ORIGINAL ARTICLE

YOUNG STUDENTS AS PARTICIPANTS IN SCHOOL HEALTH PROMOTION: AN INTERVENTION STUDY IN A SWEDISH ELEMENTARY SCHOOL

Katja Gillander Gådin [1], Gaby Weiner [2], Christina Ahlgren [3]

[1] Department of Health Sciences, Mid Sweden University, Sundsvall, Sweden
[2] Centre for Educational Sociology, University of Edinburgh, Edinburgh, Scotland
[3] Department of Community Medicine and Rehabilitation, Umeå University, Umeå, Sweden

Received 10 December 2008; 12 June 2009

ABSTRACT

Objectives. The aim was to analyse if young students could be substantive participants in a health-promoting school project. The specific aims were to analyse the changes the students proposed in their school environment, how these changes were prioritized by a school health committee and to discuss the students' proposals and the changes from a health and gender perspective.
Study design. An intervention project was carried out in an elementary school with students (about 150) in Grades 1 through 6. The intervention included small-group discussions about health promoting factors, following a health education model referred to as "It's your decision." At the last of 6 discussions, the students made suggestions for health-promoting changes in their school environment. A health committee was established with students and staff for the purpose of initiating changes based on the proposals.
Methods. A content analysis was used to analyse the proposals and the protocols developed by the health committee.
Results. The analysis showed 6 categories of the students' proposals: social climate, influence on schoolwork, structure and orderliness, security, physical environment and food for well-being. Their priorities corresponded to the students' categories, but had an additional category regarding health education.
Conclusions. Principles that guide promoting good health in schools can be put into action among students as young as those in Grades 1 through 6. Future challenges include how to convey experiences and knowledge to other schools and how to evaluate if inequalities in health because of gender, class and ethnicity can be reduced through the focus on empowerment and participation.
(Int J Circumpolar Health 2009; 68(4): 498–507)

Keywords: empowerment, participation, elementary school, gender

INTRODUCTION

Health-promoting school strategies have been adopted in many countries in Europe (1) as well as in other parts of the world (2). However, a wide variety of strategies have emerged in different countries due to diverse educational and cultural contexts, even though shared principles include student participation, empowerment and democracy (1). Simovska (3), for example, reports on a successful health-promoting project in Denmark, in which students from 13 to 16 years of age were active participants. However, there are few projects involving younger students.

In using the concept "participation" in health promotion, it is important to be precise about its meaning. Simovska (4) distinguishes between "genuine" and "token" participation where the former has a focus on personally meaningful learning and development of action competence, while the latter refers to a more traditional, individualistic approach with a focus on behavior modification. Participation has also been defined as a continuum, comprising 4 different forms (5). This can be exemplified in the school context as follows:

(1) *Participation as consultation*: Asking the students what they think of decisions to be taken by the teachers/authorities. (2) *Participation as a means*: The students are invited to participate in a process, with the purpose of reaching a specific goal decided by the authorities, for example, how pupils can eat healthier food. (3) *Substantive participation*: The students are invited to be active in prioritizing change and defining problems, as well as in the change process. (4) *Structural participation*: The students take the initiative on what changes should take place and have control over the process. The present project was planned according to the third form. This fourth form can be seen as comparable to the sixth level in Hart's (6) ladder of participation, that is, adult-initiated, shared decisions with children, with the aim to give children a feeling that they have the competence and confidence to engage with others to change their school environment.

If schools aspire to be democratic as they do in Sweden, it is argued that students need to be involved in the decision-making processes of the school. The process towards democracy, however, can lead to transformations in other areas of life; at the individual level, as one's knowledge of how to improve health increases, and at an organizational level, as structural change offers support for individual change (7).

"Empowerment" is another concept used to denote the ability of an individual gaining knowledge and control over personal, social, economic and political forces for the purpose of taking action to improve his/her life conditions (8). However, it is frequently disregarded that women as a group are more likely than men to lack influence, power and control over their everyday lives and their roles in society (9). Therefore, in order to achieve a health-promoting school, the school must be acknowledge that boys and girls do not have equal possibilities of developing competence to act on their own behalf and to gain knowledge that is beneficial to them, due to asymmetric gendered power relations. Research suggests, however, that schools can have an influential role in levelling out socio-economic differences in health (10) but

are less likely to be successful in levelling out gender differences in health. This is indicated by boys who report a more positive health status, absence of psychosomatic complaints, absence of serious health problems, less psychoactive medicine, higher satisfaction with their own body and absence of depression compared with girls. These gender differences are reported in a higher degree among older students than among younger ones (11).

Gender research in education shows that school hierarchies exacerbate gender differentiation in a number of ways and also operate as tools for asymmetric power relations between the students (12,13). It also follows that gendered hierarchies and strategies are likely to have consequences for health and health behaviour. These processes tend to appear at an informal level, where teachers and students interact, interpret and apply their own understandings of school rules and norms in relation to gender (14).

Empowerment through active participation of students may also increase the influence of those who usually have little influence as a result of the interplay of age, gender, socioeconomic background and ethnicity. Empowerment among younger students (as with older students) requires that adults consider the students' viewpoints as valid and accept that young people are competent to make proposals for improvements in their own school environment. It has been argued that there is a need for more knowledge about the school as an agent of equality and change in power relations among students and of developing models that put students' health in a broader social context (15). Importantly, in this paper, school health promotion is regarded as a process and activity, that is, as a way to increase empowerment for students not only through enhanced competence at an individual level but also through a collective action that can improve the school environment in accordance with Nutbeam (16).

This paper presents an intervention study based on a participatory action research approach.

The intention of this paper is to report on a health-promotion project in an elementary school, the main aim of which was to increase participation and empowerment of its students. Other aims included analysing students' proposals for change to their school environment and discussing these proposals and the changes that were realized from a health and gender perspective.

MATERIAL AND METHODS

The social context

The school in which the intervention was conducted had about 150 students, including 6-year-old children attending a preschool class. The school is situated about 10 kilometres from a Swedish town of about 96,000 inhabitants. The catchment area can be defined as socially unstable, with many families frequently moving in and out, a substantial proportion of low-income families and a high proportion of children with divorced parents, compared to other schools in the municipality. At the time of the intervention, approximately 12% of students had one or both parents born outside Sweden. One reason given by the staff for joining the project was that it was believed that many children at the school were socially disadvantaged and were at risk of having future health problems.

Intervention activities

It is argued that in order to enhance the possibility for schools to be health-promoting, a program drawing on theoretical models is needed, in which health activities are included in school curricula and also in professional development for teachers and other school staff (17).

The intervention started with a 5-day program of information about health, gender theories and gender pedagogy for all teaching staff, in order create a common knowledge-base and to introduce the teachers to the health education model called "It's your decision" that was used in the project. Thereafter, staff members were encouraged to reflect upon their own and other people's practices in order to develop an increased awareness about their treatment of boys and girls in school, how and why it varied and their own practice in relation to gender. With support from the researcher (KGG), the teachers organized thematic weeks in an effort to increase gender awareness among the students. On 6 occasions, ordinary schoolwork was replaced by pupil-centred group work on health issues. For this, a modified version of It's your decision" model was used (18). The method involved the following: all the students (Grades 1 through 6, age 7 to 12 years) participated in age- and gender-segregated groups consisting of 5 to 8 pupils, each led by a teacher. The first 5 meetings were taken up with discussions about health and factors at school related to health, where students reflected on their role as classmates, for example, and their personal positive and negative qualities as a school friend. In the final session, students were encouraged to suggest proposals for what they wanted changed in the school in order to enhance their health. Each group recorded their proposal on a large sheet of paper, which was then posted in the dining hall to be seen by everyone.

A second aspect of the project was the establishment of a school health committee. This was made up of 6 pupils, 1 from each grade, plus 2 parents, 2 school staff, the principal and the school nurse. Their task was to prioritize the students' proposals and develop strategies to realize improvements in the school environment. The time period from the initial training of the teachers to the first meeting of the health committee was about a year. It was at this point in time that the health committee started to prioritize the student proposals and make changes to the school.

"It's your decision"

The health education model adopted for the project was originally developed for 15 year-olds in their school (18), but the principles can be applied to different settings and for different ages. The method can be distinguished from the traditional top-down research approach in that the students are expected to integrate knowledge about health into their everyday lives, decide what is beneficial for their health and choose health changes for the present rather than for an indefinite future. The teachers are expected to guide the students rather than evaluate their proposals for change. Evaluation of this particular method suggests that changes in student health behaviours occur in areas other than those which they prioritize, particularly for girls from working-class families (19,20). Thus, the students are expected to draw on their own perspectives to define and develop health strategies for change.

Data collection and analysis

Data for the analysis consist of 41 proposals for change from students, developed during group work using a modified version of the "It's your decision" model. In addition, the analysis draws on the protocols/documentation from 8 meetings of the health committee. A content analysis was carried out following that developed by Weber (21). First, the proposals were coded according to the problem addressed and the changes the students wanted to achieve; then those on similar topics were grouped together into categories. The protocols from the health committee were also analysed in order to show which proposals had been prioritized and the extent to which they led to changes at the school. The purpose of some proposals was unclear to the researchers — for example, a new school bell or the introduction of a school uniform — and these were discussed with the students at one of the health committee meetings. Thus, it was determined that the proposal for a new school bell was made to ensure that it did not sound like the fire alarm (as was the case at the time) and the proposal for a school uniform was made to avoid teasing about the clothes students chose to wear. The researchers participated in 2 other health committee meetings, where they asked questions about the interpretations of the data and to validate the analysis. The study was approved by the ethical committee at Umeå University as being in accordance with ethical standards (Dnr 03–120).

RESULTS

Six different categories were identified from the students' proposals for change and 7 categories were identified from the decisions of the health committee (see Fig. 1). The 2 sets did not correspond precisely, although similar categories emerged, with one exception, that of "health education," which was missing from the student proposals. The age of the pupils did not seem to influence the suggested proposals.

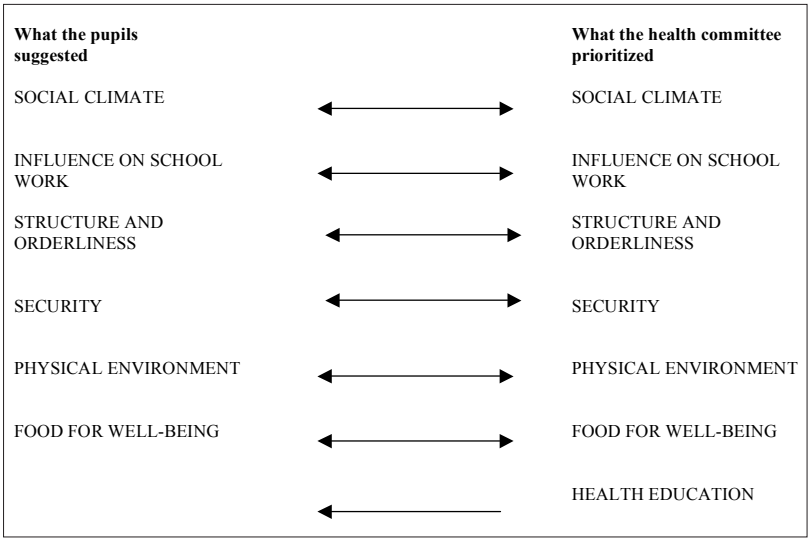

Figure 1. Categories emerging from the analysis of the students' proposals and priorities of the health committee.

Social climate

In the category of "social climate," suggestions mainly related to the problematic behaviour of some students regarding harassment and violence. The students wanted to reduce the number and intensity of fights and arguments, to have more attention paid to name-calling and to increase friendliness between students. The introduction of a school uniform was included in this category.

Influence on schoolwork

The students wanted to be involved in planning their own schoolwork, have more breaks during the school day and more school time spent out-of-doors. The latter included the desire to visit places other than the usual excursion to the forest. Other proposals in this category included comments on books and working material.

Structure and orderliness

Suggestions in this category included more structure and order in the dining hall and classroom and more activities outside the school. It was suggested, for example, that students should be expected to raise their hands in class instead of shouting out answers, walk in line when going on a visit outside the school, be quieter in the dining hall and not run along the corridors when putting clothes on to go outside.

Security

Here, the students mentioned the wish for a new school bell, since the fire alarm and the school bell had the same sound and there was a fear that the fire alarm might be ignored.

Physical environment

Suggestions here included new toys and equipment for the school yard, for example, a football net, a "bandy" goal and a climbing frame. Proposals regarding the physical environment were mainly related to activities undertaken by students during their breaks, but there was also a suggestion to have more windows open during class time.

Food and sense of community

This was a popular category in which the students demonstrated their interest in food and described a wish for better food to be provided by the school canteen. Suggestions included changing certain dishes, a greater variety of vegetables and daily portions of fruit. Students also proposed that there should be enough food to go around, particularly when popular dishes were on the menu and students were likely to eat more than usual. It was also suggested that ice cream should be offered on Fridays and that in between meals snacks should be allowed. An occasional pizza day would also be well received. The proposal for pizza was discussed in the health committee and was interpreted as being more about developing a festive atmosphere than about just eating.

Decisions for change in the health committee

The social climate

Following the scrutiny of student proposals, the next step was to develop a plan to improve the social climate of the school and the social relations among the students. An action plan against bullying was actualized, in which it was decided that adults at the school should pay more attention when rowdiness occurred

and intervene earlier. Also, the presence of more adults was needed on the playground during breaks. Peer support, such as older students supporting their younger peers, was already a part of the school policy, but it was decided to give the older students more responsibility. Another decision taken was to continue working with health-related factors in small groups, using, for example, role play when exploring student relations, and to always end such sessions with discussion and reflection. The first week of the autumn term was designated for health-related activities. This might include introducing traditional playground games in which all students could participate.

Influence on schoolwork

It was agreed to undertake a test project involving students' taking more control over what they do in school. The test involved Grade 3 students planning their own schoolwork every Monday and evaluating what had been achieved on the following Friday. To maintain the existing momentum, it was decided that the group work should be repeated every third year using the modified version of "It's your decision," which would provide the basis for new health committee priorities.

Structure and orderliness

An electric "ear" was installed in the dining hall to notify the students when the noise level became too high. The "ear" is green when the sound level is acceptable but turns red when it becomes too loud. A health committee meeting focusing on the winter period carried out a review of the rules for snowballing, ice slides, et cetera.

The physical environment

The first meeting of the committee prioritized actions that would be immediately visible to the students. The head teacher reallocated financial resources in order to purchase new equipment for the school playground, such as footballs and nets. It was also decided to paint a new hopscotch outline, plant flowers on the school grounds and allocate a whole school day for staff and students to work together to put the playground in order (and afterwards to have a "hot dog" meal.)

Food for well-being

Another decision to show that the students' suggestions were being taken seriously was to serve pizza at school on World Book Day,[1] a decision to meet the students' wish for encouraging a sense of community. Additionally, the students were asked to make a list of 5 of their favourite dishes, which were then used by dining hall staff in their preparation of menus. The student proposal for the provision of fruit was seen as particularly costly. However, the chief education officer while on a visit to the school supported this suggestion, saying that "the point of departure should always be that nothing is impossible," thus encouraging the students to continue to work for fruit being served at school.

Health education

A parent representative on the health committee highlighted the negative effects of too much sugar and "fast" carbohydrates on the body. On one occasion, a breakfast was arranged in the dining hall for all students before the start of the school day, with the idea of showing how

[1] Every year since 1996, UNESCO has celebrated "World Book and Copyright Day" on 23 April to promote reading, writing and the protection of intellectual property.

easy it is to put together a healthy breakfast. This activity was much appreciated by the students, and the health committee therefore decided that the school nurse would visit each class, provide information on health issues and guide the students in health dialogues. One result of all of this was that the children started to ask for healthier snacks at home.

DISCUSSION

This study has shown that a health-promoting process can start among students as young as 7 years of age in relation to their own school environment. The study also showed that students from Grades 1 through 6 can be substantially involved not only in proposing changes and defining goals for improved health but also as active participants in the change process. The health committee successfully achieved a number of changes in accordance with the students' suggestions. Their work also resulted in changes in areas not identified by the students, that is, health education. However, despite the focus on gender at the start of the project and in terms of the intervention proposed, students' suggestions for change largely ignored an explicit focus on gender.

Even if we see health promotion as a process and an action, it is nevertheless possible that the method applied will lead to improvements in the school environment, with positive consequences for the students' well-being and positive changes in health behaviour (21), as discussed below.

A main priority for the students in this intervention project was to improve the social climate in their school. Intensive work to counter bullying and improve the social climate in general can be expected to have positive consequences for students' present health (22,23). It is also possible that an improved social climate will have consequences for students' health behaviour (24).

A high degree of influence at school has been associated with low levels of stress and less tiredness, somatic problems (for Grade 3 students) and stress, as well as higher self-esteem in Grade 6 students (25). Thus, the school's continued attempts to increase student influence on their own schoolwork could be beneficial for their health.

The present study suggests that a lack of structure and orderliness in school leads to rowdiness and difficulties in concentration, and also has consequences for the social climate in terms of more conflicts among the students. Pupils who experience rowdiness at school are, for example, more tired than other students (25).

A playground that encourages physical activity as well as positive interaction between the students is likely to have beneficial consequences for the school's social climate. As well, playthings and equipment that are more readily available during breaks are likely to increase student activity, particularly for girls, who are found to be less physically active during breaks compared with boys (26).

Many student proposals were related to food in one way or another. Possible consequences for students who eat a proper lunch are l that they feel better, they can concentrate on their school work in the afternoon (27) and they derive greater pleasure from the act of eating. In the long term, it lays the groundwork for better eating habits in general.

In high-income countries, there is increasing concern about obesity among children, and it is assumed that increased sugar and fat intake as well as reduced physical activity have played a major role (28). Therefore, a parent's suggestion to the health committee to teach students about the negative effects of sugar was a commendable way to encourage students to eat less sugar. However, it is also an example of more traditional forms of health education, which have been shown to be less effective (15). A case study by Simovska (29) shows that students belong to a democratic rather than a moralistic health education discourse and that they address social determinants of health when they get the opportunity to be a part of a genuine participation discourse, similar to the students in the present study.

A weakness of this study was that it was not possible to discern the individual consequences for the students of the intervention, nor was information available on student proposals in relation to their socio-economic background or gender.

Conclusions and implications for health promotion

A conclusion from this study was that the principles that guide health promoting projects in schools can be put into action among students as young as those in Grades 1 through 6. Future challenges in health-promoting projects are how to convey experiences and knowledge to other schools, and also to evaluate if inequalities in health due to differences in gender, class and ethnicity can be reduced through the focus on empowerment and participation in schools.

Acknowledgements

This work was supported by the Swedish Research Council and the Swedish Council for Working Life and Social Research. We also want to thank the students and the staff at the intervention school and the Municipality of Sundsvall for financial support of the project.

REFERENCES

1. Jensen B, Simovska V. Models of health promotion schools in Europe. Copenhagen: WHO, Regional Office for Europe; 2002. 85 pp.
2. Lynagh M, Knight J, Schofield MJ, Paras L. Lessons learned from the Hunter Region Health Promoting Schools Project in New South Wales, Australia. J Sch Health 1999;69(6):227–232.
3. Simovska V. The changing meanings of participation in school-based health education and health promotion: the participants' voices. Health Educ Res 2007; 22(6):864–878.
4. Simovska V. Student participation: a democratic education perspective-–experience from the health-promoting schools in Macedonia. Health Educ Res 2004;19(2):198–207.
5. Baum F. The New Public Health Second Edition ed. Oxford: Oxford University Press;2002. 607 pp.
6. Hart R. Stepping back from "the ladder": reflections on a model of participatory work with children. In Reid A, Jensen BB, Nikel J, Simovska V, editors. Participation and learning. Perspectives on education and the environment, health and sustainability. New York: Springer; 2008. 19-31.
7. Mogensen F. Critical thinking: a central element in developing action competence in health and environmental education. Health Educ Res 1997;12(4): 429–436.
8. Israel B, Checkoway B, Schultz A, Zimmermann M. Health education and community empowerment: conceptualizing and measuring perceptions of individual, organizational and community control. Health Educ Q 1994;21(2):149–170.
9. Lopez-Claros A, Zahidi S. Women's empowerment: Measuring the global gender gap. Geneva: World Economic Forum; 2005. 21 pp.
10. West P, Sweeting H. Evidence on equalisation in health in youth from the West of Scotland. Soc Sci Med 2004;59(1):13–27.
11. Vuille JC, Schenkel M. Social equalization in the health of youth. The role of the school. Eur J Public Health 2001;11(3):287–293.
12. Thorne B. Gender play. Boys and girls at school. Buckingham: Open University Press; 1993. 237 pp.

13. Connell R. Teaching the boys: new research on masculinity, and gender strategies for schools. Teachers College Record 1996;98:207–235.
14. Gordon T. Citizenship, difference and marginality in schools: spatial and embodied aspects of gender construction. London: Falmer Press UNESCO Publishing; 1996. In: Murphy PF, Gipps CV, editors. Eqnity in the classroom. Towards effective pedagogy for girls and boys. 33-45 pp.
15. Gillander Gådin K, Hammarström A. "We won't let them keep us quiet..." Gendered strategies in the negotiation of power – implications for pupils' health and school promotion. Health Promot Int 2000;15(4): 303–311.
16. Nutbeam D. Promoting health and preventing disease: an international perspective on youth health promotion. J Adolesc Health 1997;60:318–323.
17. St Leger L. The opportunities and effectiveness of the health-promoting primary school in improving child health – a review of the claims and evidence. Health Educ Res 1999;14:51–69.
18. Arborelius E. "It is your decision". A different health guide. [in Swedish]. Linköping: Linköping University, Faculty of Health Sciences; 1988. 39 pp.
19. Arborelius E, Bremberg S. "It is your decision". Behavioural effects of a student-centered health education model at school for adolescents. J Adolesc 1988; 11:287–297.
20. Viljoen CK, Kirsten TGJ, Haglunf B, Tillgren P. Towards the development of indicators for health promoting schools. In: The health promoting school: international advances in theory, evaluation and practice. Clift S, Jensen BB, editors. Copenhagen: Danish University Press; 2005. 75-84.
21. Weber R. Basic Content Analysis. 2nd ed. Newbury Park, Ca: Sage; 1990. 95 pp.
22. Due P, Holstein B, Lynch J, Diderichsen F, Gabhain SN, Scheidt P, et al. Bullying and symptoms among school-aged children: international comparative cross sectional study in 28 countries. Eur J Public Health 2005 Apr;15(2):128–132.
23. Gillander Gådin K, Hammarström A. Do changes in the psychosocial school environment influence pupils' health development? Results from a three-year follow-up study. Scand J Public Health 2003;31(3): 169–177.
24. Rosendahl K, Galanti M, Gilljam H, Bremberg S, Ahlbom A. School and class environments are differently linked to future smoking among preadolescents. Prev Med 2002;34(6):649–654.
25. Gillander Gådin K, Hammarström A. School-related health–a cross-sectional study among young boys and girls. Int J Health Serv 2000;30(4):797–820.
26. Verstraete S, Cardon G, De Clercq D, De Bourdeaudhuij I. Increasing children's physical activity levels during recess periods in elementary schools: the effects of providing game equipment. Eur J Public Health 2006;16(4):415–419.
27. Neely G, Landstrom U, Bystrom M, Junberger ML. Missing a meal: effects on alertness during sedentary work. Nutr Health 2004;18(1):37–47.
28. Dehghan M, Akhtar-Danesh N, Merchant A. Childhood obesity, prevalence and prevention. Nutr J 2005; 4:24.
29. Simovska V. Learning in and as participation: a case study from health-promoting schools. In: Participation and learning. Perspectives on education and the environment, health and sustainability. Reid A, Jensen BB, Nikel J, Simovska V, editors. New York: Springer; 2008. 61-80 pp.

Katja Gillander Gådin, PhD
Department of Health Sciences
Mid Sweden University
SE- 870 51 Sundsvall
SWEDEN
Email: katja.gillander-gadin@miun.se