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Peer-Led, School-Based Nutrition Education for Young Adolescents: Feasibility and Process Evaluation of the TEENS Study

Mary Story, Leslie A. Lytle, Amanda S. Birnbaum, Cheryl L. Perry

ABSTRACT: Peer education has become a popular strategy for health promotion interventions with adolescents, but it has not been used widely in school-based nutrition education. This paper describes and reports on the feasibility of the peer leader component of a school-based nutrition intervention for young adolescents designed to increase fruit and vegetable intakes and lower fat foods. About 1,000 seventh-grade students in eight schools received the nutrition intervention. Of these, 272 were trained as peer leaders to assist the teacher in implementing the activities. Results from a multicomponent process evaluation based on peer leader and classroom student feedback, direct classroom observation, and teacher ratings and interviews are presented. Results show that peer-led nutrition education approaches in schools are feasible and have high acceptability among peer leaders, classroom students, and teachers. (J Sch Health. 2002;72(3):121-127)

Despite the importance of healthy eating during adolescence on both immediate and long-term health, studies consistently show that adolescents as a group have poor dietary habits that do not meet current dietary recommendations.¹⁻⁴ Nutrition-related concerns include low intake of fruits, vegetables, fiber and calcium-rich foods; high intake of foods high in fat and sugar; unhealthful dieting; and erratic eating behaviors, such as meal skipping.^{2,5,6} Recent national data show that only 1% of adolescent males and females met national recommendations for all the Food Pyramid groups, and 18% of females and 7% of the males did not meet any of the recommendations.¹ Evidence also suggests that dietary quality declines from childhood to adolescence. Lytle et al⁷ followed a cohort of students from third grade to eighth grade and found that intake of fruits, vegetables, milk, and fruit juices decreased and soft drink consumption increased during this time. The shift in eating patterns as children move into adolescence likely occurs due to lifestyle, and to developmental, social and, environmental changes. Growing independence and eating away from home, concern with appearance and weight, need for peer acceptance, and full schedules, all affect on eating patterns and food choices.^{8,9}

Nutrition education can help young people attain the knowledge and skills they need to make healthful food choices and develop lifelong healthy eating patterns. Schools are ideal settings for nutrition education because they reach most youth, and nutrition fits into several subject areas including health, science, and consumer science. Schools also provide opportunities to practice healthy eating since more than one-half of youth in the United States eats one of their three major meals in school. Since eating is a socially learned behavior influenced by social pressures, school-based programs also can harness the power of peer influences to support and reinforce healthy eating.⁵

Given the research documenting the poor dietary quality of adolescents' diets and the importance of nutrition education, surprisingly few nutrition education studies have been

conducted with adolescents. Contento et al¹⁰ reviewed 43 school-based nutrition education studies that had been published between 1980-1995 and used accepted criteria of research validity (eg, control group, outcome measures). Of the 43 programs evaluated only 12 involved junior high students and only 14 involved high school students. A perusal of the current literature suggests that the situation has not changed in the past six years since the Contento review was published, and that most school-based nutrition education studies target elementary children.

Nutrition education for adolescents must be planned differently than education for younger children because of the cognitive and social developmental processes and changes of adolescence. Some of these developmental changes include a shift toward abstract thinking and problem-solving skills, questioning adult authority, more autonomy from parents, and increased reliance on peers as a source of identity, support, and normative behavior.^{11,12} Cognitive development gains and changing psychosocial terrain of adolescence provide both a challenge and opportunity for educators to offer new learning and teaching strategies to engage adolescents and motivate them to make healthful food choices.

One promising approach involves peer-led initiatives. Over the past decade peer education has become an increasingly popular strategy for health promotion with adolescents.¹³⁻¹⁶ These strategies use peers to implement a variety of different instructional or behavior change interventions within education settings. Peer education can directly affect on the social environment, can provide positive role models, and can help change social norms. Peer-assisted interventions have been used in adolescent substance use prevention,^{13,14,17-22} HIV prevention,²³ bullying prevention,²⁴ violence prevention,²⁵ and support for young people with chronic health problems such as asthma.²⁶ Studies have shown that peer initiatives can improve knowledge, and change attitudes, self-efficacy and behaviors. For example, a meta-analysis of adolescent drug prevention programs showed that peer involvement programs were more effective than other modalities.²⁷ Few studies have used a peer education model for nutrition interventions to change dietary behaviors of adolescents. The only published study we could find using a peer education approach for adolescents was conducted by Perry and colleagues in 1987.²⁸ They used trained peer leaders elected by their classmates to teach 50% of a classroom-based program designed to promote healthy eating and physical activity patterns.

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The Teens Eating for Energy and Nutrition at School (TEENS) study was a multicomponent, school-based trial designed to evaluate the effectiveness of classroom, school-wide, and family programs to increase young adolescents' intake of fruits and vegetables, and to lower fat food consumption to reduce their risk of cancer. As part of the seventh-grade classroom curriculum component, peer leaders were used to lead interactive activities in the classroom sessions. A previous paper²⁹ reported outcomes associated with four levels of exposure to the first year of the TEENS study: control group; school environment interventions only; classroom plus environment interventions; and peer leaders plus classroom plus environment interventions. Students who were peer leaders reported the largest increases in consumption of fruits, vegetables, and lower-fat foods. This paper describes the peer leader component of the TEENS study, and reports on the feasibility of using peer leaders in a school-based nutrition intervention for young adolescents. Results from the process evaluation also are presented.

METHODS

TEENS Study Design and Intervention

TEENS used a group randomized study design. Sixteen schools in the Minneapolis/St. Paul, Minn., metropolitan area were randomized after baseline assessment into two treatment groups. Eight schools received two consecutive years of intervention, occurring during students' seventh and eighth grade years, whereas the other eight schools received the intervention at completion of the research trial. Across the 16 schools, 37% of students received free or reduced-price school meals (range 10%-81%). The primary study outcome measure was comparison of intake of fruit and vegetable servings and energy from fat pre- and post-treatment between the two treatment groups, assessed by 24-hour recalls.

The TEENS intervention was delivered over two years, to a cohort of seventh graders followed through their eighth-grade year. Peer leaders were used only in the seventh-grade curriculum, so this paper deals specifically with the first year of the intervention. The intervention was

Table 1
Example of Intervention Objectives, Curriculum Activities, and Role of Peer Leaders

Intervention Objective	Curriculum Activity	Role of Peer Leader
Involve students in activities where they discover how the media, social, cultural, community, and school environments influence their food choices.	A short video produced by TEENS to introduce the TEENS program using five adolescent characters who were interviewed about their eating and barriers to change.	Lead small group activity assessing and discussing each character's eating habits and situation and strategies for change.
Provide opportunities for adolescents to prepare and taste FVLFF* and increase exposure to FVLFF at school and in their home.	Fruit and vegetable snack preparation in class. Low-fat convenience snack provided with each curriculum session.	Peer leader helped organize and direct these sessions.
Teach students how to assess their diet and make plans to correct shortcomings. Teach students how to count and plan daily fruit and vegetable servings.	"Check Out the Chow" food record activity. For two days, students record food intake and then do a detailed self-assessment based on point system.	Assist group members in scoring and goal-setting activity.
Demonstrate the amount of fat and sugar in comparable products.	Six different hands-on experiential learning stations that groups rotate through. Stations include ranking packaged snacks by fat content, estimating fat in fast foods, comparing serving sizes.	Each station was organized and led by a peer leader.
Teach students how to use food labels to make healthy changes.	"Race for Labels," a relay-race type activity where students divide into teams and compete to count fat grams in food packages.	Peer leader organized and directed the team.
Encourage eating FVLFF in social situations. Increase exposure to peers who choose to eat FVLFF.	Options card game. Options are: Choose-Change-Plan Ahead-Eat a Little. Card game to practice using these options in different situations.	Peer leader led the activity.

*FVLFF = fruit, vegetables, and low-fat foods

developed using Social Cognitive Theory (SCT) as its theoretical basis. The intervention consisted of three components all aimed at increasing fruits, vegetables, and lower-fat foods: 1) a classroom-based component administered by classroom teachers in health or consumer science classes emphasizing skill-building and decision-making for healthful food choices; 2) family involvement through newsletters and behavioral coupons emphasizing making healthy foods available at home and modeling healthful eating behaviors; and 3) school environment (both school food service and policy) aimed at increasing healthful food options in the school cafeteria, in vending machines and at extramural school activities and functions. Development of the intervention was described elsewhere.³⁰

Peer leaders helped deliver the seventh-grade curriculum, which involved 10 classroom sessions designed for a 40- to 45-minute period. Table 1 contains an example of the curriculum objectives, activities, and the role of peer leaders. Sessions were experiential and behavioral, and involved a unifying common theme of two characters, Cheesewhiz and Nuthead. All sessions involved trained peer leaders who assisted the classroom teacher. Peer leaders led small group discussions, conducted hands-on activities, organized the food preparation, and facilitated group decision making and problem solving. Each class had 5-6 elected peer leaders, and each peer leader was assigned a small group of 4-5 students. Classroom teachers monitored all peer-led activities and had overall responsibility for program organization, class management, and program content.

Table 2
Demographic Characteristics of Peer Leaders and Classroom Students

	Peer Leaders		Classroom Students	
	Number	%	Number	%
Sex				
Male	105	46.5	343	50.7
Female	121	53.5	334	49.3
Race / Ethnicity				
African American	13	5.8	58	8.6
Asian	21	9.3	50	7.4
White	164	72.6	474	70.1
Other	28	12.4	94	13.9
Free or Reduced-Price Lunch				
Yes	43	19.0	152	22.5
No	183	81.0	525	77.5
Parents' Highest Education				
Both high school or less	26	11.5	91	13.4
One high school or less	8	3.5	37	5.5
One trade school / some college	36	15.9	109	16.1
One college or more	44	19.5	131	19.4
Both college or more	61	27.0	127	18.8
Other / unknown	51	21.9	182	26.9

Peer Leaders Selection and Training

Peer leaders were selected from the same classes in which the curriculum was administered. To elect peer leaders, students were asked to write the names of three girls and three boys in their class whom they respected and admired and believed could help teach the class. This method of selection has been used in other studies.^{25,28} The six students who received the most votes were informed by the teacher and invited to participate as a peer leader. Training sessions for peer leaders were conducted by TEENS University staff who were experienced in conducting peer education training and had expertise in nutrition education.

Peer leaders from the same school were trained together and received a full-day intensive training. During the training session, the peer leaders were introduced to the program and to their roles and duties as peer leaders. Each session and peer-led activity was reviewed and rehearsed. All peer leaders received a manual that described the specific activities and their roles. Sixteen peer leader trainings were held at the eight intervention schools, and 272 students attended the training.

Centralized trainings were held for the 14 classroom teachers. The one-day training session covered all aspects of the curriculum, including the peer involvement component.

Process Evaluation Measures

For the peer involvement component, process evaluation measures were developed to assess participation, dose, and fidelity (quality of delivery).

Peer Leader Training. Peer leader attendance at the peer leader training was assessed with an attendance log.

Peer Leader and Student Feedback. At the end of the TEENS curriculum, peer leaders completed an evaluation form to assess their perception of being a peer leader. The form listed 16 attitudinal and behavioral statements with a Likert response scale of 1) strongly agree; 2) agree; 3) disagree; and 4) strongly disagree. Students who received the curriculum, but were not peer leaders, also were asked to complete an evaluation assessing their perceptions of the TEENS curriculum, including an item on how helpful were the peer leaders. The four-point scale ranged from strongly agree to strongly disagree.

Classroom Observation. Fidelity was assessed by direct observation of classroom sessions by trained TEENS evaluation staff using a standardized instrument with 24 items. For the seventh grade curriculum, each classroom was observed four times. There were three peer leader questions on the classroom observation form: 1) Did the peer leaders lead the session's activities? 2) Did the peer leaders keep their group on task? and 3) Did the peer leaders collect and score assignments. Response options were: yes, no, or not applicable.

Teacher Ratings. Process data on degree of implementation also was collected through teachers' self-report of the sessions. After teaching each TEENS session, classroom teachers completed a checklist form which covered the date the session was taught, the number of students, and whether specific activities were taught, using a "yes", "no" or "partly" format. The checklist also asked how well peer leaders performed specific activities for that session. For example "How well did the Peer Leaders do the following

task? a) Lead snack preparation activity; b) Collect and score assignments; c) Keep their group on task? The response options were "very well," "okay," "did not do."

Teacher Interviews. Within two weeks after the curriculum was completed, classroom teachers (n = 14) who taught the curriculum were interviewed at school by a trained TEENS evaluation staff member to assess their perceptions of the curriculum, including effectiveness of peer leaders and responsiveness of the students. The two interview questions related to peer leaders consisted of an open-ended question and also a question rating the usefulness of peer leaders, on a five-point numerical scale.

RESULTS

Peer Leader Characteristics

Some 1,225 seventh grade students in the intervention schools received the classroom curriculum. Of these, 272 (22%) were trained as peer leaders. Demographic characteristics of the peer leaders and other classroom students are reported in Table 2. This data was from the baseline student survey collected before the schools were randomized into treatment or control conditions. Baseline survey data was collected on 226 of the 272 (83%) of the peer leaders. Mean age of the peer leaders was 12.7 years. Slightly more females than males were peer leaders. About 70% of peer leaders were White, which was similar to the composition of the school student population.

Peer Leader and Student Perceptions

Feedback from the peer leaders on being a peer leader is shown in Table 3. Survey data was collected from 249 of 272 peer leaders (91.5%). Almost 90% reported they enjoyed being a peer leader and thought they did a good job. Two-thirds said their friends thought it was cool being a peer leader. More than three-fourths said they would recommend being a peer leader to their friends, and 80% said they would like to be a peer leader again. Only 18% wished they had not been a peer leader. Most (85%) thought they learned more about healthy eating by being a peer leader, and two-thirds thought they ate more healthful because they were a peer leader.

Students who received the TEENS classroom curriculum were asked to complete an evaluation form at the end of the curriculum. Data were collected from 956 of 1,225 students (78%). More than one-half (57.7%) reported that the peer leaders were helpful. Only 20% felt they were not helpful.

Classroom Observations

Direct classroom observations of four of the 10 sessions (n = 71 observations) by trained evaluators indicated peer leaders were implementing the curriculum tasks as intended. Results of the classroom observations showed that 94% of peer leaders led the session's activities, and 77.5% kept their group on task. In three of four observed sessions, peer leaders were responsible for collecting and scoring TEENS assignments, and this task was done 71.4% of the time.

Teacher Perceptions

Peer leader data, also collected from teacher checklists, are shown in Table 4. Teachers reported that most peer leaders conducted the activities they were trained to do.

More than one-third of teachers reported that peer leaders had done the assigned activities very well. In interviews, teachers were asked to rate the usefulness of peer leaders on a scale from 1 to 5 with 1 being not useful and 5 being very useful. Almost all the teachers (92.9%) said the peer leaders were useful or very useful. Teachers also were asked in an open-ended question "How effective do you think the peer leaders were?" Overall, the comments were positive, for example:

"On the whole, the students picked good leaders. They remembered their training quite well, but the training day was long for the kids. Peer leaders took a load off the teacher."

"Liked the concept a lot because kids relate well to their peers. Some peer leaders were better than others."

"90% were great and took their job very seriously, the other 10% had problems."

DISCUSSION

This paper describes the peer component of a school-based nutrition education curriculum designed to improve dietary behavior among young adolescents, and reports results from a systematic multicomponent process evaluation. The process evaluation results indicated peer education offers a feasible method of nutrition education for

Table 3
Process Evaluation Results
of Perceptions of the Peer Leaders (n = 249)

	Agree (%)	Disagree (%)	Mean
I enjoy being a Peer Leader	89.2	10.8	1.78
I did a good job as a Peer Leader	91.8	8.2	1.71
I would like to be a Peer Leader again	80.6	19.5	1.80
I would recommend being a Peer Leader to my friends	77.4	22.5	2.10
I think I learned more about healthy eating by being a Peer Leader	85.1	14.8	1.86
I think I eat more healthy foods because I was a Peer Leader	64.3	35.8	2.26
I think I learned more from the TEENS program because I was a Peer Leader	75.4	24.6	2.03
My friends thought it was cool that I was a Peer Leader	63.3	36.8	2.33
I wish I had not been a Peer Leader	18.1	81.9	3.17
I felt more pressure to get my TEENS homework completed because I was a Peer Leader	55.0	45.0	2.45
I liked being the one in charge of the group	87.6	12.4	1.74
It was difficult to keep my group on task	46.2	53.9	2.53
It was difficult to get my group organized	39.1	60.9	2.40
The Peer Leader training made me feel confident to lead my group	83.1	17.0	1.97
It would have helped if I had more training	45.9	54.1	2.62
I used the Peer Leader Guide a lot	64.8	35.2	2.29

young adolescents. The evaluation showed that most peer leaders enjoyed the experience, felt they did a good job, and would like to be a peer leader again. They felt they learned more about healthy eating by being a peer leader, and also ate more healthfully as a result of being a peer leader. Classroom observation data collected by TEENS evaluation staff indicated peer leaders were conducting the activities as planned and intended, with a high degree of accuracy. Intervention fidelity and quality also were assessed by teachers who reported that most peer leaders conducted the activities as they were trained. Almost all teachers reported the peer leaders were useful, and that it was a positive experience for themselves as teachers, as well as for the peer leaders, and other students.

The theoretical rationale for using peer leaders is based on a developmental and social contextual framework of adolescence. The peer group becomes a key reference point during adolescence and provides a source of independence, identity, recognition and group membership. The positive function peers serve in healthy adolescent development can be used in health promotion efforts.³¹ Because of the importance of peer influence in adolescent social behavior, peer education can use "peer pressure" and adolescent involvement in a positive and constructive way.

Peer education offers an alternative to the adult "authority" or "expert" figure, and provides a natural linkage to the strong affiliation and identification with peers during this age. Characteristics of persuasive marketing and communications for youth show that credibility, role models, and attractiveness are stronger among admired friends than adults during this age period.^{25,32} Peer education is rooted in a naturally occurring process whereby young people learn a lot from one another as part of their everyday lives. Peers can become a positive force in health promotion efforts by promoting pro-health norms in the peer group, and serving as positive role models.³¹

Based on developmental theory, a strong rationale exists for using peer education approaches with adolescents. Peer-led interventions inherently acknowledge and can build upon young people's skills and abilities. Peer leadership gives young people a sense of control that can be empowering and promote a feeling of social usefulness.³³ Several studies showed that peer initiatives can increase adoles-

cent's self-esteem, self-efficacy, and their sense of effectiveness, and also can improve knowledge and change health attitudes.^{33,34} In addition, school-based research has shown evidence that peer-led interventions may be more effective in reducing health-risk behaviors than teacher-led interventions.^{25,35,36}

Many forms of peer education exist, and it is best viewed as an umbrella term covering a range of approaches including peer-led interventions, peer mentoring, peer support, peer counseling, and peer mediation.^{33,37} In turn, there are various forms of peer workers and differentiating roles, including peer educators, peer trainers, peer facilitators, peer counselors, peer tutors, peer leaders and peer helpers.³⁷ Given the flexibility of peer education, and peer leadership with its wide range of uses, professionals need better clarity in the definitions, aims, and methods of interventions for a thorough understanding and evaluation of peer education.³⁷

Peer education literature views peer education primarily as a method of delivery, with formal and informal methods.³⁷ Formal peer education methods refer to projects which are structured, use peer selection criteria, provide intensive training, have adult supervision, and are used almost exclusively in school settings. Informal peer education methods are most commonly used in youth serving and community settings, have limited selection criteria, provide training, limited adult supervision, and often involve young people informally passing information to their peers.³⁸ Informal community-based interventions tend to have a stronger emphasis on peer development, peer ownership, and empowerment than those based in schools, and they have less emphasis on peer delivery.³⁷ Informal community peer education approaches may be more effective in working with disadvantaged or marginalized youth.³⁷ Both informal and formal peer education approaches can be equally effective, depending on the intent and nature of the intervention.

Programs also have used a combination of peer leadership in the classroom and in the community. For example, Project Northland, a school and community-based alcohol prevention study for young adolescents used two different peer leadership interventions.^{13,14,17} In schools, peer leaders were elected by their classmates and assisted the teacher in leading the seventh-grade alcohol use prevention curriculum. In addition, students had the opportunity to volunteer as peer leaders to plan extracurricular alcohol-free activities in the community. A follow-up study, Project Northland, Phase II aimed to reduce older adolescents' (grade 11 and 12) alcohol use and had an active youth development component.³⁹ The goal was to create positive change in the social environment around alcohol-related issues through active youth participation in schools and communities. Teams of volunteer high school students planned and implemented community action projects and activities.³⁹ These peer-driven extracurricular activities and peer action groups expand on the traditional model of peer education.

This study used a formal structured classroom-based approach. A need exists for further nutrition education studies using peer-led approaches, both formal and informal methods, in school and community settings. A peer-assisted intervention was compatible and practical in a classroom setting. Community-based informal or formal peer education could be used in nutrition interventions for pregnant or

Table 4
Peer Leader Data from Teacher Checklist Forms

How well did the Peer Leaders do the following:

Activity	Very Well (%)	OK (%)	Didn't Do (%)
Lead station activities	75.0	23.6	1.4
Lead snack preparation activity	46.6	26.7	26.7
Lead all activities**	45.1	43.1	11.8
Collect and score assignments***	35.6	56.6	7.8
Keep their group on task**	42.4	55.6	2.0

* n = 14 teachers

** average based on sessions 1-10

*** average based on sessions 2-10

parenting adolescents (such as WIC settings), in youth-serving agencies such as the girl scouts or boy scouts, or in after-school programs for young adolescents. Peer action groups also could be formed to change the school environment by reducing high fat foods or soft drinks. Community peer action groups also could focus on changing social norms around excessive thinness for females.

Several potential difficulties emerged in the development and sustainability of peer-led initiatives. An article by Walker and Avis³⁸ cited the most common reasons why peer education fails: 1) lack of clear aims and objectives for the project; 2) lack of investment in peer education; 3) lack of appreciation of peer education as a complex process requiring highly skilled personnel; 4) lack of clarity around boundary issues and; 5) inadequate training and support for peer educators.

Training of peer educators is critical for a successful intervention. This study provided an intensive day of training which involved a description of each session, specific roles and responsibilities of peer leaders, and rehearsing and role playing of tasks and activities. Each peer leader also received a peer leader's manual detailing the activities and tasks for each session. About 80% of peer leaders reported the training made them feel confident to lead the group. However, 45% of peer leaders also indicated they wished they had more training. One day of training may be insufficient to give young people the content and knowledge skills, and the leadership and teamwork skills needed to assist with the intervention.

Almost one-half of peer leaders in this study said it was difficult to keep their group on task, and 40% reported difficulty in getting their group organized. Thus, more attention to managing groups, communication skills, and group leadership techniques would be helpful. In this program, the emphasis on peer education was interactive and participative learning. Peer leaders were not set up to be "little teachers" delivering lectures. In classroom settings, the teacher is important in providing regular feedback and reinforcement to maintain quality implementation.

It is not clear why peer-assisted interventions have not been used more in nutrition education for adolescents. One reason may be the belief that teens need a strong knowledge base in nutrition in order to direct the class. Sufficient training is a key issue. In this training, peer leaders were given basic nutrition principles related to healthy eating, but the emphasis was on giving them the skills and practice to lead the small group activities. This training also relied on health and consumer science teachers who teach nutrition, and who were trained in delivering the TEENS curriculum to help guide and support peer leaders. Peer-assisted interventions should be viewed as collaborative interventions between peers and highly skilled adults.³⁴

Selection and use of peer leaders is another issue that needs consideration. The potential benefits of peer education are well-established in terms of positively effecting young people's skills, confidence, and health behaviors.^{17,33,38} In this study, as well as other classroom-based studies, peer leaders were selected by a peer nomination process. Thus, only a subsample of youth, those viewed as the most admired and respected, the social leaders of the class, are able to participate as peer leaders. Ways to involve more youth in the peer educator process, such as

volunteers or rotating assignments should be developed and evaluated.

CONCLUSIONS

Results from this process evaluation suggest peer-led nutrition education programs in schools are feasible, and they have high acceptability among peer leaders, students, and teachers. Given that peer-led interventions generally have not been used in school-based nutrition education efforts, this study provides insight and practical guidance for using peer-led approaches. Peer-led interventions have potential in a variety of settings for promoting healthy eating among adolescents. Impact and outcome evaluations are needed to assess effectiveness of peer intervention approaches for nutrition education. Future studies should compare peer-assisted nutrition interventions to teacher-led interventions. Expanded peer leadership approaches, such as community or school action groups, also should be explored. ■

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Statement of Purpose

The *Journal of School Health*, an official publication of the American School Health Association, publishes material related to health promotion in school settings. *Journal* readership includes administrators, educators, nurses, physicians, dentists, dental hygienists, psychologists, counselors, social workers, nutritionists, dietitians, and other health professionals. These individuals work cooperatively with parents and the community to achieve the common goal of providing children and adolescents with the programs, services, and environment necessary to promote health and improve learning.

Contributed manuscripts are considered for publication in the following categories: **Articles, Research Papers, Commentaries, Teaching Techniques, and Health Service Applications.** Primary consideration is given to manuscripts related to the health of children, adolescents, and employees in public and private preschools, child day care centers, kindergartens, elementary schools, middle level schools, and senior high schools. Manuscripts related to college-age young adults are considered if the topic has implications for preschool through high school health programs. Relevant international manuscripts are also considered.

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