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Nurses and teachers: Partnerships for green health promotion.

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Abstract

Background: The term ‘green health promotion’ is given to health promotion underpinned by the principles of ecological health and sustainability. Green health promotion is supported philosophically by global health promotion documents such as the Ottawa Charter for Health Promotion (1986) and the ecological public health movement. Green health promotion in schools aims to practice the principles of ecological health and sustainability.

Methods: An extended literature review revealed a paucity of literature about green health promotion in schools across disciplines. Literature about nurses and health promotion in schools is generally found in nursing publications. Literature about ecological sustainability in schools is mostly found in teaching publications.

Results: This paper explores the nexus between nursing and health promotion, and teachers and ecological sustainability. Collaborative partnerships between health and education do not capitalise on programs such as Health Promoting Schools and the School Based Youth Health Nurse Program in Queensland, Australia. The authors consider how collaborative partnerships between health and education in schools can work towards green health promotion.

Conclusion: Nursing’s approach to health promotion and education’s approach to ecological sustainability need to be aligned to enhance green health promotion in schools and promote a new generation of ‘tree huggers and hippies’.

Keywords: health promotion, school nursing, education, ecological sustainability

Paper type: School Health Policy

INTRODUCTION

Those who work in health promotion recognise and understand that the fundamental underpinnings of their work are embedded in environmentalism or ‘green’ philosophy and incorporate principles, practice and research from environmental health, sustainable development, and social justice.^{1,2} This concept has been badged by the authors as green health promotion. Green health promotion is underpinned philosophically by three benchmark documents; the Ottawa Charter for Health Promotion (1986), the Sundsvall Statement (1991) and the Jakarta Declaration (1997).^{1,2} The Ottawa Charter, ‘*the health promotion bible*’, is widely accepted as the principal guiding document for health promotion. The Ottawa Charter recognises the main influences on people’s lives outside the health care system lie in their physical, social and economic environment. It identifies ‘a stable ecosystem, sustainable resources and social justice and equity’ as prerequisites for health.³ The Ottawa Charter recognises the link between ‘health for all’ and social and environmental justice movements.¹

The Sundsvall Statement on Supportive Environments for Health (1991) highlights concern about threats to the global environment and the imperative of sustainable development. It calls people all over the world to action; to consciously participate in activities which make the physical, social, economic and political environment supportive for health.⁴ The Jakarta Declaration on Leading Health Promotion into the 21st Century (1997) reinforces the role of health promotion in addressing environmental determinants of health such as urbanization and the irresponsible use of resources to cause environmental degradation. It urges all levels and sections of government and society to co-operate to ensure sustainable use of resources and protect the environment.⁵ The concept of green health promotion, underpinned by these three seminal documents, identifies that ‘improving health requires social and environmental justice and sustainable development’.¹

Those familiar with these global benchmark documents acknowledge they advocate for collaborative partnerships, for example, between health and education sectors and communities.⁶ The authors recognise collaborative partnerships between health and education are required to translate health promotion and ecological sustainability into green health promotion in schools. There is support for green health promotion at a philosophical level as

indicated in seminal documents but there is little evidence these principles have been translated into policy and practice. There are numerous reasons for this; macro level barriers such as lack of departmental policy, cross-sector partnerships, workforce preparation and disciplinary silos. Micro level barriers may include lack of leadership, knowledge, time and resources. Sustainability principles have not translated into health promotion practice in schools however schools are a key setting for health promotion and the Health Promoting Schools (HPS) approach is amenable to incorporating this agenda. Consequently, the authors find little evidence in the literature for green health promotion in schools with an even greater paucity of literature about partnerships for green health promotion in schools.

GREEN HEALTH PROMOTION DEFINED

It is important to define and clarify the concept of ‘green health promotion’. Green health promotion draws on the principles outlined in seminal health promotion documents and the 1970s ecological public health movement.⁷ The philosophy aims towards ecological health or a ‘freedom from illness or injury related to exposure to toxic agents and other environmental conditions that are potentially detrimental to human health’.⁸ These adverse environmental conditions are attributed to unsustainable rates of free market production, human consumption and population growth.^{9,10} Other harmful influences include excessive natural resource extraction, fossil fuel dependence, habitat destruction and waste mismanagement.^{10,11} This new public health movement called for a range of measures to address ecological health such as sustainable economic growth, social equity, democratic governance and social equity to decrease the emergence of communicable and chronic diseases.⁷ The authors suggest the ecological health movement has lost its ‘oomph’ in the last three decades and its profile on the political landscape both here in Australia and globally.⁸

In Australia, in very recent years, the environmental agenda has gained substantial political attention and momentum. This spotlight on environmental concerns is evidenced by persistent media attention and headlines. The current political climate around environmental issues has not placed ecological health on the political agenda.

We believe it is a reasonable assumption that green health promotion in schools has not prospered because there is little opportunity in policy and practice to promote the

relationship between health promotion and ecological sustainability. Nurses and teachers have not explored opportunities for collaborative partnerships for green health promotion. This assumption is well supported by the dearth of literature.

LITERATURE REVIEW

A review of the literature reveals articles about nurses and health promotion in schools is generally found in nursing publications and literature about ecological sustainability in schools is found in teaching publications. Most of the nursing literature about health promotion relates to nursing education, that is, health promotion as part of the nursing education curriculum. The health promotion components of nurse education programs often do not incorporate aspects of sustainable development and ecological health.¹⁰ The authors conclude nurse education does not adequately address the complex interplay of 'environmental health and healthcare'.⁶⁻¹⁰ The green health promotion agenda relies on nurse's competency in health promotion. It is not within the scope of this paper but the authors want to highlight the issue of health promotion in nurse education as a possible precursor to the current void of green health promotion in schools.

Most of the publications about ecological sustainability in schools are found in the education literature. This literature focuses on teacher training and the geography curriculum. Ecological sustainability in the geography curriculum challenges students to reflect on acceptable forms of food production, resource consumption, transport infrastructure, energy, water and housing.¹¹ The authors question why ecological sustainability is not represented in education literature more broadly from a whole school perspective. Implicit in this question is another about partnerships. Such questions highlight some of the issues which contribute to the absence of green health promotion in schools.

Our investigation into the literature about green health promotion in schools suggests policymakers in both health and education have not applied the principles of the Ottawa Charter, the Sundsvall Statement or the Jakarta Declaration. We conclude the absence of literature about collaborative partnerships between nurses and teachers stems from a poor understanding of the principles and practice of health promotion.

To understand the nature of the relationship between health promotion and ecological sustainability in (primary and secondary) schools, we will examine the national and international literature about nurses and health promotion in schools and teachers and ecological sustainability in schools. This analysis sheds light on the nexus between health and education and how nurses and teachers in schools can work together to achieve green health promotion (Figure 1).¹² We consider how collaborative partnerships between health and education in Australia might capitalise on the advantages of currently existing programs such as the Health Promoting Schools and School Based Youth Health Nurse Program (SBYHNP) in Queensland.

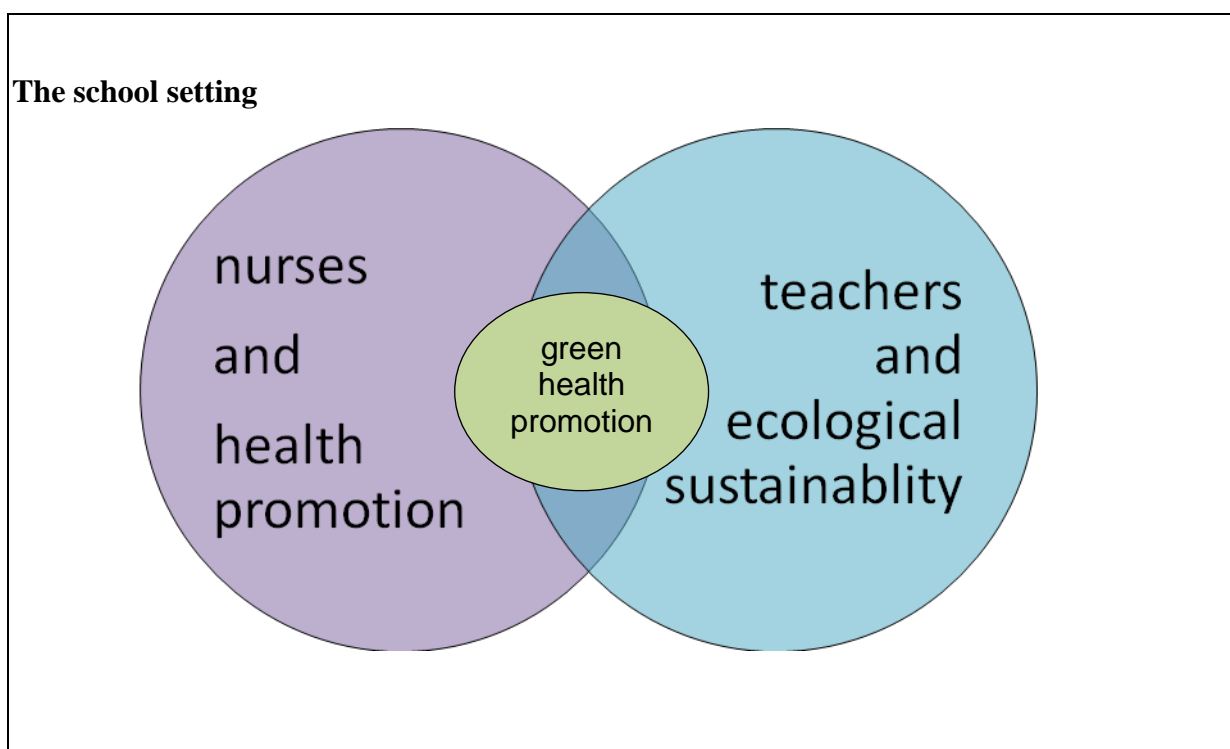


Figure 1: Visual representation of the nexus between nurses and teachers for green health promotion in schools.

Nursing and Health Promotion

The nursing literature reveals few practice examples of green health promotion. Toxic chemicals found in the umbilical cord blood of newborns indicate in utero health risks. Neonatal Intensive Care Units (NICU) nurses have a new role in minimising exposure to other hospital-wide environmental health concerns in this vulnerable population. Potential

interventions include purchasing and chemical policy and organisational infrastructure such as 'green teams'.¹³

There are examples of green teams albeit old but few are in the nursing literature.^{14,15} One example is from the University of Alabama in Birmingham USA who created a novel green health program. In 2008-9, three healthcare facilities formed a Green Team to 'minimise the negative environmental impact of hospitals'.¹⁶ The Green Team, composed of frontline nurses, senior managers, education staff members, materials management staff members, administrators, and environmental experts, conducted a local air quality study. The actions and collaboration of this initiative were successful but the program lacked government support and education policies to increase the scale of the Green Teams impact.¹⁶

There are broader policy examples of green health promotion in the nursing literature. The nursing community in North America passed environmental health resolutions for public and occupational conditions.¹⁷ In response to the need for nursing expertise in the field of environmental health, the National Institute of Nursing Research in collaboration with the Institute of Medicine and the Agency for Toxic Substances and Disease Registry designed core competencies for nursing.¹⁸ Other actions include the establishment of an environmental health committee in the public health nursing section of the American Public Health Association and the American Academy of Nurses. In 1998, the American Nurses Association joined the Health Care without Harm (HCwH) coalition.¹⁷ The HCwH coalition reduced the negative environmental degradation of healthcare industries.¹⁷ New policies improved medical waste incineration, energy use in health care buildings, disposal of unused pharmaceuticals, and pesticide use.¹⁷ This example demonstrates political will and leadership of key stakeholder organisations can put green health promotion on the national agenda.

The nursing literature about health promotion revealed other opportunities for green health promotion. Community nursing espouses the concept of the 'good life'. Public health nurses, including school nurses, can promote the 'good life' approach based on models of health promotion and ecological sustainability.¹⁹ The good life is a philosophical concept but has been modernised in ecological public health. Aristotle viewed the good life as happiness and happiness as the result of virtue. Aristotle considered justice, an element of virtue, as a political tool to ensure the good life of the individual was in harmony with the good life of

the community. To action the good life approach, nurses require a sound multi-disciplinary knowledge, personal competence and qualifications.¹⁹ The authors suggest the ‘good life’ concept should premise green health promotion because it implies moderation of lifestyle choices, espouses equity as a political tool to manage consumerism and capitalism and aligns individual and community values and attitudes.

Teaching and Ecological Sustainability

The teaching literature reveals examples of teachers engagement with ecological sustainability through curricula. Summers and Kruger examine how nine primary school teachers translate Ecological Sustainable Development (ESD) into classroom teaching.²⁰ Teachers require a framework to guide ESD teaching, local and global dimensions of ESD cannot be separated and the wider community of primary school teachers need considerable support teach ESD. Huckle, in the UK, suggests those who teach sustainable development, usually geography teachers, should take a critical approach to empower students to move towards greater self-management and consider ideas of the global anti-capitalist movement.^{21,22} This highlights the philosophical congruency between health promotion and ecological sustainability.

Sustainability engagement is presented by Negev and Sagy who conducted a national survey of sixth and twelfth grade students in Israel to evaluate their environmental literacy. Environmental literacy is defined as the dimensions of environmental knowledge, attitudes, and behaviour. There was no significant correlation between knowledge and behaviour. Ethnic and socioeconomic characteristics were moderately associated with environmental literacy. The presence of an adult who mediated childrens relation to nature was strongly related to environmental attitudes and behaviour and weakly related to knowledge.²³ From these and other studies²⁴, Negev and Sagy suggest systemic pedagogical reforms in educators and students are needed to promote green health promotion. This research highlights a problem t health promotion and ecological sustainability; the disparity between knowledge and behaviour change. It identifies the value of role modelling environmental attitudes and behaviour. The authors agree with the imperative for curriculum reform for to green health promotion.

In line with the findings by Negev and Sagy, green health promotion includes role modelling to change student behaviour.²¹ Four innovative secondary schools in North America taught sustainability values through changes in school role models, infrastructure changes, governance and culture.²¹ Teachers and staff chose environmentally-friendly products and life-style activities to role model for learning about sustainability and the adoption of sustainable behaviours.²⁵ Individual role modelling behaviours included (1) driving a hybrid car, carpooling, biking, or walking to school, (2) eating local organic food with minimal disposable packaging, (3) wearing second hand clothes, (4) participating in community service, composting recycling and reusing, (5) picking up litter, (6) turning off lights when leaving a room, (7) promoting democratic, equitable classroom environments, (8) using appropriate conflict resolution strategies and (9) encouraging diverse and divergent opinion.²⁵ Teachers and staff did not engage in these behaviours exclusively but found modelling was a valuable approach to sustainability education.²⁵ This research contributes to the greater body of knowledge about the relationship between role modelling and behaviour change.

Like the literature about nurses and health promotion, the teaching literature reveals information about curricula reform for teacher training. Firth and Winter suggest ‘if teachers do hold the key to societal change in schools, then Initial Teacher Training is a significant priority for developing teachers capabilities and confidence in mainstreaming education for ESD within schools.’²² This raises questions for the authors who highlight ecological sustainability in teacher training as a basis for green health promotion in schools.

PARTNERSHIPS FOR GREEN HEALTH PROMOTION

The division in the literature illuminates the lack of collaborative partnerships between nurses and teachers for green health promotion. This begs the authors to ask ‘*What are the existing collaborative partnerships between health and education for green health promotion in schools?*’ In the spirit of robust discussion, we consider this question from a global perspective and present a brief case study from Australia to illustrate practice implications to enhance collaborative partnerships between health and education for green health promotion in schools.

We believe collaborative partnerships between health/nurses and education/teachers have significant potential to further green health promotion in schools. Internationally, health and education have engaged in green health promotion through various management and philosophical approaches. From a health promotion perspective, the sequence of post-Ottawa health promotion meetings have progressed the green health promotion agenda with vigour. All exhibit varying levels of impact and alignment with the Ottawa Charter including the 1991 meeting, *Supportive Environments for Health* held in Sundsvall, Sweden and the 1997 meeting held in Jakarta.⁸ There are global examples of partnerships for green health promotion outside health promotion circles. In 2007, the health, environmental, and policy communities assembled at the 7th National Conference on Science, Policy, and the Environment: Integrating Environment and Human Health.¹⁰ At this meeting, participants created approaches to integrate climate change science, health promotion and ecological health in health science education.¹⁰ The authors believe green health promotion should pursue its agenda by ensuring it is recognised and embedded in global policies and initiatives.

The leading model of school health promotion and the primary interface for collaborative health and education in schools for the last three decades has been the HPS approach.⁸ The HPS approach embeds the principles of the Ottawa Charter and promotes a whole school approach to develop policies for health and sustainability.²⁴ The HPS approach advocates curricula schools integrate ecological sustainability and ecological health to work towards green health promotion.²

There are other notable global initiatives outside the health promotion arena. The Government announced all schools are to become sustainable schools by 2020.^{1,21} The 'national curriculum gives geography a major responsibility for ESD alongside citizenship, design and technology, and science'.²¹ To support this initiative, the Department for Children, Schools and Families created a Sustainable Development Action Plan and sustainable schools website (www.teachernet.gov.uk/sustainable-schools) to campaign for green health reforms.²¹ The website promotes one should 'care for oneself, care for each other (across cultures, distances and generations) and care for the environment (near and far)'. The website does not identify how the political agenda can support this paradigm through policy development and advocacy.²² The authors feel initiatives like this represent a small but significant step in advancing green health promotion in schools.

IMPLICATIONS FOR SCHOOL HEALTH

Case study

In the Australian context, recent research in Queensland reveals School Based Youth Health Nurses (SBYHN) do not understand health promotion.²⁷ SBYHN have not adopted contemporary health promotion practices or addressed health promotion policy reform and collaborative partnerships in schools. SBYHN have not advanced the fundamental concepts of health promotion and have not moved towards green health promotion.²⁷ This leads the authors to ask, *What can be done to foster collaborative partnerships between health and education for green health promotion in schools?* Encouraging robust debate, we make the following suggestions from a strategic perspective; 1) health and education departments align health promotion and ecological sustainability philosophy and principles, 2) health and education departments develop green health promotion policy and practice guidelines, 3) health promotion is a core component of nurse education and teacher training and 4) those who practice health promotion in schools should be required to hold a health promotion qualification.

From an operational perspective, we suggest nurse and teacher partnerships are the best mechanism to operationalize policy for green health promotion in schools. There are implications for practice which need to be supported by; 1) the HPS approach, 2) top-down support and 3) a change in values and attitudes. In this case study, there are a plethora of strategies for SBYHNs to consider in partnership with teachers. For example, nurses support science teachers activities about carbon emissions by linking air pollutants to the increased prevalence of asthma or geography teachers activities about the degradation of orangatung habitat by linking palm oil to fast food outlets. Nurses can support agriculture teachers by participating in school garden activities; planting flowers and vegetables, aerating soil and planting trees. There should be a focus on collaborative strategies from a whole school approach. These include facilitating active transport, carpooling to work or advocating for recycling amenities and double-sided default printing across the whole school. There are many strategies; low emission light globes, timed light switches, low energy ovens, compost bins, water efficient taps, timed sprinkler systems, model second clothes in the staff skit at the annual fashion parade and encourage local green organisations to have a stand at the annual

school fete. The authors realise these strategies are not novel in themselves but suggest collaborative partnerships are the catalyst for green health promotion in schools.

There are barriers to collaborative partnerships for green health promotion in schools. Significant barriers are societal attitudes and behaviour change at community and population levels.²⁸ Evidence suggests a momentous shift in attitudes toward ecological sustainability because the general population believes it is important to look after the planet.²⁹ There is evidence to suggest communities and populations are less ready to change their daily habits of living to benefit the earth.^{30,31} There is great variability in perceptions of climate change across the globe.³¹ For some Australians, ecological sustainability is environmentalism and action still lies within the responsibility of ‘tree huggers and hippies’. The behaviours of general population should move towards active ecological sustainability as a precursor to embed the principles of green health promotion in schools.

We believe successful collaborative partnerships between health and education in schools can incorporate social actions in ecological sustainability, community safety and new economics and share the principles of the ‘health for all’ movement. These include ‘equity, democracy, empowerment of individuals and communities, underpinned by supportive environmental, economic and educational measures and multiagency partnerships’.^{1,32}

CONCLUSION

The authors believe the application of green health promotion in schools is both relevant and crucial. The key point for us is that few leading health and education models, programs or schools, globally or nationally, have adopted collaborative partnerships for green health promotion. The SBYHNP in Australia is a prime example of a health and education partnership which has not adopted health promotion and ecological sustainability. In our view, health and education at a policy level and all those within these parameters at an operational level, in particular, teachers and nurses (but also guidance officers, youth support coordinators, chaplains, and others who do ‘health promotion business’ in schools) assume a responsibility to implement concepts of green health promotion.

Despite current high levels of cynicism and political opportunism, we believe a whole school green health promotion approach should be fully integrated into schools to develop lifestyles suitable for the 21st century and ensure a new generation of community, global and ecological citizens, that is, a new generation of tree huggers and hippies. This will make sure future generations learn how to live healthily and sustainably.

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