Schools for healthy living

InterWell: an integrated school-based primary care model

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Key messages

- Demographic shifts towards more elderly and ecological disturbances with associated economic and social stresses are two major trends in the world that affect the health of human populations.
- Intergenerational learning in innovative public schools represents an important organisation innovation to address these challenges.
- Healthcare delivered in such a school can improve both individual and public health as well as improve learning and create collective wisdom.

Why this matters to me

Global climate change threatens the survival of our communities and even our species and others. The ageing of the world's populations, often viewed as a crisis, is also an opportunity. Human learning and imagination have been, and continue to be, the distinct strengths of our species. Intergenerational learning is one way, perhaps the best way, to foster collective wisdom and innovation. Such education is necessary for cultural and evolutionary change to continue in a manner in which sentience continues to emerge as a selective advantage.

ABSTRACT

The Intergenerational School is an innovative, high-performing public school in Cleveland, Ohio that fosters lifelong learning and individual and community health. Narrative approaches, information technology enhancements, art and music enrichments, and nature-based programming foster brain health in the service of purposeful and healthy living in the community. A newly designed integrated primary and public healthcare model, called InterWell, which is planned to be based in the school, has the potential to transform conceptions and practices of health. Interprofessional care sup-

porting chronic disease self-management and transdisciplinary research are foundational to our model. Over the 13-year history of the school, barriers to acceptance of this model of education and health have been reduced and greater community support engendered, but challenges of priorities and funding remain. Can this new model help support human flourishing in this time of global ecological and social disruption?

Keywords: dementia, elders, integrated primary care, intergenerational programming, public health

The Intergenerational School (TIS) is a high-performing public school located in Cleveland, Ohio that meets the educational needs of over 200 urban elementary school students and hundreds of adults, including elders and some with dementia (www.tisonline.org).¹ In existence for more than a dozen years it is a learning community that celebrates lifelong learning and spirited citizenship. It has been recognised by the state of Ohio as being 'excellent with distinction' and is currently the highest ranking

charter public school in our state, as measured by standardised tests. The term charter is used in the USA for a state-funded, open access school where the bureaucratic rules of usual public schools are relaxed (somewhat) to foster innovation. Moreover, it provides learning opportunities for high school, college, graduate and professional students, as well as adults developing encore careers and elders interested in legacy. Quantitative and qualitative research have demonstrated its value for older people with cognitive

impairment.^{2,3} Broadly defined conceptions of health have been at the centre of its programmes since its founding by Peter Whitehouse, a geriatric neurologist, and Catherine Whitehouse, a developmental psychologist, as well as others.⁴

In the USA in particular, but other countries as well, educational and healthcare systems are in a state of disarray. They are not seen as providing value for money, based on poor outcomes as well as excessive costs. TIS is a response to this critical social need to create new organisational forms that address, in a cost-effective fashion, boundary spanning activities that serve multiple community purposes.⁵

In this paper, we describe specific programmes that highlight certain aspects of our lifelong learning model before describing specific health-related programmes, including our concept of brain health. We then outline our newly designed integrated primary and public health practice being developed at the school. Finally, we end with an analysis of factors that have helped and hindered our work in creating the school and its health practices.

The Intergenerational School programmes

Programming in the school is based on the social construction of ideas and relationship-based learning. This means that the collective creation of thoughts is both celebrated and critiqued in an atmosphere of mutual respect. Students are divided into classrooms of approximately 17 students on the basis of developmental staging rather than chronological age. Students usually stay with the same teacher for several years before they progress to the next level of learning. Every classroom attends field trips to community organisations including museums, nature reserves and long-term care settings. Adults of various ages come to the school to participate in a wide range of programming. The elementary school students are taught based on the state curriculum including the new Common Core standards. Adults of all ages participate for many reasons, including course credit for some and late-life legacy volunteer work for others.

Reading mentoring

The reading programme finds adults and children sitting on sofas in the hallways and other nooks, sharing stories either from their own lives or based on our rich collection of intergenerational literature. The elder will know the child well because she works with a single classroom, developing one-on-one relationships between herself and the children. An

orientation on how children read helps the adult volunteer learn how to work effectively to encourage children in their passion for reading. The hallways are quiet because the school has a policy of zero tolerance for aggression and clear expectations around respect for each other, the elders and the school itself.

Information technology

From the beginning of the school, computer-assisted instruction has been central. Our younger students may, in fact, be the lead educators, instructing elders in the use of computer programs and other learning technology. The students designed their school garden in Second Life, a virtual reality platform to encourage systems thinking about ecosystems. In one completed project, Microsoft PowerPoint was used to plan inter-generational vacations. The Microsoft Kinect body-motion detection gaming platform is currently being used to support fun multi-age exercise. We are beginning to use broadband connectivity to facilitate interactions across time and space.

Arts and music

Multi-age visual art, music and dance programmes have been developed in several different forms. A resident artist (Bernice Davidson; www.globalriversart.org) collaborated with our art teacher in the use of watercolour and origami, as well as other art forms to celebrate the importance of water. Students studied the local stream and how water flows through our community. Our music teacher and vocal performer teach group lessons in instruments as well encouraging community performances. In November 2012, we organised an intergenerational choral work in Severance Hall, the famous concert hall of our local symphony, entitled Alzheimer's Stories (www.robertscohen.com). In May 2013, we pioneered a tree-based community-wide visioning exercise with the Legacy Center in Toronto called YOU177 (Young Old United One Planet Seven Generations and Seven Billion People; www.legacyproject.org).

Nature

Intergenerational gardening has been at the heart of the school since the beginning. The school and community designed our Edible Forest Garden, a model for food production. In this garden, full of a few seed-producing trees and edible plants, we grow local food and educate our students about its health benefits to individuals and to the community. Our classes visit the local nature reserve and participate in their classes, as well as develop their own projects, for example, on water quality. Recently, we self-published

a book called *The Legacy of the Clark Freeway Fighters*⁶ which included photographs and stories told to our young students by elders, some with memory challenges, about how they saved the nature reserve from a corrupt politician who wished to run a highway through it in the 1960s. These intergenerational story-based projects allow students to see the past through the eyes of the elders and the elders to imagine the future through the eyes of the children.

Integrating healthcare into our school

From the beginning of our school we have tried to reinvent the role of the school nurse and build health programmes around nursing. For over 10 years, students from the Case Western Reserve University Frances Payne Bolton School of Nursing have conducted some of their required service learning experiences in the school. These often focus on specific projects such as obesity and high blood pressure. One interprofessional programme involved medical students and a law student, as well as the nursing students focusing on the current challenges of lead poisoning. Our conception of health is an ecopsychosocial one, based on attending to ecological and evolutionary sciences, not molecular genetics, as the foundation for health, and on the individual and community factors that affect health, with special attention to the built and natural environment.

As the principle organ of learning, the brain deserves to be a focus of health.⁴ That said, brain function and fitness are dependent of the body and are also influenced by psychological and social factors. We have suggested that we need to take brain health to a deeper and broader level. This means going beyond the idea that appropriate brain fitness computer games, physical activity routines and diet are all you need to keep your brain and mind functioning optimally. By depth we mean that our ideas of brain health need to be connected to individual passion and purpose in life. This is particularly true for our elder volunteers near the end of life, perhaps concerned about their sense of legacy. By breadth we mean keeping one's brain and mind healthy in relation to others; often the greatest sense of individual purpose can be found in assisting others. We embrace the idea that education should foster individual and collective wisdom. In turn, fostering wisdom will likely enhance individual and community quality of life.

InterWell is the tentative name we have given to our school-based intergenerational family primary care model of practice. We are designing a practice based on biomimicry and ecological design. In other words,

we are attempting to develop the practice in the way we designed our garden, with an understanding of how nature accomplishes her tasks in complex ecosystems. We are focusing on fostering adaptability and resilience in individuals and our community through the blend of learning and health.

Nurses, and particularly family nurse practitioners, are at the core of this model. However, it is designed to empower individuals to take more responsibility for their own health and that of their community. Health coaching based on evidence-based approaches to chronic disease self-management will be key. By focusing on communicable diseases, environmental toxins, water systems and food production, we believe our clinic could be a powerful public health intervention as well as individual care site.

Our activities in the health domain extend beyond the local. In May 2012, in New York, we cosponsored and organised a conference focusing on healthy environments across the generations (www.healthandenvironment.org/news/conference/intergen2012). Our intent was to link those who advocate for children with those who advocate for elders and the environment. In its next decade of work, our school will be increasingly involved in helping communities develop themselves as learning organisations, based on a blend of education and health. We have coined the term intergenerativity to communicate that innovation can occur when one blends sources of creativity or generativity in society.^{7,8} Intergenerativity means going 'between' in order to go 'beyond'. Our school has a strong commitment to helping our community understand 'weather weirding' (our term for dramatic fluctuations in meteorological patterns) and global climate change in efforts to make our civilisations more sustainable.

Lessons learned and the future

Our school could not have been a success without the support of our local and national communities committed to improving education. Local foundations were major sources of funds, as were start-up monies from state and national governments, as well as the Shigeo & Megumi Takayama Foundation from Tokyo.

That said, there have been many barriers to our success. Initially, the idea of elders in schools, particularly elders with dementia, was strange to some. But success stories made many converts once we had been up and running for a few years. For example, the Volunteer of the Year award was given two years ago to a woman who could not remember why she was being given the award because of her short-term memory

problem. She literally could not remember that she volunteered in the school every week, but was much beloved and recognised for her many achievements with children.

Many were afraid of the often malignant local, state and national politics in the USA surrounding community charter schools, which are seen by some as oppositional to mainstream public schools. Although we are government supported and hence a public or state school, we have received state, but not local tax monies (although this has changed recently due in part to our success). We have achieved our results educating children with the same levels of poverty and demographic characteristics as our larger metropolitan school with less money than the district. Initially, school district administrators and teachers' unions saw us as a potential threat to their funding. Hospitals did not jump at the opportunity to support innovative healthcare programmes that might not be revenue generators. This too may be changing in an era of healthcare reform in the USA where accountable organisations are being driven to provide more community services.

Over time, broader community support has emerged. We have developed dissemination materials with grant support and had conversations with a variety of other local, national and international communities. We have started another Intergenerational School on the other side of Cleveland and are in serious conversations with people in Minneapolis and other cities in the USA. Generations United and other national organisations have been helpful (www.gu.org). In the UK we are working with the Beth Johnson Foundation and other groups that wish to foster intergenerational educational programming. Collaborations are extending to Spain and Brazil. In Toronto, we are working with system change agents (www.michaelfullan.com) to improve the already high-quality Ontario public schools by incorporating intergenerational and health into their programming. We have a sister programme in Tokyo Japan, based in St. Luke's School of Nursing, which provides afterschool multi-age experiences.

Families have been a source of intergenerational learning and health practices since the beginning of our species. Yet the congestion and speed of modern times, especially (but not exclusively) in urban areas, has caused us to forget these age-old truths. We now need to reinvent ways for the generations to learn, work, and play together. The Intergenerational School represents one organisational innovation that has done this, facilitating both learning and health for children, younger adults and elders.

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ETHICAL APPROVAL

None needed for this programme description paper.

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