

Advancing health literacy from a system perspective: Health literacy training for healthcare professionals

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Health literacy (HL) refers to the ability to acquire, assimilate, and apply health-related information in ways that are appropriate for one's health (Lai, Ishikawa, Kiuchi, Mooppil, & Griva, 2013). The increasing interest in and prominence of HL research are reflected by the growth

in published peer reviewed articles, from under 300 peer reviewed publications in the 1990s to several thousand by 2015 (Nutbeam, 2015; Rudd, Anderson, Oppenheimer, & Nath, 2007; Rudd, Anderson, Oppenheimer, Rosenfeld, & Mandic, 2007). In the early stages of HL studies, researchers focused most of their attention on the literacy skills and deficits of individuals and the association between measured skills and a variety of health outcomes. As a result, numerous tools have been developed and validated to assess patients' HL levels (Haun, Valerio, McCormack, Sørensen, & Paasche-Orlow, 2014), forming the basis of research aimed to explore the links between literacy skills and health outcomes. We now have strong evidence of the associations between low levels of HL and a myriad of negative health outcomes, including increased use of emergency care, lower use of preventive health services, poorer treatment adherence, likelihood of tobacco use, lessened ability to manage chronic disease, and higher rates of hospitalization, depression, and mortality (Berkman, Sheridan, Donahue, Halpern, & Crotty,

2011; DeWalt, Berkman, Sheridan, Lohr, & Pignone, 2004).

However, HL research needs to continue to build on the knowledge we have accumulated in order to bring about efficacious change. Despite the evidence provided by over 1,500 articles (in English) establishing a mismatch between skills of the public and complexity of health information being provided (Rudd, 2014; Rowlands et al., 2015), calls for examining the communication skills of health professionals and the literacy related barriers in healthcare are only now starting to be heeded (Koh & Rudd, 2015). Advancing HL from an individual focus to a system perspective is challenging, in part, because the majority of research has disproportionately focused on the patient, such as measurement of patient HL levels without the concordant measurement of clinical communication or complexity of materials and tools. The key to advancing HL research is to expand the scope of inquiry and action to include the communication abilities of all health professionals and staff who interact with the patients, individuals, and communities to ensure the appropriateness and accessibility of health-related information, and collectively build a care environment and culture that effectively integrates HL in its activities (Rudd, 2015).

In this paper, we briefly review several articles that can shed insight on needed action along with a brief description of a HL training program conducted in Japan. Specifically, we highlight an adaptation of the "Eliminating Barriers-Increasing Access Workshop" developed in the US and modified for a series of HL training for

healthcare professionals (HCPs) following the Fukushima triple disaster (earthquake-tsunami-nuclear accident). We hope to prompt behavioral scientists to extend their HL research from a patient-focused perspective to one that also encompasses the interactions between patients and providers, between patients and healthcare systems, and between providers and healthcare organizations and care systems. In doing so, we highlight the need for an expanded notion of health literacy – one that takes into account health interactions and health contexts.

Health literacy training for healthcare professionals

The importance of HL in the training of those who communicate with patients and with the public has been recognized globally. In 2003, Schillinger et al. focused on clinicians and found that they rarely assessed patient recall and the comprehension of new concepts in diabetes patients. The authors called for greater attention to the patient-physician exchange during clinical encounters (Schillinger et al., 2003). After a series of studies examining the efficacy of "Teach Back", this exercise to check for clarity was instituted in several medical schools. One article, for example described how this approach was integrated into the curricula of the University of Chicago and Northwestern University Medical Schools and taught as a means for appropriately closing the encounter (Harper, Cook, & Makoul, 2007).

In a 2007 white paper, the Joint Commission articulated the link between patient safety and HL. The Joint Commission noted that healthcare practitioners have the responsibility to understand the beliefs, values and cultures that are influencing the ways health-related information are being shared and received by

patients. Furthermore, they noted that healthcare organizations have the responsibility to make sure that patients understand (Joint Commission, 2007). Attending to this call for institutional action, a region-wide effort in Italy's Emilia Romagna Region was implemented to raise HL awareness amongst oncologists, nurses, and hospital communicators in ten regional hospitals, helping them be attentive to their language and explanations (Gazotti, 2013). An example of national level change can be seen in New Zealand where the Ministry of Health issued a Framework for Health Literacy, calling for a system-wide approach to narrow the gap between the population's HL skills and complex demands of health institutions so as to create a health-literate system (New Zealand Ministry of Health, 2015). This Framework also clearly demarcated the actions needed at each specific level of the individual, health workforce, health organization, and system.

Following the complex series of disasters in Fukushima City, Japan in 2011, we conducted a study that revealed the community's needs to understand risk information and shaped HL training for public health nurses (PHNs) to help meet these informational needs (Goto, Rudd, Lai, Yoshida, et al., 2014). The challenges that mothers faced in interpreting radiation-related risks were leading to family migration from Fukushima City, family discord due to differing perceptions of risk, and concerns for the safety of their children (Goto, Rudd, Lai, Yoshida, et al., 2014; Morioka, 2014). Residents in Fukushima experienced anger, distrust and fear, in part due to the lack of robust communication plans and materials following the disaster (Slovic, 2012). Certainly, risk is a complex numerical concept and the task of risk assessment constitutes a high-level cognitive task. It is understandable that the lay public faces difficulty (Apter et al., 2008). In addition, the specific risk of radiation also evokes a strong reaction in people as a risk

factor that is even more than handguns and mountain climbing (Fischhoff et al., as cited in Slovic, 2012). The conduct of HL training for PHNs was thus devised as a HL as well as psycho-educational intervention to better equip HCPs with communication skills for improved informational access in the community.

The HL Training Workshop in Fukushima was conducted as a 2-session pilot program that introduced HL concepts, research findings, and assessment tools. It focused on building skills to improve communication practices and norms among PHNs. This, in turn, would increase community residents' access to information. The content of the workshop, adaptations, and program evaluations are described in detail elsewhere (Goto, Rudd, Lai, & Yoshida-Komiya, 2014). During a one-month follow-up, workshop participants reported applying their newly acquired skills in HL to develop written materials that were more accessible to the community. On the other hand, PHNs reported that they faced difficulties as they tried to change work norms toward one that is more HL-centric. They noted difficulties in sharing their new HL skills with colleagues who were unfamiliar with the concept of HL. As a follow-up to this study, a multi-site project delivering the identical HL training in various regions within Fukushima Prefecture has been implemented and evaluated (Goto, Lai, & Rudd, 2015).

Future work

Certainly, expanded efforts are needed to increase the skills of those who communicate with the public – including a wide range of HCPs. In addition, focused efforts are needed to impact the norms and practices of healthcare organizations. The Institute of Medicine has advocated for the need of health-literate healthcare organizations and describes the

permeation of HL in all operations of health services providers (Brach et al., 2012). While our HL Training Workshop has allowed PHNs to apply the principles of HL so as to develop plain language materials that were more accessible to community residents, more active work represents a substantial leap to achieving a state of health-literate organizations. Part of our future work therefore aims to raise the awareness of HL as an important entity that exists across the spectrum of the community, patients, clinicians and institutions. This directly corresponds to the results from our program evaluation – HCPs faced difficulties in changing their work norms to be more HL-centric, suggesting that educating on HCPs on HL alone is insufficient to effect changes at the institutional level. Future HCP training interventions in HL can perhaps integrate principles from frameworks that are concerned with embedding and sustaining practices within organizations (May & Finch, 2009). Such frameworks shed insight into the implementation and uptake of health intervention programs, and will prove valuable in our pursuit to advance HL to the institutional and systems level.

Conclusion

Research in HL has witnessed considerable progress over the past 25 years. However, researchers will need to move beyond the patient level to examine the communication skills of HCPs, the barriers and facilitating factors in organizations, and then test out approaches that facilitate the creation of health-literate healthcare organizations. Our work in Fukushima used HL training for HCPs as a mechanism to improve the acquisition, assimilation and application of health-related information for the community to make better decisions in the context of radiation-risks. This is, however, only

one of the ways to advance HL from a focus on individuals to a healthcare system perspective. HL transcends a myopic patient-level construct, and it is only when researchers and practitioners adopt different lenses for HL studies and/or interventions to include the community, clinicians and institutions, that we can then advance the scientific study of HL.

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