands previously presented materials. With this plan, the changing needs and concerns of students at different age levels would be addressed and students would continue to find abstinence education lessons interesting and would continue to be influenced and supported by the effort. Although high school teachers undoubtedly made an effort to adapt their lessons to meet their students' knowledge and age levels, the original materials for high school students have not yet been revised. This may be one factor affecting results at upper grade levels.

The YSS was developed in connection with the FACTS materials. That may be one factor to consider in understanding the results. It may be that it is oriented to measure more precisely items covered by the FACTS materials. If a new survey is developed at the Longview Wellness Center, it is possible that it would be more sensitive to content presented in the EQUIP materials.

In view of the student ratings and responses to the question about recommendations, showing slightly better responses for 78FA than for EQUIP, it seems likely that the teachers need additional training and support for the new program. The teachers who were using the 78FA materials probably had been using these materials and presenting these lessons for many years as E.T.A.P. started providing this in 2002. Therefore, it is likely that the teachers were fluent and comfortable with the FACTS program and may have had supplementary activities ready that they had prepared in previous years. The case would be different for the new EQUIP program, in its first year of use, with teachers probably pressed for time to study the materials and prepare the lessons. This situation, of course, is

likely to improve over time. Another related aspect that may have affected the results is the cumulative effect of previous participation in abstinence education classes, which was greater in the 78FA group than in the EQ group.

At the high school level, although the students in Grade 12 made impressive changes, it should be kept in mind that the number of participants at that grade level was much smaller than at other grade levels (Table 1). Therefore, although this indicates that it is possible to provide support for premarital abstinence through abstinence education classes to older high school students, it may be that this particular group of students was not typical. However, we have seen results like this in previous years, albeit with small numbers at the upper grade levels each year. While it may not be possible to convince schools to provide educational programs that support premarital sexual abstinence to older high school students in large numbers, the results from this evaluation indicate that the effort is worthwhile, even if the number of students and schools who participate is not large. It may be that for older high school students, opportunities to serve as peer leaders for younger students would benefit both age levels (Fuller & Bankston, 2002).

Recommendations

1. Make sure questionnaire fits both FACTS and EQUIP programs or which ever is used, particularly on the attendance question. On the survey, question 46, where it asks about attendance, it specifically lists the “FACTS” program. That question should be re-worded for the schools using the EQUIP program.
2. Consider increasing staff development activities, technical assistance, and teacher support materials, and keeping track of the type and amount of inservice training given to teachers using different curricular materials and at different grade levels.
3. School code numbers have been developed and need to be entered directly on the scantron by the students. Teachers and students need to know what their school code number. They also need to know where and how to “bubble” it in on the scantron (in the “for office use” box in the upper right hand corner). Cooperation in correctly doing this will greatly increase efficiency in processing data before analysis and should reduce the time required to prepare the data for analysis. If done correctly, this should eliminate the need for manual handling of each questionnaire prior to scanning. The E.T.A.P. staff will tell the schools what code numbers to use. Teachers should write this number on the board and teach the students how to fill in the circles on the scantron that will identify the school when the questionnaire is scanned. The new codes will be provided to the schools by the E.T.A.P. staff members who are coordinating administration of the surveys. In 2006-2007, major improvements were noticed in neatness and cooperation in eliminating stray marks, unnecessary labels, or notes written on scantrons that in earlier years made so many scantrons unusable. The use of school codes can be expected to facilitate the final evaluation in 2007-2008 and the overall summary of all the years of the current grant.
4. Consider expanding the program to include youth development activities, trained peer leaders, socio-dramas, and more interactive instructional methods.

Conclusion

New materials were developed and successfully used by E.T.A.P. in the 2006-2007 school year, following new guidelines from the Community-Based Abstinence Education (CBAE) program

under the Administration for Children and Families (ACF) in the U. S. Health and Human Services Department. This section, Part 1 of the current evaluation, provided detailed feedback on the outcomes for students using the new EQUIP materials, in addition to results for students using FACTS materials. The FACTS curriculum, which was used with about 60% of the students in Grades 7 and 8 and at all grade levels in high school, continues to be associated with positive outcomes for students, as it has in past years. The East Texas Abstinence Program provided effective abstinence education programs for students in Grades 7 through 12, achieving its goals and meeting the ACF objectives for community-based programs.

REFERENCES

- Carter-Jessop, L., Franklin, L. N., Heath, J. W., Jr., Jimenez-Irizarry, G., & Peace, M. (2000). Abstinence education for urban youth. *Journal of Community Health, 25*(4), 293-304.
- East Texas Abstinence Program. (2006). *EQUIP*. Longview, TX: Author.
- Fuller, R., & Asato, A. (1998). *I'm in charge of the facts*. Portland, OR: Northwest Family Services.
- Fuller, R. & Bankston, C. (2002). *Peer leader training: A Youth Solutions manual*. Portland, OR: Northwest Family Services.
- Fuller, R., McLaughlin, J., Monahan, P., Bankston, C., Hayes-Barba, R., Taylor, R., Fuller, S. (2000a). *Facts and friends*. Portland, OR: Northwest Family Service.
- Fuller, R., McLaughlin, J., Monahan, P., Bankston, C., Taylor, R., Fuller, S. (2000b). *Facts about me*. Portland, OR: Northwest Family Service.
- Fuller, R., Denman, H., & McLaughlin, J. (1997). *How to teach the facts of life*. Portland, OR: Northwest Family Services.
- Fuller, R., & McLaughlin, J. (1998). *Family accountability: Communicating teen sexuality (FACTS)*. Portland, OR: Northwest Family Service.
- Tobin, T. J. (2002). *East Texas abstinence program, evaluation report, 2001-2002*. Eugene, OR: University of Oregon.
- Tobin, T. J. (2003). *East Texas abstinence program, evaluation report, 2002-2003*. Eugene, OR: University of Oregon.
- Weed, S. E. (1995). *FACTS project year-end evaluation report, 1993-1994: Prepared for the Office of Adolescent Pregnancy Prevention Programs*. Salt Lake City, Utah: Institute for Research and Evaluation.

APPENDIX

SURVEY FOR OLDER STUDENTS

Youth Solutions Questionnaire for Older Students (Grades 7 through 12)
(2006-2007 East Texas Abstinence Program Version)

YOUTH SOLUTIONS SURVEY*

FACTS

LEVELS 7th - 12th Grade

Pre: # 1 - 43

Post: # 1 - 49

- © Northwest Family Services (1997, 1998, 2001) developed with the support of Educational and Community Supports. (Modified, with permission, from *Survey of Youth, FACTS 1993-1994* © Institute of Research and Evaluation.)
- Revised 9-1-04

Your grades will not be affected whether you do or don't take part in this survey. The survey is being analyzed by independent researchers. It is part of a special project to help us learn more about young people and some of the things that they experience. The questions are intended to help us understand what teenagers think and how they feel about those experiences. By taking part, your answers may help improve school programs. Your opinions and thoughts are very important, so please answer each question carefully.

1. All of your answers will be kept secret by the researchers conducting this survey. Do not put your name on the questionnaire. Cover your Scantron as you go.
2. This is not a test where there are right and wrong answers. Just tell us what you think.
3. All of your answers will be grouped with those of other teens. The answers will not be connected with you personally.
4. Do not talk to others while you are answering the questions, or while they are working on theirs.
5. When you are finished, place the questionnaire upside-down on your desk

Thank you for participating in this important survey. Your ideas and opinions will be valuable. If this survey raises any questions or concerns for you, be sure to talk to your parents, or a counselor or teacher at school.

1. Are you female or male?
 - 1 Female
 - 2 Male

2. What is your age? _____ Years Old

3. What month, day, and year were you born?

MONTH: Jan. April July Oct. DAY: _____ YEAR: 19_____

 Feb. May Aug. Nov.

 Mar. June Sept. Dec.

4. What is your race or ethnic background?
 - 1 Asian
 - 2 Black
 - 3 Hispanic
 - 4 White (Non-Hispanic)
 - 5 Native American
 - 6 Other/Mix: _____

5. What is your grade in school this year? ___th Grade

6. During the last four weeks, how many whole days of school have you missed because you skipped or “cut” class?
 - 1 None
 - 2 One
 - 3 Two
 - 4 Several
 - 5 Many

7. As you look at the future, how important is it to you to get a good education?
 - 1 Not important at all
 - 2 Not very important
 - 3 Somewhat important
 - 4 Quite important
 - 5 Very important

8. In conflict situations (“having a disagreement or an argument with someone or being pressured to do something you don’t want to do”) I just give in and do what the other person wants.
 - 1 Strongly disagree; not true for me at all
 - 2 Disagree; usually not true for me
 - 3 Not sure
 - 4 Agree; usually true for me now
 - 5 Strongly agree; very true for me now

Some of the following questions use the term “Abstinence” or “Abstain” this means no sexual contact or any exchange of bodily fluids. The term “having sex” means any act in which bodily fluids are exchanged in either person’s genital area (or “private parts”) Vaginal, Anal, and Oral Sex. It also refers to the sexual act by which babies are made.

9. Do you think that abstinence (not having sex) as a teen would make it easier for you to get a good education in the future?
 - 1 It would make it a lot easier.
 - 2 It would make it a little easier.
 - 3 It wouldn’t make any difference.

10. Do you think abstinence (not having sex) as a teen would make it easier for you to have a good marriage in the future?
 - 1 It would make it a lot easier.
 - 2 It would make it a little easier.
 - 3 It wouldn’t make any difference.

11. Do you think abstinence (not having sex) as a teen would make it easier for you to have a good job or a successful career in the future?
 - 1 It would make it a lot easier.
 - 2 It would make it a little easier.
 - 3 It wouldn’t make any difference.

12. Abstinence (not having sex) should be expected as part of your dating relationships.
 - 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree

13. Abstinence (not having sex) before marriage is my own personal standard of what is right.
 - 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree

14. Abstaining from sex is a good way to show how much you care for a boyfriend or a girlfriend.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
15. A teen who has had sex would be better off to stop having sex and wait until later such as after high school or until marriage.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
16. Even if there is no pregnancy, having sex can cause a lot of problems for unmarried teens.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
17. It is all right for teens to have sex before marriage if they are in love.
- 1 Strongly agree
 - 2 agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
18. The best way for teenagers to avoid unexpected pregnancy, HIV/AIDS and other sexually transmitted diseases is to wait until they are married to have sex.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
19. I think it is okay for unmarried teenagers to have sex if they use birth control.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree

20. I think sexually active unmarried teens don't have to worry about pregnancy, HIV/AIDS and STDs as long as they use birth control.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
21. I feel that I can talk to my parents if I have questions about sex, love, or abstinence.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
22. How often during the past year have your parents talked with you about what they feel is right and wrong in sexual behavior?
- 1 Never
 - 2 One or two times
 - 3 Several times
 - 4 Many times
23. Do you think your parents approve or disapprove of people your age having sex?
- 1 Strongly approve
 - 2 Somewhat approve
 - 3 Not sure
 - 4 Somewhat disapprove
 - 5 Strongly disapprove
24. Do you think your friends approve or disapprove of people your age having sex?
- 1 Strongly approve
 - 2 Somewhat approve
 - 3 Not sure
 - 4 Somewhat disapprove
 - 5 Strongly disapprove
25. My friends and I can have fun without sex, drugs, or alcohol.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree

26. Before now, have you ever been in a class or program in which abstinence (Not having sex) was discussed?
- 1 No
 - 2 Yes
27. I feel a true friend would not force me to go against my values.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
28. Do you think that sexual feelings can be controlled?
- 1 Never
 - 2 Sometimes
 - 3 Usually
 - 4 Always
29. Has anyone ever asked, but didn't physically pressure you to do more sexually than you wanted to?
- 1 No
 - 2 Yes
30. Has anyone ever forced you physically to do more sexually than you wanted to?
- 1 No
 - 2 Yes
31. Have you ever had sex?
- 1 No
 - 2 Yes
32. Have you had sex during the past four weeks?
- 1 No
 - 2 Yes
33. Have you ever been pregnant (if you are female) or gotten someone pregnant (male)?
- 1 No
 - 2 Yes
34. I can explain the emotional consequences of sex before marriage.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree

35. My friends think that it is okay for teens to have sex.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
36. My friends think that teens should abstain (not have sex)
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
37. If someone tries to get me to have sex, I feel confident I can say no.
- 1 Strongly agree
 - 2 Agree
 - 3 Not sure
 - 4 Disagree
 - 5 Strongly disagree
38. About how many of your friends do you think have had sex?
- 1 None of them
 - 2 A few of them
 - 3 About half of them
 - 4 Most of them
 - 5 All of them
39. Is there any support from your friends for you to be abstinent (not have sex)?
- 1 No support at all
 - 2 A little support
 - 3 Some support
 - 4 A fair amount of support
 - 5 A great deal of support
40. Have you ever taken a pledge to abstain until marriage?
- 1 Yes
 - 2 No
41. Whether or not you have ever had sex, in the future do you plan to wait until:
- 41a) Wait until you find your "true love"
- 1 Yes
 - 2 No
- 41b) Wait until you graduate from high school
- 1 Yes
 - 2 No

- 41c) Wait until you complete college, vocational training, or find a steady job
- 1 Yes
 - 2 No
- 41d) Wait until marriage
- 1 Yes
 - 2 No
42. About how often do you attend religious services?
- 1 Never
 - 2 Less than once a month
 - 3 Once or twice a month
 - 4 Once a week
 - 5 More than once a week
43. If you have not had sex, or are abstaining now from any further sexual contact, choose **all** the reasons for abstaining that are important to you.
- 43a) It is against my religious beliefs.
- 1 Yes
 - 2 No
- 43b) It just doesn't seem like a very smart thing to do.
- 1 Yes
 - 2 No
- 43c) I don't want to have to face the problems of an unintended pregnancy.
- 1 Yes
 - 2 No
- 43d) I don't want to get HIV/AIDS or some other sexually transmitted disease.
- 1 Yes
 - 2 No
- 43e) I haven't found the right person.
- 1 Yes
 - 2 No
- 43f) I haven't had the opportunity.
- 1 Yes
 - 2 No
- 43g) I wouldn't feel comfortable doing it.
- 1 Yes
 - 2 No
- 43h) I feel it is morally wrong.
- 1 Yes
 - 2 No
- 43i) I don't feel I am ready.
- 1 Yes
 - 2 No

43j) I don't want to disappoint my parents.

1 Yes

2 No

43k) I don't want to be used or taken advantage of.

1 Yes

2 No

(A few students appear to have used the older version that had one more item here, "Does not apply")

POST SURVEY*

ONLY COMPLETE AFTER THE FACTS PROGRAM

The following questions will help us better understand the experience that you have had in the FACTS program. Please answer all of the questions completely and honestly.

44. In general, how would you rate the FACTS program?

1 Excellent

2 Good

3 Fair

4 Poor

45. Would you recommend the FACTS program to a friend?

1 I definitely would.

2 I probably would.

3 I'm not sure.

4 I probably wouldn't.

5 I definitely wouldn't.

46. Did you personally attend class when the FACTS abstinence program was presented?

1 Yes

2 No

3 Not sure

47. Did you discuss any of the following topics from the FACTS program with your parents?

	NO	YES
a. Peers, self respect, etc.	1	2
b. Dating, setting standards	1	2
c. Managing sexual pressures	1	2
d. Consequences of sexual activity	1	2
e. Advantages of abstinence	1	2

48. Has the FACTS program helped you in the following areas?¹

	None		Some		A Lot
a. Thinking about and planning for my future	1	2	3	4	5
b. Learning how to make good decisions	1	2	3	4	5
c. Learning how to handle problems and pressures that come up in life	1	2	3	4	5
d. Learning how to stay away from things that could cause problems for me later	1	2	3	4	5
e. Feeling more confident in my ability to resist peer pressure to have sex	1	2	3	4	5

49. Do you agree or disagree with the following statement about your teacher?

a. Did they know the subject matter well?	1	2	3	4	5
b. Believed in what he/she was teaching?	1	2	3	4	5
c. Encouraged students to ask questions?	1	2	3	4	5
d. Was enthusiastic about teaching FACTS?	1	2	3	4	5

¹ Some difficulties emerged in attempting to analyze the last few questions on the post survey. The responses on the scanned report did not match well with expectations. The university changed scanning equipment and programs during the time that data were being processed and that may have caused some of the problems. However, last year, it appeared that the last two questions may have been reversed and revised on some versions of the questionnaire and that some students did not have all the questions or response options. Beginning in 2008, a revised process for scanning the questionnaires is expected to resolve these difficulties.