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A partnership for health

Working with schools to promote healthy lifestyle

Background

Childhood obesity is increasing in prevalence. Effective interventions are needed, including those promoting healthy lifestyle habits in children and adolescents.

Objective

This article describes the development and feasibility of a peer led health promotion program in a New South Wales high school and the role GPs can play in community based health promotion activities.

Discussion

The Students As Lifestyle Activists (SALSA) program was developed by general practitioners, a local community health organisation and a local high school. Preliminary evaluation suggests that a peer led approach is feasible, acceptable and valued by both students and staff.

Keywords: preventive medicine, health promotion, obesity, schools adolescents

factor in shaping behavioural patterns in this age group.^{5,6} Studies have also demonstrated that peer educational programs in secondary schools can improve a range of health related behaviours, such as increasing fruit intake.⁷⁻⁹

Program development

In 2004, a partnership was formed between general practitioners who were members of the Mt Druitt Medical Practitioners Association (MDMPA), the local community health organisation and a local high school to consider the feasibility and development of an intervention that could be conducted in the high school with the aim of promoting a healthier lifestyle in students. There was a consensus between the health and education personnel involved that a peer education model would be the most acceptable and effective for students. When developing the program, we drew upon two established peer education models. The first was the Triple A (Adolescent Asthma Action) program model, which has been shown to be an effective peer-led model in influencing health behaviour change in adolescents.^{10,11} It was also shown to be acceptable to schools.¹¹ The second educational model was the TEENS (Teens Eating for Energy at School), a school based nutrition education program conducted in the USA¹² from which we adapted the evaluation questionnaires.

To ensure the objectives and planned activities of the program would be relevant to students, a meeting was conducted with members of the school community – consisting of five high school students, two parents, one teacher and five university students who were studying physical development, health and physical education (PDHPE) – to elicit feedback about the draft program. Appropriate content and strategies were based on the program

The increasing prevalence and severity of childhood obesity is concerning because adolescent obesity is a major predictor of lifetime obesity and ill health.¹ Effective interventions to stem this growing health crisis are needed, including interventions that will promote healthy lifestyle habits in children and adolescents.

The management of lifestyle related illnesses and the engagement of teenagers are among the biggest challenges in medicine today. In western Sydney, New South Wales these are compounded by a lower socioeconomic status with associated lower education levels and a reduced awareness of what constitutes a healthy lifestyle.^{2,3} School is an influential place where adolescents develop and grow.⁴ Peer influence is thought to be a driving

objectives, a literature review, teaching experience and the feedback. The name of the program, SALSA, was suggested by students. The program was designed to fit into the school's PDHPE curriculum.

Program content

The SALSA program aims to enhance self efficacy within a supportive environment so that healthy lifestyle messages and actions are more likely to be adopted by students. In order to motivate students to adopt a healthier lifestyle, the program seeks to increase physical activity, decrease sedentary activity, increase the consumption of fruit and vegetables and increase awareness about local healthcare services.

The theoretical framework of this program is based on social cognitive theory¹³ and an empowerment educational approach.¹⁴ According to this framework, participants in the program

are encouraged to observe and imitate the behaviours of others, increase their self efficacy in implementing new skills and gain positive attitudes about health.

The program consisted of a three-step process (Figure 1). Step one involved training 16 volunteer Year 10 students during a 1 day workshop held at school. A community physician (SS), teacher (AP) and a GP (KS) facilitated the workshop. During the workshop, we explained and practised all the activities contained within the three SALSA lessons on food, movement and lifestyle (Table 1), with the aim of enabling peer leaders to successfully deliver the lessons to Year 8 students. The lessons incorporated a video, games and empowerment activities, providing an alternative method of learning to motivate students to be more active and to eat more fruit and vegetables. For example, students learned

about local health services by playing a game of charades: 'guess the common problem'. This was aimed to help students understand where they could go for help if they were ill. Local GPs also provided a pedometer and a nutritious lunch for the workshop participants.

In step two, groups of five Year 10 peer leaders delivered the three 75 minute SALSA lessons (Table 1) to three classes of Year 8 students, over three separate school periods assigned to PDHPE in the school's curriculum. The peer leaders instructed the students using a video, activities and games described in the SALSA peer leaders' manual (available on request from the authors). Teachers were present at the back of the class and observed and documented how the peer leaders facilitated each of the lessons. Quality was also measured by feedback questionnaires completed by the SALSA peer leaders and Year 8 students following the lessons. In step three, the classroom teachers guided the Year 8 students to set personal goals and develop action plans to maintain a healthy lifestyle.

Program evaluation

Evaluation of the SALSA program sought to determine the appropriateness and acceptability of the program content, strategies and the fidelity of the implementation strategies. This process was undertaken as a quality assurance activity of the school. The questionnaires were distributed by the teaching staff to the peer

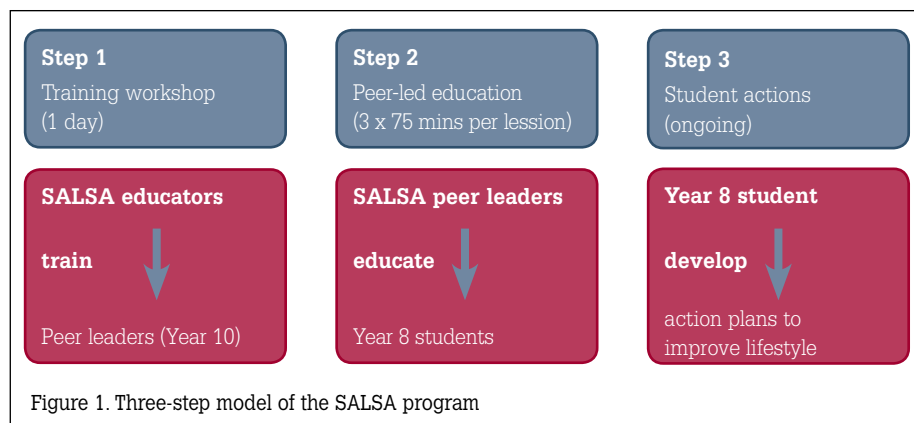


Table 1. SALSA lesson guide

| Lesson | Activity | Purpose |
|---------------------|-------------------------------|--|
| Lesson 1: Food | Introductions | To introduce and welcome the peer leaders |
| | Changing chairs | To get the students mixing and introducing themselves and to have fun |
| | Group agreements | To help maintain control and effectiveness of the group |
| | Video | To provide information about healthy food for young people |
| | Lunch box lotto | To increase awareness about a healthy lunch |
| Lesson 2: Movement | Group agreements | To review the group agreements to maintain control and effectiveness of the group |
| | Physical activity | To distinguish between active recreation versus passive recreation pursuits |
| | SALSA movements | To learn a simple 'martial arts' routine, (which is easy to remember) |
| | Mapping spaces for activities | To identify safe spaces for physical activity in their local area |
| | SALSA activity sheet | To consider and record the amount of daily activity and fruit and vegetable intake |
| Lesson 3: Lifestyle | Group agreements | To review the group agreements to maintain control and effectiveness of the group |
| | Using health services | To share with the students what their doctor and local health services can do for them |
| | Review SALSA activity sheet | To create a visual representation of the group activities and fruit and vegetable intake |
| | Actions for health at school | To develop an action strategy for SALSA |
| | SALSA quiz show | To revise key facts on healthy eating and physical activity |

leaders and students and were completed by the students following each lesson.

Peer leader feedback

Feedback from peer leaders was very positive. Students indicated that they enjoyed both the 1 day training workshop (particularly the martial arts session led by KL) and the experience of teaching and guiding the Year 8 students. Students described feeling confident about teaching the Year 8 students and were excited by the idea of being 'the leaders and role models for younger students'. When asked about the most important points gained from the workshop, 'getting healthy together', 'leadership skills' and 'more knowledge of health and teamwork' were common responses. Some reported 'improved dietary and physical activity behaviours'.

Regarding lesson fidelity, the lessons to the Year 8 students were implemented as intended. However, there were some problems with maintaining class control and completing all activities within the given time limit. The peer leaders reported that the games and interactive activities were the most successful aspects because 'they were fun and everyone participated'. Peer leaders felt the SALSA peer leader's manual was a useful resource to support the delivery of the lessons.

Year 8 student feedback

The majority of Year 8 students described a genuine interest in the program activities, particularly in activities that required a physical and/or interactive component. Having peer leaders as educators was rated highly by all the students. They described gaining knowledge about healthy eating habits, increased exercise and healthy lifestyle.

One Year 8 student reported: 'Regular exercise and eating healthy is a must, eating breakfast is an important part of the day. I will drink more water and eat more vegetables and fruit, and exercise to maintain a healthy lifestyle.'

Feedback from classroom teachers and principal

The teachers observed that the peer leaders were prepared for their lessons and communicated the information well. Year 8 students were described as 'interested in the topics and participating fully in all the activities'.

The school principal, when interviewed, said that the SALSA program had been successful for both students and staff. The principal reported that an increase in student demands for healthier food alternatives had been observed by the canteen staff since the program was implemented.

Summary

Preliminary evaluation of the SALSA program demonstrated that a peer-led approach to promote healthy lifestyles in high schools was feasible and valued by both students and staff. It also showed that student peer leaders may be helpful in influencing adolescent eating habits and physical activity. All participants in the program reported they had learnt useful dietary and physical activity behaviours, which they could now incorporate into their daily lives.

As a community based specialty, general practice is well placed to influence change in the health of the local populace. The success of the SALSA program demonstrates a useful role that local GPs and local medical organisations are able to play in health promotion activities in schools.

Close collaboration between local GPs, the school and community health has enabled the SALSA program to become embedded within the school's PDHPE curriculum. It is currently being trialled in surrounding schools. The authors plan to formally test this program in a controlled trial in the future.

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References

1. Daniels S. The consequences of childhood overweight and obesity. *Future Child* 2006; 16:47–67.
2. O'Dea JA. Gender, ethnicity, culture and social class influences on childhood obesity among Australian schoolchildren: implications for treatment, prevention and community education. *Health Soc Care Community* 2008; 16:282–90.
3. O'Dea JA, Caputi P. Association between socioeconomic status, weight, age and gender, and the body image and weight control practices of 6-to 19-year-old children and adolescents. *Health Educ Res* 2001; 16:521–32.
4. Katz DL. School-based interventions for health promotion and weight control: not just waiting on the world to change. *Annu Rev Public Health* 2009; 30:253–72.
5. Main D. Commentary: understanding the effects of peer education as a health promotion strategy. *Health Educ Behav* 2002; 29:424–6.
6. Wouters EJ, Larsen JK, Kremers SP, Dagnelie PC, Geenen R. Peer influence on snacking behavior in adolescence. *Appetite* 2010; 55:11–7.
7. Cullen K, Baranowski T, Rittenberry L, Cosart C, Hebert D, de Moor C. Child-reported family and peer influences on fruit, juice and vegetable consumption: reliability and validity of measures. *Health Educ Res* 2001; 16:187–200.
8. Harden A, Oakley A, Oliver S. Peer-delivered health promotion for young people: a systematic review of different study designs. *Health Education Journal* 2001; 60:339.
9. Hölund U. Promoting change of adolescents' sugar consumption: The 'Learning by teaching' study. *Health Educ Res* 1990; 5:451–8.
10. Shah S, Peat J, Mazurki E, et al. Effect of peer led programme for asthma education in adolescents: cluster randomised controlled trial. *BMJ* 2001; 322:583–5.
11. Shah S, Royhouse J, Sawyer S. Medical students go back to school: the Triple A journey. *Aust Fam Physician* 2008; 37:952–4.
12. Story M, Lytle LM, Birnbaum AS, Perry CL. Peer-led, school-based nutrition education for young adolescents: feasibility and process evaluation of the TEENS study. *J Sch Health* 2002; 72:121–7.
13. Bandura A, editor. *Social foundations of thought and action: A social cognitive theory*. New Jersey: Prentice-Hall, 1986.
14. Wallerstein N, Bernstein E. Empowerment education: Freire's ideas adapted to health education. *Health Educ Behav* 1988; 15:379–94.

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