Samdal, Oddrun
Viig, Nina Grieg
Wold, Bente

Health promotion integrated into school policy and practice : experiences from the implementation of the Norwegian network of health promoting schools

http://hdl.handle.net/11067/96
https://doi.org/10.34628/qc5h-ta54

HEALTH PROMOTION INTEGRATED INTO SCHOOL POLICY AND PRACTICE: EXPERIENCES FROM THE IMPLEMENTATION OF THE NORWEGIAN NETWORK OF HEALTH PROMOTING SCHOOLS

PROMOÇÃO DE SAÚDE INTEGRADA NAS POLITICAS E PRÁTICAS DA ESCOLA: EXPERIÊNCIAS DA IMPLEMENTAÇÃO DA REDE DE ESCOLA PROMOTORAS DE SAÚDE NA NOROEGA

Oddrun Samdal[a]
Nina Grieg Viig[a,b]
Bente Wold[a]

Abstract: This paper aims to identify prerequisites for successful implementation of the health promoting school principles as identified in the Norwegian network of Health promoting schools. The analysis is based on project documents and interviews with teachers and principals. The findings highlighted the following core dimensions in the implementation process: systematic approach taken to planning and implementing the project, active leadership balancing top-down and bottom-up processes as well as providing resources and adequate structures for time management, building on previous practice and competence to ensure familiarity and adequate level of demanded change, stimulation of teachers' motivation, collaboration with relevant partners and exchange of experiences with other schools in the national network, and the integration of the health promoting school initiative and activities in school policy documents ensuring that approaches run independently of single teachers. These elements have also been identified as vital for the sustainability of the health promoting initiative at the schools participating in the Norwegian network of health promoting schools.

Keywords: health promoting schools, implementation, systematic approach, sustainability

---

[a] University of Bergen, Department of Health Promotion and Development Address is the same Research Centre for Health Promotion – Christiesgate 13 – 5015 Bergen – Norway
oddrun.samdal@psyhp.uib.no
bente.wold@psyhp.uib.no
[b] Bergen University College, Faculty of Education, 5096 Bergen, Norway
Email: nina.viig@hib.no

Resumo: Este artigo tem como objectivo identificar pré-requisitos para uma implementação bem sucedida dos princípios da promoção da saúde escolar identificados na rede norueguesa de Escolas Promotoras de Saúde. A análise é baseada em documentos do projecto e entrevistas com professores e directores. Os resultados sublinham as seguintes dimensões fundamentais no processo de implementação: uma abordagem sistemática no planeamento e implementação do projecto; liderança activa, equilíbrio entre processos top-down e bottom-up, bem como, o fornecimento de recursos e estruturas adequadas para a gestão do tempo; construir com base na prática anterior e competência para garantir a familiaridade e um nível adequado que a mudança exige; promover a motivação dos professores; colaboração com parceiros relevantes e troca de experiências com outras escolas da rede nacional, e a integração de iniciativas e actividades de promoção da saúde escolar nos documentos da política da escola, de modo a assegurar que as abordagens ocorrem independentemente de professores especificos. Estes elementos também foram identificados como vitais para a sustentabilidade da iniciativa de promoção da saúde nas escolas que participam na rede norueguesa de escola promotora de saúde.

Palavras-chave: escolas promotoras da saúde, a implementação, a abordagem sistemática, a sustentabilidade

FRAMEWORK AND PREREQUISITES

Health promotion in school can be seen to have four major objectives. First of all, promoting health and well-being among all representatives of the school community may be regarded as an important objective in itself based on the intention that students should experience best possible health and well-being. Secondly, health and well-being may be considered an important prerequisite and resource for learning as it facilitates concentration with school work, and general well-being is also likely to positively influence students' interest in learning. Similarly, teachers experiencing high job satisfaction and perceiving good health and quality of life, will have more energy to fulfil their teaching tasks in a best possible way. Thirdly, students' involvement in health promotion activities may also be considered an important contributor to their health as well as their social development as they are challenged to take responsibility for everyone's health and well-being in the school society. Finally, research also suggests that students' present health and well-being is an important indicator of their adult health and well-being, and hence it is vital to contribute to a best possible development (Samdal, 2008).

Health promotion in school is about creating a supportive environment for development and learning, as well as the traditional health education approach covered in subjects addressing the cross-curricular topic of health (e.g. physical education, home economics, biology, social science and religion) (Samdal, 2008).

While the health education approach frequently builds on pre-package programmes with clear objectives and activities, the health promotion approach does not have the same step by step procedures (Deschesnes et al., 2003; Lister--Sharp et al., 1999; Stewart-Brown, 2006). Rather the health promotion strategy builds on the notion that schools should develop their approach based on their individual needs and capacity involving all relevant stakeholders. Therefore, aiming at integrating health promotion in the school policy, an important criterion will be to ensure a systematic approach taken by the whole school, and thus avoiding that health promotion in school solely depends upon the single teacher's priorities for the classroom activities.

In the European Network of Health Promoting Schools long term experience in implementation of health promotion has developed since its origin in 1992 (Bowker and Tudor-Smith 2000; Inchley et al., 2007; Leurs et al., 2005; Turunen et al., 2004, 2006;). Collection of national experiences is therefore crucial in understanding the common and underpinning principles of successful implementation of health promotion in schools. This paper therefore sets out to identify how the Norwegian health promoting schools implemented the health promoting school principles and thereby add to the current knowledge in the field.

Prerequisites for a successful implementation of health promoting principles

Green and Kreuter (2005) have identified a set of factors that influence implementation of health promotion interventions. These include i) staff commitment, values, and attitudes; ii) program goal(s); iii) familiarity; iv) complexity; v) space, if special type of activities are requested, and vi) community circumstances, quality assurance, training, and supervision.

The teachers and other staff is core in both initiation and implementation of concrete activities in school and their commitment, values and attitudes are therefore crucial to the effort and thereby degree of implementation (Tjomsland et al., 2009a, 2010; Viig et al., 2010). Implementation research also highlights the importance of alignment processes to develop teachers' commitment and investment in the programme (Donaldson, 2001; Elias et al., 2003; Felner et al., 2001; Larsen and Samdal, 2008). Through the initiation phase it is therefore important to develop motivation and personal interest among the participants. A crucial element in this process may be to develop a common understanding and language for the project and its ideas and priorities. Hence, all members of the school community should participate in defining and developing the project's framework and actions. Consensus around these issues is important in order to

create and maintain motivation and interest for the project. The participants' motivation will also depend upon how useful they evaluate the project to be and what work conditions it provides. In addition to addressing aims and content of activities, priority needs to be given to developing competence important to achieve the aim of the project.

Implementation research also hightlights that there needs to be a match between aim of the programme or approach and the overall goals and visions of the organisation (Deschesnes et al., 2003). Further, the clearer and better defined the aim of a project is, the easier it will be to integrate it in the daily school practice. This is in particular related to the fact that clear aims make it possible to develop objectives and actions that can have an impact on the aims and thus the daily life of school. Unclear and wide aims provide a more unspecific framework and are thus more difficult to work with. On the other hand, a wide framework allows the participants themselves to have more influence on defining the aims of the project. Moreover, a project that coincides with the existing and established aims of an enterprise will face less resistance during the implementation than a project that requires priority of a new approach above existing objectives. The established aim and practice of school is related to student mastery and social and academic development. Addressing improvement of well-being in school will thus have to be valued as important for this overall aim of schooling.

Factors regarding familiarity and complexity of an intervention (Green and Kreuter, 2005) pinpoint the need for the staff and the organisation to feel competent to do what is needed and wanted. Interventions/programs that do not demand excessive changes of the present situation, are more easy to implement than those demanding extensive reorganisation (Kjellberg and Reitan, 1995). However, challenging existing ways and means of priority and action is also an important function of a project aiming at change and development.

Space is by Green and Kreuter (2005) highlighted as a requirement for specific type of actions. For instance if the implementation addresses promotion of physical activity and healthy eating the school needs space to provide a selection of physical activities during the school day and space for a canteen to serve or sell healthy foods.

The last factor underpinned by Green and Kreuter addresses the need to secure different type of resources to facilitate the implementation. One type of resource is competence and time (and sometime also economic resources) from relevant collaborators in the local community such as the health services, non-governmental organisations or parents. Furthermore, it may be important to

involve representatives from school authorities at municipal and regional level. The major function of the latter two bodies is to provide guidance and support developmental processes at school level. They may thus represent an important link between the different partners and contribute to structure the processes of the project and give advice on financial issues. Another resource facilitating implementation is teacher training to give teachers tools they can use in their interaction with the students. Furthermore, leadership strategies addressing quality assurance of actions and outcome may stimulate the implementation process (Daft, 1999). Quality assurance may also include monitoring to ensure that teachers actually follow-up the organisation's commitment to implement a strategy and this may also serve as a way to motivate and train teachers in their actions.

In their review of health promoting school studies Deschesnes and colleagues (2003) have identified four core factors of successful implementation that to a large extent support the factors enabling implementation as suggested by Green and Kreuter (2005): i) negotiated planning and coordination to support the comprehensive, integrated nature of the approach, ii) intersectoral action to actualize the partnership between school, family and community, iii) political and financial support from policy makers, and iv) evaluative research as a support to implementation. While Green and Kreuter to a large extent emphasise factors within the organisation, Deschesnes and colleagues also identify the importance of national and intersectoral support and collaboration.

Previous research from implementation research in the European Network of Health Promoting Schools support the factors presented above (Bowker and Tudor-Smith, 2000; Inchley et al., 2007; Turunen et al., 2004). In addition national reports and evaluations from the Scottish (Inchley et al., 2007) and the Welsh (Bowker and Tudor-Smith, 2000) networks of health promoting schools identified the importance of leadership and school ownerships as crucial in the implementation process. Inchley and colleagues also pinpointed that sustainability of a health promoting school approach is stimulated when the actions are building on existing activities and priorities. Similarly, in the Welsh network it was found that implementation was more successful when the activities matched the schools' needs and the schools had been able to identify a limited number of activities to be given priority (Bowker and Tudor-Smith, 2000). In the Finnish network teachers reported that collaboration through network with other schools stimulated the implementation and further that earmarking of resources was core to the number of activities taking place (Turunen et al., 2004).

Building on this current knowledge of factors important in implementation of health promoting principles in school, the current paper aims at identifying

how the schools in the Norwegian network of health promoting schools worked and reflected around their implementation process.

Methods

The Norwegian Network of Health Promoting Schools

Norway entered the "European network of health promoting schools" (ENHPS) in 1993 (today the network is called Schools for health in Europe, www.schoolsforhealthineurope.eu).

Based on applications from 40 schools 10 pilot schools were selected to join the Norwegian network. Three of the schools were primary schools, five were secondary schools and two were combined primary and secondary schools. In Norway, the health promoting school project had a time frame of ten years (1993--2003). The first two years were used for planning and base line studies (1993--1994). The next three years were spent on implementation of the programs in the schools (1995-1997), whereas the following two years (1998-1999) included follow ups, after-studies and process evaluation. The last three years involved evaluation and distribution of results. Each school had a coordinator for the project and the majority also had a project group that coordinated the implementation process.

Sample and data collection

The paper builds on three types of data sources; 1) documents and material collected throughout the implementation process, 2) interviews, and 3) observations at schools. The primary sources of documents and other data material collected are listed in table 1. The documents and other sources of information listed in table 1 were collected and archived throughout the program period by the university centre that acted as the national coordinating centre for the Norwegian Health Promoting School network. To provide in-depth information on the implementation of the program, 12 teachers from two of the schools participated in individual interviews. The two schools, one primary and one secondary school, were selected based on their high level of change in the implementation period (1995-97). The informants were selected through the principle of purposeful sampling (Patton, 1990) based on their extensive experience with the health promoting school program (for more details of sample see Viig and Wold, 2005). Finally, the authors visited all schools throughout the program period, thereby offering opportunities to directly observe how the schools were working with the program. In the result section reference to the data source is given by number of the data source in table 1 or by reference to interviews with teachers (T) and school type.

Table 1. Data sources on the implementation of the Norwegian Network of Health Promoting Schools (HPS)

Number	Data source	Time
School documents		
1	Strategic school plans and school vision statements	1994-2008
2	Documents and material provided by the schools (local media coverage, letters, videotapes, pictures etc.)	1994-2003
3	School websites	2003-2008
Public HPS Program documents		
4	Norwegian HPS introductory program magazine (containing presentations by each school)	1994
5	4 Norwegian HPS Program newsletters (containing program updates from each school	1995-1997
6	Norwegian HPS final program magazine (containing self evaluation by each school)	2001
7	10 WHO European Network of Health Promoting Schools Program newsletters	1995-2005
Internal HPS Program Information		
8	Correspondence with schools (mainly letters first, then emails)	1993-2003
9	Individual evaluation reports to each school	1994 and 2001
10	Notes from structured phone interviews with school program leaders	1995-1998
11	Structured notes from the 7 national HPS – meetings	1994-1998, 2003

Interview Guide

An interview guide was employed for the in-depth interviews. This covered the following areas: (1) the informant's participation and experiences with the development and implementation of the program, (2) how the program was carried out at their school, (3) colleagues' and school leaders' role in the development and implementation of the program, and (4) what factors, as experienced by the informant, had facilitated or inhibited the development and implementation of, as well as their participation in, the Health Promoting Schools Program. The interview guide was semi-structured, and most of the questions were open--ended. The second author of this paper conducted the interviews during the autumn of 1997. The interviews were carried out at the two schools. All the informants gave the approval that the interviewed could be tape-recorded. Each interview lasted around 45 minutes.

Data Analysis

In this study an inductive analysis approach was applied for the documents, the interviews and the observations. The second author transcribed all the interviews. The two first authors read all the material and conducted a content analysis of the data by identifying, coding and categorising primary patterns in the data, followed by a cross-case analysis that grouped similar terms from different interviews and formed broader categories.

Results

Initiation phase – from outside or inside/top-down or bottom-up

An important aim of the Norwegian Network of Health Promoting schools has been to integrate health promotion as a part of the school policy and regular activities. The project was initiated at national level, i.e. through the Ministry of Church, education and research and the Ministry of Health and Social Affairs, and was run by the Research Centre for Health Promotion at the University of Bergen (Table 1, data source #4 and #6). Thus, the initiation may be seen as a top-down approach. However, through the implementation an important target was that the individual school should chair their own project by defining their own objectives based on their own priorities and perceived needs. The intention behind this strategy was to initiate a bottom-up approach at school level. The schools were encouraged to include all members of the school community in the development of aims and objectives. Thus, staff, students, school health services,

parents, and the local community were to be part of defining the health promotion activities at school level. The majority of the schools found this heterogeneity in aims and participation useful for the implementation of the initiative, as underlined by two of the school coordinators:

> *Our project group consisted of tree students, four teachers, a parent and the principal. The project group has functioned very well, and the contribution from the student members has been particularly important. They have been very active and supportive during the last three years. (Table 1, data source #6)*

> *All adults at school, i.e. teachers as well as service and maintenance workers, are closely involved in the activities taking place in the school. We want to build close relationships between the adults, between the students within a class as well as between students across grade levels, between the adults and students in school and finally between the school and the parents.(Table 1, data source #7)*

Furthermore, another important target was to integrate the health promotion activities in the daily work of the school and in their policy documents. This process seemed to have stimulated the schools to focus their priorities:

> *Being a health promoting school has made us more conscious and given us the opportunity to set physical activity on the agenda (Table 1, data source #7)*

> *The Health Promotion school concept has been important in the identification of the school's vision and goals. (Table 1, data source #6)*

The Norwegian Network of Health Promoting schools may be considered to use a combined top-down – bottom-up strategy. The structure of the network and the framework of the project were defined at national level, whereas the schools themselves defined their focus areas and developed objectives they found important. A core element of the predefined framework of the project was to train the schools in using a planning model for health promotion, the PRECEDE model developed by Green and Kreuter (1991, 1999). This model emphasises the need to define clear and measurable obstacles before developing the objectives. When developing the objectives an important element is to develop strategies that can promote a change in behaviour and environment in accordance with the defined obstacles. Elements of importance to this change are related to predisposing factors such as knowledge, attitudes and beliefs, reinforcing factors such as social support, rewards and social recognition and enabling factors such as organisational structures (e.g. activity facilitation and physical framework) and individual skills. The schools were encouraged to use this model in order to ensure that the development of objectives and activities were based on clear

ideas of mechanisms important to achieve change in behaviour and environment. The theory driven and systematic planning process was also valued important to facilitate a thorough evaluation of the school projects.

In spring 1994 a baseline study was conducted at school level. This survey addressed students' reported health behaviours, subjective health and their perceived school environment related to student autonomy, support from teachers and students, expectations from teachers and parents and their general satisfaction with school. Each school received a report describing how their students reported on these issues (Table 1, data source #9). Based on the information from the baseline study and the perceived needs of the staff and the students the school prioritised and developed objectives and activities. In 2001 all the schools received a follow-up report describing and analysing changes in student outcomes from baseline till the end of the program, comparing the students at the program schools with a nationally representative sample from the HBSC study (Currie et al., 2000; King et al., 1996). An evaluation of the level of program implementation at the school was also included. The report aimed at helping schools understand their own developmental process in order to inform the continued sustainability process (Table 1, data source #9).

Integration of the project in the school policy

Nationally emphasis was given to establishing the project as a school based approach rather than a project initiated at classroom level by teachers who took a special interest in it. Hence the schools were encouraged to include everyone in the school community in the development and implementation of objectives and activities. Two different implementation strategies were observed, one integrated and one isolated (Table 1, data source #5 and #6). One group of schools integrated the project in their overall activities and used it to gather and co-ordinate existing health promotion activities. These schools defined the Health Promoting School project as an umbrella for their school practice both with regard to teaching approaches and the development of the social environment. Through the project they found means to systematise their activities addressing the overall aim of improving mastery, learning, well-being and health for everyone in school. The overall aim was seen as both a prerequisite for the school practice and at the same time an important aim in itself, expressed in the vision of one of the schools as "A good place to be is a good place to learn" (Table 1, data source #7). The other group of schools employed an isolated implementation strategy and looked upon their project activities as singular activities aiming at improving the social environment and health. At these schools the regular

school practice was frequently seen as teaching subjects in the classroom. But, also these schools evaluated health and well-being as an important prerequisite for students' learning, enabling the teachers to do a best possible job.

In order to institutionalise and integrate the project activities and the daily school practice the schools were encouraged to develop their own strategy plan for health promotion and to integrate this in the school policy documents, and the majority of the schools did (Table 1, data source #1). The policy on health promotion addressed both cross-curricular plans for health education and objectives for the psychosocial school environment. Several of the teachers emphasised the important function of the policy document to maintain focus, secure continuity and commit new teachers to present priorities at the school:

> *Several times it has come to my mind, that during the course of the years we have had several projects, (...) and that we should get as far as having a process that do not need a particular priority. We should have the actions incorporated in our daily practice, that it is integrated. (T1, female, primary school)*

> *I just had a look on the school's activity plan, and I noticed a lot of our health promotion activities written down there. This will be very helpful when carrying out health promotion in the coming years. (T9, male, secondary school)*

> *Some of our actions are already in the policy document, and it is important that this document is presented to us at the beginning of each school year. That the newly employed teachers at our school get to know which project we are involved in, where we started and what we ended up doing. What positive experiences we have had with this project. We need to be reminded about our experiences. What we can address this school year. Ensuring that the project idea is still there. The project involves a lot of important and valuable experiences, that we need to take forward. (T6, female, primary school)*

The teachers also emphasised the need for school based projects to be a continuous developmental process:

> *It would have been desirable that we had a steering group, at least to have a leader that co-ordinates the actions. So that we could make progress. That we not only maintain what we are doing, but also find room for new thoughts and ideas. (T2, male, primary school)*

The policy document thus both maintained present activities and initiated the development of activities and new areas of need and interest.

The role of the management

The school management plays an important role in prioritising school activities. In accordance with implementation research their attitude and the priority they give to a project like the Health Promoting School will be of outmost importance to the status of the project at school level (Fullan, 2008; Hoyle et al., 2008; Inchley et al., 2007). Based on observations at the schools and school reports it was in the Network of Health Promoting Schools identified that when the management had an active role in preparing the ground for the project and in the implementation of it, the schools were more easily able to integrate it as a part of their daily activities (Table 1, data source #9). This is probably explained by the fact that when the management was actively involved it was easier to give both time and resources to the project. Thus, the project was more easily integrated and anchored in the daily life of the school. Teachers in the Norwegian Network of Health Promoting Schools conveyed through the interviews that the role and interest on the part of the management was a crucial prerequisite for the way the project worked at school level:

> *The principal too has been very eager to run this project. He has never rejected any requests from the planning group. He has also been an important inspirator. (T7, male, secondary school)*

> *The school administration should be available to help establishing contacts outside school, or to help allocating money and recourses, to relieve the teachers from spending time on searching for money to carry out the health promoting activities. (T11, male, secondary school)*

> *I believe the principal's contribution, engagement and support are of vital importance for succeeding with the project. The leaders are important in motivating the efforts of others and for facilitating activities through allocation of resources for both planning and implementation. (Table 1, data source #6)*

Several of the principals found that their most important task was to inspire their staff to work on a prioritised area, as for instance the Health Promoting school project (Table 1, data source #10 and #11). The prioritised area was thus a strategy the school chose to implement to achieve its visions and aims. The management did not only regard it important to initiate a project, but also ensured that the project was given priority and breakthrough in the school society (Table 1, data source #6, #10 and #11). The role of the management was thus to raise consciousness, and suggest focus and priority among all the tasks within the enterprise of school. In the Norwegian Health Promoting School Network representatives of the school management reported that they tried to

both take initiative and provide support for the project throughout planning and implementation:

> *I have felt it important to support them and help them finding resources, to "buy them free" when necessary, and get hold of things they need for various purposes. (T1, female, primary school)*

Through the school visits it was also observed that when management did not take actively part in the project nor provided support, it was also more difficult to raise priority for the Health Promoting School activities at school level. In these cases the activities tended to be more arbitrary happenings not part of a coherent and integrated strategy in the daily school practice. We might here be observing different management roles. In schools where the management was clear about their initiator role when it came to pedagogical development and general school development, more systematic approaches were taken to improving the school practice. The opposite seemed to be the case when these types of long term development processes were left to the responsibility of the teachers.

Motivation and personal interest

The way the single teacher evaluated the project or a concrete action was found to be crucial for the energy he or she put into it. Below teachers at two of the Norwegian Health Promoting Schools network (1 primary and 1 secondary school) evidently had similar opinions about what they found to be motivating in the project:

> *I like the idea, but I could certainly have contributed much more than I did. Health promotion is about exploring and developing the whole human being, not only the academic part of it. The main obstacle against participating in such a project, I think, is the teacher's assumption of an extra unpaid workload. (T4, female, primary school)*

> *Getting acceptance teaching outdoors is very positive. I enjoy very much being outdoors, no matter season or weather conditions. And I know that it is good for the students. In my opinion, too many students are spending too much time indoors. (T5, female primary school)*

> *What has inspired me mostly has been the concrete activities, and the fact that the regular day in school has improved. Things have become more flexible – students and teachers have more fun together. Both the dancing courses, which I*

enjoyed very much, and the barbecue nights have become an inspiration in a rather dull school life. (T7, male, secondary school)

In the quotations important motivational factors for the teachers were related to the extent the project aims are in compliance with overall principals for schooling, general accordance with personal interests (outdoor activities) and perceived impact of the activities (more humour and happiness in the daily life of school). The emphasis the teachers gave to their own values and experiences as a basis for motivation, pinpoints the importance of including the whole staff in planning and implementation of objectives and actions to ensure a powerful project that has priority.

In the Norwegian Network of Health Promoting Schools the schools did not receive very much external support in their effort of building a common platform for the project and in establishing partnerships with relevant bodies (Table 1, data source #6). Given the national resources for the project this was not possible. Some schools still chose to include all staff and students in major decisions taken in the project and in the development of objectives and actions (Table 1, data source #5-8, and #10-11). This approach is exemplified by two of the schools in the following way:

The pupils engaged the project at our school did a very good job. This had a positive influence on the environment and contributed to students feeling more connected to the school during the project period than previously. (Table 1, data source #6, principal)

The principal has in overall been focusing on the importance of involving all the teachers along with the community surrounding the school. That is why both the school staff, the police, school health services and other key persons important to the school have been involved in the activities at school. (Table 1, data source #6, principal)

Other schools did to a large extent forward this responsibility to a project group. This group then informed and asked staff and students for advice in their work and thus tried to involve them in the process. The first approach demands a lot of time and energy, but is also the working model that is most likely to develop motivation and ownership towards the project among all participants.

Goal clarity

The main aim of the European Network of Health Promoting Schools was to promote healthy lifestyle and well-being by providing supportive environments.

This may be considered a rather wide and global framework. The schools themselves had to narrow and clarify the priority of the project by defining two or three major focus areas related to behaviour or environment that could contribute to achieve the overall aim of the project (Table 1, data source #1). The schools found it difficult to define clear and narrow aims for their work. The majority of the schools wanted to work on a broad framework and include a lot of activities rather than going for a more narrow approach. Thus the schools developed a wide range of activities within different areas of health promotion, e.g. daily physical activity tournaments, dancing courses, meals to socialise, hiking trips with overnight stays, monthly cultural events, and occasional bad--taste-dressing during the school day (table 1, data source #5 and #10-11). The overall and global aim of the international and national project stimulated a broad approach at school level. This situation constituted a challenge to the evaluation of the impact of the single activities at school level. As a variety of activities were prioritised it could be that neither of them was given the focus and amount of time and resources required to have an impact. There is thus a danger of defining activities that could have been effective given more focus and priority as ineffective.

Even though there was a wide range of activities, an increased consciousness seemed to have taken place as to what should be guiding the prioritising and implementation of activities (Table 1, data source #1 and #5-6). Several teachers reported that they were more conscious of including approaches and activities that they think can promote health and well-being:

> *It has to do with physical activity, you know, moving the body – this idea is the basis for all our planning (...) I think, when the idea is founded in our way of thinking, it is easier to make plans for outdoor activities. For instance, how can we combine this or that particular subject with being outdoors? (T6, female, primary school)*

> *I think we have been more conscious when planning for health promotion activities. We try to integrate activities promoting the students confidence and well-being, by breaking up the day, regularly doing something entirely different. (T9, male, secondary school)*

No goal conflict

Several teachers in the Norwegian Network of Health Promoting Schools emphasised their own experience of the association between well-being and learning:

When you see that the children look happier and more confident, then you have reached a basis for better learning. And this thing about improved health, in a way it comes automatically when you have been able to form a good basis, working with everyday problems. (T5, female, primary school)

(...) It is obvious, if you think about your own life and existence in a more positive way, you will be able to achieve more. You gain from the everyday work, from the energy these kinds of [health promotion] activities give. (T9, male, secondary school)

A major aim of most teachers' work will be related to students' academic learning. Teachers varied in the extent to which they emphasised satisfaction with school and general well-being as a prerequisite for learning (Table 1, data source #10-11). Their evaluation also influenced whether they perceived health promotion as a natural part of their tasks or as an activity that took time and focus from their regular work, i.e. teaching the curriculum. Comments from two teachers in the Norwegian Network of Health Promoting Schools illustrate how teachers considered use of time in relation to the aim of schooling:

(...) maybe some teachers think we steal too much time from the traditional classroom teaching (...) But I think something has happened to us over time. We have experienced a change, we have started to think differently. We can see all the good that has come out of our work, the children are feeling good and safe. (T1, female, primary school)

Of course it happens that we "lose" some of the traditional school lessons. But this might happen for other reasons too. For instance, we spend a lot of time in class trying to solve behaviour disorders. Less school hours "disappear" if one tries to achieve improved well-being in the class. I mean it is obvious; having a nice time in school improves the students' learning capacity, even if some of the school hours are used for i.e. dancing courses. It is all clear. Summing up the year, it will all together be better. (T12, male, secondary school)

The quotations above indicate that teachers both in primary and secondary school found it important to use curriculum time for activities that could promote health and well-being. It was, however, possible to observe differences between teachers in primary and secondary school as to how important they found health promotion in school (Table 1, data source #10-11). Teachers in primary school tended overall to be more positive towards promotion of health and well--being than their counterparts in secondary school. Comments from two teachers in secondary school pinpoint the curricular and subject oriented focus in secondary school, in contrast to the more coherent and holistic integration of curriculum and social environment in primary school:

You know, being a teacher at secondary school. Maybe we don't have the right attitudes towards the students like they have in the primary school. Most of the teachers in the secondary school are too concerned about their "own" subjects and curriculum. (T12, male, secondary school)

I must admit that I personally didn't get too involved in the project. As a subject teacher, one is pretty specialised, and one tends to stay specialised. Up till now the subject teachers haven't been involved in the school's teamwork. However, I see the project has been offering several interesting activities, for example the dance course. I find these very successful, because everybody could take part. (T8, female, secondary school)

The Norwegian Network of Health Promoting Schools coincided with the general requirements of the new national curriculum that was implemented in 1997 (L97). In the new national curriculum major emphasis was given to the social function of school:

"It (the school) is in fact a microcosm which must embrace the main features of life outside. School is a bearer of a culture of knowledge and a culture of co--operation…" (Core curriculum, 1994, p. 20)

"Research reveals great variations in the impact of school classes on pupils, but not that there is any opposition between doing well and feeling well. Classes which are most congenial socially, are often most conducive educationally, for gifted as well as for weaker learners" (Core curriculum, 1994, p. 23).

The teachers in the Norwegian Network of Health Promoting Schools experienced that the involvement in the project in many ways prepared them for the implementation of the new national curriculum.

A main issue today is working with projects in schools, and, health promotion issues work well within this method. This is one of the positive elements in the new national curriculum, putting emphasis on working with projects. (T12, male, secondary school)

(...) you know, we have found that the Health Promoting Schools project in many ways is based on the same philosophy as L97. It is actually not any longer a question about wanting to do this kind of work (...) Our challenge is to become more conscious of what we are actually doing, and make our health promotion activities visible to ourselves, and to the parents and the rest of the community. (T4, female, primary school)

Adequate change

In the Norwegian Network of Health Promoting Schools the schools were encouraged to systematise existing objectives and activities before developing new ones (Table 1, data sources #4 and #6). A core aim of this approach was to raise consciousness of what elements existing objectives and actions intended to change/improve. The structured approach and the demand for justifying each objective and activity were, however, new to the majority of the schools (Table 1, data source #10-11) and may have been perceived excessively demanding. Comments from a teacher at one of the primary schools in the Norwegian Network of Health Promoting Schools emphasise how the project seemed to contribute to increased competence within areas of importance to the aim of schooling:

> *The question about the students' confidence and well-being – it's just words. But what do we actually do? Do we work according to these words? I feel that being a part of the Health Promoting Schools project have helped us working with these issues. (T4, female, primary school)*

All schools seemed to be relieved that they could build the project on existing objectives and actions, instead of meeting a requirement of developing new actions (Table 1, data sources #8 and #10-11). The perception that small changes could help them achieve the aim of the project seemed to be an important motivational factor. Schools that were largely experienced in project work or organisational development found the approach of systematising their present activities stimulating to improve their practice (Table 1, data source #6 and #10--11). These schools were also ready to start working on new approaches as they already were familiar with the processes of school based project work aiming at developing school practices. Schools that were less experienced in school based project work seemed more insecure as to how to run the project and found it necessary to spend a lot of time to include all staff and the rest of the school community. These schools perceived the project to demand comprehensive changes and found it difficult to start the process (Table 1, data source #10-11).

Familiar methodology

The Norwegian Network of Health Promoting Schools has required extensive collaboration between the different partners in the school community (staff, students, school health services, parents and local community) (Table 1, data sources #4 and #6). As the Norwegian national curriculum also set requirements

for collaboration with partners, and in particular parents, half of the schools had already developed routines for involvement of relevant partners. The rest of the schools had not given collaboration with others much priority and thus needed to spend some time and energy to develop good strategies and routines for this type of collaboration. (Table 1, data sources #8 and #10-11).

Furthermore, the Norwegian Network of Health Promoting Schools strongly encouraged schools to develop cross-curricular plans for health education. Again this was a requirement found in the national curriculum. However, the majority had not started the process of developing concrete plans for cross-curricular health education (Table 1, data sources #10-11). This could be due to lack of competence and examples of how to do it and perceived barriers related to the practical work (for instance lack of time provided for teachers responsible for the development to sit down and actually do the work). An external push through participation in the network seemed, however, to initiate the requested plans (Table 1, data source #1 and and #11).

The Norwegian Network of Health Promoting Schools also gave emphasis to student involvement. Several of the schools did not have traditions and experience with this type of involvement and struggled finding appropriate methods (Table 1, data source #8 and #10-11). Student involvement has been part of the national curriculum since 1987, and was extensively strengthened in the plan from 1997 and later in the most recent plan from 2006. The Norwegian Network of Health Promoting Schools started when plans for the national curriculum from 1997 were under development and the schools were informed that student involvement would be heavily prioritised in the new curriculum. This knowledge was utilised as a vital factor for motivating increased student involvement, and teachers saw that they through the Health Promoting School project could work to develop strategies that also would meet future requirements to their teaching role (Table 1, data source #10-11). However, information from phone interviews and presentations at the national seminars, suggests that several teachers did miss a more systematic training in methodology to involve students (Table 1, data source #10-11).

Complexity

Despite the focus in the Norwegian Network of Health Promoting Schools given to building on present skills and actions, the schools were at the same time required to fulfil specific and demanding strategies for planning their project and involvement of partners. The planning model (PRECEDE, see Green and Kreuter, 1991, 1999) that the schools were encouraged to use demanded a lot of time both to comprehend and to use. The majority of the schools found it difficult

to use. Thus, a more simplistic model was presented to the schools where the schools were encouraged to use the main principles of the model, namely to define what behaviour or environmental issue they wanted to change and how they wanted to achieve this change (Table 1, data source #10-11). The adjusted approach was a relief to the schools.

The schools were also required to involve a large number of partners in their project. In particular, emphasis was given to close collaboration with the school health services. In addition to the most obvious partners (staff, students and school health services), the schools were also encouraged to involve parents, and representatives from the local community (both from non-governmental and from governmental organisations). Several of the schools found it difficult to formalise these sorts of partnerships (Table 1, data source #10-11). This could partly be related to finding time in a hectic day of school for meetings and that inclusion of non-governmental organisation requires flexibility to arrange meeting out of school hours.

The expected number of partners in the project may have been perceived as too excessive out of the time resource available for the project. Establishing partnerships takes time. After three years of intervention it was therefore considered appropriate to encourage the schools to establish a close partnership with the school health services (Table 1, data source #5). To facilitate this process a seminar was arranged at national level inviting the school co-ordinator and school health nurse at each school (Hjälmhult et al., 2002).

Furthermore, the schools were encouraged to address both the improvement of the social environment at school and to develop cross-curricular plans for health education. This may also have contributed to the notion of complexity. The majority of the schools chose to concentrate on the social environment as this was the work they found most interesting and postponing the cross-curricular task (Table 1, data source #1 and #10-11). The focus on improving the social environment was also more easily implemented into the daily life of school as it did not require the input of every single teacher.

As already presented the Norwegian Network of Health Promoting Schools was implemented just prior to a new national curriculum. Even though the notion of being part of a developmental process in line with the forthcoming national strategies for pedagogical development was motivating, the project did, nevertheless, require effort on top of the regular school practice. Implementing a new project will thus always add to the complexity of a regular work situation.

Time and economic resources

Although health promotion may be found an important prerequisite for the primary task of schooling, it is, nevertheless, only one of several issues that need priority in school. Thus, it is important to set aside time and resources for planning and implementation of all tasks a school want to give priority. This is of particular importance for tasks that are not part of the traditional curricular teaching tasks. Parts of the elements of health promotion belong to this type of tasks. Because an extensive evaluation of the school projects took place during the project period, the school co-ordinators were given 2 hours reduced teaching obligation a week. This resource allocation to the school co-ordinators intended to secure progress of the project and secure time for reporting the progress of the work to the national resource centre, the Research Centre for Health Promotion at the University of Bergen. The teachers were very clear about the importance of allocating time to take up additional tasks as for example the co-ordination of a project (Table 1, data source #10-11). In their opinion either the management should be in charge of these tasks or a teacher should be given time and administrative resources (for instance an office with easy access to phone) to deal with the task. One of the school co-ordinators in the Norwegian Network of Health Promoting Schools pinpoints the necessity of having allocated time resources for the co-ordination role this way:

> *I can't both work with the project and do my ordinary teaching at the same time. Working with the project requires a reduction in my ordinary teaching hours. (T9, male, secondary school)*

Furthermore, it was found important to allocate time for teachers to collaborate and for collaboration with partners. Schools that succeeded in integrating health promotion in the daily practice of school, consciously used staff meetings to discuss the project (Table 1, data source #10-11). Moreover, they developed teachers' time schedule in a way that allowed teachers working at the same grade level or within the same topic to have time to sit down during the school day to plan common activities.

Teachers highlighted lack of time as the major reason for why new projects were not welcomed with enthusiasm, although, they meet the needs and wants of the teachers. A lot of teachers in the Norwegian Network of Health Promoting Schools also stressed the need for allocated time to participate in school-based developmental work:

> *Time is a limited resource. There are a lot of things one should have done which is difficult to find the time to do. (T7, male, secondary school)*

I can see that we could have needed more resources to do this. That would have made it possible to work more systematically. We haven't had the time to work thoroughly. So, this might be the reason, because I do think most of the teachers feel a commitment to the project. (T2, male, primary school)

Some teachers found, however, that the cry for more resources had become superior to any priority of tasks in school. The focus and demand for more time can thus become a barrier to find new ways of organising and improving the present practice of school:

We always cry out for more resources. But I would rather say that we need to prioritise differently. (T12, male, secondary school)

Discussion

Overall the findings from this study support and elaborate on previous research on implementation of health promoting schools. A key finding was the integration of the programme into the policy plan of school as a prerequisite for a structured and effective implementation approach to health promotion. This is in line with results from other studies in the area that identify the importance of school policies for teachers to give priority to the topic area (Adamson et al., 2006; Hoyle et al., 2008; Inchley et al., 2007). It is further important that the policy document converts public regulations and requirements to concrete practice at school level (Deschesnes et al., 2003). Building on Green and Kreuter (2005) and as also observed in this study it seems that in order for the school's policy to have impact it must be familiar to the individual teacher and commit him or her to participate in achieving the aims and objectives of the school.

The findings further highlighted the importance of matching both personal and organisational motivation and goals for successful involvement and implementation in that teachers reported that it was important to them to experience a benefit of their participation and time in order to give priority to the project. This finding was also confirmed in other studies of the teachers participating in the Norwegian Health Promoting School Network (Tjomsland et al., 2009a; 2009b; 2010; Viig and Wold, 2005; Viig et al., 2010). Similar observations have been reported by others (Green and Kreuter 1999, 2005; Incley et al., 2007). This underpins the need for preparing and matching the implementation approach to the needs and capacity of the individuals and the organisation (Hopkins and Jakson, 2003). Thus it is recommended that all members of the school community are involved and given responsibility in

planning and implementation of objectives and actions (Turunen et al., 2006). An important element in the developmental processes is to establish a common language and understanding of key priorities within health promotion. Likewise is the option of influence on and personal identity towards the activities vital for motivating the participants, and thus for developing an effective and successful approach. This is very much in line with empowerment as a core principle of health promotion in that it builds on local needs and is frequently initiated by the users themselves (Green and Kreuter, 2005). This bottom-up strategy is criticised for giving too much power to the individual participants and for lacking a theoretical basis in the development and implementation of objectives (Pederson et al., 1988). Therefore a top-down strategy has been introduced as the major strength of this approach is its theory driven development and implementation of objectives. The top-down strategy has, however, frequently been criticised for not being very well adjusted to local needs. A combination of the two approaches may therefore be preferred to secure a theory driven project based on local needs (Fullan, 2010). A theoretical basis ensures that the objectives are developed to influence elements important to achieving the wanted change in behaviour and environment. The influence of the users when it comes to prioritising objectives ensures that the project meets local needs and interests.

As also identified in other studies (Hoyle et al, 2008; Incley et al, 2007) the role the management chose to take in the project seemed crucial for its development. Firstly, it is not effective to force a project upon the staff. The best strategy managers may use is rather to build consensus around prioritising a certain area, and this requires focus around an area the majority of the school community finds important to address. The results suggested that a combined strategy seemed most effective; initiative taken by the management (top-down), but based on interest and needs as reported by the members of the school community, e.g. students, staff and parents (bottom-up). The combined strategy ensures that resources are allocated and that there is an interest for the project and these are both important elements to ensure that a project is given priority at all levels.

A core element of participation is ownership to the project. The findings of this study support previous research in that involvement of stakeholders seems crucial for successful implementation of the health promoting school concept (Deschesnes et al., 2004; Hoyle et al., 2008; Inchley et al., 2007). But in project based work there is always a danger that some people get very involved and become 'owners' of the project. Very involved people play a crucial role as innovators and initiators in the starting phase of a project. But it is also important to use working strategy allowing people to have influence all the way and to become involved after a period of familiarisation. Initiators frequently want to

proceed with new projects and activities as soon as a new possibility is offered. To secure the future of the ongoing project it is thus important to include the majority of the staff as active participants and not only passive collaborators (Rogers, 2003). Inclusive working strategies in planning and decision-making and active participation are also important to avoid people working actively against the project. Thus, more passive participants can still provide important support for the project.

Adding to the observed relevance of ownership and participation the findings underscore the importance of skills and competence for stimulating involvement and commitment. Training of students and staff has also by others been identified pertinent to a successful implementation approach (Felner et al., 2001; Green and Kreuter, 1999, 2005; Hoyle et al., 2008; Leurs et al., 2005). Training is also related to Green and Kreuters' (2005) concepts of familiarity and adequate change (Bowker and Tudor-Smith, 2000) as competence is important for experiences of mastery. Student training may further address how students can utilise the processes of democracy when wanting to have influence and improve their work environment at school. The importance and stimulus of active student involvement was highlighted by the majority of the schools in the Norwegian Network of Health Promoting Schools. Training of both teachers and students to optimise student participation therefore needs priority, as also identified by Inchley and colleagues (2007).

The teachers in the study emphasised the importance of building on existing relevant teacher and organisational competence, means and actions already established in school when initiating a project to address health promotion in school. This finding is congruent with studies of other national networks of health promoting schools (Bowker and Tudor-Smith, 2000; Inchley et al., 2007). By building on familiar approaches, the school will perceive adequate levels and requirements of change and thus be more likely to perceive to have the capacity to take the project on board (Green and Kreuter, 1999; 2005). Thereby the combination of the explicit standard of demanding a small change to experience successful change seems to be an important prerequisite for implementing a project in the daily practice of the school (Parcel, 1989).

Conclusion

The Norwegian Network of Health Promoting Schools has aimed at improving health and well-being for all members of the school community. The uniqueness of the project was not the specific objectives and actions at school

level, but the systematic approach taken to planning and implementing the project, collaboration with relevant partners and exchange of experiences with other schools in the national network, and the integration in school policy documents ensuring that approaches run independently of single teachers. An important mechanism in the process of achieving successful implementation seemed to be the interplay between stimulating teachers' individual motivation and organisational facilitation of the initiative.

All members of the school community were invited to play a central role in the developmental processes, constituting the core of the health promoting school initiative. Likewise exchange and learning from other schools were identified as stimulating for the implementation. The school management had a key responsibility for ensuring pedagogical and methodological development. The managers' attitudes and initiative were vital to the impact of the new area of priority. Managers who actively participated in the developmental processes and simultaneously involved staff, students and other partners in planning, implementation and evaluation of objectives and actions, may be perceived as a good facilitator rather than an authoritarian leader pushing a project onto the rest of the school. Thus a successful combination of top-down and bottom-up initiative can be obtained. This combined approach, ensures that the project is given priority and integrated in the policy and practice of the school as well as giving influence to those who constitute the basis for the school practice, i.e. the members of the school community. Through active leadership stimulating motivation in staff and identifying clear visions and aims as a basis for planning and implementation of health promoting school activities, the main aim of health promotion can be achieved, namely to promote the individual's health and well-being by building supportive environments through the influence and actions of the individuals in the social environment.

Implications

Based on the findings from this study and other implementation research some implications for how to achieve successful implementation of health promotion in school may be suggested. Research highlights that a crucial principle of successful health promotion action is a systematic planning and implementation based on an analysis of needs (Deschesnes et al., 2003). The PRECEDE model developed by Green and Kreuter (2005) which was used in the Norwegian network to help the schools focus in their work may be seen as a helpful tool to initiate and guide a systematic approach to health promoting planning and implementation. The systematic approach will also facilitate self-evaluation of

the work as highlighted by Deschesnes and colleagues (2003). When specific aims and objectives have been defined, it is easier to see whether these are actually achieved. Thus the school continuously may improve their work by building on successful actions and replacing ineffective approaches. In order to learn from previous actions it is important to register and evaluate them. Then everyone one knows what steps have been taken and what to build on in further actions. The registration will also constitute a database of objectives and actions that can give easy access to new teachers to become familiar with the project and the database can also be returned to when dealing with future needs.

Systematic approaches to involvement of stakeholders like staff, students, parents and local communities are also needed. For this procedures and scheduled time are needed. Teacher participation may be seen as a core priority as they will be in the position to involve students and parents. Thus, teacher training may be seen as a vehicle to achieve both alignment to the goals of health promoting schools and to the actual actions and skills needed to achieve them. It may for example be important to address the holistic approach of health promotion, and particularly stress the benefits of giving priority to promote the social environment (Turunen et al., 2006). Building a common understanding of the concept of health promotion among teachers and other stakeholders may stimulate motivation and focus of the actions and also contribute to build strong partnerships and thus ensuring more people and resources to be involved in the actions (Deschnes et al., 2003; Inchley et al., 2007; Leurs et al., 2005). Teacher training in the methodology of empowerment and student involvement is also recommended. The empowerment approach is a core principle of health promotion and also relevant both when aiming at improving the social environment, when working on more traditional health education topics and as a general methodology of learning, which is given major emphasis in many countries' national curriculum.

The school leadership will be in a key position to facilitate systematic planning and implementation of health promotion in school (Deschesnes et al., 2003; Inchley et al., 2007). Therefore use of leadership and management strategies may be seen vital to the success of implementing a new initiative (Daft, 1999). Leadership strategies in a health promoting school approach are related to nurture links between health promoting school objectives and the overall visions and goals of learning in school. This can for example be stimulated through focussed group discussions in staff and dialogues with individuals. The management strategies relate to scheduling time for teachers and students to collaborate on planning and implementation of project activities, and prioritise resources for teacher training and purchase of external competence or equipment needed to implement actions.

REFERENCES

ADAMSON, G, CCALEAVY, G, DONEGAN, T, and SHEVLIN, M (2006): Teachers' perceptions of health education practice in Northern Ireland: reported differences between policy and non-policy holding schools. *Health Education International, 21 (2)*, doi:10.1093/heapro/dal008. Advance access publication 7 April 2006.

BOWKER, S and TUDOR-SMITH, C. (2000): The health-promoting school in Wales: an overview. *Health Education, 100(4)*, 154-60.

CURRIE, C, HURRELMANN, K, SETTERTOBULTE, W, TODD, J and SMITH, R (2000): *Health and Health Behaviour among Young People. WHO Policy Series: Health policy for children and adolescents. Issue 1*. International report. Copenhagen: World Health Organization-Europe

DAFT, R. L. (1999). *Leadership: Theory and practice.* Fort Worth, TX: Dryden Press.

DESCHESNES, M, MARTIN, C and HILL, AJ (2003): Comprehensive approaches to school health promotion: how to achieve broader implementation? *Health Promotion International, 18(4)*, pp 387-96.

DONALDSON, G. A. (2001). *Cultivating leadership in schools: Connecting people, purpose, and practice.* New York: Teachers College Press.

ELIAS, M. J., ZINS, J. E., GRACZYK, P. A., and WEISSBERG, R. P. (2003). Implementation sustainability and scaling up of social emotional and academic interventions in public schools. *School Psychology Review, 3*, 303-319.

FELNER, RD, FAVAZZA, A, SHIM, M, BRAND, S, GU, K and NOONAN, N (2001) Whole School Improvement and Restructuring as Prevention and Promotion Lessons from STEP and the Project on High Performance Learning Communities. *Journal of School Psychology, 39, (2)*, 177-202.

FULLAN, M. (2008) *The Six Secrets of Change. What the Best Leaders Do to Help Their Organizations Survive and Thrive,* San Fransisco: Jossey-Bass.

FULLAN, M. (2010). *Motion Leadership. The Skinny of Becoming Change Savvy.* Thousand Oaks, California: Corwin.

GREEN, L.W., and KREUTER, M.W. (1991). *Health promotion planning: An educational and environmental approach.* 2nd edition. Mountain View, CA: Mayfield Publishing Company.

GREEN, L.W., and KREUTER, M.W. (1999). *Health promotion planning: An educational and ecological approach. 3rd edition.* Mountain View, CA: Mayfield Publishing Company.

GREEN, L.W., and KREUTER, M.W. (2005). *Health Program Planning: An Educational and Ecological Approach.* Mountain View, CA: McGraw-Hill.

HJÄLMHULT, E., WOLD, B. and SAMDAL, O., (2002) School health services and health promotion: Collaboration between school nurses and teachers at the

Norwegian schools in the "European network of Health Promoting Schools" (in Norwegian). *Vård i Norden, 63, 22 (1)*, 42-46.

Hoyle, TB, Samek, BB, Valois, RB (2008) Building Capacity for the Continuous Improvement of Health-Promoting Schools. *Journal of School Health, 78 (1),* 1-8.

Hopkins, D., and Jackson, D. (2003). Building the capacity for leading and learning. In A. Harris (Ed.), *Effective leadership for school improvement.* London: RoutledgeFalmer.

Inchley, J, Muldoon, J and Currie, C (2007) Becoming a health promoting school: evaluating the process of effective implementation in Scotland. *Health Promotion International, 22,* 65-71.

King, A., Wold, B., Tudor-Smith, C., and Harel, Y. (1996). *The health of youth: A cross-national survey.* Copenhagen: World Health Organization.

Kjellberg, F., and Reitan, M. (1995). *The study of public policy: an introduction (Norwegian).* Oslo: TANO.

Larsen, T., and Samdal, O. (2008). Facilitating the Implementation and Sustainability of Second Step. *Scandinavian Journal of Educational Research, 52:2,* 187--204.

Leurs, MTV, Schaalma, HP, Jansen, MWJ, Mur-Veeman, IM, St. Leger, LH, and Vries, N de (2005): Development of a collaborative model to improve school health promotion in the Netherlands. *Health Promotion International, 20 (3)*. doi: 10.1093/heapro/dai004. Advance access publication 29 March 2005

Lister-Sharp, D., Chapman, S., Stewart-Brown, S. and Sowden, A. (1999) Health promoting schools and health promotion in schools: two systematic reviews. *Health Technology Assessment*, *3 (22)*, 1-207.

Parcel, G.S. (1989). Translating theory into practice: Intervention strategies for the diffusion of a health promotion innovation. *Family Community Health*, *12*(3), 1-13.

Pederson, A., Edwards, R., Kelner, M., and Allison, K. (1988). The process of implementing healthy public policy. In A. Pederson, R. Edwards, M. Kelner, and K. Allison (Eds.), *Coordinating healthy public policy; an analytic literature review and bibliography.* Ontario: National Health and Welfare.

Rogers, E.M. (2003) *Diffusion of innovations.* London: Collier MacMillan Publishers.

Samdal, O. (2008): School Health Promotion. In Heggenhoungen, K & Quah, S. (ed.) International Encyclopedia of Public Health. Vol 5. San Diego: Academic Press, pp. 653-61.

Stewart-Brown, S. (2006). *What is the evidence on school health promotion in improving health or preventing disease and, specifically, what is the effectiveness of the health promoting schools approach?* Copenhagen, WHO Regional Office for Europe's (Health Evidence Network Report; http://www.euro.who.int/document/e88185.pdf, accessed 01 March 2006.

Tjomsland, H., Iversen, A., and Wold, B. (2009a): The Norwegian Network of Health Promoting Schools: A Three-Year Follow-Up Study of Teacher Motivation, Participation and Perceived Outcomes. *Scandinavian Journal of Educational Research, 53 (1),* pp. 89-102.

Tjomsland, H.E., Larsen, T. Samdal, O. and Wold, B. (2010) Sustaining comprehensive Physical Activity Practice in Elementary School: A Case Study applying mixed Methods. *Teachers and Teaching: Theory and Practice, 16 (1),* 73-95.

Tjomsland, HE, Larsen, TMB, Viig, NG, and Wold, B (2009b): A Fourteen Year Follow-Up Study of Health Promoting Schools in Norway: Principals' Perceptions of Conditions Influencing Sustainability. *The Open Education Journal, 2,* 54-64, doi: 10.2174/1874920800902010054

Turunen, H, Tossavainen, K, Jakonen, S, and Vertio, H (2006): Did Something Change in Health Promotion Practices? A Three-Year Study of Finnish European Network of Health. *Teachers and Teaching: Theory and Practice, 12 (6),* 675-92.

Turunen, H. Tossavainen, K, and Vertio, H (2004): How can critical incidents be used to describe health promotion in the Finnish European Network of Health Promoting Schools? *Health Promotion International 2004, 19 (4),* 419--427; doi: 10.1093/heapro/dah403

Viig, NG, Fosse, E, Samdal, O and Wold, B (resubmitted): Leading and supporting the implementation of the Health promoting schools program in Norway.

Viig, N.G., Tjomsland, H.E. and Wold, B. (2010). Program and School Characteristics related to Teacher Participation in School Health Promotion. *The Open Education Journal 3,* 10-20.

Viig, NG and Wold, B (2005): Facilitating Teachers' Participation in School--Based Health Promotion. A Qualitative Study. *Scandinavian Journal of Educational Research, 49(1),* 83-109.