RESEARCH ROUNDup

Keep up to date with new Australian primary health care research

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Health literacy and primary health care

People with low levels of health literacy report poorer health status and experience poorer health outcomes compared to those with good health literacy.[1,2] Poor health literacy is most prevalent in socio-economically disadvantaged populations, which are often in greater need of health care to manage complex conditions.[3] In recognition of its potential positive impact on health outcomes, improving the health literacy of populations is being incorporated into policy.[4] This *RESEARCH ROUNDup* reports on some recent developments in health literacy research and the role of primary health care in enhancing health literacy to improve health outcomes.

What is health literacy?

Health literacy is defined 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."*[4] It is also seen as an outcome of health education; and improving health literacy may be one way of addressing the social determinants of health.[5] While more than half of the Australian population (aged 15-69 years) have a reading comprehension level below Year 8, most health information literature is written above that level making the messages inaccessible to many.[6] Overall, health literacy in a significant proportion of the general Australian population is limited.[7] For example, 45% of South Australians were 'at risk' or 'of high likelihood' of having low functional health literacy.[8]

In the past, the concept of 'health literacy' has focused primarily on the ability to read labels, fill in forms and follow instructions; more recently, it has extended to the ability to access health information and use it critically and effectively;[5] to navigate the health care system; and to communicate effectively about health relevant matters.[9]

How is health literacy measured?

How health literacy is defined has implications for how it is measured. Various assessment tools have been developed that primarily measure reading, comprehension and numeracy skills.[7] Examples of more common tools include the comprehensive, though time-consuming, Australian Adult Literacy and Life Skills (ALLS);[10] and brief assessment tools Rapid Assessment of Adult Literacy – Short Form (REALM-SF)[11], Test of Functional Health Literacy in Adults (TOFHLA),[8] and Newest Vital Sign.[8]

Health literacy and health status

Recent evidence shows that limited health literacy is associated with poorer overall health status and being less likely to have recently attended a doctor.[8] It is also related to poor health outcomes, including: increased hospitalisation, greater use of emergency care, lower rates of mammography, lower use of influenza vaccine, higher risk of mortality for seniors, incorrect use of medications and poor medication compliance.[1]

Poor health outcomes for those with low levels of health literacy often result from poor access and utilisation of health care, less effective communication in patient-provider relationships and less ability to self manage their conditions.[12] These outcomes may also be mediated by several factors, including: level of social support, knowledge, self efficacy, experience of stigma and health system characteristics.

Health literacy is associated with knowledge of preventive care, though it may not translate into improved health outcomes. A good understanding of the causes of ill health does not always lead to increased participation in preventive care activities.[1]

Poor health literacy and social disadvantage

Poor health literacy is associated with social disadvantage;[8] and is prevalent among people from lower socioeconomic backgrounds,[2] the elderly, culturally and linguistically diverse populations (CALD)[13] and Indigenous Australians.[14]

Given that the incidence of chronic conditions increases with age,[15] and poor health literacy is common in the elderly,[16] older Australians are a particularly vulnerable group. Limited health literacy in older people may be related to sensory and cognitive function, level of education and time elapsed since formal education.[17]

Although little research has examined the relationship between Indigenous factors and health literacy, some research suggests that the *"cultural and linguistic distance between staff and patients"* impedes communication.[14] That is, health information, such as doctor's instructions, medications and brochures that are based on Western biomedical concepts may be barriers to achieving good health literacy in this population. In particular, this is true where English is a second language and traditional Indigenous beliefs about illness prevail.

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Health literacy, chronic illness and self-management

Health literacy and illness self-management are inextricably linked.[18] The capacity to seek, access, comprehend and use health information and services influences participation in the treatment of conditions.[19] People with lower health literacy are more likely to have chronic conditions and less able to manage their conditions.[13; 18] Improved self-management may help compensate for lower levels of health literacy and improve health-related behaviours.[20]

Interventions to improve health literacy

Evidence on the costs of poor health literacy and the cost-effectiveness of interventions to improve health literacy are scarce and have shown mixed outcomes.[21] While the costs have not been calculated for Australia, a US report[4] found a correlation between low health literacy, high use of services and increased patient costs. While evidence is not strong,[22] some interventions have improved comprehension for those with *low* health literacy.[1]

Interventions to improve health literacy may be implemented at the level of patient, provider, practice, organisation or system (Table 1); and a multi-faceted, patient-centred approach is likely to be most advantageous.

Table 1 Strategies to improve health literacy

Patient level	***Provider and Practice level***	***Organisation and Systems level***
Teach-back technique[23] - asks patients to repeat back information and instructions	Improved, simplified written materials that reduce the reading level, and avoid confusing and unnecessarily complex messages[1]	Take a universal approach that recognises that *all* patients benefit from good communication, not only those with *low* health literacy[24]
Ask-Me-3 program[25] - provides posters encouraging people to ask questions	Visual aids, analogies and interactive multimedia[1,13,24]	Use a population based approach to build health literacy around common conditions[26] and service provision
Provide a non-judgemental, stigma-free environment.[13]	Training to improve interpersonal communication[1]	Encourage partnering between primary health care services and not-for-profit community organisations[26]
	Raise awareness among health practitioners of the characteristics, extent and outcomes associated with poor health literacy in their community.[24]	Take a whole of system approach to build foundational literacy, numeracy and language skills in the population

Summary

Given the association between low health literacy and poor health outcomes, and the high prevalence of both factors among disadvantaged populations, interventions to improve health literacy are an important factor in reducing health disparities. Reduction of unnecessary complexity in health care information, and use of graphics may be simple approaches to improve health literacy in the most disadvantaged groups. The primary health care setting is uniquely situated to tackle the problem of poor health literacy.

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References

1 Berkman N, Sheridan S, Donahue K, Halpern D, Crotty K. (2011). Low health literacy and health outcomes: An updated systematic review. *Ann Int Med, 155*(2).

2 AIHW. (2010). *Australia's Health 2010*. Canberra: Australian Institute of Health and Welfare, http://www.aihw.gov.au/publications/index.cfm/title/11374

3 NHHRC. (2009). *A healthier future for all Australians - Final report of the National Health and Hospitals Reform Commission*. Canberra: National Health and Hospitals Reform Commission.

4 Nielsen-Bohlman L, Panzer AM, Kindig DA. (2004). *Health literacy: A prescription to end confusion*. Washington DC: Institute of Medicine.

5 Nutbeam D. (2000). Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21st century. *Health Promot Int, 14*(3), 259-267.

6 Sarma M, Alpers JH, Prideaux DJ, Kroemer DJ. (1995). The comprehensibility of Australian educational literature for patients with asthma. *Med J Aust, 162*(7), 360-363.

7 Barber MN, Staples M, Osborne RH, 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 Promot Int, 24*(3), 252-261.

8 Adams RJ, Appleton SL, Hill CL, Dodd M, Findlay C, Wilson DH. (2009). Risks associated with low functional health literacy in an Australian population. *Med J Aust, 191*(10), 530-534.

9 Jordan JE, Buchbinder R, Osborne RH. (2010). Conceptualising health literacy from the patient perspective. *Patient Educ Couns, 79*(1), 36-42.

10 ABS. (2006). *Health Literacy, Australia 2006*. Australian Bureau of Statistics, http://www.abs.gov.au/AUSSTATS/abs@.nsf/mf/4233.0

11 AHRQ. (2009). Health literacy measurement tools. Retrieved 16 September, 2011, from http://www.ahrq.gov/populations/sahlsatool.htm

12 Paasche-Orlow M, Wolf M. (2007). The causal pathways linking health literacy to health outcomes. *Am J Health Behav*(31 (Suppl 1)), S19-26.

13 Hawkins AO, Kantayya VS, Sharkey-Asner C. (2010). Health literacy: A potential barrier in caring for underserved populations. *Disease-a-Month, 56*(12), 734-740.

14 Vass A, Mitchell A, Dhurrkay Y. (2011). Health literacy and Australian Indigenous peoples: An analysis of the role of language and worldview. *Health Promotion Journal of Australia, 22*(1), 33-37.

15 Productivity Commission. (2005). *Economic implications of an ageing Australia*. Canberra: Research Report. Australian Government.

16 Adams RJ, Stocks NP, Wilson DH, Hill CL, Gravier S, Kickbusch I, et al. (2009). Health literacy - a new concept for general practice? *Aust Fam Physician, 38*(3), 144-147.

17 Campbell S, Duddle M. (2010). Health literacy in chronic kidney disease education. *Ren Soc Aust J, 6*(1), 26-31.

18 Pearce-Brown C, Glasgow N, Jeon H, Jenkins S, Douglas K. (2009). *Health literacy and self management in COPD: The same, different or misunderstood?* Paper presented at the PHC Research Conference.

19 Jordan JE, Briggs A, Brand C, Osborne RH. (2008). Enhancing patient engagement in chronic disease self management support initiatives in Australia: The need for an integrated approach. *Med J Aust, 189*(10).

20 Hibbard J, Mahoney E, Stock R, Tusler M. (2007). Self-management and health care utilisation. Do increases in patient activation result in improved self-management behaviors? *Health Serv Res, 42*(4), 1443-1463.

21 Eichler K, Wieser S, Brügger U. (2009). The costs of limited health literacy: A systematic review. *Int J Public Health, 54*(5), 313-324.

22 Pignone M, DeWalt D, Sheridan S, Berkman N, Lohr K. (2005). Interventions to improve health outcomes for patients with low literacy: A systematic review. *J Gen Intern Med, 20*(2), 185-192.

23 Protheroe J, Nutbeam D, Rowlands G. (2009). Health literacy: A necessity for increasing participation in health care. *Br J Gen Pract, 59*(567), 721-723.

24 Bryan C. (2008). Provider and policy response to reverse the consequences of low health literacy. *J Healthc Manag, 53*(4), 230-241.

25 Mika V, Wood P, Weiss B, Treviño L. (2007). Ask Me 3: Improving communication in a Hispanic pediatric outpatient practice. *Am J Health Behav, 31 Suppl 1:S115-21*(Sep-Oct).

26 Bush R, Boyle F, Ostini R, Ozolins I, Brabant M, JImenez-Soto E, et al. (2010). *Advancing health literacy through primary health care systems*. Canberra: Australian Primary Health Care Research Institute, http://www.uq.edu.au/health/healthycomm/docs/APHCRIreport.pdf