School health promotion: evidence for effective action

Background paper SHE Factsheet 2

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1. Introduction

This background paper of SHE Factsheet 2: 'School health promotion: evidence for effective action' provides an overview of the evidence of health promotion in schools, with almost 90 scientific references to support the case for the Schools for Health in Europe (SHE) network. The document is written for everyone who cares about what happens in schools. It is particularly useful for policy makers, such as politicians, government departments, non-governmental organisations (NGOs), education authorities, school boards/councils, parents, school managers, teachers and school health coordinators.

Although the background paper focuses on school health promotion, this focus requires a wide-angle lens because this concept has great breadth and is inter-sectoral in its scope and ramifications. Health promotion in a school setting is a broad concept which includes health education and is viewed as any activity undertaken to improve and/or protect the health and well-being of all school users. It includes provision and activities relating to: health promoting school policies, the school's physical and social environment, the curriculum, family and community links, and health services.

In the SHE network a 'health promoting school' is defined as 'a school that implements a structured and systematic plan for the health, well-being and the development of social capital of all pupils and of teaching and non-teaching staff. This is characterized as a whole school approach (or 'whole of school approach') and in the different European countries other terms are used such as 'healthy schools', 'good and healthy schools', but they all have a similar intention.

About the SHE network

The Schools for Health in Europe network (SHE network) was established in 1992 as the European Network for Health Promoting Schools. It is an established network of national coordinators in 43 countries in the European region. The SHE network is focused on making school health promotion an integral part of the policy development in the European Education and Health sectors. It is providing the platform for European professionals with an interest in school health promotion and is supported by three European organizations: WHO Regional Office for Europe, Council of Europe and the European Commission. The SHE network contributes to making schools in Europe a better place for learning, health and living. It uses a positive concept of health and well-being and acknowledges the UN Convention of the Rights of the Child.

SHE core values

On the European level, the following core values are shared and these values underpin the health promoting school approach:

- Equity. Equal access for all to education and health;
- Sustainability. Health, education and development are linked. Activities and programmes are implemented in a systematic way over a prolonged period;
- Inclusion. Diversity is celebrated. Schools are communities of learning, where all feel trusted and respected;
- Empowerment. All members of the school community are actively involved;
- Democracy. Health promoting schools are based on democratic values.

SHE pillars

On the European level, the following pillars are shared that underpin the health promoting school approach:

- Whole school approach to health. Combine health education in the classroom with development of school policies, the school environment, life competencies and involving the whole school community;
- Participation. A sense of ownership by student, staff and parents;
- School quality. Health promoting schools create better teaching and learning processes and outcomes. Healthy pupils learn better, healthy staff work better;
- Evidence. Development of new approaches and practices based on existing and emerging research;
- School and community. Schools are seen as active agents for community development.

This background paper reflects the above core values and pillars and explores the evidence on the part they play in effective school health promotion. The document also explains *why* health promotion in schools is important. As the SHE network uses as an evidence-based approach to developing effective school health policies, it summarises the growing body of evidence related to this vital work.

2. A global context- a European initiative

There are various important initiatives at global and European level which provide a context for the work on health promoting schools in the SHE network.

First of all, the United Nations Millennium development goals[2] set school education as a clear priority. The second goal relates to basic education for every girl and boy by 2015. Advances have been made since the targets were set in 2000, but some 60 million children are still out of school, 32 million of them girls and 28 million of them in conflict zones.

The World Health Organization (WHO) Commission on the Social Determinants of Health[3] published its report in 2013. The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.

The report calls on the WHO and all governments to lead global action on the social determinants of health with the aim of achieving health equity. The report emphasises the wide range of action required and it refers to the importance of making schools healthy places for children and young people.

The European Union (EU) and the WHO Regional Office for Europe fully acknowledge that health is determined, to a large extent, by factors outside the health sector and all EU policies are required by an EU treaty[4] to follow a 'Health in all Policies' approach. It is recognised that education is one of the key settings for the promotion of health which provides a context for health promoting school development in the European region. However, health promoting schools are not simply a way of improving the health of young people, as education and health are inextricably linked in many ways. This document will show that health promotion can also assist schools to meet their targets in educational attainment and to meet their social aims.

The SHE network started operating in 1992 as a network of five national pilot projects of health promoting schools. In the 21st century there is more global sharing of research and activities with networks such as the International Schools Health Network (ISHN)[5] and organisations such as ASCD[6] supporting a whole school approach and a 'whole child initiative' internationally. In addition there are related networks in Europe and globally, for example in community schools, school connectedness, sustainable schools and eco-schools which share many of the SHE principles and core values of the health promoting school approach. What all these initiatives have in common is their commitment to improve the health and well-being of all our young people and at the same time to make schools a better place to learn and work.

3. Linking education and health promotion

Before reviewing the evidence of what works in school health promotion, it is important to clarify the conceptual scope of health promoting schools and to show how this links with a progressive view of education.

'Health promotion in a school setting' could be defined as any activity undertaken to improve and/or protect the health of all the school community. 'Health education' in a school is a communication activity and involves learning and teaching pertaining to knowledge, beliefs, attitudes, values, skills and competencies. Health education is often focused on particular health topics, such as tobacco use, alcohol use, healthy eating, hygiene and mental health; or it may involve reflecting on our health in a more holistic way. Both health promotion and modern concepts of education share a participative approach. Health promotion in a school community involves the following:

- a participatory and action-oriented approach to health education in the school curriculum;
- bearing in mind that pupils have their own concept of health and well-being;
- developing healthy school policies which promote health and well-being;
- developing a healthy physical and social school environment. The physical environment includes the buildings, grounds and school surroundings. For example, creating a healthy physical environment may include making the school grounds more conducive to recreation and physical activity. The social environment relates to the quality of the relationships between school community members, e.g. between pupils and school staff;
- developing life competencies. This is accomplished through the formal and informal curriculum and activities to support skills development and capacity building related to health, well-being and academic achievement;
- making effective links with home and the community. These are links between the school community and the pupil's families and the school community and key groups and individuals in the surrounding community;
- making efficient use of health services. Health services in the school context are local or regional school-based or school-linked services that are responsible for the direct health care and health promotion of pupils; and
- recognising that the school offers opportunities for workplace health promotion and should consider the health of all school users.

The concept of health promotion is often more familiar to those working in the health sector compared with the education sector. This is partly because the term had its origins in WHO documents in the health sector, but also because professionals in the education sector have a broad concept of the term curriculum and would describe several or all of the above components of a health promoting school as being part of the extended or whole curriculum of the school. Therefore, many in the education sector do not make this distinction between health education and health promotion in the same way as in the health sector. This is not necessarily a problem, but requires mutual understanding and respect for respective conceptual frameworks and associated professional language when working in partnership. A collaborative approach is essential if school health is to progress and there are indications that it is now being addressed in many parts of the world. The use of the terms such as 'school connectedness', 'democratic schools', 'sustainable

schools', a 'whole school approach' and a 'whole child approach', are more common in the education sector. As stated earlier, these are examples of initiatives or approaches which are related conceptually to health promoting schools. The evidence in this background document will draw on their literature as well as studies in the area of health promotion.

A more traditional approach to health education in schools focuses on individual health topics, such as healthy eating, smoking, physical activity and mental health. This is not only reflected today in some of the initiatives in schools but is also reflected in the perceptions of outside funders for research or curriculum initiatives on, for example, obesity or substance misuse. However, the health topics are not separate in the lives of young people or in their health-related and risk-taking behaviours. For example, teenage sexual activity can be linked to alcohol and drug use and many mental health states of young people are good predictors of high risk behaviours in other topic areas. In a topic-based approach, health may be viewed at the level of the individual and their relationship to the topic being explored, when in fact the social environment may be more powerful in determining behaviour. For example, research on teenage pregnancy or on topics such as obesity suggest that social class and other social factors have a large influence as well as individual decision-making.[7] While it can be argued that the act of separating mental health as a discrete topic could be helpful to increase its profile, it also holds inherent risks that the mental and emotional aspects which are integral to all health issues may be neglected in other topics.

While a topic approach in school health education can play an important role in the promotion of health in schools, there are a growing number of health topic programmes and initiatives that are taking account of a whole school approach. A recent development looks at the transfer of learning across different topics in health education. The term 'transfer' refers to a process in which knowledge and skills learned in one context (e.g., a particular health behaviour domain) are applied to another context (e.g., a different health behaviour domain).[8] This is based on the assumption that the knowledge and skills relevant to various domains share common factors. A recent research study in the Netherlands concluded that transfer is possible. This involved a specially designed transfer-oriented programme about smoking behaviours and safe sex, to achieve effects on behaviour and determinants not only in the domains of smoking and safe sex, but also in the closely related domain of alcohol and the less closely related domain of healthy nutrition.

The reality is that school curricula reflect a topic and/or subject approach, and much of the research on health in schools also focuses on this and it is important to acknowledge that reality. However even at the level of individual subjects such as language, mathematics, physical education etcetera it is evident that there are closer links between the subjects than many curriculum designers may have believed in the past. A systematic review of physical activity and academic performance[9] concluded that participation in physical activity is positively related to performance in other subjects studied by children. Modern neurophysiology reveals that physical exercise and cognition use similar biological processes and circuits in the brain. The brain areas which were previously thought to be reserved for memory functions, are also important for motor processes and similarly the cerebellum is now known to be important in cognitive development as well as its importance in motor function and physical activity.[10, 11]

All of the above is an argument for ensuring that if a health topic is being explored, that possible connections are made to other topics in the classroom and in the wider life of the school. In a child-

centred or student-centred approach we should be facilitating the young people to consider the issues in the reality of the social and environmental contexts of their lives. There are uniting themes that can cut across topics and subjects at a theoretical and pedagogical level. The life skills and competencies, which young people should develop in the context of health promoting schools, can be important and common to all topics. For example, the skill of being assertive or the ability to critically reflect on their role as individuals in a complex society with conflicting values about health. In the SHE network the concept of action competence[12] has been central to the approach in many countries. This refers to children's and young people's ability to use their knowledge and skills to initiate change in their own lives as well as in the living conditions related to their health and wellbeing.

A health promoting school approach can provide holistic support for innovative work in the curriculum. For example, a school curriculum on healthy eating can be supported by the students playing an active part in all related aspects of food provision in the school. This could include features[13] such as:

- ensuring healthy school food is available at breakfast or lunch time;
- developing a policy on snack provision;
- ensuring fresh water is available in classrooms;
- encouraging students to develop skills in food cultivation, preparation and purchase with the involvement of parents and local food organisations;
- making provision for related physical activity initiatives, such as safe and active routes to schools or secure bicycle storage;
- making links with associated issues, such as mental and emotional health, the cultural role of food, and the role of the media in marketing food.

To conclude this section it is clear that education and health are inter-related and can be viewed as synergistic in their relationship. The evidence suggests that:

- healthy young people are more likely to learn more effectively;
- health promotion can help schools to meet their social aims and to improve educational attainment;
- young people that attend school have a better chance of good health;
- young people that feel good about their school and who are connected to school and significant adults are less likely to undertake high risk behaviours and are likely to have better learning outcomes.

The research literature reveals many interactions between education and health and although all the causal links are not yet fully understood[14] we have sufficient evidence to justify action. Many government education ministries have not yet fully invested in what they may perceive as a health-related initiative and yet it is now clear there are potentially huge benefits in educational terms for the education sector to consider.

Simovska[15] suggests that health promotion in schools would do well to reconnect with the traditions of educational theory and to develop innovative forms of educational practices and interventions in the face of complex societal challenges concerning health and health promotion. She believes that this will help to bridge the gap between the health and education sectors. The next section acknowledges this and draws on evidence from a variety of approaches including public health science, education and the social sciences.

4. The research on the effectiveness of health promotion in schools

The summary on the research on the effectiveness on health promotion in schools is presented in this background paper in three sections:

- Research on effectiveness on contextual matters;
- Research on effectiveness on health topics in the school setting;
- Research on effectiveness on whole school approaches.

4a. The research on effectiveness: contextual matters

The following section summarises the research on effectiveness on the contextual matters which are most influential in relation to change and innovation in schools, including the introduction and establishment of health promoting schools.

Equity

Top of this list of important contextual matters for health promoting schools are inequalities in health and the impact these have on peoples' lives. As stated in the introduction, the WHO report on the social determinants of health emphasizes the wide range of actions required to tackle inequalities in health and it refers to the importance of making schools healthy places for children. A 2014 report on Early Years, Family and Education from a WHO regional office for Europe task group,[16] states that investments in children, particularly those designed to reduce the effects of inequalities, can be effective. It also calls on politicians at the highest level to support such initiatives. It requests that at a service level, head-teachers and senior officers in social and health care need to be visibly committed to reducing health inequalities if changes are to be implemented. The report also comments on the evidence that such multi-sectoral approaches will not be effective unless they are sustainable and given sufficient time. They are not time-limited projects or interventions.

Teacher education and training

The level and quality of the preparation of teachers to implement health promotion in schools is identified as a crucial factor.[17] Both the importance of initial and pre-service teacher education are central for school health promotion. The evidence is clear that teacher attitudes and knowledge are key factors in their intention to work with health-related content. Teacher education plays an important role in shaping teachers' identities as educators of the whole person as well as subject experts, which is of great consequence for the effectiveness of the whole-school approach to health promotion. The section reporting on effectiveness of health promotion and specific health topics reinforces the importance of the skills of the teacher in relation to the effectiveness of specific initiatives.

Understanding the culture of schools

Schools are complex social structures and this has to be recognised as being as important as the individual teachers' beliefs, attitudes and skills, referred to above, when innovations are planned. The research indicates that there are powerful factors at the level of the whole school which can inhibit or promote change.[18] Many traditional models in public health assume that if one defines an issue, test 'interventions' and then build this into professional practice, then success will result. However the last stage of building and disseminating new ways of working in other settings is very complex and there are many barriers to overcome. The fact that the growing evidence in the

literature of health promoting school approaches being effective is not matched by the uptake of this approach in education systems across Europe and other parts of the world, is due in part to a failure to recognise fully the complexity of bringing about such changes to the practice of schools. There is growing understanding in the health promotion, social science and education literature of this complexity.[19,20,21]

The research suggests that teachers must feel ownership of any major change in their way of working in the system. Fullan[22] uses the term 'moral purpose', defined as making a difference in the lives of students, as a critical motivator in addressing and sustaining complex reform. However the evidence suggests that to sustain changes this will not be sufficient if it only exists at the level of the individual teachers. There is also a pre-requisite for leadership and ownership at the school level as well as political and practical support at regional and national level. [23,24]

This type of capacity building and national support have been features of initiatives where success has been achieved in establishing health promoting schools in the mainstream of education systems. There is also evidence that for major changes to be successful, they require a reduction in the gap between high and low performers at all levels including individual teachers in classrooms and managers in schools.

If teachers need to be deeply motivated in terms of improving the lives of their students, then the teachers' self-esteem, health and well-being are central to this change process. A report [25] on baseline findings of a school-based intervention in Finland and Estonia on schools aiming to improve the occupational wellbeing of school staff, suggested that the wellbeing of the school staff is related to professional competence and to opportunities for its continuous development as a part of working life. This is broadly supportive of the health promoting schools role in improving and protecting the health and well-being of all school users and it has relevance to the effectiveness of teachers not only in terms of health promotion but in their roles in improving educational attainment of their students. This concept is explored further below.

Pupil/student participation and ownership

In addition to the evidence on the nature of educational change, there is a growing body of evidence, particularly from the 'school connectedness' movement in the USA, that the more connected young people feel to their school then the greater their emotional well-being and educational attainment. [26] The challenge for policy makers and school managers is putting into place policy and strategies which can increase the connectedness students feel towards their school. Health promoting schools fit well with the connectedness movement as they aim to improve not only the physical environment of the schools but also the social and emotional climate within the school and the links with parents and carers of the young people. A report from The American Center for Disease Control (CDC) entitled 'Fostering School Connectedness' offered an extensive set of practical suggestions to school principals or head teachers. Under the heading of 'Creating trusting and caring relationships that promote open communication among administrators, teachers, staff, students, families, and communities', the following are selected as examples of the advice given based on current research evidence relating to effective practice:

- allow students and parents to use the school facility outside of school hours for recreation or health promotion programmes;

- provide opportunities for students of all levels to interact, develop friendships, and engage in teamwork;
- involve students in parent-teacher conferences, curriculum selection committees, and school health teams;
- communicate expectations, values, and norms that support positive health and academic behaviours to the entire school community.

A systematic literature review of evidence for the effects of student participation in school health promotion[27] revealed that with respect to the students' acquisition of skills, competencies, knowledge, as well as health-related effects, there is promising evidence that the participation of students is beneficial for their lives in general. A specific case study[28] on student participation concluded that, if given sufficient guidance, children can act as agents of health-promoting changes. The main goal of participation was construed as the development of students' capacities to actualize their ideas and the pupils were positive about their involvement.

Linking health promotion to the core tasks of schools

A special edition of the journal Health Education[15] which was devoted exclusively to health promotion in schools concluded that the evidence of practice to date suggested that health promotion in schools needs to be linked with the core task of the school – education, and to the values inherent in education, such as inclusion, democracy, participation and influence, critical literacy and action competence in relation to health. At a government policy level the evidence suggests that effective partnerships between the education and health sectors is the way forward, but the demands of this approach and the extent to which it challenges existing professional demarcations, has to be acknowledged. In Germany the health promoting school movement has been linked to the school core tasks relating to learning, through the concept of 'the good and healthy school'. [29] However most countries have had only limited success in developing effective inter-ministerial or inter-sectoral partnerships which have led to health promoting schools being established in the fabric of a country's education system. There is evidence on the nature of the barriers to successful partnerships between education and health and there are examples of countries where these barriers have been successfully negotiated. It is evident that partnership-working requires shared clarification of basic concepts and terminology, assumptions, values and methods. This process needs to be nurtured and maintained if partnerships are to be sustained.

In countries such as Poland[30], Portugal and Scotland[23], health promoting schools are in what has been described as an establishment phase[31] which is characterised by policy statements at national level in the health sector feeding into the education sector. In addition policy statements on specific school initiatives relating to health are increasingly placed in the context of health promoting schools, for example curriculum policy statements and food provision policy in schools. This phase is also characterised by the education sector gradually taking on greater responsibility for health promotion in schools and integrating health promotion into mainstream education. At the level of individual schools, health promotion becomes institutionalised, that is it becomes integral to the schools core values and normal ways of working.

Involving parents and carers in school health promotion

The evidence is clear that parental and family influences are the main influence on young peoples' lives. A review of the impact of parental involvement on children's education confirmed the long held view that the impact of parental involvement is large. It concluded[32] that what parents do with their children at home through the age range, is much more significant than any other factor open to educational influence. A recent review reported strong evidence that school-based interventions with the involvement of family or community and multi-component interventions can increase physical activity in adolescents.[33] In addition, there is clear evidence that the active involvement of parents in practical nutrition education had positive effects on the outcomes of such work.[34]

Promoting staff health and well-being

Schools are viewed as settings for health promotion of the students, staff and all school users. The term 'health promotion setting' was introduced in 1986 in the Ottawa Charter and is defined as the place or social context in which people engage in daily activities in which environmental, organisational, and personal factors interact to affect health and well-being. Schools are one such setting[35] both as a workplace and an educational domain, and within that setting the health of the staff is paramount as well as the students. A review of the evidence on work-based health promotion programmes[36] suggested that successful programmes have the following features:

- take account of employee needs;
- have senior management support/buy-in;
- are aligned with the schools overall goals;
- allow teachers to lead on-going change and initiatives;
- build in assessment of the outcomes of the programme.

There is evidence that investing in teachers' and other professionals' personal development can have positive effects on their self-esteem, attendance rates and their own view of their professional work.[37] There is also evidence that young people learn better from teachers they respect. Teachers who provide emotional support, reward competence, and promote self-esteem can decrease the vulnerability of high-risk students in response to stressful life events.[38] It is clear that investing in teachers' health can have benefits for individual staff and, through them, on their students.

4b. The research on effectiveness: health topics

Most of the evidence on the effectiveness of health education and health promotion in schools is from work on specific health topics. This reflects the reality that it is easier for researchers to get access to undertake this approach rather than to research the complex variables inherent in a whole-school approach. However there is much in this topic-related evidence that supports programmes which could be classed as a health promoting school or a whole school / whole child approach.

Mental health

Mental health initiatives in schools seek to build the social, emotional and spiritual wellbeing of students to enable them to achieve education and health goals and to interact with their peers, teachers, family and community in ways that are respectful and just.

The evidence shows successful mental health initiatives:

- are well designed and grounded in tested theory and practice; [39,40, 41,]
- link the school, home and community; [42,43,44,41,]
- address the school environment; [41, 42,43,]
- combine a consistency in behavioural change goals through connecting students, teachers, family and community; [44,45,42,43,]
- foster respectful and supportive relationships among students, teachers and parents; [41,43,]
- use interactive learning and teaching approaches; [40,44]
- help to increase the connections for each student. [43,46,47,48]
- help to develop improvements in achievement tests, social and emotional skills and decreases in classroom misbehaviour, anxiety and depression. In addition there are significant benefits in relation to reductions in aggressive behaviour, school drop-out rates and in building a sense of community in the school. [49,50,51,52,53,54,55,56,57]

Substance use and misuse

The evidence shows that school-based initiatives on tobacco, alcohol and drugs are more likely to be effective if the programmes are interactive rather than teacher-centred; focus on life skills, e.g. refusal skills, assertiveness; take a whole school approach; link with the family and local community; and address the improvement of connections for students.

The evidence also indicates that:

- effect sizes (at best) are modest, but compare well with results of clinical trials;[58,59]
- some successful gains may include a short term delay in use and or short term reduction in usage;[58, 59]
- positive effects are more likely to occur influencing tobacco, than alcohol or illicit drugs;[59,60,61,]
- specific programmes are more likely to have no effects or harmful effects on alcohol use;[60]
- teaching staff, who understand mental health issues, achieve higher health and educational outcomes for the students.[62,63]

Hygiene

The scientific evidence about the health benefits for children and adolescents of hand washing, drinking clean water and using proper sewage systems is very strong. However there are limited quality published outcomes of the initiatives taken by schools to promote healthy hygiene.

The evidence indicates that in developing countries well designed and implemented initiatives, which have included a whole school approach involving the physical environment, links with the health sector, and which have suitable policies and curriculum, have increased school attendance rates and reduced worm infestations (mainly through the provision of worm eliminating drugs), but that it is more difficult to sustain the students' hygiene-related behaviours outside the school.[64, 65,66]

Sexual health and relationships education

Sexual health and relationships education programmes, when conducted by trained and empathic educators:

- increase sexual knowledge; may increase safe sex practices;[67,68,69,70,]
- may delay the time of first sexual intercourse resulting in young people reporting on better communication in their relationships;[70,71]
- do not promote earlier or increased sexual activity in young people;[67,71,72]
- may explicitly promote and build school connectedness for students and this is strongly associated with reduced sexual activity in adolescence.[42,46,67]

Healthy eating

Healthy eating programmes that follow evidence-based teaching practices and a whole school approach have been shown to regularly increase student knowledge about food and diet. However, changes in student eating behaviours have been less successful. Girls tend to benefit more than boys and some quality initiatives have reported a modest increase in vegetable consumption.

Those initiatives which did achieve some biological and behavioural changes had some or all of the following features:

- a whole school approach;[73,74,]
- links with parents and food preparation at home;[75,76]
- consistency between the taught curriculum and food availability in the school;[75]
- programme longevity (over three years) and regular inputs by staff and students in planning and implementing activities;[76,77]
- on-going capacity building opportunities for staff.[71,77]

Physical activity

The evidence suggests that:

- physical activity initiatives in schools are most effective if they adopt a comprehensive approach; e.g. the development of skills, establishing and maintaining suitable physical environments and resources, upholding supportive policies to enable all students to participate;[50,71,78,79]
- daily physical activity at school improves pupils' motivation and has no negative effects on cognitive development even though less time may be available for cognitive tasks;[75,79,80,81]
- there is a strong direct correlation between being physically active at school and undertaking physical activity in adulthood; [75,82]
- students gain more benefit from physical activity if they have opportunities to be active at regular times during the school day; [75]
- if students collaborate with school staff in deciding the type of physical activity to be undertaken, which could include other activities not viewed as sport, such as dance, then they will be more committed to participation; [82,83]
- a Cochrane review of physical activity in schools concluded that positive effects were observed for the duration of physical activity, television viewing, VO2 max (a measure of oxygen uptake), and blood cholesterol as a result of school physical activity. However the level of physical activity available in most schools usually had little effect on total physical activity rates, systolic and diastolic blood pressure, body mass index (BMI), and pulse rate;[84]

- the results from biological measures, e.g. BMI, blood pressure measures and measures of oxygen use, have limitations and may be ineffective in assessing physical fitness levels of growing pupils and other outcomes of school-based physical activity;[84]
- programmes that cater for student diversity in areas such as ethnicity, physical ability, gender and age are more effective in terms of student participation and engagement. [71,75]
- there is a mixed picture in terms of the amount of physical education being offered to young people in Europe. Many countries have a statutory minimum provision but policy and practice do not always match up. [85]

4c. The research on effectiveness: whole school approaches

A conclusion of a major review[71] of health promoting school approaches suggested that, on the basis of evidence, mental health should be a feature of all school health promotion initiatives and that effective mental-health promotion is more likely to reduce substance use and improve other aspects of health-related lifestyles that may be driven by emotional distress. It also concluded that programmes on healthy eating and physical activity are among the most effective health promotion programmes. The review pointed out the shortage of experimental studies relating to a health promoting schools approach but said there was evidence that multifactorial approaches, contribute to effectiveness. The overall conclusion was that there is evidence to show that sustained, multifactorial, whole school approaches in schools are the most effective.

The outcomes from the health topic research needs to be viewed in the context of whole school approaches as there is complementary research supporting this broader approach taken by SHE and others working in this domain. Examples come from studies that have investigated or reviewed whole school approaches. For example, there is evidence that schools vary in their smoking, drinking, and drug use, and those that have an ethos which engages pupils are more health effective than those which do not. This variability in the extent to which schools approximate to a health promoting school model is itself evidence of the potential of the health promoting school.[86]

In addition there is now a wealth of good case studies of whole school or health promoting school approaches which record the successes and failures of whole school initiatives internationally.[19,23,28,29] It is important that as well as evidence- based practice we acknowledge practice-based evidence. These cases not only provide a wealth of information about outcomes in relation to methods, but also inform on the process of change, innovation, sustainability and the political context of successful innovation.

The fact that there is growing evidence of a health promoting school approach being effective is not matched by the uptake of this approach in education systems across Europe and other parts of the world. Many traditional models in public health assume that if you define the issue, develop and test ‘interventions,’ build this into professional practice then success will result. However the last stage of building and disseminating new ways of working in other settings is very complex and there are many barriers to overcome. There is growing understanding in the social science and education literature of this complexity.[18,20,21]

A recent paper of the International Union for Health Promotion and Education[87] summarises what has been shown to work well and are prominent features of effective schools. These are:

- developing and maintaining a democratic and participatory school community;
- developing partnerships between the policy makers of the education and health sectors;
- ensuring students and parents feel they have some sense of ownership in the life of the school;
- implementing a diversity of learning and teaching strategies;
- providing adequate time for class-based activities, organisation and coordination, and out of class activities;
- exploring health issues within the context of the students' lives and community;
- utilising strategies that adopt a whole school approach rather than primarily a classroom learning approach;
- providing ongoing capacity-building opportunities for teachers and associated staff;
- creating an excellent social environment which fosters open and honest relationships within the school community;
- ensuring a consistency of approach across the school and between the school, home and wider community;
- developing both a sense of direction in the goals of the school and clear and unambiguous leadership and administrative support;
- providing resources that complement the fundamental role of the teacher and which are of a sound theoretical and accurate factual base;
- creating a climate where there are high expectations of students in their social interactions and educational attainments.

The research literature demonstrates substantial congruence between three fields:

- the research and evaluation literature on school health;
- what constitutes successful learning and teaching in schools;
- what makes schools effective in achieving educational, health and social outcomes.

The close relationship between these fields is a product of the interaction of school management and educational practices. When a supportive educational climate is created this will motivate the young people to be effective learners and as part of this process it will encourage them to reflect on their own health and well-being at a personal and societal level.

5. Conclusions

Ten years ago the evidence on the effectiveness of health promoting school approaches existed but was not well established. However the evidence published in the 21st century on both educational and health outcomes is very positive and there is a need for policy makers to act now to establish and further develop health promoting schools in Europe given the strength of the evidence. As well as evidence relating to outcomes we also have evidence on the factors that influence the process of change in schools and educational systems. It is clear from the countries that have achieved a degree of success in the establishment of health promoting schools within a national educational system that this takes time and requires the following:

- political will;
- partnership working and mutual understanding between the education and health sectors to build trust and capacity;
- leadership and support from school managers;
- building of ownership of a health-related initiative within the education system;
- recognition of local/regional initiatives within the national development programme;
- training of teachers.

The UN commission on the social determinants of health has provided a clear view of what requires to be done in terms of the schools role in reducing inequalities. It is clear that schools alone will not solve the problem of these inequities if there is not a supporting context, and the report suggests that a multi-strand and multi-level approach is required. The report of the Commission acknowledges the importance of schools but makes it clear that other strands such as pre-school, social services, parental support, clinical health, transport access and safe stimulating environments are also needed. The evidence suggests that it may also be necessary to target vulnerable children within schools and other settings if a reduction in health inequities is to be achieved.

It is clear that from published case studies that any investment in children, particularly those specifically designed to reduce the effect of inequality, takes time to show positive results. It is critical that policy-makers support such investments where they are based on good evidence. The results may not show within an electoral cycle and if there is to be progress in reducing health inequalities, head teachers and senior officers in social care and the health sector need to show commitment and work together to make a difference.

Finally, it is evident that there is a need to support research which use a wide range of methods.[88, 89] There is also a need for more systems research which attempts to assess the synergistic interactions which can occur in the complex ecology of a school. This is necessary to make sure that professional practice in this vital work continues to be based on the best possible evidence. We also need to ensure that good practice is also seen as part of the evidence and that where there have been successes, we acknowledge this and disseminate it through good case studies. We have made great progress in the last thirty years in Europe in understanding health promotion in schools, but the goal of embedding good practice in education systems is only partially achieved and we now know that schools have the potential to play an important part in the task of reducing inequalities in health in Europe and across the world.

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