

Rosie Nash
Vaughan Cruickshank
Shandell Elmer *Editors*

Global Perspectives on Children's Health Literacy

Intersections Between Health,
Education and Community

 Springer

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Part I
Introduction

Chapter 1

Global Perspectives of Children's Health Literacy



Rosie Nash, Vaughan Cruickshank, and Shandell Elmer

Introduction

This chapter describes how this book was conceived and outlines its purpose. To set the scene for the chapters that follow, we provide an overview of health literacy as a contextually relevant and culturally informed concept which has implications for how it is defined, developed, enacted, and measured. We describe a global perspective of health literacy because this book highlights the importance of context to consider how health literacy is supported in each region, specifically to explore the intersections between health, education, and community settings. We then present a short discussion of children's health literacy. Children develop their understanding of health and well-being through social practices, education, and media. We argue that optimizing health literacy development early in the life course will positively influence adult behaviors. Our introductory chapter concludes by spotlighting what has emerged in this book and elsewhere as a key structural constraint to health literacy development, namely, the silos that exist in and between education, health, and community sectors and services. We propose that a Health in All Policies

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approach to health literacy (Kickbusch, 2001, 2008; Nutbeam, 2000; St Leger & Nutbeam, 2000) has the potential to reveal where health literacy lurks in between sectors to foster collaboration and cross-sectoral approaches.

The importance of supporting the development of individual and community level health literacy has been highlighted in multiple World Health Organization reports (e.g., Shanghai Declaration on promoting health in the 2030 Agenda for Sustainable Development (WHO, 2017); Health literacy development for the prevention and control of noncommunicable diseases (WHO, 2022)). These globally important recommendations are enacted at country level through inclusion in national level health promotion and health prevention strategies (e.g., Australia's National Preventive Health Strategy (2021–2030), as well as in numerous quality and safety agendas (e.g., Australia's National Statement on Health Literacy—taking action to improve safety and quality (2014)). National and state level health literacy action plans are becoming more commonplace worldwide (e.g., Tasmanian Health Literacy Action Plan (2019–2024); Norway's National Strategy on Health Literacy [Strategi for å øke helsekompetensen i befolkningen] 2019–2023). Increased focus on child and adolescent health literacy development research over the last decade signals widespread recognition of the importance of supporting these health literacy development efforts earlier in the life course. In 2015, the coeditors of this book recognized that ample health literacy programs and resources existed for adults. However, at the time, little research focused on health literacy programs or resources for children and adolescents.

This book was conceived when our health literacy research in Tasmania, Australia, highlighted that child and adolescent health literacy had been placed in an unhelpful silo. These kinds of silos are not caused by individuals, but they are a consequence of systems and policies. We received feedback that our health literacy research with children and adolescents in schools (e.g., Cruickshank et al., 2023b; MacDonald et al., 2021; Nash et al., 2020, 2021a, b) did not align with education funding schemes or department priorities, but rather it was the responsibility of health. When we applied for health funding and discussed the topic with health department representatives, we were told our programs and research did not align with their priorities either. We were encouraged to apply for funds through community sector schemes. While our Department for Communities Minister at the time probably understood the importance of our mission perhaps more so than education and health, it became apparent that we also did not fit squarely into their department priorities either. Over time, we have been redirected between and within department units and left to feel we did not belong. Due to the turnover of staff in government departments, it was also necessary to retell our story and educate our audience on the importance of health literacy to their people each time. So, it would seem we (and health literacy) did not fit anywhere across or within the silos that existed in the system we were attempting to work within.

We became increasingly curious about whether our local experiences and frustrations were mirrored internationally. We were overwhelmed by the response to our call for chapter abstracts for this book and excited to learn that this silo phenomenon that was not just specific to Tasmania, Australia. As the abstracts and then chapters

rolled in, it became apparent we were not alone in this silo sensation we had experienced. This confirmed that a united call for action would be beneficial to all researchers, practitioners, and policymakers working on health literacy development opportunities for children, adolescents, and their communities.

Importantly, each of our editors contributes a diverse range of discipline perspectives. Together we have experience as a nurse, pharmacist, and school teacher. We have worked in schools, community settings, not-for-profits, hospitals, policy development, and academia. Our research specialties include sociology, pedagogy, competence-based education, health and physical education, professional development, and workplace development. This is helpful given health literacy is a broad field and requires multidisciplinary thinking and careful strategies to effect change without perpetuating inequity. Working together with the other theme area editors, each editor ensured their chapter authors received guidance on the purpose of the book and the focus of each theme.

Purpose of This Book

This book sought to bring together global perspectives to explore the intersections between health, education, and community settings. The book examines these intersections to identify where efficiencies and opportunities for supporting the development of child and adolescent health literacy may reside. We understand that health literacy is an important social determinant; it holds special potential for addressing other intertwined social, economic, environmental, cultural, and commercial determinants that challenge people within our community and those that seek to support or serve them on a daily basis.

Definition of Health Literacy

Many academic publications, chapters, and reports identify that health literacy has been defined in many different ways (Sørensen, 2019; Sørensen & Brand, 2013; Sørensen et al., 2012). In the recently revised Health Promotion Glossary, Nutbeam and Muscat (2021) updated the definition of health literacy to reflect more contemporary thinking around the complexity and interactive nature of health literacy. A year later, the World Health Organization (2022) expanded on the concept of health literacy development and made practical recommendations to systematize the design of health literacy actions to enhance the impact of policies, programs, and services for the prevention and control of noncommunicable diseases and their modifiable risk factors and determinants. The definitions are provided in Boxes 1.1, 1.2, and 1.3.

Box 1.1: Health literacy definition (Nutbeam & Muscat, 2021, p. 1582)

Health literacy is critical for informed decision-making and empowers people and communities. It is founded on inclusive and equitable access to quality education and life-long learning. It is an observable outcome of health education as a part of health promotion. Health literacy is mediated by cultural and situational demands that are placed on people, organizations and society. It is not the sole responsibility of individuals. All information providers, including government, civil society and health services should enable access to trustworthy information in a form that is understandable and actionable for all people. These social resources for health literacy include regulation of the information environment and media (oral, print, broadcast and digital) in which people obtain access to and use health information. Health literacy means more than being able to access websites, read pamphlets and follow prescribed behaviours. It includes the ability to exercise critical judgement of health information and resources, as well as the ability to interact and express personal and societal needs for promoting health. By improving people's access to understandable and trustworthy health information and their capacity to use it effectively, health literacy is critical both in empowering people to make decisions about personal health, and in enabling their engagement in collective health promotion action to address the determinants of health.

Box 1.2: Health literacy definition (World Health Organization, 2022, p. x)

Health literacy represents the personal knowledge and competencies that accumulate through daily activities and social interactions and across generations. Personal knowledge and competencies are mediated by the organizational structures and availability of resources that enable people to access, understand, appraise and use information and services in ways that promote and maintain good health and well-being for themselves and those around them.

Box 1.3: Health literacy development definition (World Health Organization, 2022, p. x)

Health literacy development refers to the ways in which health workers, services, systems, organizations and policy-makers (across government sectors and through cross-sectoral public policies) build the knowledge, confidence and comfort of individuals, families, groups and communities through enabling environments. Enabling environments support people to access, understand, appraise, remember and use information about health and health care, through verbal, written, digital and other communication channels and social resources, for the health and well-being of themselves and those around them, within the circumstances and demands of their daily lives.

This book brings together global perspectives on children's health literacy development, and in doing so we acknowledge, respect, and highlight local social and cultural contexts that enable meaningful activities to improve health and equity outcomes. In acknowledgment of the multiple definitions and interpretations of health literacy that abound internationally, throughout the book, each chapter author(s) provides the health literacy definition identified as most relevant to their country, culture, and context.

Health Literacy is informed by Context and Culture

Health literacy is a social practice, that is, it is embedded within our social interactions during which we simultaneously draw on and build our individual and community health literacy (Samerski, 2019). When we consider health literacy in this way, it brings into view our interdependence and connectedness when accessing health information and services. Health is rarely an individual decision, yet a great deal of health literacy research focuses on the individual without due regard for their context and culture (Pleasant et al., 2015).

As stated earlier, there are many definitions of health literacy, and the existence of these points to the different paradigms within this field. For example, some definitions focus on health literacy as clinical risk (Baker, 2006), others as a deficit rather than a strength (Wolf et al., 2010), and still others focus on aspects of empowerment (Sorensen, 2019). However, while there may be multiple paradigms, it is the translation of the term health literacy into other languages to health skills and health competencies that starkly illustrates the way that the meaning of health literacy is influenced by more than a research paradigm. For these reasons, the WHO (2022) recommends that countries carefully consider the range of ways that health literacy is developed within their local contexts; health literacy (and related concepts) is translated into a linguistically and culturally acceptable term; and to consider health literacy strengths and preferences, as well as needs. Within this book, each chapter provides an overview of health literacy within the context of their own country, including national strategies, policy directives, and definitions, where they exist.

The WHO (2022, p ix) explains that a globally relevant perspective of health literacy:

recognizes the diverse ways in which knowledge is produced, transferred, exchanged and used in different countries, cultures and settings around the world, especially how knowledge accumulates in families, communities and societies through daily, often communal, activities and social interactions within these diverse settings. This perspective recognizes that different strategies will almost certainly be required in different cultures and settings, and that deep engagement with local communities is needed to develop the most appropriate strategies.

Role of Health Literacy in a Child's Life

When we consider health literacy as a social practice, then it is very apparent that the early years are more likely to have the strongest influence on the development of health literacy. Early childhood learning through interactions with their family and caregivers, as well as in formal childcare and education settings, provides an immersive experience for children. Accumulation of knowledge about health and well-being, particularly earlier in life, can influence adult health behaviors (Bánfai-Csonka et al., 2022). However, health behaviors are not just of future importance, but *good health is vital to how children feel and can determine how they participate in family life, at school and in society* (Australian Government, 2023). It is useful to also consider that today's children will be tomorrow's parents, so investing now in the development of health literacy assets and creating health literacy enabling environments for all will have intergenerational benefits (Solis-Trapala et al., 2023).

To optimize children's health literacy development, we need to create enabling environments that provide support and education. Alongside this though, we also need to recognize and encourage children as "active health literacy practitioners" (Fairbrother et al., 2016, p. 483). We need to work with children and take a child-centered approach to health literacy development (Velardo & Drummond, 2017). Providing opportunities for children to create health messages in ways that make sense to them allows for differences in cultural contexts and stages of development. Throughout this book, the chapter authors present many examples of these kinds of child-centered approaches such as learning about social determinants of health, starting with social justice and equity and connecting health and well-being with physical movement and activity. Children as active participants supports their development as citizens in their own right.

Schools are a major contributor to children's health literacy development (Cruickshank et al., 2023a; Otten et al., 2024). The formal curriculum as well as the social and cultural environment within schools can create an enabling environment. The WHO Health Promoting School framework (WHO, 2018) and health literacy are very compatible as both take a whole-school approach and include subject-specific education in health matters (Paakkari et al., 2016). The school environment also leads to distributed health literacy as the learning about health ripples out to families, carers, and wider community. This distributed health literacy process builds and strengthens community health literacy and in this way points to the potential of children's health literacy development as a key mechanism to reducing health inequities.

Silos in Health, Education, and Community

Many challenges faced by society today are complex and will require collective government and community action (Williams et al., 2023). Health literacy is a good example of one of these complex issues that requires cross-sectoral action.

Unfortunately, government departments are not structured to deal with multifaceted and complex issues (Williams et al., 2023). Working across boundaries requires commitment and “outside the box” thinking and repeated and consistent action. In most countries, government departments “operate within distinct sectoral boundaries to implement policies and services focused on a narrow range of policy issues” (Williams et al., 2023, p. 624). Strategies such as government staff secondments in alternate departments, cross-sectoral knowledge sharing sessions, and cross-sectoral funding may help to overcome some of the distinct sectoral boundaries that can be created.

Our health, education, and community sectors tend to operate in silos focused on functions and services and separated by their budgets. There are few links between these sectors even though there has been considerable research about boundary spanners, collaboration, and intersectoral ways of working. This creates a significant structural constraint for problem-solving and tackling issues that cut across sectors, like health literacy. The social determinants of health by definition are the non-health factors which can only be addressed through collaboration between all three sectors. Health literacy is a key social determinant that lurks between and within these silos. For example, when we consider that the goal (outcome) of education is to be educated and the main goal of the health sector is to promote good health, health literacy may offer a bridge between the two (Vamos & McDermott, 2021).

The chapters in this book present many examples of cross-sectoral action where collaboration spans across sectors. This “joined up thinking” is highly effective as it is more aligned with our daily experiences of life where we seamlessly transition within and between sectors as we move from home to school, to work, to sport, to social functions, and the like. Creating enabling environments for health literacy development across these different settings fosters community-wide and system level implementation of context-specific health literacy actions.

Every day we traverse systems, services, and sectors to manage our health needs; health is not just found in the health system or hospitals. Given health starts long before seeing a health professional (Valentine et al., 2022), we must start earlier in the life course to create enabling environments and support individuals and communities to develop health literacy assets. Therefore, education sector policies from the ministerial level all the way down to the school level need to consider a Health in All Policies or even a Health Literacy in All Policies approach. The same is true for all other sectors or government portfolios.

As highlighted in the updated Health Promotion Glossary (Nutbeam & Muscat, 2021), the Health in All Policies (HiAP) reflects “the principles of legitimacy, accountability, transparency and access to information, participation, sustainability, and collaboration across sectors and levels of government. HiAP is a horizontal policy strategy that improves the accountability of policy makers for health impacts at all levels of policymaking” (p. 1581). This kind of horizontal policy is the key to building horizontal links between the silos.

In addition to health literacy being reliant on a HiAP approach to support optimal implementation across sector boundaries, the success of the HiAP will be reliant on

the community being health literate and health literacy responsive. When the HiAP was implemented in Finland, it was highlighted that it would be important to have good *health literacy* among the public, policymakers, media, and civil servants to support local and national level discussions and shared understanding of all sectors' roles in promoting health and well-being and health equity (Ståhl, 2018). This reflection illuminates the important symbiotic relationship that exists between health literacy and Health in All Policies. The HiAP could be used to overcome the silos that we experienced locally and our chapter authors have highlighted exist in many other countries.

Structure of This Book

This book includes 60 authors and 24 chapters and represents the perspectives of health literacy experts from 17 nations from all over the world. Experts in the field share the challenges, opportunities, and solutions required to ensure health literacy is supported earlier in the life course.

This book is presented with three themes: health, education, and community. Each chapter has been included in the theme that it predominantly represents. However, all chapters include examples and future opportunities for cross-sectoral activity. The authors were asked to structure their chapter using the following points as a guide:

1. Consider the role of health literacy in redressing health inequities in your region.
2. Explore health literacy development for children and their communities in your region/country.
3. Theme question: Explore how the education/health/community sector is, and could be, involved in health literacy development in your region/country.
4. Provide examples of collaborative approaches to developing and supporting health literacy that currently exist between the education, health, and community settings/sectors.
5. Provide a collection of important insights and practical recommendations, including evidence informed solutions to challenges and barriers to health literacy development of children and their communities.
6. Examine the portability of your recommendations to local, national, and international context.

We have thematically analyzed the key insights and solutions from these chapters to develop a set of recommendations. These recommendations will be invaluable to health professionals, policymakers, and educators globally.

References

- Australian Government. (2023, July 2023). *Measuring what matters, Australia's first wellbeing framework*. <https://treasury.gov.au/publication/p2023-mwm>
- Baker, D. W. (2006). The meaning and the measure of health literacy. *Journal of General Internal Medicine*, 21(8), 878–883. <https://doi.org/10.1111/j.1525-1497.2006.00540.x>
- Bánfai-Csonka, H., Betlehem, J., Deutsch, K., Derzsi-Horváth, M., Bánfai, B., Fináncz, J., Podráczky, J., & Csima, M. (2022). Health literacy in early childhood: A systematic review of empirical studies. *Children*, 9(8), 1131. <https://doi.org/10.3390/children9081131>
- Cruickshank, V., Otten, C., Evans, J., Jarvis, M., & Nash, R. (2023a). The importance of health literacy for sustainable development. In K. Beasy, C. Smith & J. Watson (Eds), *Education and the UN Sustainable Development Goals: Praxis Within and Beyond the Classroom* (pp. 491–505). Springer.
- Cruickshank, V., Pill, S., Williams, J., Nash, R., Mainsbridge, C. P., MacDonald, A., & Elmer, S. (2023b). Exploring the 'everyday philosophies' of generalist primary school teacher delivery of health literacy education. *Curriculum Studies in Health and Physical Education*, 14(2), 207–222.
- Fairbrother, H., Curtis, P., & Goyder, E. (2016). Making health information meaningful: Children's health literacy practices. *SSM - Population Health*, 2, 476–484. <https://doi.org/10.1016/j.ssmph.2016.06.005>
- Kickbusch, I. (2001). Health literacy: Addressing the health and education divide. *Health Promotion International*, 16(3), 289–297. <https://doi.org/10.1093/heapro/16.3.289>
- Kickbusch, I. (2008). *Healthy societies: Addressing 21st century health challenges*. Department of the Premier and Cabinet, Government of South Australia.
- MacDonald, A., Cruickshank, V., Nash, R., & Patterson, K. (2021). Contemplating [en] active curriculum: Becoming health literate through arts and HPE interconnection. *Curriculum Perspectives*, 41(1), 119–124.
- Nash, R., Cruickshank, V., Flittner, A., Mainsbridge, C., Pill, S., & Elmer, S. (2020). How did parents view the impact of the curriculum-based HealthLit4Kids program beyond the classroom? *International Journal of Environmental Research and Public Health*, 17(4), 1449.
- Nash, R., Cruickshank, V., Pill, S., MacDonald, A., Coleman, C., & Elmer, S. (2021a). HealthLit4Kids: Dilemmas associated with student health literacy development in the primary school setting. *Health Education Journal*, 80(2), 173–186.
- Nash, R., Otten, C., Pill, S., Williams, J., Mainsbridge, C., Cruickshank, V., & Elmer, S. (2021b). School leaders reflections on their school's engagement in a program to foster health literacy development. *International Journal of Educational Research Open*, 2, 100089.
- Nutbeam, D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International*, 15(3), 259–267. <https://doi.org/10.1093/heapro/15.3.259>
- Nutbeam, D., & Muscat, D. M. (2021). Health promotion glossary 2021. *Health Promotion International*, 36(6), 1578–1598. <https://doi.org/10.1093/heapro/daaa157>
- Otten, C., Kemp, N., Cruickshank, V., Peralta, L., Hawkins, M., & Nash, R. (2024). Assessing children's health literacy: A curricular approach. *Health Education Journal*. <https://doi.org/10.1177/00178969241246172>
- Paakkari, O., Torppa, M., Kannas, L., & Paakkari, L. (2016). Subjective health literacy: Development of a brief instrument for school-aged children. *Scandinavian Journal of Public Health*, 44(8), 751–757.
- Pleasant, A., Cabe, J., Patel, K., Cosenza, J., & Carmona, R. (2015). Health literacy research and practice: A needed paradigm shift. *Health Communication*, 30(12), 1176–1180. <https://doi.org/10.1080/10410236.2015.1037426>
- Samerski, S. (2019). Health literacy as a social practice: Social and empirical dimensions of knowledge on health and healthcare. *Social Science & Medicine*, 226, 1–8. <https://doi.org/10.1016/j.socscimed.2019.02.024>

- Solis-Trapala, I., Campbell, P., Lacey, R. J., Rowlands, G., Dunn, K. M., & Protheroe, J. (2023). Are childhood factors predictive of adult health literacy? A longitudinal birth cohort analysis. *SSM - Population Health*, 23, 101426. <https://doi.org/10.1016/j.ssmph.2023.101426>
- Sørensen, K. (2019). Defining health literacy: Exploring differences and commonalities. In O. Okan, U. Bauer, D. Levin-Zamir, P. Pinheiro, & K. Sørensen (Eds.), *International handbook of health literacy: Research, practice and policy across the life-span* (pp. 5–20). Policy Press. <https://doi.org/10.51952/9781447344520.ch001>
- Sørensen, K., & Brand, H. (2013). Health literacy lost in translations? Introducing the European health literacy glossary. *Health Promotion International*, 29(4), 634–644. <https://doi.org/10.1093/heapro/dat013>
- Sørensen, K., Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: A systematic review and integration of definitions and models. *BMC Public Health*, 12, 80. <https://doi.org/10.1186/1471-2458-12-80>
- St Leger, L., & Nutbeam, D. (2000). A model for mapping linkages between health and education agencies to improve school health. *Journal of School Health*, 70(2), 45–50.
- Ståhl, T. (2018). Health in all policies: From rhetoric to implementation and evaluation – The Finnish experience. *Scandinavian Journal of Public Health*, 46(20_suppl), 38–46. <https://doi.org/10.1177/1403494817743895>
- Valentine, N., Williams, C., Vega, J., Solar, O., & Told, M. (2022). How can health in all policies approaches support the transition to the well-being economy? *Health Promotion Journal of Australia*, 34(3), 629–633. <https://doi.org/10.1002/hpja.766>
- Vamos, S. D., & McDermott, R. J. (2021). Rebranding school health: The power of education for health literacy. *Journal of School Health*, 91(8), 670–676. <https://doi.org/10.1111/josh.13056>
- Velardo, S., & Drummond, M. (2017). Emphasizing the child in child health literacy research. *Journal of Child Health Care*, 21(1), 5–13. <https://doi.org/10.1177/1367493516643423>
- Williams, C., Smith, J. A., Valentine, N., Baum, F., Friel, S., Williams, J., & Schmitt, D. (2023). The well-being economy and health in all policies: Fostering action for change. *Health Promotion Journal of Australia*, 34(3), 623–625. <https://doi.org/10.1002/hpja.768>
- Wolf, M. S., Feinglass, J., Thompson, J., & Baker, D. W. (2010). In search of ‘low health literacy’: Threshold vs. gradient effect of literacy on health status and mortality. *Social Science & Medicine*, 70(9), 1335–1341. <https://doi.org/10.1016/j.socscimed.2009.12.013>
- World Health Organization. (2017). *Shanghai declaration on promoting health in the 2030 agenda for sustainable development*. World Health Organization. <https://iris.who.int/handle/10665/359526>
- World Health Organization. (2022). *Health literacy development for the prevention and control of noncommunicable diseases: Volume 4. Case studies from WHO National Health Literacy Demonstration Projects*. World Health Organization.
- World Health Organization & UNESCO. (2018). *Global Standards for Health Promoting Schools*. Accessed on 16/10/2023 at <https://www.who.int/publications/i/item/global-standards-for-health-promoting-schools>

Part II
Health Literacy in Health

Chapter 2

An Introduction to Health Literacy in Health



Rosie Nash

This section includes perspectives from authors from four diverse countries including Canada, England, Northern Ireland, and Taiwan. Each provides a summary of the current status of children’s health literacy. While the author accounts suggest that the health sector takes a lead role in health literacy development opportunities for children in each of the countries discussed, there is acknowledgment of the contributions made by other sectors to the health literacy efforts of their region. In most cases, this is described as “health driven and education delivered” or supported by policy, in some instances, a “Health in All Policies” agenda which is shown to successfully include contributions from multiple sectors. The authors make reference to the importance of cross-sectoral efforts, codesign (Nash et al., 2021), a national policy, health in all policies, a social ecological model of health literacy (McCormack et al., 2017; Wharf Higgins et al., 2009), the impact of a digital and fast paced world (Dadaczynski et al., 2022; Donelle et al., 2021; Hawley Turner et al., 2017; Martin, 2008), the increased importance of mental health literacy, consideration of the child’s voice (Bray et al., 2023; Peck et al., 2023), the importance of a national health literacy policy that includes children, and finally inviting children to contribute to policy discussions and development.

The first chapter in this section is written by Jennifer Innis and is titled “Addressing the Health Literacy Needs of Children and Communities in Canada” (Chap. 3). The important contributions of the health sector, education system, public health, and community agencies to health literacy development of children and communities residing in Canada are acknowledged. However, Innis highlights that when it comes to health literacy, still more needs to be done to support Indigenous people, newcomers (migrants), and people who experience poorer health outcomes.

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Innis shares that health literacy in Canada experiences two key challenges: (1) lack of a national strategy and (2) lack of communication between programs that become siloed in different parts of the country. Mental health literacy in schools is also high on the agenda in Canada. Innis considers Indigenization and shares the importance of acknowledging cultural perspectives in the development of resources for communities residing in Canada. Fortunately, Innis also provides practical solutions to overcoming these challenges, including ensuring collaborative design, addressing cultural safety in healthcare, fostering communities of practice, and addressing the use of technology and social media.

The next chapter in the health theme is authored by Professor Lucy Bray and is titled “Using a Health Literacy Lens to Critically Consider Children’s Experiences of Healthcare Procedures” (Chap. 4). In England, the voice of the child is being prioritized. Professor Bray provides two examples of health literacy projects which have worked with children and young people with a range of abilities and conditions to develop resources for use within hospital settings. These projects aim to address the tendency for health literacy initiatives to be identified, developed, and evaluated by adults. The chapter examines individual, distributed, and organizational health literacy and argues that in order to help children and young people develop health literacy in relation to clinical procedures, we need to create environments, organizations, and communities which are also health literate. Professor Bray concludes by arguing that health literacy research and practice could gain further ground by empowering children and young people to shape the health literacy agenda at a local, national, and international level.

The next chapter in the health section is written by Dowd, Palmer, Maxwell, and Wright from Northern Ireland and is titled “Working Together to Improve Children’s Health Literacy in Northern Ireland” (Chap. 5). According to Dowd et al., for children residing in Northern Ireland, health literacy is often health driven but education delivered. While policies on health literacy exist, no direct policy reference is made to children’s health literacy, nor is there a national specific child health literacy indicator. However, improving child health and well-being is central in existing policies. Dowd et al. provide some lovely examples of programs that take a collaborative and cross-sectoral approach to developing children’s health literacy. The chapter highlights that while health literacy has traditionally been the responsibility of health and education, collaborative projects across a range of sectors, sometimes beyond health, education, and communities, are emerging, in which codesign is an increasingly adopted approach.

The final chapter in the health theme is contributed by Chen et al. and is titled “A Perspective of Children’s Health Literacy in Taiwan” (Chap. 6). Taiwan’s current Health Literacy Action Plan highlights the importance of adopting Health in All Policies, with a holistic, ecological approach to advance health literacy. In Taiwan, children’s health literacy has been advanced through the Health Promoting Schools approach, linking partnerships between the health and education sector. The role of the medical professionals and ideas on how they can support children to develop health literacy in relation to medical knowledge, treatments, and medications are shared. Chen et al. explain how Taiwan’s rich history and traditional values present

an opportunity to understand the role of communities when we aim to support children's health literacy development. Chen et al. encourage the reader to consider the impact of the built environment and existing practices. There are important insights on the changing nature of Taiwan's population, and the authors identify opportunities for improvement, emphasizing the importance of placing the voices of children at the core of future health literacy efforts.

References

- Bray, L., Carter, B., Kiernan, J., Horowicz, E., Dixon, K., Ridley, J., Robinson, C., Simmons, A., Craske, J., Sinha, S., Morton, L., Nafria, B., Forsner, M., Rullander, A.-C., Nilsson, S., Darcy, L., Karlsson, K., Hubbuck, C., Brenner, M., et al. (2023). Developing rights-based standards for children having tests, treatments, examinations and interventions: Using a collaborative, multi-phased, multi-method and multi-stakeholder approach to build consensus. *European Journal of Pediatrics*. <https://doi.org/10.1007/s00431-023-05131-9>
- Dadaczynski, K., Rathmann, K., Schricke, J., Bilz, L., Sudeck, G., Fischer, S. M., Janiczek, O., & Quilling, E. (2022). Digitale Gesundheitskompetenz von Schülerinnen und Schülern. Ausprägung und Assoziationen mit dem Bewegungs- und Ernährungsverhalten [Digital health literacy of pupils. Level and associations with physical activity and dietary behaviour]. *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 65(7–8), 784–794. <https://doi.org/10.1007/s00103-022-03548-5>
- Donelle, L., Facca, D., Burke, S., Hiebert, B., Bender, E., & Ling, S. (2021). Exploring Canadian children's social media use, digital literacy, and quality of life: Pilot cross-sectional survey study. *JMIR Formative Research*, 5(5), e18771. <https://doi.org/10.2196/18771>
- Hawley Turner, K., Jolls, T., Schira Hagerman, M., O'zByrne, W., Hicks, T., Eisenstock, B., & Pytash, K. E. (2017). Developing digital and media literacies in children and adolescents. *Pediatrics*, 140, S122–S126. <https://doi.org/10.1542/peds.2016-1758P>
- Martin, A. (2008). Digital literacy and the 'digital society'. In C. Lankshear & M. Knobel (Eds.), *Digital literacies: Concepts, policies and practices* (pp. 151–176). Peter Lang.
- McCormack, L., Thomas, V., Lewis, M. A., & Rudd, R. (2017). Improving low health literacy and patient engagement: A social ecological approach. *Patient Education and Counseling*, 100(1), 8–13. <https://doi.org/10.1016/j.pec.2016.07.007>
- Nash, R., Cruickshank, V., Pill, S., MacDonald, A., Coleman, C., & Elmer, S. (2021). HealthLit4Kids: Dilemmas associated with student health literacy development in the primary school setting. *Health Education Journal*, 80(2), 173–186.
- Peck, B., Bray, L., Dickinson, A., Blamires, J., Terry, D., & Carter, B. (2023). Health literacy among children living with a long-term condition: 'What I know and who I tell'. *Health Education Journal*, 82(5), 487–504. <https://doi.org/10.1177/00178969231168210>
- Wharf Higgins, J., Begoray, D., & Macdonald, M. (2009). A social ecological conceptual framework for understanding adolescent health literacy in the health education classroom. *American Journal of Community Psychology*, 44(3–4), 350–362. <https://doi.org/10.1007/s10464-009-9270-8>

Chapter 3

Addressing the Health Literacy Needs of Children and Communities in Canada



Jennifer Innis

Introduction

Almost two-thirds of Canadians lack an adequate level of health literacy (Canadian Council on Learning, 2007), a figure that is similar to numbers reported by the United States, Europe, and Australia (Moreira, 2018). Like these countries, health literacy has been measured among adults, and to date, there is little known with respect to the health literacy levels of children, although research has begun to focus on this area (Vaillancourt & Cameron, 2021). Health literacy is the ability to access, comprehend, evaluate, and use knowledge about health and healthcare services to maintain and promote health (World Health Organization, 2022).

Canada has 10 provinces and 3 territories, and healthcare is a responsibility of the provincial and territorial governments. This has led to some differences in how healthcare is delivered throughout Canada. While each of the provinces and territories must adhere to basic principles that include delivering publicly funded hospital and medical care, as governed by the Canada Health Act, each of the provinces and territories addresses health slightly differently (Allin et al., 2020; Martin et al., 2018). Having 13 systems of healthcare has contributed to differences in how care is delivered across the country and how health literacy is approached (Vamos et al., 2019).

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Approaches to Meeting the Health Literacy Needs of Children

In Canada, addressing the health literacy needs of children and their communities has largely been taken on by the health sector and, in particular, by public health. The education system has also played a role in addressing health literacy (Vamos et al., 2019) and in collaboration with public health, interest groups, and community agencies has focused on specifically addressing mental health literacy and nutrition literacy.

Mental Health Literacy

In Canada, there has been growing attention on the need to focus on children's mental health literacy (Mcluckie et al., 2014; Wei et al., 2022). Mental health conditions are the most common health issues during adolescence, and they can have detrimental impacts on children's functioning, relationships with others, learning, and substance use (Wei et al., 2022). Mental health literacy is defined as the ability to understand information to make decisions to support one's mental health, and it also includes an understanding of the stigma that surrounds mental health disorders, as well as ways to obtain help (Mcluckie et al., 2014).

Ensuring that mental health literacy has a place within health education can improve children's knowledge of mental health issues and can also influence the stigma experienced by children who are experiencing these issues (Mcluckie et al., 2014). Ontario, Nova Scotia, and Manitoba are three Canadian provinces that have embedded mental health literacy in the educational curriculum (Government of Manitoba, 2021; Mcluckie et al., 2014; Mental Health Foundation of Nova Scotia, 2019; Ministry of Education, 2021; Ryan, 2020).

In Halifax, Nova Scotia, "Kids Connect" is a program that was started in 2012 with support from the Mental Health Foundation of Nova Scotia. In partnership with the school system in Halifax, this program visits students' classrooms throughout the city to provide 6 hours of programming over 2–3 weeks to focus on issues related to mental health literacy that include cyberbullying, online safety, and mental health, as well as principles of self-care that include exercise and healthy eating. The programming engages students with the use of activities and games (Mental Health Foundation of Nova Scotia, 2019).

The province of Manitoba has incorporated specific learning outcomes that are related to mental health (Government of Manitoba, 2021). In 2013, with funding from the United Way, the Canadian Mental Health Association developed a program called "Speak Up" to address mental health literacy in students aged 12–18. A partnership between "Speak Up" was fostered with the Manitoba Ministry of Education, and this led to the program being delivered in schools throughout the province in grades 7–9 and 11. This program is delivered over 5 days, and it addresses health literacy by teaching about mental health issues, including a focus

on stigma and how to access mental healthcare services (Canadian Mental Health Association, 2022).

Food and Nutrition Literacy

In addition to mental health literacy, public health has led a focus on nutrition literacy in schools in Canada. Food literacy, sometimes referred to as nutrition literacy, includes a focus on the ability to prepare food and to make decisions about what foods to eat, and it also includes an ability to understand the need for food and nutrition delivery systems that are sustainable (Kelly & Nash, 2021; Renwick et al., 2021). To date, public health has worked with schools to introduce programs such as school gardens and cooking classes, as well as programs that focus on increasing knowledge related to the role of nutrition in health (Renwick et al., 2021).

Evidence of the implementation and evaluation of these programs has been most clearly seen in the province of British Columbia. The “Farm to School BC (British Columbia)” program is administered by the Public Health Association of British Columbia in partnership with the province’s Ministry of Education and the Provincial Health Services Authority. Launched in 2007, this program delivers hands-on learning opportunities to students from kindergarten to grade 12 about a large variety of topics related to nutrition literacy (Public Health Association of British Columbia, 2021a). These opportunities have included developing and working in school and community gardens, food forests, and lunch programs. The “Farm to School BC” program has been associated with increases in knowledge and positive attitudes related to healthy eating in children from grades 3 to 12 (Farm to School BC, 2019).

Role of Health Literacy in Addressing Health Inequities

Consistent with the experience of other countries worldwide, Canadians with lower levels of health literacy include groups who are negatively impacted by the social determinants of health. In short, these are groups that are unemployed, are newcomers to Canada, and have low income, as well as Indigenous peoples (Rootman & Gordon-El-Bihbery, 2008, Vamos et al., 2019).

Numerous studies have found a relationship between low levels of health literacy and poor health outcomes (Berkman et al., 2011). While the degree to which low health literacy contributes to health disparities is unclear, health literacy is certainly a mediator in the relationship between lower socioeconomic status and poorer health outcomes. Addressing health literacy can lead to changes in behavior and can provide a way to reduce health disparities (Mantwill & Divani, 2019; Stormacq et al., 2019; Walters et al., 2020).