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Student Wellness Needs in Rural Appalachia

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Student Wellness Needs in Rural Appalachia

Abstract

The study reported here determined the youth risk behaviors of students in a rural high school. A 44-item questionnaire adapted from the Youth Risk Survey developed at the National Center for Chronic Disease Prevention was administered. Findings indicate that some issues of national concern were not confirmed in this West Virginia sample. Tobacco and steroid use were not significant issues in this study. The areas of suicide ideation and food choices, however, highlighted areas of concern. Implications for practice are proposed.

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Background

National youth wellness and wellness related behaviors are an increasing concern for the Centers for Disease Control (Wisconsin State Department of Public Instruction, 1994; Werner, 1991; Sobal & Marquart, 1994). Some states have inquired about adolescent health risk behaviors. These states include Wisconsin (1993), Ohio (1993), and Missouri (1993).

Various aspects of youth risk behaviors have been studied by states. Most of these studies used adaptations of the Youth Risk Behavior Survey developed by the Centers for Disease Control and Prevention (1991). For example, smoking behavior was the concern of the Ohio and Maine studies (1993). Vitamin/mineral supplement use by high school athletes was the concern of the Sobal and Marquart study (1994).

Adolescent substance abuse was the focus of the study of the National Center for Education in Maternal and Child Health (1991). Likewise, adolescent seat belt usage was also a part of the Ohio study (1993). Alcohol consumption, smokeless tobacco use, and safety related behaviors were the concerns of the North Dakota study.

Given the foregoing, it became apparent that similar data could be gathered using a West Virginia (WV) sample, thereby allowing comparisons with national and other states data. Accordingly, the construction of a questionnaire based upon the National Youth Risk Behavior Survey was developed by the researchers. The survey included items relating to respondents' personal safety, tobacco/steroid use, body image, dietary behaviors, and physical activity.

Program Objectives

The primary goal of the program was to increase the physical, mental, and social wellness of Putnam County, WV high school students. The objectives of this research project were:

1. To assess the wellness needs of students;

2. To develop Extension programming that will provide useful knowledge to students to improve their level of physical, mental, and social wellness; and
3. To educate the community on the risk factors facing our youth today.

Methodology

Data were collected over a 3-year time frame. In order to assess the wellness needs of the students, a health habits survey was administered to students at Winfield High School, Winfield, WV. During the pilot testing of the first year, students in the ninth and eleventh grade physical education classes filled out the assessment instrument (N = 189). These findings resulted in rewriting the instrument and determining the appropriate timetable to administer the survey to assure objective responses. The results of the pilot study prompted us to survey the entire student body during the next two iterations.

In the second year of the data collection, a health habits survey was administered to students at Winfield High School. All of the students completed the assessment instrument (N = 648). The research consultant selected a sample and approved 100 random numbers from among the 648 respondents. Based on the random sample numbering, the responses were available from 99 of the students (Campbell and Stanley, 1963). The random sample of all of the instruments was analyzed.

This article focuses on the second and third years of the project, when the entire student body was surveyed. Thus, the respondents from the first year are not included in the analysis of this report.

Instrumentation

The instrument consisted of 44 questions focusing on behaviors that fall into four categories:

1. Behaviors that result in unintentional and intentional injuries (personal safety);
2. Tobacco/steroid use;
3. Dietary behaviors; and
4. Physical activity.

These categories were adapted from the "Youth Risk Behavior Survey" administered every 2 to 3 years to randomly selected ninth through twelfth grade students in public schools in WV by the WV Department of Education. The youth risk behavior survey was developed by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC) in collaboration with representatives from 71 state and local departments of education and 19 federal agencies.

Data Analysis

The data from the 2 years when the entire student body were surveyed are arrayed as preliminary analysis of the total percentage of the respondents by item. The independent variables of age, gender, and grade in school were used as predictors of responses to each item. Analysis of Variance (ANOVA) was calculated on every item. If significant results were indicated, a Duncan's Multiple Range Test was run to determine differences between groups or categories.

Findings

Personal Safety

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 1).

Question: How often do you wear a seat belt when riding in a car driven by someone else?

Table 1.
Seatbelt Use

Response	1996		1998	
	n	Percentage	n	Percentage
Always	51	51.5%	58	58.0%
Most of the Time	30	30.3%	25	25.0%

Sometimes	9	9.1%	7	7.0%
Rarely	5	5.1%	6	6.0%
Never	4	4.0%	4	4.0%

Student seat belt usage for both years was extremely high. In both years, age was a significant predictor of seat belt usage. There was a tendency for younger students to have lower seat belt usage than older students did. In addition, in 1996, students in the eleventh and twelfth grades wore seat belts significantly more often than ninth and tenth grade students did.

Tobacco/Steroid Use

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 2).

Question: Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?

Table 2.
Cigarette Smoking

Response	1996		1998	
	n	Percentage	n	Percentage
Yes	25	25.3%	25	25.3%
No	74	74.7%	74	74.7%

The percentage of students who smoked at least one cigarette a day was identical between the years. Approximately three fourths of the students answered "no" to this questions in both years. The characteristics of students did not predict any difference if response to this item.

Body Image

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 3).

Question: How do you think of yourself?

Table 3.
Weight Perception

Response	1996		1998	
	n	Percentage	n	Percentage
Very underweight	4	4.0%	6	6.0%
Slightly underweight	17	17.2%	35	35.0%
About the right weight	51	51.5%	50	50.0%
Slightly overweight	26	26.3%	7	7.0%
Very overweight	1	1.0%	2	2.0%

In both years approximately half of the students felt that they were about the right weight. In 1996, older students had significantly poorer perceptions of body image than the younger students did. Conversely, in 1998, the older students had significantly more positive perceptions of their body image than the younger students did (Table 4).

Question: Which of the following are you trying to do?

Table 4.

Weight Goals

Response	1996		1998	
	n	Percentage	n	Percentage
Lose weight	46	46.5%	51	51.0%
Gain weight	13	13.1%	12	12.0%
Stay the same weight	19	19.2%	24	24.0%
I am not trying to do anything about my weight	21	21.2%	13	13.0%

Approximately half of the students in both years indicated that they were trying to lose weight. The characteristics of the students did not predict any difference in response to this item.

Dietary Behaviors

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 5).

Question: Yesterday, did you eat french fries or potato chips?

Table 5.
French Fry and Potato Chip Consumption

Response	1996		1998	
	n	Percentage	n	Percentage
No	30	30.3%	34	34.0%
Yes, once only	55	55.6%	57	57.0%
Yes, twice or more	14	14.1%	16	16.0%

In both years, almost three fourths of the students had eaten french fries or potato chips the prior day. The characteristics of the students did not predict any difference in response to this item.

Depression/Suicide Ideation Issues

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 6).

Question: During the past 12 months, did you ever seriously consider attempting suicide?

Table 6.
Consideration of Suicide

Response	1996		1998	
	n	Percentage	n	Percentage
Yes	12	12.1%	22	22.0%
No	87	87.9%	78	78.0%

For both years, there was a substantial number of students who indicated that they had seriously considered suicide. The number of students who indicated "yes" to this question increased from 1996 to 1998. There were significant differences in responses to this item based upon age. Younger students significantly more often answered "yes" to this question than the older students did.

Exercise/Physical Activity

As an example of the foregoing issue, the following data are arrayed as an illustration (Table 7).

Question: On how many of the last 7 days did you exercise or participate in sports activities for at least 20 minutes that make you sweat or breath hard?

Table 7.
Exercise or Sports Participation

Response	1996		1998	
	n	Percentage	n	Percentage
7 days	34	34.3%	26	26.0%
6 days	7	7.1%	12	12.0%
5 days	19	19.2%	16	16.0%
4 days	6	6.1%	5	5.0%
3 days	8	8.1%	16	16.0%
2 days	12	12.1%	10	10.0%
1 day	2	2.0%	4	4.0%
0 days	11	11.1%	11	11.0%

In both years, two thirds of the students had exercised or participated for at least 20 minutes in sports activities that made them sweat or breathe hard at least 5 of the 7 prior days. In addition, in 1996, males significantly more often than females exercised vigorously for at least 20 minutes in the prior 7 days.

Summary/Implications/Recommendations

The overriding perception regarding the 2 years' data are the similarities of the findings and the homogeneity of the trends. Based on this research, the overriding trends include nutrition and diet issues and depression/suicide perceptions. Regarding personal safety issues, students indicate very positive perceptions about seat belt usage and intentional and unintentional injuries. Further analyses indicated that females used seatbelts significantly more often than males. Across the period of the two studies, there was a significant decrease in behavior that could be categorized as inappropriate personal safety behavior.

Tobacco and steroid use was quite low across the period of this study. These data are heartening in that those behaviors are perceived nationally as a major problem. Post-hoc analyses indicate that older aged males have significantly higher tobacco use frequencies than other types of respondents.

Regarding body weight and self-image issues, females had significantly less positive body images than males. Older students significantly more often attempted to lose weight than younger students did. In an overall sense, the eating habits and food choices of all respondents were very poor.

The issue of depression and perceptions of suicide were quite alarming. Although not a very high frequency, the number of students thinking about or planning suicide is of great concern. Post-hoc analyses indicate that these aforementioned perceptions occur significantly more often among younger females than among any other group. In addition, males carried weapons onto school property significantly more often than females did.

Students in both samples were quite active regarding exercise and participation in sports teams and physical education (PE) classes. Post-hoc analyses indicate that males seem to be more active than females. In addition, younger students were less active than older students were.

The aforementioned data clearly indicate that the nutrition education initiative of the West Virginia University Extension Service in the elementary grades should be continued and intensified. The

issues of depression and suicide need to be addressed post haste. Meetings with the Putnam County Schools curriculum directors should be held as soon as possible. Ways of altering the curriculum and curriculum delivery should be considered, such as emphasizing nutrition and methods of coping with depression and perceptions of suicide. This involvement should also include input from school counselors in order to assure a seamless approach to this problem. In addition, it is recommended that data be gathered from other samples in order to further verify these findings.

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