ORIGINAL ARTICLE

School Attendance, Health-risk Behaviors, and Self-esteem in Adolescents Applying for Working Papers

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Abstract. *Since health-risk behaviors are often encountered in clusters among adolescents, it was hypothesized that adolescents with poor school attendance would be associated with more health-risk behaviors (e.g., substance use, violence) than those who attend school regularly. This study assessed the relationship between poor school attendance and health-risk behaviors, and described health-risk behaviors and self-esteem among adolescents seeking employment. In this cross-sectional study, school attendance (poor vs. regular attendance) was related to health-risk behaviors by asking 122 subjects seen at a New York City Working Papers Clinic to complete both a 72-item questionnaire about their health-risk behaviors and the 58-item Coopersmith Self-Esteem School Form Inventory. Chi-square and Fisher's Exact Tests were performed. The poor and regular attenders of school differed significantly in only 5 out of 44 items pertaining to health-risk behaviors. Self-esteem measures for the two groups did not differ from one another or from national norms. In this sample, depression "in general" (global) and "at home," but not "at school," were associated significantly with suicidal thoughts/attempts and serious past life events (e.g. family conflict, sexual abuse). There were no significant associations between depression or self-esteem and illicit substance or alcohol use. We found few associations between poor school attendance and health-risk behaviors in this sample of employment-seeking adolescents. The poor and regular attenders of school were similar in most aspects of their health-risk behaviors and self-esteem.*

Many American high school students engage in behaviors that increase their risk for serious health problems or even

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death.[1] Research has demonstrated that health-risk behaviors are often encountered in clusters among adolescents.[2–4] Thus, considering poor school attendance as a potential outcome for adolescents who engage in many health-risk behaviors (e.g. substance use, violence), it was a hypothesis of this study that adolescents with poor school attendance would be associated with more health-risk behaviors than those who attend school regularly. Similarly, based on the current literature identifying health-risk behaviors for gender,[2,5–7] it was a hypothesis that male, as compared with female, adolescents would have more violence-related behaviors, weapon use, and sexual activity. It was also hypothesized that those with poor school attendance would have lower self-esteem. Self-esteem is a person's judgment of worthiness that is expressed by the attitudes he or she holds toward the self; thus, it is an important, integral part of performance. Many studies conducted in the past several decades (for example, Bledsoe, 1964; Brookover, Thomas, and Patterson, 1964; and Bodwin, 1962) indicate that children with high self-esteem perform better in school than children with lower levels of self-esteem. Finally, in an effort to learn the view of the teenagers, we asked the subjects to rank the importance of teen issues (e.g. sexual activity, substance use). This incorporates a teen-centered approach designed to ensure that adolescents, rather than adults, prioritize the issues. It was thought that this teen-centered methodology might provide information that we, as adult professionals, may never have hypothesized.[8]

This study was conducted at a Working Papers Clinic in New York City. The site provided medical examinations to adolescents who required documentation of their physical health for employment, and was an opportunity to study a non-clinical population of adolescents who were not necessarily in school.

Overall, the study assessed the relationship between school attendance and health-risk behaviors, and also related self-esteem to school attendance and health-risk behaviors.

Methods

Subjects

Subjects were selected from a New York City Working Papers Clinic offered in the summer of 1990. This inner-city Working Papers Clinic served a large community of adolescents, most of whom were of minority backgrounds. A three-item survey was distributed by an investigator (BKT) to all adolescents waiting in line for their medical evaluation for the purpose of identifying Poor Attenders and Regular Attenders of school. Poor Attenders were defined as adolescents who reported: (1) that they were no longer in school, or in the past year missed either (2) 10+ consecutive school days, or (3) a total of 20+ school days. Regular Attenders were adolescents who did not meet the above criteria and were presumed to attend school on a regular basis. Because there were fewer Poor Attenders than Regular Attenders, once a Poor Attender was identified, the next adolescent in line who was identified as a Regular Attender became eligible as a subject. Adolescents were informed that the survey was optional, but were encouraged to participate. Very few who were asked to participate refused. Those who did refuse generally cited the time required to complete the questionnaire as their main reason not to participate. The few adolescents observed by an investigator (BKT) to have an apparent chronic illness (e.g. asthma, sickle cell disease) were not eligible as subjects. Of 332 adolescents thus surveyed, 122 (37%) became subjects for the study. There were 63 (52%) Poor Attenders (of whom 11 were no longer in school or "drop-outs"), and 59 (48%) Regular Attenders of school. The need to survey a large number of adolescents reflected the low incidence of Poor Attenders.

The mean age of the total sample was 16.2 years (S.D. = 1.3). The mean age of the Poor Attenders was 16.2 years; 44% were male. The mean age of the Regular Attenders was 16.1 years; 51% were male. There were no significant demographic differences between the Poor and Regular Attenders of school. The total sample was characterized by the following: spoke English (98%)

and/or Spanish (36%); lived with both parents (46%); had a mother who worked full time (64%); had a father who worked full time (49%); had a mother whose highest completed educational level was high school (21%) or college (25%); and had a father whose highest completed educational level was high school (15%) or college (19%). We were prohibited by the Department of Health from making socio-economic and ethnicity/race inquiries. However, in New York City, adolescents generally get their working papers by asking their personal physicians to complete the forms; thus, those who use a Working Papers Clinic are more likely to be uninsured or without access to regular health care. In addition, observation by an investigator (BKT) indicated that the majority of the subjects were African American or Latino.

Procedure

Each of the 122 subjects who agreed to participate completed an anonymous three-part questionnaire. Completion of this questionnaire took approximately 45 minutes and was done in an on-site room, under the supervision of an investigator (BKT).

Measures

Part I of the questionnaire consisted of 72 multiple-choice questions developed for this study, about demographics and adolescent health-risk behaviors. The health-risk behavior questions were either of the true muliple-choice type or were presented in a yes/no format; for example, "Have you ever been in trouble with the police? a) Yes, b) No". In Part II, the subjects were asked to rate the importance of the health-risk behavior items in Part I in regard to current teenage issues or concerns. Part III was the 58-item Coopersmith Self-Esteem School Form Inventory (SEI). This inventory is one of many such measures of self-esteem that are available as research tools. The Coopersmith SEI has been established through ongoing study conducted over the past two decades; it was chosen because of its reliability, validity, and ease of administration and scoring.[9]

Part I: 72-Item Questionnaire

There were 28 items pertaining to demographics (e.g. languages spoken, religion, living situation, parental employment, education), and 44 items pertaining to health-risk behaviors. The health-risk behaviors were organized into the following areas:

- Mental health—sixteen items about the adolescent's past life experiences or events (e.g., serious family conflict, death in family), suicidal behaviors (i.e., thoughts, attempts), and perceived depression in three settings, "in general" (global), "at home," and "at school."
- Sexual activity—seven items about intercourse and contraceptive use (e.g. ever had intercourse, condom use).
- Use of illicit substance, alcohol, and tobacco—eight items concerning frequency of use.
- Criminal activity and violence-related behaviors—thirteen items about illegal activities, arrests, money concerns, and weapon use.

Part II: Importance of "Teenage Issues"

With regard to understanding current teenage issues or concerns, the subjects were asked to rank, on a three-point scale, the importance of those items in Part I that pertained to health-risk behaviors.

Part III: Self-esteem

The complete Coopersmith School Form Inventory was administered. The self-esteem items in the School Form yield a total score, and, if desired, yield separate scores for four subscales: General Self, Social Self-Peers, Home-Parents, and School-Academic. For this study, only the General Self subscale, for which national norms for comparison were available, was scored. The School Form and its subscales have a test-retest reliability of 0.80.[9]

Statistical Methods

Chi-square and Fisher's Exact Tests (2-tailed) were performed to determine whether demographics and health-risk behaviors

TABLE I
SIGNIFICANT DIFFERENCES IN HEALTH-RISK BEHAVIORS BETWEEN POOR AND REGULAR ATTENDERS OF SCHOOL

Health-Risk Behavior	Total Sample N = 122	Attenders		p
		Poor N = 63	Regular N = 59	
Mental health				
depressed "at home"	44%	54%	34%	<0.05
Sexual activity				
has had intercourse	56%	65%	47%	<0.05
Tobacco use (past week)	23%	30%	16%	<0.05
Criminal activity/violence				
money only thing makes him/her "feel good"	22%	32%	12%	<0.02
trouble with the police	16%	24%	9%	<0.03

differed between the Poor and Regular Attenders of school. In some instances, response categories were collapsed in cases where there were few responses, and/or the categories were considered similar.

The Kruskal-Wallis Test was performed in Part II to determine the significant differences among ranks for the health-risk behavior areas.

The Wilcoxon Rank Sum Test was performed to determine whether self-esteem scores for the "global" subscale differed between Poor and Regular Attenders.

Results

Part I: 72-Item Questionnaire

Poor and Regular Attenders differed significantly in only 5 of the 44 items pertaining to health-risk behaviors (Table I). The Poor Attenders were more likely than the Regular Attenders to be depressed "at home," to have had sexual intercourse, to smoke tobacco, to consider money the "only thing that makes me feel good," and to have been in trouble with the police.

There were no significant differences between the two groups with regard to: depression "in general" (global) or "at school," suicidal behaviors, condom use among those sexually active, illicit substance use, alcohol use, prior arrest record, or weapon possession or use (knife or handgun).

TABLE II
SELECTED HEALTH-RISK BEHAVIORS OF ADOLESCENTS SEEKING EMPLOYMENT (N = 122)

Health-Risk Behavior	Total Sample (%)
Mental health	
perceives self as healthy:	
physically	96
mentally	98
depressed "in general"	35
"at home"	44
"at school"	26
suicidal thoughts	10
suicidal attempts	4
serious problem with a family member (past year)	30
death of a close friend or relative (past year)	27
Sexual activity	
condom use (among sexually active, N = 68)	48
Illicit substance use (past week)	
marijuana	7
cocaine	2
"crack"	3
Alcohol use (past week)	
beer/wine	18
Tobacco use	23
Criminal activity and violence	
arrest record	7
owns/has use of a knife	33

Distributions of selected health-risk behaviors for the total sample (N = 122) are presented (Table II). Nearly all the respondents perceived themselves as healthy physically (96%) and mentally (98%); however, over one-third of the respondents reported being depressed either "in general" or "at home," and approximately one-quarter reported being depressed "at school." A small number reported suicidal thoughts (10%) and attempts (4%), and approximately a third reported a significant life event during the past year. Among those who were sexually active, half reported that they used condoms during intercourse. Reported recent (past week) use of illicit substances, alcohol, and tobacco ranged from 2% (cocaine) to 23%(tobacco). Criminal activity and violence-related behavior ranged from 7% reporting a prior arrest to 33% reporting owning or having use of a knife as a weapon.

Gender differences for the total sample were analyzed (Table

TABLE III
SIGNIFICANT DIFFERENCES BETWEEN HEALTH-RISK BEHAVIORS OF MALE AND FEMALE ADOLESCENTS SEEKING EMPLOYMENT

Health-Risk Behavior	Female N = 63	Male N = 59	p
Mental health			
depressed "in general"	46%	25%	<0.002
depressed "at home"	54%	34%	<0.04
depressed "at school"	37%	16%	<0.01
Sexual activity			
has had intercourse	46%	66%	<0.001
Criminal activity and violence			
owns/has use of hand gun	5%	26%	<0.002
owns/has use of knife	18%	48%	<0.001

III). In all settings, girls were significantly more likely than boys to report feeling depressed. Boys were significantly more likely than girls to report having had sexual intercourse, and owning/having use of either a handgun or knife as a weapon. On all other items there were no gender differences.

Associations between reported depression and other health-risk behaviors were assessed (Tables IV and V). Both depression "in general" and "at home" were significantly associated with suicidal behaviors. In addition, depression "at home" was significantly associated with reporting of a serious family conflict and a history

TABLE IV
ASSOCIATION BETWEEN DEPRESSION "IN GENERAL" AND HEALTH-RISK BEHAVIORS OF ADOLESCENTS SEEKING EMPLOYMENT (N = 122)

	Are You Depressed "In General"?			
	Some/Most of the Time* % (N)	Rarely/Never* % (N)	Totals % (N)	p†
Suicidal thought in past year?				
No	30 (33)	70 (77)	90 (110)	
Yes	83 (10)	17 (2)	10 (12)	
Totals	35 (43)	65 (79)	100 (122)	<0.001
Suicidal attempt in past year?				
No	33 (39)	67 (78)	96 (117)	
Yes	80 (4)	20 (1)	4 (5)	
Totals	35 (43)	65 (79)	100 (122)	<0.004

* Responses collapsed.
† p value represents entire distribution of responses for the item.

TABLE V
ASSOCIATION BETWEEN DEPRESSION "AT HOME" AND HEALTH-RISK BEHAVIORS OF ADOLESCENTS SEEKING EMPLOYMENT (N = 122)

	Are you Depressed "At Home"?			
	Some/most of the time* % (N)	Rarely/never* % (N)	Totals % (N)	p†
Suicidal thought in past year?				
No	38 (42)	62 (68)	90 (110)	
Yes	100 (12)	0 (0)	10 (12)	
Totals	44 (54)	56 (68)	100 (122)	<0.001
Suicidal attempt in past year?				
No	42 (49)	58 (68)	96 (117)	
Yes	100 (5)	0 (0)	4 (5)	
Totals	44 (54)	56 (68)	100 (122)	<0.001
Have you had a serious problem getting along with a family member in past year?				
No	33 (28)	67 (57)	70 (85)	
Yes	70 (26)	30 (11)	30 (37)	
Totals	44 (54)	56 (68)	100 (122)	<0.001
Have you been taken advantage of sexually against your will in past year?				
No	43 (51)	57 (67)	97 (118)	
Yes	75 (3)	25 (1)	3 (4)	
Totals	44 (54)	56 (68)	10 (122)	<0.04

* Responses collapsed.
† p value represents entire distribution of responses.

of sexual abuse. Depression "at school" was not associated with any health-risk behaviors.

Part II: Importance of "Teenage Issues"

Health-risk behaviors perceived as important in regard to current teenage concerns were ranked by the adolescent subjects from most to least important in the following order: (1) substance use, (2) violence, (3) mental health, (4) criminal activity, and (5) sexual activity.

Part III: Self-esteem

Self-esteem scores for the Poor and Regular Attenders were collapsed, as no significant difference between the two groups was noted. The "General Self" self-esteem subscale score for the total

sample was 36.1 (SD = 8.2); this was not significantly different from the national norm of 34.6 for comparably aged 9th graders (SD = 7.9) (5). Self-esteem did not correlate significantly with any health-risk behavior (e.g., substance use).

Discussion

Some of the findings in this study could be anticipated. For instance, depressed feelings, reported as both global and occurring at home, were related to suicidal behavior and stressful past events. In addition, our hypothesis concerning gender differences for the total sample were consistent with previous studies. For example, girls are more likely than boys to report feeling depressed,[3] and boys are more likely than girls to engage in sexual activity and violence.[2,5–7] Also, health-risk behaviors perceived as important by the adolescents themselves agree with current societal concerns; that is, substance use and violence are listed as first and second in importance.

Given our hypothesis that poor school attendance would be related to more health-risk behaviors and lower self-esteem, the findings of few significant associations between poor school attendance and these behaviors, and no differences with regard to self-esteem, were unanticipated. Further, the few differences between the two groups were not logically connected in content or theme. In fact, the Poor and Regular Attenders of school were similar in most aspects of their health-risk behaviors and self-esteem.

The common motivation to seek employment may have been a key factor in determining the similarity between the two groups. This sample of Poor Attenders of school may thus represent a subset of adolescents not only seeking employment, but also doing so through traditional channels that require working papers. Thus, they did not represent the absentees who either work outside of the mainstream or remain unemployed. In addition, contrary to prior studies that show high rates of correlations between depression and substance abuse,[3] for this sample, there

were no significant associations between depression or self-esteem with illicit substance or alcohol use.

In discussing limitations of the study, it is important to note the small sample size and that we included students with a spectrum of poor school attendance, with drop-outs representing a small proportion of our sample. It should also be noted that the data were derived from self-reports of health-risk behaviors with no independent validation of the responses. Motivated by the prospect of legitimate employment, subjects may have under-reported some behaviors, such as illicit substance use. However, the prevalence of health-risk behaviors reported by these adolescents applying for working papers were, in general, comparable to national data. For example, the prevalence rates of sexual activity and condom use among the sample were comparable to those cited by the national school-based 1992 Youth Risk Behavior Survey.[6,7] Also, prevalence rates of illicit substance use and tobacco use were comparable to those cited for age-equivalent 10th graders in the 1992 national survey results on drug use from the Monitoring the Future Study.[10]

In summary, our sample of Poor Attenders represents adolescents that "could go either way"; that is, move towards vocational success or drift into less-productive activities. A Working Papers Clinic would seem an ideal environment to attract a subset of employment-seeking adolescents to offer expanded services such as vocational counseling or risk-behavior reduction education. It also may be worthwhile to offer such services at other sites, such as school-based clinics, thus further expanding and emphasizing services to adolescents not regularly attending school, but motivated to work. Health-care personnel working at such sites have the opportunity to identify such motivated adolescents and to encourage their participation in preventive health and educational programs.

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