

Development and implementation of FRESH – a post-secondary nutrition education program incorporating population strategies, experiential learning and intersectoral partnerships

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ABSTRACT

OBJECTIVES: The FRESH (Food Resources and Education for Student Health) peer nutrition education program engages undergraduate and graduate students in experiential learning to improve the campus food and nutrition environment and promote healthy behaviours among university students.

TARGET POPULATION: University students in general, and graduate and undergraduate food and nutrition students as program designers and peer educators, respectively.

SETTING: Large university campus in southwestern Ontario.

INTERVENTION: A peer nutrition education program, utilizing multiple population strategies and intersectoral partnerships, was created by and for university students with faculty and food service personnel as mentors. The population health strategies employed were building awareness and program branding; developing personal skills through peer nutrition education and hands-on cooking demonstrations; and creating supportive environments through incentive programs for fruit and dairy as well as point-of-purchase menu labelling.

OUTCOMES: The program has reached students, staff and faculty through over 60 interactive FRESH displays and education sessions. Website and social media have also had a significant reach with over 4,000 website visits and 277 Facebook “likes”. FRESH has also improved the food environment for over 5,000 students in residence, e.g., 1,931 FRESH Fruit/Dairy Cards have been returned for free fruit/milk cartons. Graduate students in Foods and Nutrition continue to participate every year (cumulative $n=60$) in ongoing program development. Peer educators have developed enhanced leadership, public speaking and group facilitation skills, and the ability to creatively apply what they have learned in the classroom to new contexts.

CONCLUSION: Increased nutrition knowledge and an improved food environment could, over the long term, support improved university student health.

KEY WORDS: Nutritional sciences/education; students; universities; health promotion; peer group

La traduction du résumé se trouve à la fin de l'article.

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Many university students are at increased risk of obesity largely because of poor dietary intake.¹⁻³ Students have reported lack of time, low availability of healthy food options, taste preferences and financial constraints as barriers to healthy eating.⁴ Increased independence, combined with peer pressure and academic demands, also places students at high risk of poor nutrition-related behaviours. A recent survey of 34 Canadian universities and colleges revealed that only 54% of students had received nutrition information from their post-secondary institution, yet 67% are interested in receiving information on this topic.⁵

Peer health education is defined as “the teaching or sharing of health information, attitudes, values, and behaviors by members of groups who are similar in age or experiences”.⁶ Peer nutrition education, analogous to peer health education, has been shown to be effective in the university population. A short-term evaluation of peer education showed that students at a primarily Hispanic-American college campus increased their nutrition knowledge and their fruit and vegetable consumption; however, proposed changes to the campus food environment (i.e., increasing the number of healthy menu items) encountered resistance from upper

management.⁷ A longitudinal evaluation of a peer health education program at the University of California demonstrated that peer health educators play an important role in promoting healthy behaviours related to alcohol use and weight management.⁶ Peer mentors are also more likely to gain skills that are valued highly by employers (e.g., self-direction, communication, leadership and management, creativity and innovation).⁸ These results suggest that peer-to-peer interaction may be an effective way to improve university students' food- and nutrition-related attitudes and behaviours.

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Peer educators often engage small groups of students in an information dissemination format, but this alone is not sufficient for behaviour change. A combination of strategies – personal factors, behavioural capabilities and skills, and environmental supports – produces more effective outcomes.⁹ The Population Health Promotion Model,¹⁰ a holistic, ecological approach that combines the concepts of health promotion and population health, provides a robust model for program development. The Model was founded on three key concepts: the Social Ecological Model,¹¹ the determinants of health^{12,13} and the Ottawa Charter.¹⁴ This Model has been successfully used to guide program development in a variety of areas, such as the framework for community-based food security projects,¹⁵ the evaluation of collective kitchens,¹⁶ and the primary prevention of type 2 diabetes.¹⁷ For this reason, it was deemed an effective model upon which to build a multi-level, multi-strategy peer nutrition education program for the large and diverse populations found on a university campus, where people live, learn, work and play. The Population Health Promotion Model also rests upon three areas that are vital in academic work: research, evaluation and experiential learning.

OBJECTIVES

This paper describes a multi-strategy peer nutrition education program developed by and for university students, with mentoring and support from faculty and food service personnel. The program engages undergraduate and graduate students in experiential learning to improve the campus food and nutrition environment and promote healthy behaviours among university students. It enhances an earlier peer nutrition education program¹⁸ by going beyond information dissemination to develop intersectoral partnerships in order to influence the campus food and nutrition environment. It also represents a new frontier in nutrition research referred to as Mode 2 or Intervention Research, which, compared with conventional research, takes a more problem-driven, contextual approach; is conducted in real-world conditions; and involves external actors and institutions.¹⁹ Although several peer nutrition education programs exist at Canadian university campuses, there is little published documentation of their programs and impact.

PARTICIPANTS

Participating in this peer nutrition education program are graduate students (as program designers), undergraduate students (as peer educators) and the target population (i.e., primarily students in residence as well as in the broader university community). Faculty members from Food and Nutritional Sciences, as well as personnel from campus food services, serve as mentors. Additional participants include the undergraduate students who participated in a formative evaluation. Finally, a Steering Committee, which includes representatives from university administration, provides input to and support for the program.

INTERVENTION

Intervention development

Every year since 2010, each cohort of graduate students enrolled in the Master of Science in Foods and Nutrition program at Brescia University College collaborated to develop a peer nutrition

education program for university students. Students were directed to use the Population Health Promotion Model¹⁰ to develop a program with multiple strategies that would address both individual and environmental determinants of food choice and ultimately enhance the nutritional status of the student population. The assignment also required the use of the Online Health Program Planner,²⁰ a tool used by public health practitioners in the field, to develop a program plan and logic model, providing a novel experiential learning opportunity for students.²¹ Throughout the program's development, campus food services personnel provided invaluable support and guidance, which also promoted deep intersectoral collaboration. Table 1 provides a summary of how the program was developed through class projects, as well as outcomes and challenges faced along the way.

After completion of the initial program plan, a formative evaluation was conducted to ensure that students would accept the program. The goal was to understand university students' perceptions about the concept of a university peer nutrition education program; explore students' interest in multiple strategies, including information dissemination, skill-building, and environmental changes to the campus food environment; and discover students' expectations about such a program. Twenty-two first-year university students living in residence and participating in a meal plan contributed to discussions in one of four focus groups. The results suggested that students recognized the need for a university-wide nutrition education program. In particular, they were concerned about their nutritional status and fearful of gaining weight. Many reported difficulty selecting healthy food options on campus. They understood that increasing students' awareness of nutrition-related problems in their age group was an important first step before they could make informed food-related decisions. Interactive cooking classes were favoured as a skill-building activity. Students commented that they wanted hands-on cooking practice rather than watching someone else do it and stated that, because many would be moving off campus the following year, they needed basic tips on cooking. Alternatively, some favoured the convenience of online cooking videos, because they could select which one they wanted to watch.

Students' chief concern with the current campus environment related to the cost of healthy food options. At the same time, they divulged that they would be willing to pay more for healthy options provided that the nutritional content information was easily accessible and visible. Students revealed that incentives may be needed to nudge them to make healthy food choices. For example, many students endorsed the offer of incentives through frequent-buyer programs as a means to promote the program, as well as to improve students' dietary intake. They wanted the program to have a visible and ongoing presence on campus, recommending repetitive advertising as cues to action to help them make healthier choices.

From this formative evaluation, it was apparent that these students supported a nutrition education program that encompassed multiple complementary population health strategies. Participants were particularly interested in a program that created an environment more conducive to healthy eating, provided education to enable them to make informed food decisions and offered "hands-on" opportunities to develop food

Table 1. FRESH program timeline and implementation outcomes

Year	Graduate student project	Immediate outcomes	Long-term or unexpected outcomes	Challenges
2010	Situational assessment and peer nutrition education program plan (using OHPP*)	<ul style="list-style-type: none"> Initiated partnership with food service personnel. Developed multi-strategy program plan, which expanded on the original PENS† program. <ul style="list-style-type: none"> Strategies included awareness building, program branding, information dissemination (FRESH ED), and fruit and dairy frequent-buyer cards to increase intake. 	<ul style="list-style-type: none"> Director of Food Service attended final GS project presentation. Trial program of fruit frequent-buyer cards. GS mentored to conduct formative evaluation of the program plan with first-year students in residence. <ul style="list-style-type: none"> Oral presentation at 2012 DC conference. 	<ul style="list-style-type: none"> Organizational structures to roll out program not yet in place. Program implementation pieces still missing from plan. Partnership still in infancy. No baseline data on university student population. Few procedures in place for program evaluation.
2011	Evaluation plan to assess food and nutrition environment of university campus (using OHPP)	<ul style="list-style-type: none"> Continued to develop partnerships. Compilation and adaptation of tools to assess university food and nutrition environment. 	<ul style="list-style-type: none"> Feedback from recent graduate that she was required to use OHPP in her first job as an RD and was well-prepared to do so. GS conducted environmental scan of food and nutrition environment on campus. <ul style="list-style-type: none"> Poster presentation at the 2013 CPHA conference. FRESH Club began recruitment and developed Mission, Vision, Values and organizational structure. 	<ul style="list-style-type: none"> Food service personnel may have been concerned about observation process of environmental scan. No readiness to implement initial program plan.
2012	Business case and implementation plan (using newly developed components of OHPP)	<ul style="list-style-type: none"> Fully implementable program plan now in place. Partnership with food service personnel now well established. FRESH Steering Committee established with key stakeholders. Financial commitment to implement program made by campus food service for 2012-2013. Online survey developed to assess students' baseline food- and nutrition-related skills and behaviours. 	<ul style="list-style-type: none"> Online survey of the entire student body released in Sept. 2012 with over 6000 responses. FRESH program launched in Oct. 2012. Media uptake from the student newspaper and local college radio station. FRESH Club increased recruitment of UGS. FRESH Club designed its own t-shirts. 	<ul style="list-style-type: none"> Willingness of food service to accept specific components of program plan required implementation of FRESH Approved prior to complete agreement on criteria. Not all aspects of program implemented as intended (e.g., in one dining hall, FRESH 4U used on menus instead of FRESH Approved). Potential for misunderstanding of program by front-line food service staff.
2013	Three add-on components to FRESH program were created (each including a situational assessment and program plan)	<ul style="list-style-type: none"> Three distinct sub-components created for FRESH program <ul style="list-style-type: none"> FRESH Approved criteria FRESH Vending FRESH Garden Discussion around replacing sour cream with a lower-fat version led to changes in other areas (e.g., yogurt, cottage cheese). <ul style="list-style-type: none"> Cottage cheese (4%) has been replaced with a 2% version. 	<ul style="list-style-type: none"> MScFN dietetic intern assessed 2013 menu items for FRESH Criteria and made recommendations for recipe modification. Healthier 4U Vending implemented. Smooth transition of FRESH Club student leaders. FRESH Club expanded recruitment and added new VP roles. Invitations to set up displays for university-wide open house for secondary school students. Special button on cash registers created to tally free fruits distributed through frequent buyer cards. 	<ul style="list-style-type: none"> Sign placement within vending machines was a logistic challenge. Proposed electronic menus required adaptive and reflexive problem-solving for inclusion of the FRESH Approved logo. Food costs may increase as a result of increased demands from frequent buyer cards – suppliers began to support free items. Long-serving food service personnel continue to make menu items as they always have without seeing need for recommended changes (e.g., using reduced fat ingredients, 1 oz of cheese vs 2 oz per sandwich).

* Online Health Program Planner.²⁰† Peer Education in Nutrition for Students.¹⁸

GS=graduate student; DC=Dietitians of Canada; RD=registered dietitian; CPHA=Canadian Public Health Association; UGS=undergraduate students; MScFN=Master's of Science in Food and Nutrition

skills. This insight provided valuable information prior to the implementation of the program.

Intervention description

On the basis of the graduate student program plan and the formative evaluation, FRESH (Food Resources and Education for Student Health) was established as a multi-strategy peer nutrition education program at our large university campus. Strategies included awareness building and information dissemination, as well as improvements to the campus food and nutrition

environment, as described in the following sections. There are several components to the program that are branded under the FRESH logo (Figure 1): FRESH ED, a peer nutrition education program increasing awareness and knowledge through interactive displays, facilitated discussions/education and hands-on cooking demonstrations; FRESH Approved, point-of-purchase labelling to highlight healthier residence menu options; FRESH 4U, branding for “grab ‘n go” fridges; and FRESH Fruit/Dairy Cards, a frequent-buyer program as an incentive for fruit and dairy consumption.

Table 2. Summary of FRESH program components by academic term

Program component	2011-2012 Term 2 Jan.-Apr. 2012 PENS*	2012-2013 Term 1 Sept.-Dec. 2012 FRESH launch	2012-2013 Term 2 Jan.-Apr. 2013 FRESH	2013-2014 Term 1 Sept.-Dec. 2013 FRESH	Totals Sept. 2012-Dec. 2013 FRESH
FRESH Club members (peer educators)					
Executive	n/o	5	5	7	17
General	6	14	14	50	78
With Food Handler's Certificate	n/a	n/a	n/a	48	48
Training/orientation, # of sessions (# of participants)	n/o	1 (6)	n/o	2 (50)	3 (56)
FRESH fundraising (# of healthy† cookie mixes sold)		n/o	n/o	168	168
FRESH displays (including health fairs)	3	11	9	14‡	34
FRESH ED # of sessions (# of participants)		5 (66)	5 (93)	4 (11)	14 (170)
With interactive cooking demonstration	5 (n/a)	1 (12)	9 (278)	3 (86)	13 (376)
FRESH website & social media					
Website traffic	n/o	n/a	1262	2759	4021
Facebook: # of "likes" (# of posts)	n/o	94 (30)	154 (69)	277 (22)	277 (121)
Twitter: # of "followers"	n/o	n/a	n/a	83	83
FRESH food environment initiatives					
FRESH Fruit/Dairy Cards					
# of cards returned for free fruit/dairy§ (% from residence dining)	430 (100%)	n/o	820 (98%)	1111¶ (90%)	1931

* Peer Education in Nutrition for Students.¹⁸† An oatmeal cookie recipe was modified (i.e., fruit puree was added to reduce fat and sugar content) to meet Eat Smart criteria.²²

‡ Over 400 direct contacts identified, with countless additional passers-by.

§ Dairy added in Sept. 2013 (redeemed for one whole fruit or 250 mL carton of milk).

|| Pilot test during Nutrition Month.

¶ 66% of which were redeemed for whole fruit. In addition, 389 cards were returned without having been recorded through the cash register.

n/o=not offered; n/a=not available.

Integral to the development of FRESH was the creation of the FRESH Club: undergraduate students in Food and Nutritional Sciences who, under the guidance of faculty advisors and the food service Nutrition Manager, work as a team to manage and deliver the program to their peers. Executive members use an online management system to organize club activities. The Lead Coordinator, a senior student, is assisted by the Assistant Coordinator, who will move into the Lead position following his/her work as the Assistant, to achieve program sustainability. FRESH peer educators undergo a rigorous application process, attracting high-quality students who are knowledgeable and reliable, which further enhances the program's reputation.

Intervention implementation

The main goals of our first year of implementation were to recruit FRESH Club members, launch the program, build awareness and troubleshoot implementation challenges. As the program gained awareness, additional high-priority areas were to develop personal skills and create supportive environments.

Awareness Building and Branding

To build awareness and create brand recognition of the FRESH program, the graduate students created a logo that is used on all communication platforms. Given that social media have become a powerful and popular trend with youth, a website (freshu.ca), and Facebook (<https://www.facebook.com/freshapproved>) and Twitter (https://twitter.com/FRESH_U_) accounts were developed. The interconnectivity of these platforms and the multiplicative effect of "liking" and "sharing" FRESH material make them ideal awareness-building channels.

Promotional items are essential components to build awareness and brand recognition; therefore, the graduate students created a lunch bag with inspirational quotes that encourage healthy eating, physical activity and positive lifestyle choices. These bags were distributed to residence advisors and given away as prizes for

**Figure 1.** FRESH program logo

nutrition trivia games played at display booths during the official launch. The undergraduate students in the FRESH Club also created t-shirts to develop ownership of the program, enhance accountability as FRESH peer educators and spark interest when they staffed display tables or facilitated presentations. Additional promotional material included FRESH buttons, highlighters, and postcards describing program components and social media contacts (e.g., FRESH Facebook and Twitter accounts).

Developing Personal Skills

At the individual level, students' personal health practices and coping skills were enhanced in a variety of ways. Informal education occurred as part of the awareness-building campaigns (e.g., messaging on table tents in dining halls, FRESH displays with trivia games). The FRESH Club increased awareness by organizing displays across campus (Table 2). More formal learning opportunities included FRESH ED sessions in residences as well as in response to requests from staff and student services (e.g., international students), covering topics such as Sports Nutrition, Eating Well on Campus, and Tips for Grocery Shopping in Canada. FRESH ED sessions also included interactive cooking demonstrations, in which students were guided to make their own nutritious and easy-to-make meal (e.g., stir fry). Interestingly, some sessions were requested by staff, suggesting a need to expand the target audience. To foster facilitation skills of the peer educators in the FRESH Club, the FRESH Facilitator Guide (created by graduate students) contained a student contract, FRESH ED expectations, strategies for dealing with difficult questions and a list of nutrition resources.

Creating Supportive Environments

Based on the Eat Smart® Choices Calculator,²² menus were redesigned to use the logo FRESH Approved to highlight healthier menu choices. Fridges that offer grab 'n go options were rebranded as FRESH 4U. FRESH Fruit/Dairy (frequent-buyer) Cards enhanced visibility of the FRESH brand while aiming to improve students' dietary behaviours (e.g., improved intake of fruit and associated nutrients such as vitamin A, vitamin C and folate) in order to address reported concerns of university students' diets.²³ These cards also appealed to food service managers, as whole fruit does not always sell before perishing. In September 2013, the "buy 9, get 1 free" card was modified, allowing students to redeem a completed card for a free whole fruit or a 250 mL milk carton. This program was offered in residence dining halls and eateries for off-campus students. With returned cards doubling term after term, the FRESH Fruit/Dairy Cards were considered a success (Table 2).

OUTCOMES

Since its launch in the fall of 2012, the FRESH program has reached students, staff and faculty through 34 FRESH Displays and 27 FRESH ED education sessions, 13 of which were interactive cooking demonstrations (Table 2). The total number of students reached at FRESH Displays is not quantifiable, although we have documented interaction with almost 550 participants through FRESH ED sessions. In addition, website and social media accounts have had a significant reach with over 4,000 website visits and 277 Facebook "likes". FRESH has improved the food environment for over 5,000 students in residence through daily exposure to FRESH Approved options on residence menus and in the FRESH 4U grab 'n go fridges. Furthermore, 1,931 FRESH Fruit/Dairy incentive cards have been returned for a free fruit or milk carton. In 2013, a new intervention aimed at providing healthier options for vending machines (Healthier 4U, brought to you by FRESH) was implemented and will be evaluated to determine whether the items are popular alternatives. Graduate students in Foods and Nutrition participate every year (cumulative $n=60$) in ongoing program development as part of the curriculum in community nutrition program planning and evaluation. Finally, the number of undergraduate peer educators has tripled since program launch with over 60% obtaining their Food Handler's Certificate.²⁴ Anonymous year-end evaluations from peer educators revealed that, in addition to skill development, social interaction with their peers was also an important benefit to them.

A trend survey of students' food- and nutrition-related skills and behaviours was conducted with the entire student population (>30,000) before the official launch of the program. With over 6,000 responses, the results (to be reported separately) will act as a baseline against which to compare future cross-sectional survey data.

The following program components have been created and are intended to be implemented: print media (posters and signage for cafeteria walls and tables); point-of-purchase education material (glass "cling-ons" at salad bars to suggest diverse combinations to promote increased fruit and vegetable intake); signage at SPICE-IT-UP stations (to flavour food without salt); and videos (e.g., students using the FRESH Fruit/Dairy Cards) for residence dining areas.

CONCLUSION

Post-secondary students are an at-risk population as they experience a significant life transition at a time of heightened vulnerability for risky behaviour. The slow maturation of the brain's cognitive-control system suggests that interventions designed to change the contexts within which risky behaviour occurs may be more successful than changing the way adolescents/young adults think about risk (i.e., knowledge, beliefs or attitudes).²⁵ Students also have increased independence with respect to food and financial resources, yet often lack food and household management skills, which poses significant public health concerns. This is compounded by the sheer numbers involved: there are more than 1 million students on university and college campuses across Canada.²⁶ A university campus is an ideal location for a comprehensive peer nutrition education intervention, as it has the potential to improve the health of a sizeable and diverse population (students, staff and faculty), and it can draw upon the expertise of faculty, staff and students. However, interventions must be comprehensive, sustainable and relevant; therefore, it is important to have programs created by and for students and to engage the appropriate stakeholders and decision-makers as partners. Food service providers have been overlooked as possible partners for monitoring the school food environment, and it has been assumed there is low political will to develop or implement food or nutrition policy in university settings.²⁷ The unique partnership between FRESH and campus food services has also enhanced relationships with suppliers, such as Green City Produce and Agropur, who partner in the FRESH Fruit and Dairy card initiative. Similar future partnerships are also possible.

The Intervention Research approach and the Population Health Promotion Model, including working with intersectoral partners, are excellent frameworks upon which to build a multi-strategy, multi-level, evidence-based, peer nutrition education program in a university setting; however, it is not without its own set of challenges and opportunities. The time and effort devoted by many stakeholders has been significant. It is a balancing act to guide the graduate students through program planning using a theoretical framework while ensuring that they take into account the logistical concerns faced by food service managers. A great deal of flexibility, respect and trust among partners is required to move from program plan to implementation. It has also been important to ensure that front-line food service staff and peer educators are adequately informed about program components to minimize implementation glitches.

Overall, it has been a rewarding endeavour for the students engaged in this project. Every cohort of graduate students has experienced pride in having developed such a comprehensive program with multiple strategies. Their project-based course has provided opportunities for them to develop their critical thinking and elaboration abilities to a higher degree than more traditional assignments.^{21,28} In addition, the experiential learning opportunities for the undergraduate students have enabled them to develop practical skills for future dietetic internships and employment, including enhanced public speaking, interpersonal and group facilitation skills; leadership and management skills; accountability for their own performance; and the ability to creatively apply what they have learned in the classroom to new contexts.⁸

FRESH has the potential to enhance the health of university student populations by utilizing a population health approach, experiential learning opportunities and an intersectoral partnership with campus food services. The outcomes include not only enhanced information dissemination but also beneficial changes to the campus food environment.

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RÉSUMÉ

OBJECTIFS : Le programme FRESH (*Food Resources and Education for Student Health*) d'éducation alimentaire par les pairs propose à des étudiants de premier cycle et de cycles supérieurs un apprentissage expérientiel pour améliorer l'alimentation et l'environnement nutritionnel sur le campus et promouvoir des comportements sains dans la population étudiante universitaire.

POPULATION CIBLE : Les étudiants d'université en général, et les étudiants de premier cycle et des cycles supérieurs des programmes d'alimentation et de nutrition, ainsi qu'en tant qu'éducateurs auprès des pairs et que concepteurs du programme, respectivement.

LIEU : Un vaste campus universitaire dans le sud-ouest de l'Ontario.

INTERVENTION : Un programme d'éducation alimentaire par les pairs, utilisant un éventail de stratégies populationnelles et de partenariats intersectoriels, a été créé par et pour des étudiants d'université, mentorés par le corps professoral et le personnel des services alimentaires. Les stratégies de santé des populations employées ont été la sensibilisation et le design global du programme; le perfectionnement des compétences personnelles par l'éducation alimentaire par les pairs et par des démonstrations culinaires pratiques; et la création de milieux favorables au moyen de programmes d'incitation à consommer des fruits et des laitages, ainsi que l'étiquetage nutritionnel des menus sur le lieu de vente.

RÉSULTATS : Le programme FRESH a joint les étudiants, le personnel et le corps professoral par l'entremise de plus de 60 présentoirs interactifs et séances de sensibilisation. Le site Web et les médias sociaux ont aussi eu un auditoire important : plus de 4 000 visites du site Web et 277 « J'aime » sur Facebook. Le programme a par ailleurs amélioré l'environnement alimentaire de plus de 5 000 étudiants en résidence; entre autres, 1 931 fiches de fruits et de laitages FRESH ont été échangées pour des fruits frais ou des berlingots de lait. Les étudiants diplômés des programmes d'alimentation et de nutrition (cumulativement n=60) continuent de participer chaque année au développement du programme. Les éducateurs auprès des pairs perfectionnent leurs techniques de leadership, d'art oratoire et de facilitation sociale et leur capacité d'appliquer avec créativité dans de nouveaux contextes ce qu'ils apprennent en classe.

CONCLUSION : Des connaissances nutritionnelles accrues et un environnement alimentaire amélioré pourraient, à long terme, favoriser la santé des étudiants d'université.

MOTS CLÉS : sciences/enseignement de la nutrition; étudiants; université; promotion de la santé; groupe de pairs