International Handbook of Health Literacy

Research, practice and policy across the lifespan

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From Saranac Lake to Shanghai: A brief history of health literacy

Orkan Okan

Introduction

In the early 21st century, health literacy has evolved into a broadly discussed and widely researched topic in health research and beyond. In the past 40 years, health literacy has become an object of interdisciplinary interest, and today, almost all health-related sciences are engaged in research on the matter. Health literacy has also attracted the attention of many governments, government-related organisations and national and international non-governmental organisations (NGOs), such as the World Health Organization (WHO) and UNESCO. These organisations have prioritised health literacy and included it in their programmes and agendas. Although health literacy was mostly developed in Western countries, it has become a global phenomenon that, as of today, has been researched in thousands of studies worldwide and used in countless health education programmes, and has led politicians to implement national policies to promote health literacy in their populations and organisations. While the attention given to contemporary health literacy is continuously growing, a look at the concept's past and its roots might help to clarify where health literacy comes from, which disciplines were the main drivers of the increased focus on health literacy in research, practice and policy, and what has influenced its development throughout the past decades. This may also help in understanding and unravelling why the field of health literacy research is so heterogeneous in relation to conceptual and methodological approaches, as described throughout this handbook.

This chapter addresses the entire lifespan, and introduces the four main roots of health literacy: school health education, adult education, healthcare research and public health. It describes the historical pathway that began in 1974 at Saranac Lake, New York, USA, and reached its preliminary climax in 2016 at the WHO Shanghai Conference on health promotion in China. Each of the four roots is introduced by specifically describing the research, practice and policy interest that enabled people decades ago to address health literacy in their specialised fields. These sections show how these roots significantly influenced the pathway of health literacy and the types of health-related developments that made it necessary to create and address health literacy at that time. After describing the four roots,

their inherent intricacies and how they contributed to the field of health literacy, their commonalities, differences and intersections as well as future implications for moving the field forward are discussed.

School health education

The origin of the term 'health literacy' can be associated with a particular event and date in the USA. In 1973, during the interdisciplinary Will Rogers Conference on Health Education at Saranac Lake, a small village in the state of New York, the future of health education for the US public was discussed (Simonds, 1974). With the goal of determining how education may be advanced most effectively to prevent illnesses, experts from education, health, communication and the entertainment industry came together and addressed various research, practice and policy issues related to new directions in health education and public health communication. The proceedings of the conference show that it was Scott K. Simonds (1974) who understood that health education must be considered an important social policy topic. He highlighted three dimensions deeply associated with better health education:

- social responsibility of the healthcare sector to adopt modern health education principles, to provide health insurance to all citizens and to engage in health promotion, education and maintenance in all their settings;
- responsibility of education systems to implement health education for children and young people;
- responsibility of the communication and entertainment industry to commit to public health education throughout their media channels, and to support the creation of active and health-responsive citizens by using social marketing and reinforcing healthy practices.

It was in this context that he coined the term *health literacy*, which he understood to be the outcome of health education, and recommended establishing quality health instruction by highly qualified health education teachers in kindergartens and schools to develop citizens who could meet these health education goals. Although this model represented a top-down approach that redistributed the responsibility for good health to individuals, the social justice aspect of these policy goals became clear: Simonds emphasised that efforts should also be dedicated to creating a better and more just healthcare system that helped citizens protect and maintain their health.

However, there is almost no scientific documentation on health literacy in relation to school-based health education until 1995, when the Joint Committee on National Health Education Standards (1995) defined the achievement of health literacy as the major goal of school health education. This was also the first time that health literacy was clearly defined in the health education context as the health knowledge and skills 'to obtain, interpret, and understand basic

health information and services and the competence to use such information and services in ways which enhance health' (Joint Committee on National Health Education Standards, 1995, p 5).

Whereas health literacy was understood to be the outcome of health education, the outcome of health literacy was being literate in the context of health. A health-literate person was defined as a critical thinker and problem solver, a responsible and productive citizen, a self-directed learner and an effective communicator. These dimensions are very much interconnected with Simonds' recommendation from the 1970s; he understood that being health-literate has two dimensions: individual health responsibility and public responsibility for creating a health-supportive environment for the benefit of all citizens. Although health literacy was highlighted a second time, most prominently in the context of school health education, it has largely been ignored; it was not considered in curriculum development, and no assessment or monitoring system for students was implemented. By the time the Institute of Medicine (Nielsen-Bohlman et al, 2004) indicated that the education system was among the major areas for health literacy-promoting interventions, 30 years had passed since Saranac Lake, with almost no health literacy activities in schools. Although the curriculum for health literacy was renewed in 2007 (Joint Committee on National Health Education Standards, 2007), today only 75 per cent of the states in the US have adopted these kinds of health education standards; furthermore, the implementation of health education standards is very heterogeneous, and programmes are not well evaluated (Ormshaw et al, 2013).

While for many years health literacy was a school education matter only in the US, albeit only in rhetorical terms and as a tool that was not really practised, Australian educators have been constantly highlighting the role of schools in promoting health literacy, beginning in 1993 with the report on the new Australian public health goals (Nutbeam et al, 1993). They especially discussed how schools could facilitate the achievement of health literacy, the necessary organisational and professional structures and the future challenges associated with the promotion of health literacy in schools (St Leger, 2001). However, this approach is not linked to the approach used in the US, and nor does it follow the US model. Instead, the Australian approach is informed by a public health approach to health literacy and the WHO-invented health-promoting school approach (Nutbeam, 1992) (introduced later in this chapter). Nevertheless, it took another 10 years before the Australian government adopted a curriculum that addressed the promotion of health literacy competencies in all Australian schools (ACARA, 2012).

While many countries lack a health literacy component in their school health education curriculum, Finland proves how health literacy can be promoted and successfully accomplished through schools (Finnish National Board of Education, 2014). Similar to the US approach both conceptually and structurally, the Finnish health education curriculum views health literacy as the primary health education outcome and uses a multidimensional health literacy framework (Paakkari and

Paakkari, 2012). The curriculum is mandatory for the entire education system. The health literacy curriculum is based on a previously developed model, and its core components encompass theoretical and practical knowledge, self-awareness, critical thinking and citizenship. This understanding is close to how health literacy is conceptualised in the US curriculum. (The Finnish approach is described in greater detail in Chapter 34, this volume.)

Many scholars and practitioners highlight the importance of including health literacy in school health education as schools are viewed as a key arena for promoting health literacy early in the life course (Nutbeam, 2000; St Leger, 2001; Benham-Deal and Hodges, 2009). In this context, two books on health literacy, school health education and adolescent health learning have been published recently, highlighting available methods, conceptual considerations and future directions related to this field (Begoray and Banister, 2012; Marks, 2012). The books conclude that to address health literacy promotion, there is a need for better classroom-based practices, whole-setting approaches, collaboration across sectors, parent involvement and better professional development, especially in terms of teacher education. In this context, the WHO Regional Office Europe recently published a policy brief on improving school health literacy promotion in European countries (McDaid, 2016). In conclusion, one important root of health literacy is health education, but at present, few countries have adopted a health literacy curriculum, and those that have focus more on school practices than on conducting studies to produce evidence.

Adult education and literacy learning

The previously mentioned Saranac Lake conference was also a platform for discussing the health education of adults. Although health literacy was not directly mentioned as a learning goal for adults, the overall health education goals were clearly defined to address adult learners as well as children (Simonds, 1974). Although adult education was discussed at this event, it was not the factor that made adult education a root of health literacy. In fact, adult and continuing education and literacy learning have a long tradition around the world (Coben, 2013). Both aim to equip adults with basic reading and writing skills, functional literacy and knowledge (Kerka, 2003), and other approaches are based on the idea of increasing individual empowerment (Kickbusch, 2001).

Unlike school health education, adult education did not provide a particular definition of health literacy; instead, it drew from traditional literacy and functional literacy (the ability to use reading and writing and computation skills to meet everyday life situations and to develop knowledge and potential) (Andrus and Roth, 2002), and emphasised health-related knowledge and health communication. Health literacy for adults was based on these sorts of literacy concepts.

In adult education, the connection between literacy and health was recognised long before the term 'health literacy' was coined. Literacy research in this field

began early to investigate the effects of poor education and literacy on health (Segall and Roberts, 1980). During the 1970s, a broad array of research on adult literacy in the US found that a significant number of adults experienced reading difficulties (Rudd et al, 2000), and that illiteracy has a direct effect on health and on interactions with the healthcare sector (Holt et al, 1992). Literacy was especially important when adults interacted with the healthcare system as patients. It was known that for adult patients, literacy is an important determinant of effective health communication with the health sector and health professionals, and of acquiring and understanding health-related knowledge and information.

Although there was no mandatory health curriculum in adult classes, health became a fundamental component of adult education. The inclusion of health projects in adult classrooms was a bottom-up approach driven mainly by adult educators as they recognised that health is in adult learners' personal interest. Educators used this method to motivate adult learners to engage with and better learn reading, writing, oral expression and maths skills (Rudd et al, 2000). In the mid-1980s, the book *Teaching patients with low literacy* (Doak et al, 1996) specifically linked adult and health education principles to address the promotion of patient literacy. During this period, professionals from adult education and healthcare collaborated to provide health-related print materials that corresponded to the reading abilities of patients (Plimpton and Root, 1994). Poorly educated and low-literate adults also have poor health status, including the highest rates of morbidity and mortality (Plimpton and Root, 1994), and this link has been proven in studies throughout the world (Zarcadoolas et al, 2005, 2006). Therefore, by the time the second edition of the book by Doak, Doak and Root was published in 1996 (Doak et al, 1996), the healthcare sector had already begun to investigate the health literacy of patients by using literacy screening tools during routine visits and studies (Berkman et al, 2011). When the National Adult Literacy Survey (NALS) found that 90 million American adults had limited functional literacy skills (Kirsch et al, 1993) that affected their healthcare interactions in terms of adherence, compliance and communication, it provided a starting point for health literacy in the healthcare and medicine context that dramatically changed the path, measurement and political uptake of health literacy. A clear distinction of where adult education ends and healthcare starts cannot be made within the context of health literacy. Moreover, those fields intersect, with the healthcare sector producing rapid screening tools and empirical studies and the adult education field providing interventions to increase adult patients' literacy skills. However, healthcare used the functional literacy concept taught in adult education as the foundation of healthcare-based health literacy understanding (see Chapter 26, this volume).

Healthcare: an uprising of health literacy

As mentioned earlier, the healthcare areas dedicated to research on health literacy are linked to adult education, but are subtly distinct. The roots can be traced

backed to the 1960s and subsequent decades in the US, where researchers, mostly physicians in healthcare settings, but also nurses and pharmacists, investigated patient–provider communication, patient knowledge and comprehension of health information, and medical adherence and compliance (Segall and Roberts, 1980; Davis et al, 1990; Rudd et al, 2000). During this time, the health system was changing and becoming more complex, and healthcare providers and health professionals began to expect patients to assume a more active role in their care and greater responsibility for their own health (Parker, 2000), if not to say that in relation to health literacy this was and still is a desire in order to lower healthcare costs and liability.

The significantly negative results of the NALS and the International Adult Literacy Survey (IALS) (Statistics Canada, 1995) increased health researchers and practitioners' interest in exploring the relationship between patient literacy and healthcare interaction more deeply than they had throughout the 1970s and 1980s. That said, the NALS findings triggered a significant uptake of health literacy in healthcare, and literacy and functional literacy became the core units of observation throughout the 1990s and 2000s. By that time, US-based and international studies of health research were clearly showing that limited patient literacy levels were associated with poor health status and had an impact on several intermediate factors known to influence health outcomes (Rudd et al, 2000). In extensive studies in this field, limited patient health literacy was identified as having negative effects on various health actions and health outcomes. Healthcare professionals understood that deficiencies in patient literacy could threaten effective patient–provider communication, medical adherence, treatment, self-management, utilisation of care and information, and have an overall negative effect, and that they needed instruments to analyse patient strengths and weaknesses during medical care procedures to provide better healthcare tailored to patients' needs and capabilities.

To address and better identify these problems, fast screeners were developed (see Chapters 5 and 6, this volume), such as the Rapid Estimate of Adult Literacy in Medicine (REALM) (Davis et al, 1993) and the Test of Functional Health Literacy in Adults (TOFHLA) (Parker et al, 1995). These fast screeners were used in routine testing in healthcare practice and in many studies. They were meant to identify certain patient needs in relation to education and literacy levels, and although they were developed more than two decades ago, these tools are still in use in the US and internationally. Most of the work performed in this era was dedicated to measuring health literacy and exploring its association with health outcomes. Defining health literacy was also a matter of discussion in the 1990s and the early 2000s. As a result, the most prominent and frequently cited definition of health literacy emerged (Malloy-Weir et al, 2016); it described health literacy as 'the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions' (Ratzan and Parker, 2000, p iv).

Several health-related organisations in the US began to prioritise the health literacy of patients, including the US Department of Health and Human Services, in their *Healthy people* reports (USDHHS, 2000), the American Medical Association, through their Ad Hoc Committee on Health Literacy (1999) and the National Institutes of Health and the National Library of Medicine (NLM) with several networking, knowledge, database and online resources (NLM, 2000). Among the most prominent evidence of this prioritisation is the report on health literacy published by the Institute of Medicine in 2004, *Health literacy: A prescription to end confusion* (Nielsen-Bohlman et al, 2004), which is still echoed in the field of health literacy. The report summarised contemporary evidence, provided possible interventions and solutions, broadened the concept of health literacy, presented several areas for intervention (namely, culture and society, the education and the health system), and facilitated the uptake of health literacy by many sectors and settings. Since the Institute of Medicine, which is now called the National Academy of Medicine, started engaging with health literacy, they have been instrumental in developing and organising working groups, meetings, networks and discussions to improve health literacy research, practice and policy, and to make it a high priority in the national political agenda (Parker and Ratzan, 2010).

While health literacy has almost always taken a bottom-up approach in healthcare and medicine, the rise of these policy-related reports led to the National Health Literacy Act, the National Action Plan on Health Literacy and finally, to the Patient Protection and Affordable Care Act signed by Barack Obama (Parker and Ratzan, 2010). That was when health literacy efforts shifted from a bottom-up approach to a top-down approach, ensuring the support and promotion of health literacy initiatives backed by law. However, it can also be stated that those regulations have no enforcement mechanism in regard to health literacy aspects, and are largely ignored by many in the US.

This healthcare stream also brought the idea behind the health literacy communication framework into existence, highlighting that health literacy involves a complex process of communication and interaction between patients and healthcare providers (Parker and Ratzan, 2010). In this context, health literacy became known as a two-sided concept in which individual abilities and system demands and complexities must meet to promote health literacy and sustain effective health practices. This was clearly a shift towards considering the environment and addressing health system change, as suggested by Simonds in 1974. In the long run, this has also led to the concept of the health-literate healthcare organisation, one that addresses the improvement of the physical and social infrastructure of the health system to better fit patient needs and demands (Brach et al, 2012). Highlighting the embeddedness of individuals in their context, the public health literacy concept, which addressed the health literacy of both individuals and groups, was introduced in 2009 (Freedman et al, 2009). However, this concept is not related to the public health approach to health

literacy; instead, *public* highlights that there is a dimension to health literacy beyond individual abilities.

Given the number of research studies, measurement tools, interventions and health education programmes and policies that were produced by this stream, healthcare research is among the main devices that have advanced the health literacy revolution in health sciences and practice. The development in this field continues, and most recently, researchers and practitioners who have been involved with health literacy for many years have published a brief report on how to improve health literacy, the concept of health literacy, and its measurement, interventions and policies (Pleasant et al, 2016).

Public health: the second coming

In public health, the development of health literacy is closely related to the health promotion movement that began with the WHO's Ottawa Charter in 1986 and was mainly driven from within Europe (WHO, 1986). In fact, the bedrock of health literacy was formed much earlier, in 1974, when the so-called Lalonde report in Canada introduced the term 'health promotion' to broader audiences and health policy (Lalonde, 1974). Although the term itself was coined in the 1940s by Swiss medical historian Henry E. Sigerist and subsequently led to advances and new perspectives in epidemiologic research throughout the following decades (Breslow, 1999), it was the Lalonde report that is believed to have paved the path for health promotion as it is being discussed today (Hancock, 1985). Unlike traditional medical approaches to health, a public health framework for strengthening the population's health was proposed; this framework was labelled the *health field concept*. Although it still comprised the biomedical dimension of health, the framework specifically addressed the environment, lifestyle and health decisions, individual responsibility and health behaviour, social determinants of health and populations at risk in an effort to reduce health inequalities; additionally, it introduced responsive health systems and health policies to support the accomplishment of these goals. These ground-breaking ideas were then adopted in the Ottawa Charter.

While the Charter defined the development of personal skills as one of its five strategies for promoting health, health literacy was not specifically mentioned. That changed during the 1990s, when, in the context of developing Australia's new public health goals, health literacy and health skills were interconnected with education, and the WHO's health-promoting schools approach (Nutbeam, 1993) and health learning became more important components of health throughout the lifespan (Kickbusch, 2001). Finally, during the WHO's Jakarta Conference, health literacy was introduced to expand and summarise the personal skills strategy presented in the Ottawa Charta (see Chapter 42, this volume). Health literacy was then understood to be an indicator of personal skills, namely, health knowledge, self-confidence, self-efficacy, self-empowerment, attitudes, behaviour, future orientation, participation, coping, caring and health sector navigation (Kickbusch, 2001).

A year later, in 1998, the new WHO health promotion glossary defined health literacy as the 'cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health' (Nutbeam, 1998 p 357). Another difference to the healthcare approach is the fact that health literacy is not just restricted to health information, but also to information in general. It was emphasised that health literacy is a distinct and independent concept rather than a derivate of literacy (Nutbeam, 2008), and that health literacy goes beyond the healthcare sector and also addresses everyday life settings.

By highlighting that health literacy goes beyond the ability to read pamphlets and make appointments, in contrast with the functional literacy take on health literacy described earlier in this chapter, the public health approach made clear its differences from the narrow healthcare approach. Shortly after, by adopting the idea that literacy is a set of social practices that enables practical abilities in everyday life (Nutbeam, 1999; see also Chapter 36, this volume), Nutbeam (2000) highlighted health literacy as an essential skill for the 21st century, and further introduced a three-tier model of health literacy that comprised *functional health literacy*, *interactive health literacy* and *critical health literacy* (see Chapter 14, this volume). This approach is informed by interaction, participation and critical appraisal, and linked to Paulo Freire's education for critical consciousness, which sought to empower citizens in general but the most deprived one specifically. In this context, health literacy was labelled an important health- and wellbeing-related life skill required for participation in society and an active, empowering and dynamic concept (Kickbusch et al, 2005; Kickbusch, 2006) that was understood to be an important driver in the determinants-based health promotion approach (Kickbusch, 1997). Although health literacy was already characterised as a content- and context-specific concept, during the Mexico Conference on health promotion, the WHO Health Literacy Working Group recommended broadening the concept by including relational and dynamic aspects as well as the dimensions of health-related life skills and community development (Kickbusch, 2001). Moreover, this recommendation led to a definition of health literacy as an important determinant of population health (Kickbusch, 2001). Many of the WHO's follow-up conferences have confirmed their interest in promoting health literacy and have endorsed new approaches throughout the years. In 2008, the critical role of health literacy for empowerment was highlighted again, and it was recommended that health education programmes link health literacy development with actions to address the social determinants of health; furthermore, the 'Nairobi call to action for closing the implementation gap in health promotion' identified health literacy as a key strategy and action for improving quality of life and health outcomes and for reducing health inequities on a large scale (Kanj and Mitic, 2009).

Health literacy was significantly strengthened when health promotion and disease prevention were highlighted as important approaches for addressing the increase in the burden of disease in many developed countries (Kickbusch, 2001).

At the same time, the citizenship concept, including the capacity and self-efficacy to manage health and wellbeing, was associated with health literacy. Therefore, health literacy became an even more important target for public health policies and for addressing the social determinants of health. Consequently, individual responsibility was emphasised as a target for improving individuals' capacities to address modifiable risk factors and prevent diseases (Peerson and Saunders, 2009). In this context, culture is another indicator influencing health literacy, as Levin-Zamir and Wills (2012) have highlighted before suggesting that culture should be considered an important determinant of health literacy, especially in the context of the increasing migrant and refugee populations moving to Western countries. While community members and health systems, including health professionals and further staff, should be culturally competent in order to meet cultural demands of individuals and populations, culture in this context refers 'to the shared values, beliefs, and practices to find meaningful, structured modes of social interactions interpersonally and institutionally to support the well-being of its members' (Levin-Zamir and Wills, 2012, p 6). It is worth mentioning that culture has likewise become important to health literacy approaches in school and adult education as well as for healthcare.

When European-based public health researchers conducted the first health literacy survey in eight European member states (Sørensen et al, 2015), it was a global catalyst for health literacy research, practice and policy around the world, and many follow-up studies have been conducted since. This widely acknowledged study and its associated results also led the WHO to report on health literacy in their 'Solid Facts' series, which aimed to present best evidence and identify the policy and action implications of converting research into practice (WHO, 2013). The report highlighted the importance of delivering health literacy action as part of the settings approach, how policy interventions could be implemented at European and national levels, and the need to invest in and strengthen health literacy research and practice. A subsequent policy brief supported these recommendations, particularly those related to investing in health literacy in the education sector (McDaid, 2016). Similarly, health literacy has been placed high on the agenda in the WHO Southeast Asia Region via the introduction of a health literacy toolkit for low- and middle-income countries to help communities to develop their own solutions (Dodson et al, 2015). Furthermore, it informs governments and organisations about health literacy, and introduces ways to provide action for health promotion, disease prevention and management and to address inequities in health. Complementing these developments, and in line with the tradition of discussing health literacy during the WHO's health promotion conferences, the Shanghai Declaration on health promotion prioritised health literacy development as an important health promotion and sustainable development goal; in doing so, the WHO defined the development of health literacy as one of three central pillars of its agenda, and identified it as the key to empowerment and increased equity (WHO, 2017).

In public health, the development of health literacy is ongoing at all levels. This continued development is best expressed by several national policies in Europe (Heijmans et al, 2015), and by the WHO's recent launch of its first Health Literacy Collaboration Centre with Director Richard Osborne, located in Australia (Deakin University, 2017). Besides the ongoing and tremendous public health efforts addressing health literacy in Europe, North America and the Australasian region, there is only little to no work still in Africa, very little in the Middle East, India and South America, and also very little in Russia and the Slavic countries in Europe (Pleasant, 2013a, b).

Discussion and future directions

This chapter sought to chronicle the development of health literacy and introduce major milestones in the evolution of health literacy in different disciplines. Despite many commonalities, each of the four main roots provides a heterogeneous pathway for health literacy, and the concept and its community remain in a state of constant change, both conceptually and practically.

There is some common ground among the four roots of health literacy. For example, all the approaches define health literacy as the outcome of health education and associated health learning in schools or educational settings. All the approaches understand that health literacy is an individual responsibility; however, they also consider the interrelationship between individuals and their environment, including social factors and cultural sensibility. While public health and school health education show that social policy, including citizenship, just health systems and societies, participation and empowerment, were part of the early agendas in the 1970s and 1980s, the systems and professional perspectives that emerged in the 2000s prompted healthcare to emphasise that health literacy goes beyond individual abilities. Although health literacy initially began as an upstream approach in adult education and healthcare and a top-down approach in school health education and public health, today, both top-down and bottom-up actions can be found in all these disciplines. While the number of countries developing national policies to ensure health literacy promotion is constantly increasing, on the other end of the spectrum, school teachers, health educators and health practitioners are providing programmes at individual and community levels. The most important understanding that all of the approaches share is that health literacy must be regarded as a whole-of-society approach involving research, practice, industry and policy. In this context, including health literacy in the 'Health in All Policies' (HiAP) approach is becoming a critical public policy goal at national and international levels, and governments in many countries as well as NGOs have already begun addressing health literacy on their HiAP agendas.

The adult education and healthcare streams naturally merged very early in the US in the 1990s – the former provided teaching methods and educational content and the latter provided extensive studies. However, school health education has never connected with these other approaches. In fact, even newer approaches

such as the Finnish health literacy curriculum do not relate to the healthcare and public health approaches; instead, they are very similar to the school education approach developed in the US. Regarding public health, although there are some intersections with the healthcare approach that primarily evolved after the Institute of Medicine's 'Prescription' report in 2004 (Nielsen-Bohlman et al, 2004), the two fields seem to coexist mostly independently. Nevertheless, since Australia adopted a health literacy curriculum for their national school health education programme that is implemented within the health-promoting schools approach, there is at least that intersection between public health and school health education.

Health literacy itself, however, is defined differently within both. In contrast to public and school health education, healthcare's approach to health literacy still focuses primarily on the use of medical services and adherence, adjusting health systems to meet patients' demands, and patient–provider interaction. Public health is based on a health promotion approach that is much broader and emphasises the health and wellbeing of individuals in their everyday life, including how they can improve their living conditions and address the social determinants of health. The school health education and public health approaches share an understanding of health literacy that is based on developing socially responsible citizens and critical thinkers. While in the health education approach these are components of health literacy itself, in public health, these are greater health promotion goals to be sustained by addressing health literacy.

However, critical health literacy as introduced in public health is very similar to the critical thinker approach used in school health education. Especially in the context of modifiable health risks, health literacy addresses the individual's responsibility to prevent those kinds of health threats. Responsibility is also meant to address the social determinants of health and to encourage patients to change them in ways that promote their personal health and the health of others, including encouraging citizens to take on leadership positions and to make the health system more just and equitable system for all. Approaches in school health and adult education have conceptually and practically focused more on improving the 'literacy' aspect of health literacy by teaching skills, knowledge and further cognitive and social abilities, while public health and healthcare prioritised the 'health' aspect as well, by keeping the focus on improving health outcomes. Decision-making as a product of health literacy seems integral to all perspectives, but from a medical and healthcare perspective, it is about an appropriate decision, whereas in public health and education, it is more about an informed decision. Finally, the WHO-based public health approach highlights 'information' (Nutbeam, 2000, p 264) rather than health information, which, however, is the term of choice in most of the other definitions and approaches.

On a large scale, the main driver of the healthcare approach has always been US-based healthcare and medical organisations, health professionals, and recently, health policy-makers, while the WHO has always been the main driver of the public health approach. In addition to the vast number of studies conducted through

healthcare research, a main contributor to this stream has been the inclusion of the health literacy of health professionals, the health-literate organisations approach and the introduction of health literacy as a two-sided concept involving individual abilities and systemic complexities. In comparison, public health has mainly contributed by providing a much broader notion of health literacy that addresses everyday life settings and is both content- and context-related, introducing a determinants approach, and emphasising the critical judgement of information that can be used in health and wellbeing contexts. Moreover, public health has led to the uptake of health literacy around the world, and to the first and only international, population-based survey using a self-report questionnaire. In turn, that study has revived and re-initiated European health literacy research, practice and policy as well as the uptake of the public health approach in many countries across the world (see Chapter 8, this volume).

There is still a sharp contrast among these approaches in their understanding of health literacy, but there are also some commonalities and intersections. From a lifespan perspective, it is important to have one understanding of health literacy that, if needed and based on purpose, can be shaped to serve different populations (based on age, gender, culture, professions, roles), different settings (healthcare, everyday life, schools, workplaces), different health approaches (physical health, mental health, wellbeing, digital health), and different conceptual needs (based on needed personal or environmental skills). For the future of health literacy development, it will be particularly important that the approaches intersect and are unified, starting with early years and school education and proceeding to adult and continuing education, both of which are based on the principle of lifelong learning for health, and that this approach combines the values and characteristics of both healthcare and public health, as introduced in this chapter.

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