

Health Literacy

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Abstract

The health literacy field has evolved since the 1970s. It is associated to empowerment and refers to the capacities of people to meet the complex demands of health in a modern society. Regarding health literacy as a social determinant for health, common grounds are established to define the term; measure the concept; and apply it in research, policy, and practice. Growing evidence shows that limited health literacy is a public health challenge, which can be targeted through people-centered, cross-disciplinary, and intersectoral approaches.

The term 'health literacy' was introduced in the 1970s in relation to health education and social policy (Simonds, 1974). Since the 1990s the concept has received increasingly attention as part of the capacities of people to meet the complex demands of health in a modern society (Kickbusch and Maag, 2008). Ever since, the composite notion of health literacy has been scrutinized in terms of how to define and conceptualize it; how to measure it; and how to apply it in research, policy, and practice.

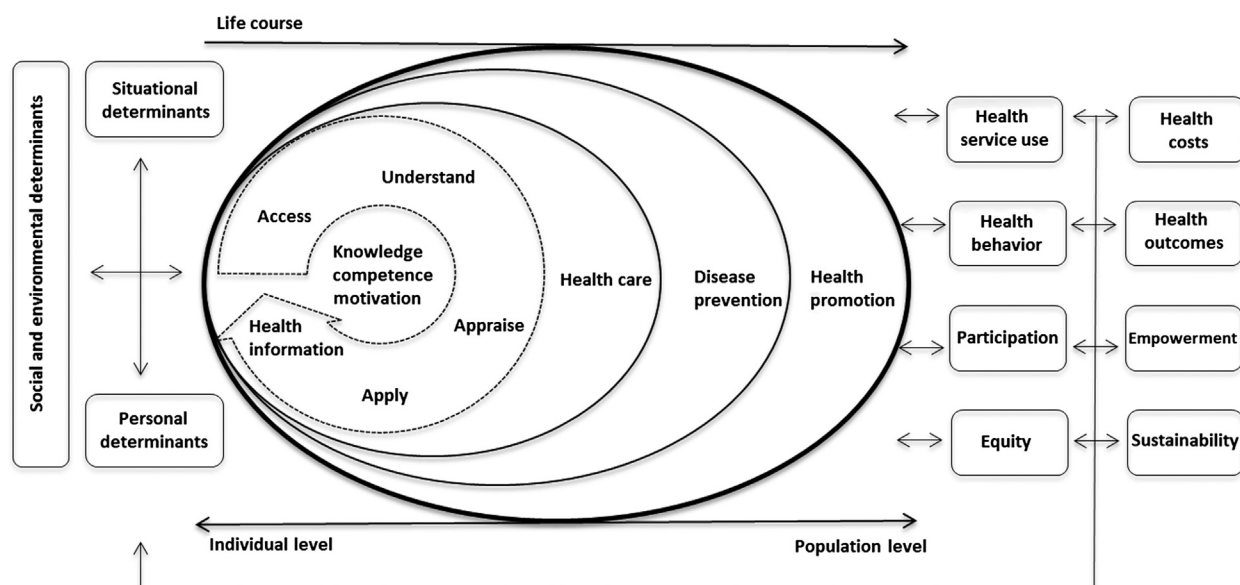
Defining Health Literacy

Health literacy is linked to literacy entailing people's knowledge, motivation and competencies to access, understand, appraise, and apply information to form judgment and take decisions in everyday life in terms of health care, disease prevention, and health promotion to maintain and improve quality of life (Sorensen et al., 2012). As such it is "a shared function of social and individual factors, which emerges from the interaction of the skills of individuals and the demands of social systems" (Nielsen-Bohlman et al., 2004). In turn,

a distinction can be made toward public health literacy, which refers to "the degree to which individuals and groups can obtain process, understand, evaluate, and act upon information needed to make public health decisions that benefit the community" (Freedman et al., 2009). Whereas several definitions exist, there is a common understanding that health literacy represents 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). In addition, the importance of shaping health literate-friendly services and systems has been highlighted to enhance a better interaction between users and health professionals to optimize people-centered care (Brach et al., 2012).

Conceptualizing Health Literacy

The European Health Literacy Consortium (Sorensen et al., 2012) developed a conceptual framework to illustrate how health literacy can be understood as a social determinant for health. It focuses on developing health literacy through being



able to access and obtain information; to understand information; to appraise and evaluate information; as well as applying information in all forms when being ill, when trying to avoid risks and when trying to stay healthy during course of life. Health literacy is influenced by personal, situational, and broader societal and environmental factors as outlined in the Ottawa charter (WHO Regional Office for Europe, 1986) and elaborated on by the Commission on Social Determinants of Health (Commission on Social Determinants of Health, 2008). In turn, it is illustrated how health literacy has an impact on health service use (Paasche-Orlow et al., 2005), health behavior (Paasche-Orlow and Wolf, 2007), active participation in society as well as for socioeconomic sustainability (Kickbusch, 2007). The conceptual model takes into account the individual as well as the system perspective, hence recognizing that health literacy relates to the individual capacity to make sound health decisions in the context of everyday life – at home, in the community, at the workplace, in the health care system, in the market place, and in the political arena (Kickbusch, 2008) and health literacy is closely associated to the design of organizations and systems and how they are managed in order to respond to the needs and demands of people (Brach et al., 2012; Parker and Ratzan, 2010).

Previously, widespread health literacy research has been conducted, which was grounded in educational theory based on Nutbeam's three qualities of health literacy: functional health literacy, interactive health literacy, and critical health literacy (Nutbeam, 2000). Yet, recent research suggests that health literacy encompasses even more distinct attributes associated to feeling understood and supported by health care providers, having sufficient information to manage own health, being able to actively managing one's own health, social support for health, appraisal of health information, active engagement with health care providers, navigating the health care system, ability to find good health information and understanding health information well enough to know what to do (Osborne et al., 2013).

Measuring Health Literacy

Numerous tools have been developed over the course of the past 20 years in an effort to measure health literacy in various contexts. Some of these tools were developed as screening tests and others were developed as more comprehensive assessments. Accurate measurement is a critical component of success to identify topics and populations most in need of support, to help tailor interventions, and to provide metrics to evaluate progress (McCormack et al., 2013). The plethora of health literacy measures vary in the dimensions they measure, their mode of administration, the time and resources needed to use them, and level of psychometric rigor (Haun et al., in press). The most well-known measurements include the Rapid Estimate of Adult Literacy in Medicine (Davis et al., 1991, 1993), the Test of Functional Health Literacy (Parker et al., 1995), and the Newest Vital Sign (Weiss et al., 2005). As they are often used in clinical settings, these tools are necessarily short, quick, and easy to use. Other tools aim

at measuring a broader concept of health literacy, with a view to provide an in-depth assessment of the dimensions of health literacy, or to explore its relationships with social determinants, health behavior, health status, or healthy service use such as the Critical Health Competence Test (Steckelberg et al., 2009), the European Health Literacy Questionnaire (Sorensen et al., 2013), and the Health Literacy Questionnaire (Osborne et al., 2013).

During the last two decades, the focus of the health literacy measurements has changed considerably. Previously, tools were predominantly designed to measure functional health literacy in clinical settings such as, understanding medical terms (R.M. Parker et al., 1995), whereas later measurements have strived to encompass health literacy as a multidimensional term focusing on a variety of aspects related to health literacy (Osborne et al., 2013; Sorensen et al., 2013). So far, more than 50 tools measuring health literacy have been identified in a recent inventory and more are under development. With the wide range of tools emerging, it is advisable to evaluate the measurements for a conceptual and practical match, when choosing a health literacy instrument for research and screening (Haun et al., in press).

Health Literacy: A Contemporary Public Health Challenge

Health literacy studies across the world has shown limited health literacy to be a risk factor in modern societies (Barber et al., 2009; HLS-EU Consortium, 2012; Nielsen-Bohlman et al., 2004). The growing evidence reveals that limited health literacy is a risk, not only for vulnerable groups such as elderly, the less educated and, among people with low socioeconomic status, but also in the general population per se, when levels of limited health literacy are up to 60%. In this perspective, health literacy can be regarded a contemporary public health challenge that needs to be addressed to ensure a more appropriate use of resources and a better health for all (HLS-EU Consortium, 2012; Kickbusch et al., 2013). Several governments have, therefore, developed strategies to advance health literacy at national levels. The United States has launched a national action plan to improve health literacy (U.S. Department of Health and Human Services., 2010); Canada has opted for an intersectoral approach to improve health literacy for Canadians; in Scotland a national action plan is under development (The Scottish Government, n.d.); and in Wales, the advancement of health literacy is associated to the efforts of overcoming inequalities (Puntoni, 2012). Austria has adopted the investment in health literacy as one of the 10 national goals (Bundesministerium für Gesundheit, 2013). In Australia, a health literacy response framework is being developed that provides tools for a whole-societal approach to build the capacity of citizens as well as of staff involved in organization of services and decision-makers in strategic planning (Osborne, n.d.). Notably, also the supranational organizations such as the European Commission and the World Health Organization have included health literacy as priority areas in their strategies (European Commission, 2007; World Health Organisation's European Office, 2012).

Characteristics of the Evolving Health Literacy Field

While health literacy is gaining more and more attention on the global agenda, the health literacy field itself is maturing. Whereas health literacy in the 1990s was promoted by individual stakeholders believing in its value for health care, disease prevention, and health promotion, the amount of stakeholders in the field has now reached a critical mass that allows for the organization of national and regional conferences as well as development of national, regional, and international networks. With these newly developed platforms for knowledge exchange, it has been possible to share ideas and evidence across the world regions. In the beginning of the century, the published peer-reviewed articles on health literacy could be counted in hundreds, yet within a few years it has raised exponentially to be counted in thousands. Due to the rapid developments and vast amount of information; the role of health professionals as knowledge brokers are as equally important as using and boosting the potential of health literacy embedded in the population (Sorensen, 2013). The advanced conceptualization of health literacy invites professionals from many different disciplines to incorporate health literacy as a priority area into their specific field of work. As a result, the notion of health literacy is increasingly being specified according to the specific topic or target group it involves, e.g., diabetes health literacy, mental health literacy, patient health literacy, aids literacy, health insurance literacy, etc.

Investing in Health Literacy

Nutbeam highlights that the solutions to the health literacy gap will differ whether health literacy is regarded a risk or an asset (Nutbeam, 2008). Generally, limited health literacy should be framed not as a problem of patients and citizens, rather as a challenge to health care providers and health systems to reach out and more effectively communicate with patients, citizens, and families (Kickbusch et al., 2013). Priority areas entail to

- include health literacy as part of school curriculum and life-long learning programs,
- survey and monitor health literacy in the general population as well as in subgroups to target interventions with a participatory approach,
- integrate the health literacy approach in management strategies at all levels in health-associated organizations,
- develop the health literacy of interdisciplinary staff involved in health care, disease prevention, and health promotion,
- identify the cost-effectiveness of health literacy-associated actions, and
- highlight health literacy as an ethical virtue that enhances people-centeredness in health.

The increased focus on cocreation of health between citizens and health providers requires a combination of personal and social responsibility not only from the individuals themselves, but even more so from societal institutions to promote choice, empowerment, self-management,

responsiveness, and active and self-directed participation in health and well-being (Kickbusch et al., 2013). The people-centered approach that health literacy is enhancing stimulates self-definition, active realization, and value-driven decision making based on a dual responsibility of the individual and society, which in turn requires freedom of choice and acceptance of diverse outcomes (Sorensen, 2013). The increased global focus on health literacy is expected to qualify health care, disease prevention, and health promotion at large. Yet, to have a profound impact in the future it will require power, priority, and leadership from all involved stakeholders to change the status quo.

See also: Doctor–Patient Interaction in the West: Psychosocial Aspects; Evidence-Based Medicine; Health Education and Health Promotion; Health Promotion in Schools; Public Health as Social Science; Socioeconomic Status and Health.

Bibliography

- Barber, M.N., Staples, M., Osborne, R.H., Clerehan, R., Elder, C., Buchbinder, R., 2009. Up to a quarter of the Australian population may have suboptimal health literacy depending upon the measurement tool: results from a population-based survey. *Health Promotion International* 24 (3), 252–261. <http://dx.doi.org/10.1093/heapro/dap022>.
- Brach, C., Dreyer, B.P., Schyve, P., Hernandez, L.M., Baur, C., Lemerise, A.J., Parker, R.M., 2012. Attributes of a Health Literate Organization. Institute of Medicine.
- Bundesministerium für Gesundheit, 2013. Rahmen-Gesundheitsziele Richtungsweisende Vorschläge für ein gesünderes Österreich. Wien.
- Commission on Social Determinants of Health, 2008. Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health, Geneva.
- Davis, T.C., Crouch, M.A., Long, S.W., Jackson, R., Bates, P., George, R.B., Bairnsfather, L.E., 1991. Rapid assessment of literacy levels of adult primary care patients. *Family Medicine* 23 (6), 433–435.
- Davis, T.C., Long, S., Jackson, R., Mayeaux, E., George, R., Murphy, P., Crouch, M., 1993. Rapid estimate of adult literacy in medicine: a shortened screening instrument. *Family Medicine* 25 (6), 391–395.
- European Commission, 2007. Together for Health: A Strategic Approach for the EU 2008–2013. Brussels.
- Freedman, D.a, Bess, K.D., Tucker, H. a, Boyd, D.L., Tuchman, A.M., Wallston, K. a, 2009. Public health literacy defined. *American Journal of Preventive Medicine* 36 (5), 446–451. <http://dx.doi.org/10.1016/j.amepre.2009.02.001>.
- Haun, J., McCormack, L., Valerio, M., Sorensen, K. Health literacy measurement: health literacy measurement: an inventory and descriptive summary of 52 instruments. *Journal of Health Communication*, in press.
- HLS-EU Consortium, 2012. Comparative Report on Health Literacy in Eight EU Member States. The European Health Literacy Project 2009–2012, Vienna.
- Kickbusch, I., 2007. Responding to the health society. *Health Promotion International* 22 (2), 89–91. <http://dx.doi.org/10.1093/heapro/dam014>.
- Kickbusch, I., 2008. Health literacy: an essential skill for the twenty-first century. *Health Education* 108 (2), 101–104. <http://dx.doi.org/10.1108/09654280810855559>.
- Kickbusch, I., Maag, D., 2008. Health literacy. In: Heggenhougen, K., Quah, S. (Eds.), *International Encyclopedia of Public Health*, vol. 3. Academic Press, San Diego, pp. 204–211.
- Kickbusch, I., Pelikan, J., Apfel, F., Agis, T., 2013. *Health Literacy: The Solid Facts*, first ed. World Health Organisation Regional Office for Europe, Copenhagen.
- McCormack, L., Haun, J., Sorensen, K., Valerio, M., 2013. Recommendations for advancing health literacy measurement. *Journal of Health Communication* 18 (Suppl. 1), 9–14. <http://dx.doi.org/10.1080/10810730.2013.829892>.
- Nielsen-Bohlman, L.T., Panzer, A.M., Kindig, D.A., 2004. *Health Literacy: A Prescription to End Confusion*. The National Academies Press, San Francisco.
- Nutbeam, D., 1998. Health promotion glossary. *Health Promotion International* 13 (4).

- 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. <http://dx.doi.org/10.1093/heapro/15.3.259>.
- Nutbeam, D., 2008. The evolving concept of health literacy. *Social Science & Medicine* (1982) 67 (12), 2072–2078. <http://dx.doi.org/10.1016/j.socscimed.2008.09.050>.
- Osborne, R.H., n.d. OPHELIA. Retrieved from: <http://www.ophelia.net.au/>.
- Osborne, R.H., Batterham, R.W., Elsworth, G.R., Hawkins, M., Buchbinder, R., 2013. The grounded psychometric development and initial validation of the Health Literacy Questionnaire (HLQ). *BMC Public Health* 13 (1), 658. <http://dx.doi.org/10.1186/1471-2458-13-658>.
- Paasche-Orlow, M.K., Parker, R.M., Gazmararian, J.A., Nielsen-Bohman, L.T., Rudd, R.R., 2005. The prevalence of limited health literacy. *Journal of General Internal Medicine* 20 (2), 175–184. <http://dx.doi.org/10.1111/j.1525-1497.2005.40245.x>.
- Paasche-Orlow, M.K., Wolf, M.S., 2007. The causal pathways linking health literacy to health outcomes. *American Journal of Health Behavior* 31 (Suppl. 1), S19–S26.
- Parker, R.M., Baker, D.W., Williams, M.V., Nurss, J.R., 1995. The test of functional health literacy in adults: a new instrument for measuring patients' literacy skills. *Journal of General Internal Medicine* 10 (10), 537–541.
- Parker, R.M., Ratzan, S.C., 2010. Health literacy: a second decade of distinction for Americans. *Journal of Health Communication* 15 (Suppl. 2), 20–33. <http://dx.doi.org/10.1080/10810730.2010.501094>.
- Puntoni, S., 2012. Health Literacy in Wales. A Scoping Document for Wales. Public Health Wales; Welsh Assembly Government.
- Simonds, S., 1974. Health education as social policy. *Health Education Monograph* 2, 1–25.
- Sorensen, K., 2013. Health Literacy: The Neglected European Public Health Disparity. Maastricht University, the Netherlands.
- Sorensen, K., Van den 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 (1), 80. <http://dx.doi.org/10.1186/1471-2458-12-80>.
- Sorensen, K., Van den Broucke, S., Pelikan, J., Fullam, J., Doyle, G., Slonska, Z., Brand, H., 2013. Measuring health literacy in populations: illuminating the design and development process of HLS-EU-Q. *BMC Public Health* 13 (948). <http://dx.doi.org/10.1186/1471-2458-13-948>.
- Steckelberg, A., Hülfenhaus, C., Kasper, J., Rost, J., Mühlhauser, I., 2009. How to measure critical health competences: development and validation of the Critical Health Competence Test (CHC Test). *Advances in health sciences education. Theory and Practice* 14 (1), 11–22. <http://dx.doi.org/10.1007/s10459-007-9083-1>.
- The Scottish Government, n.d. Health Literacy. Retrieved from: <http://www.scotland.gov.uk/Topics/Health/Support-Social-Care/Health-Literacy>.
- U.S. Department of Health and Human Services, 2010. Action Plan to Improve Health Literacy. Washington, DC.
- Weiss, B.D., Mays, M.Z., Martz, W., Castro, K.M., DeWalt, D.A., Pignone, M.P., Hale, F.A., 2005. Quick assessment of literacy in primary care: the newest vital sign. *Annals of Family Medicine* 3 (6), 514–522.
- WHO Regional Office for Europe, 1986. Ottawa Charter for Health Promotion.
- World Health Organisation's European Office, 2012. Health 2020: A European Policy Framework Supporting Action across Government and Society for Health and Well-Being. Copenhagen.

Relevant Websites

- <http://ahls-asia.org/> – Asian Health Literacy Association.
- <http://www.gezondheidsvaardigheden.nl/english/> – The Dutch Health Literacy Alliance.
- <https://www.health-literacy.eu> – The European Health Literacy Project.
- <http://www.healthliteracyeurope.org> – Health Literacy Europe.
- <http://www.ihpe.org/index.php/en/global-working-groups-gwgs/gwg-on-health-literacy> – The International Union of Health Promotion and Education Working Group on Health Literacy.
- <http://www.healthliteracy.org.uk/> – The UK Health Literacy Network.
- <https://www.wun.ac.uk/research/wun-global-health-literacy-network> – The World University Network Working Group on Health Literacy.
- <http://www.youtube.com/watch?v=fzMA9TIPJUK> – Infographic concerning the European Health Literacy Project: HLS-EU The Movie.