

## What's the place of schools in promoting health? Are we too optimistic?

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Schools are viewed by the health sector and the community as playing a key role in solving society's health problems. This is true in both developed and developing countries. The emerging obesity/overweight problems of the developed world, and poor sanitation and basic hygiene in many developing countries are just two of the many topics, which may find their way into a school's curriculum.

But can schools actually make a difference to the health status of young people? And what part, if any, do they play in reducing dental caries, poor nutritional behaviours, unwanted pregnancies, gastrointestinal diseases, tobacco use, etc., etc.? Perhaps we believe schools are better placed to address health issues than the reality suggests. We might even have an inappropriate model on which we have based most school health interventions.

Compulsory schooling in many countries began in the latter half of the 19th century. This was a time when pioneers such as Chadwick, Howard and Simon had argued that addressing the settings in which people lived, by developing policies to change the social conditions and physical environments, produced significant improvements in the health status of communities. It was not surprising that the newly developed schools took on a role in building the health knowledge and skills of their students. Clement Dukes' seminal work on school hygiene formed the basis of the health curriculum in many countries (Dukes, 1885). The emphasis was on proper hand washing, toileting and careful use of water from uncontaminated sites. There is no doubt that if students learn basic hygiene practices, then they reduce the risk of contracting certain diseases. The school curriculum in most developing countries still has a major component on hygiene.

Schools gradually included more topics in their health programmes. Alcohol education or

'temperance education' as it was often called, was a prominent component for much of the first half of the 20th century. Physical fitness, especially for boys, was prominent and much of the health teaching was done by visiting doctors and nurses. Little teacher training was available and resources were limited to the occasional library book.

Some of the visiting doctors actually saw health education, or hygiene instruction as it was often known, as an opportunity to make links with the community and other curriculum subjects. For example, nearly 100 years ago, the first school medical officers in Victoria, Australia, Doctors Harvey Sutton, Jane Greig and Mary Booth stated:

... more than any other subject it can serve to link up the home, school and communal life of the child... it deals with matters that have a real relationship to his (sic) life and society... it is capable of correlation to nature study, physical culture, first aid, domestic acts and morals. [(Board of Education, 1913), p. 102]

Yet it was over 70 years before school health began to move away from its classroom straight jacket. During this time, new advances in health knowledge found their way into the school curricula of many nations. In the latter half of the 20th century, schools were expected to address classroom topics as diverse as oral health, nutrition, sexuality, drugs, traffic safety, physical activity, AIDS/HIV and mental health.

Support materials for schools frequently emanated from Non-Government Organisations (NGOs) with a particular interest in the major causes of morbidity and mortality. In developed countries, and increasingly so in developing countries, kits on traffic safety, drug reduction, heart health and cancer education would arrive in schools with little or no training for staff. Teachers were expected to use this material,

which it was assumed would reduce unnecessary injury, cardiovascular disease (in the future), drug experimentation, etc. Most kits and curricula packages were based on a simple, but false premise viz. that by giving students basic knowledge about a health issue in the classroom, students would alter the way they behaved in relation to that issue and thus contribute substantially to the reduction of relevant morbidity and mortality rates. The research in the behavioural sciences and in education in the last two decades of the 20th century showed this knowledge acquisition—behaviour change link, to be oversimplified and unlikely to succeed.

One felt sorry for schools. They had a collection of many resources, few professional development opportunities, and competition from the specific disease and health issue groups to use their materials as presented. Little evaluation of the interventions occurred, and that which did mainly focussed on measuring the uptake of the materials, the amount of time spent on particular topics, and the specific knowledge acquisition by students.

The Ottawa Charter for Health Promotion [World Health Organization (WHO), 1986] has had a major influence on school health in the last 20 years. It has reshaped school health across the world. It has firstly encouraged both the health and education sectors to reorient their perspectives by building the health attributes of students in a positive way, rather than focussing mainly on reducing morbidity and mortality rates. Secondly, it has embraced a more holistic approach to school health and helped schools to be more strategic in their planning and actions. This is exemplified in the many guidelines for school health promotion, which have been developed. WHO's Expert Health Committee produced three excellent booklets in 1996, which delineated the dimensions of school health. The Centre for Disease Control (CDC) in the USA has been instrumental in creating an integrated framework for school health initiatives viz. comprehensive school health to co-ordinated school health. The European Network of Health Promotion Schools (ENHPS) and the work of the WHO Regional offices have repositioned school health in quite outstanding ways. Central to their efforts has been the recognition of the many different aspects of a school, which impact on the health and well being of young people.

The settings movement in health as exemplified by Healthy Cities, Health Promoting

Hospitals, Health Promoting Worksites, etc., has also involved schools. The Health Promoting Schools (HPS) movement is internationally spread, and dynamic in its efforts.

Many groups have embraced this whole school approach to health. WHO, CDC and many NGO's have provided strategic leadership. The impetus has been driven as well by the International Union of Health Promotion and Education (IUHPE) with its commitment to school health effectiveness. At the last IUHPE conference in Melbourne in April 2004, the many strands on school health were constantly oversubscribed and exciting designs, implementation approaches, evaluation findings and research studies were presented from across the world.

Individuals have also played a major role in advancing school health in their own countries and in other international settings. Kolbe, Bruun-Jensen, Nutbeam, Collins, Erben, Jones, Lee, Allensworth, Paulus, Weare and so many others have made substantial contributions to reshaping the approach to school health.

A quality HPS will now have elements of different components addressing a health issue. Its connections to the Ottawa Charter are clear and unequivocal. For example, in taking the health issue of nutrition, one could expect to see in a HPS:

- Policies: the school food service is health enhancing (no high sugar, high fat foods available).
- Physical environment: students have hygienic facilities to wash hands before eating and places to eat quietly.
- Social environment: food is integral to building relationships between students and students, and students and staff, and to celebrate cultural heritage and diversity.
- Links with the local community: schools and food suppliers work together to develop goods and services, which benefit both sectors.
- Personal skills: students develop knowledge about a balanced diet and skills in the purchase and preparation of food.
- Partnerships with the health sector: health officials (e.g. dietician, where relevant, doctor, nurse) assist the school with advice on good nutritional practices and infrastructure requirements.

In the HPS, the classroom health experience is more dynamic and less reliant on information transfer from teachers. Students build skills in

advocacy, negotiation and enquiry. Health becomes part of their school life, not a set of scientific facts, which are designed to change their behaviours. The HPS can link very well with the curriculum requirements of most countries and provides enrichment for educational goals.

But why should schools address health at all? Clearly, in a finite curriculum there are many competing elements, e.g. increased emphasis on numeracy, literacy, etc. The core business of schools is actually focussed on educational outcomes—not reducing health problems.

In its report in 1992, the World Bank identified that poor health inhibits learning (World Bank, 1993). Other studies have confirmed this claim (Devaney *et al.*, 1993; WHO, 1996). This is the main reason schools should embrace health related initiatives—to enhance their core business of maximizing learning outcomes for students. If schools support this belief, then they are likely to construct their health programmes in quite different ways from those traditionally developed by the various issue-based groups in the health sector. And this is where the HPS concept provides a clear and flexible framework on which to develop school-based health initiatives.

Gains in school health though will not be much different from where they are today until we improve two areas: (a) increased and more rigorous professional development for teachers; and (b) strengthened school health evaluation studies. The education literature (and that from the commercial sector) has shown the importance of ensuring that employees are constantly skilled and cognitively challenged through ongoing professional development programmes. HPS require teachers to embrace school wide actions and community and health sector partnerships. Designing and implementing these actions is not easy for teachers whose modus operandi is working with young people in a classroom. They need training opportunities to build their awareness and skills.

There is still considerable confusion about what we should evaluate in school health programmes. Evidence is still being gathered about the effectiveness of various interventions and approaches. The quantity and quality of school-based research and evaluation studies is improving rapidly and a wealth of studies from many countries allows us to make confident claims about effective school health.

'The Evidence of Health Promotion Effectiveness' book auspiced by the IUHPE and

published in 1999, suggested that school health interventions are most effective if:

the focus is on cognitive and social outcomes as a joint priority with behavioural change.

programmes are comprehensive and holistic, linking the school with agencies and sectors dealing with health.

the intervention is substantial, over several school years and relevant to changes in young people's social and cognitive development.

adequate attention is given to capacity building through teacher training and the provision of resources. (St Leger and Nutbeam, 1999)

There have been many excellent evaluations of school health interventions published in the literature in the last 5 years that both confirms these claims and extends them. A group of international health professionals, educators, evaluators and school health promotion practitioners are currently working through a consultative process to assemble state of the art knowledge and evidence, and to establish realistic and quality protocols and guidelines for school health across the world. The WHO, CDC and the IUHPE are leading this collaboration.

Their task of summarizing the evidence and developing guidelines and protocols will be relatively easy compared with the task of determining an agreed set of indicators on which to shape school-based health interventions, and to evaluate them. Biological measures, e.g. lower BMI's to assess nutrition programmes; behavioural measures, e.g. changes in eating practices; technical skill indicators, e.g. capacity to prepare nutritional meals; cognitive measures, e.g. assessing the abilities to process food advertising messages, are just some of the indicators which may provide evidence of the effectiveness of school-located interventions directed at students. Then there are those indicators, which look at the school as a system, e.g. what food policies exist, what the physical environment is like and what impact it has, and the capacity of good community links to enhance the nutritional programme. In other words, evaluations will be more focussed on interrogating the effects of the different elements of the setting—the HPS. And let's not forget the educational outcomes of the health curriculum, which seek evidence of a student's competency in understanding, analysing and synthesizing information and issues.

The multiplicity of legitimate and relevant indicators for school health demonstrates both its richness and complexity. Add to these the very

relevant and more macro social determinants of health, e.g. socio-economic status of families and communities; the home environment and its influence over early life, and others which have been clearly and convincingly argued by people such as Marmot, Wilkinson and Kawachi in the last decade. There should be no surprise that whilst school health programmes might be improving in their design rigour, we are still unclear about what outcomes we expect them to achieve. Is it behaviour change, new knowledge, technical skills, community action competencies, physical health advances, or all of these plus others?

The factors, which shape the health of young people, include their genetics, peer influences, family modelling and expectations, media influences and schools. It is salutary to remind ourselves that schools are only one component and probably quite small in their influence in altering a person's health status. We expect young people to have at least 10 years of formal education, and preferably more, to equip them for their futures. A 3-month intervention designed to improve nutritional outcomes will make little or no difference.

Let us rethink school health away from kits and projects to solve problems and use the school as an ongoing setting where health is created,

supportive environments are built, partnerships made and many skills are learned. Then we might be able to say this is what school communities can realistically do to build the health and well being of their students now, and into the future.

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## REFERENCES

- Board of Education (1913) *Report on Medical Inspections and Kindred Subjects—Report of the Medical Officers*. Board of Education: Melbourne.
- Devaney, B., Schochet, P., Thornton, C., Fasciang, N. and Gavin, A. (1993) *Evaluating the Effects of School Health Interventions on School Performance: Design Report*. Mathematics Policy Research, Inc., Princeton, NJ.
- Dukes, C. (1985) *School Hygiene*. Rugby School, Rugby.
- St Leger, L. and Nutbeam, D. (1999) Evidence of Effective Health Promotion in Schools. In Boddy, D. (ed). *The Evidence of Health Promotion Effectiveness: Shaping Public Health in a New Europe*. European Union, Brussels.
- WHO (1986) *Ottawa Charter for Health Promotion*. WHO, Geneva.
- World Bank (1993) *World Development Report 1993*. Oxford University Press, New York.