Health literacy in health systems: perspectives on patient self-management in Israel

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SUMMARY
Health systems will face new challenges in this millennium. Striking the balance between the best quality of care and optimal use of dwindling resources will challenge health policy makers, managers and practitioners. Increasingly, improvements in the outcomes of interventions for both acute and chronic patients will depend on partnerships between health service providers, the individual and their family. Patient education that incorporates self-management and empowerment has proven to be cost-effective. It is essential that health care providers promote informed decision making, and facilitate actions designed to improve personal capacity to exert control over factors that determine health and improve health outcomes. It is for these reasons that promoting health literacy is a central strategy for improving self-management in health. The different types of health literacy—functional, interactive and critical health literacy—are considered. The potential to improve health literacy at each of these levels has been demonstrated in practice among diabetics and other chronic disease patients in Clalit Health Services (CHS) in Israel is used as an example to demonstrate possibilities. The application of all three types of health literacy is expressed in: (i) developing appropriate health information tools for the public to be applied in primary, secondary and tertiary care settings, and in online and media information accessibility and appropriateness using culturally relevant participatory methods; (ii) training of health professionals at all levels, including undergraduate and in-service training; and (iii) developing and applying appropriate assessment and monitoring tools which include public/patient participatory methods. Health care providers need to consider where their patients are getting information on disease and self-management, whether or not that information is reliable, and inform their patients of the best sources of information and its use. The improved collaboration with patient and consumer groups, whose goals are to promote rights and self-management capabilities and advocate for improved health services, can be very beneficial.

Key words: diabetes education; empowerment; health literacy; self-care; self-management

INTRODUCTION
Health systems will face new challenges in this millennium. Finding the balance between the best quality of care and optimal use of dwindling resources will challenge health policy makers, managers and practitioners. Recent assessments of health systems in 191 member countries conducted by the World Health Organization (WHO) show how the countries perform while taking into consideration the resources at their disposal (WHO, 2000). The relatively low rank given to some of the health systems in the developed world is due, in part, to increased spending on medical technology and more sophisticated medication that produces only marginal health gain. Health needs and public expectations in relation to health systems are constantly increasing. During the next decade, health systems will be expected to treat an increasing proportion of elderly in the
population as well as increased numbers of people with chronic disease. Health systems in general, and managed care in particular, are constantly striving to identify and achieve the best return on their investment, whether it be defined in terms of effectiveness (health outcomes) or benefit measures (monetary measure of savings). Patient education that incorporates self-management and empowerment has proven to be cost-effective. Research has shown that conveying appropriate self-care information to the patient as a health consumer can reduce the use of health services by 7–17% (Morrison, 1990). Fortunately, diabetes, hypertension, asthma and other chronic diseases, as well as many acute health problems, have proven to be largely self-manageable. This is especially the case where self-management is based on patient empowerment paradigms incorporating improved health literacy through public and patient education. Improving the self-management skills of individuals with chronic disease could significantly help in addressing some of the challenges faced by health systems in the future.

One essential element for developing self-management skills is access to relevant health information. However, even in circumstances where access to information is not a problem, its relevance and applicability is often poor. Too often the information and method of communication have not been tailored for the specific populations being addressed. The information may be scientifically accurate but be unacceptable, and even incomprehensible, to those for whom it has been intended.

This paper explores the issue of health literacy and empowerment within the context of patient self-management for chronic disease. It draws upon practical examples from the health system in Israel. In doing so it addresses:

- how consumers gain access to health information and the types of health literacy that must be achieved;
- health care provider training and the nature of a patient/provider relationship; and
- how health literacy can be assessed.

In this discussion, health literacy, self-management and empowerment are defined as follows:

**Health literacy**: the achievement of the cognitive and social skills that determine the motivation and ability of individuals to gain access to, understand and use information in ways that promote and maintain good health (WHO, 1997).

**Self-management**: the decisions and actions taken by someone who is facing a health problem or issue in order to cope with it and improve his or her health (Health Canada, 1997).

**Empowerment**: an educational process designed to help patients develop the knowledge, skills, attitudes and degree of self-awareness necessary to effectively assume responsibility for their health-related decisions (Feste and Anderson, 1995).

**SELF-MANAGEMENT AND HEALTH LITERACY**

A wide variety of self-management and self-care models exist that involve and interface with the health system. Common to all of the models is the need to view the individual patient as central to the management of his/her own health. In health promotion, health is viewed as a resource for daily living, and self-help/self-care is seen as empowering. In acquiring self-care skills, people are able to more actively participate in decisions influencing their own health, and in influencing the conditions that influence their health (Kickbush, 1989).

In a review of 70 studies conducted by Clark et al. (Clark et al., 1991), 12 skills were found to be common to most successful self-management initiatives. These skills included the ability to:

- recognize and act on symptoms;
- use medication correctly;
- manage emergencies;
- manage diet and exercise;
- interact effectively with health care providers;
- use community resources;
- adapt to work;
- manage relations with significant others; and
- manage psychological responses to illness.

Self-management in this context involves decisions and actions taken by the individual. To support this it is essential that health care providers promote informed decision making, and facilitate actions designed to improve personal capacity to exert control over factors that determine health and improve health outcomes. It is for these reasons that promoting health literacy is a central strategy for improving self-management in health.
APPLICATION OF THE HEALTH LITERACY CONCEPT TO DIABETIC SELF-MANAGEMENT: EXPERIENCES FROM ISRAEL

Clalit Health Services (CHS) in Israel has most recently applied the concept of health literacy in approaching and improving self-management skills for diabetics.

Clalit serves >60% of Israel’s population with comprehensive health care (primary, secondary and tertiary). As one of the largest health service organizations in the world, Clalit has nearly 1300 community clinics, eight major teaching hospitals, three psychiatric and two geriatric hospitals. Nearly 80% of the diabetics in Israel receive their care from CHS.

CHS’s initiative on diabetes is in accordance with the WHO St Vincent Charter on Diabetes Management. The St Vincent initiative has designated patient empowerment as one of its strategies and has most recently published position papers that explain and expand upon this strategy (WHO, 1997). The Statement on Patient Empowerment states that one of the components of patient empowerment should be to ‘enable people with diabetes and their carers to exercise social and political power in relation to their condition …’. It continues: ‘people with diabetes should be assisted in establishing groups at local and national levels’ and ‘diabetic patients and their families should be encouraged to participate in the Diabetic Association’.

In summary, developing self-care skills, exercising social and political power and utilizing patient network groups requires high level personal, cognitive and social skills, which are represented in the health literacy concept (defined earlier). The development of health literacy among this diabetic population is central to the achievement of these goals.

Beginning in 1997, the CHS’s Department of Health Education and Promotion began a 3 year initiative to improve the health of diabetics in Israel by addressing these goals. Although not consciously planned in this way, the initiative may be examined using the framework described by Nutbeam to distinguish between different or types of health literacy (Nutbeam, 2000).

In this framework, Nutbeam identifies three ‘types’ of health literacy. Type I, functional health literacy, reflects the outcome of traditional health education based on the communication of factual information on health risks, and on how to use the health system. Such action has limited goals directed towards improved knowledge of health risks and health services, and compliance with prescribed actions. Type II, interactive health literacy, is focused on the development of personal skills in a supportive environment. This approach to education is directed towards improving personal capacity to act independently on knowledge, specifically to improve motivation and self-confidence to act on advice received. Type III, critical health literacy, reflects the cognitive and skills development outcomes, that are oriented towards supporting effective social and political action rather than individual action. Within this paradigm, health education may involve the communication of information and development of skills that investigate the political feasibility and organizational possibilities of various forms of action to address social, economic and environmental determinants of health. Education programmes in this case would be directed towards improving individual and community capacity to act on these social and economic determinants of health (Nutbeam, 2000).

Level I: functional health literacy—basic skills and understanding

‘Sufficient basic skills in reading and writing to be able to function effectively in everyday situations.’

At this level, the challenge for a patient is gaining access to basic sources of information about his/her condition and how to use health systems to help manage it.

As indicated above, the skills required by individual diabetic patients to control their disease are manifold and complex. For example, in order to manage his or her diabetes and prevent potential complications, the diabetic must maintain a balanced diet, engage in regular physical activity, refrain from smoking cigarettes, adopt foot-care practices and examinations, and visit their primary care team regularly. The significance of these lifestyle changes and their maintenance are not always clear to the individual, and the way in which to adopt these changes is even less clear to most.

The diabetic has access to a growing number of technological options in home-monitoring, self-examination, self-medication and treatment. Proper use of this technology is essential in balancing blood glucose levels and thus preventing complications and promoting a reasonable quality
of life for the diabetic. Yet mastering the skills to use this technology requires reliable sources of information that are not only understandable and readily accessible, but also address the individual needs of the person. While the manufacturers of these technologies would be most anxious to market their products directly to the diabetic consumer, for ethical and professional reasons, it is up to the health system to provide this information.

The CHS Department of Health Education and Promotion conducted focus groups among both newly diagnosed and veteran diabetics in order to understand the information needs of diabetics. Older, slightly outdated materials were presented in order to trigger the groups' responses. The feedback provided the department with the conceptual basis on which to develop health education materials. The conclusions drawn from this stage of needs assessment were that adult diabetics sought information that was:

- relevant to the stage of diabetes—how long he/she has been diabetic;
- as visually stimulating as possible; and
- emotionally supportive rather than threatening language used with regard to the results of self-neglect.

Subsequently, in 1999–2000, a health education kit for diabetics was developed including:

- separate pamphlets on the basics of self-management, including nutrition for the diabetic, foot-care and diabetes, physical activity, self-injection of insulin and self-medication;
- a diabetes identity card and self-care record; and
- a video-cassette for home viewing demonstrating foot-care and self-injection of insulin, incorporating testimonials of diabetics regarding their self-management experience.

The use of the kit has been included in the CHS general medical guidelines for diabetic care and is currently being distributed to new diabetics in order to promote self-efficacy and self-management skills. Evaluation regarding the effectiveness of the use of this tool is in progress and will examine the extent that diabetics read and view the material and find it understandable, relevant and interesting. In addition, the role of the kit in promoting change in motivation, abilities and reported change in health behaviour is currently being examined.

**Level II: interactive health literacy—developing skills in a supportive environment**

‘More advanced cognitive and literacy skills which can be used to actively participate in everyday activities, to extract information and derive meaning from different forms of communication and to apply new information to changing circumstances.’

Patient education initiatives have been shown to be particularly effective when utilizing peer and family networks to convey health information and develop self-management skills (Lorig et al., 1999). For example, a patient education programme for the management of chronic disease pain facilitated by other chronic disease patients rather than by health professionals, not only proved to be effective in improving reported self-efficacy, exercise, symptom management, communication with physicians, disability and fatigue, but also reduced hospitalization rates and lengths of stay as compared with a control group that did not participate in the intervention (Lorig et al., 1999). These peer leaders provided positive role models for new patients, helping them to develop personal skills which are important in chronic disease management, as well as improving their confidence to work with health care providers and use the health care system effectively.

The CHS plan for diabetics that reflects interactive health literacy (level II) is:

- to encourage the diabetic to share the information mentioned above with significant others, thus helping those in a position of support to understand the significance of doing so and have the necessary tools; and
- to teach diabetics how to communicate in order to gain the support of significant others as part of the empowerment model.

One important element of this facet of the programme is that if people are to be assisted in understanding and influencing the factors affecting their health, then the role that health professionals play in achieving this may be quite different to that which they are accustomed to. This change in orientation was accomplished by conducting in-service training workshops for >1200 primary care physicians, nurses and dieticians. Throughout the course of these workshops, the health professionals received training on communication that promotes empowerment rather than simple compliance among diabetic patients. Using behaviour change models that emphasize
empowerment, the focus is shifted from the professional to the individual and his/her social context (Grueninger, 1995).

The evaluation of these in-service training sessions showed that attitudes of professionals can be changed significantly, communication skills can be defined more clearly, and sharing information with diabetic clients and nurturing empowerment can be increased.

**Level III: critical health literacy**

‘More advanced cognitive skills which can be applied to analyse information critically, and to use this information to exert greater control over life events and situations.’

One of the components of the WHO St Vincent Charter on Diabetes Management is to empower patients in ways that correspond to critical health literacy as described above. In other words ‘to enable people with diabetes and their carers to exercise social and political power in relation to their condition …’ (WHO, 1993).

A central skill required in self-management is critical decision making. Barriers to critical decision making include the availability, accessibility and presentation of up-to-date written and verbal information that is free of bias (PPBH, 1997).

An estimated 15% of internet websites convey information on health and medical matters, bringing a wide range of information sources into the homes and offices of both health professionals and patients with access to computers. The user can ‘tailor’ the information provided to their needs.

However, there is a downside to this kind of unregulated information. There is a concern among health professionals that this very access to information has created a demand for special treatments and medications that are not available to all, or appropriate to many, people. A feasible and appropriate response to this problem is in enhancing health literacy to the extent that the credibility of the information source can be critiqued by the individual.

It is likely that consumers will not only become intensely involved in seeking out health information sources, but will also take an active role in developing and organizing internet sources. Several examples of high-quality directory sites that are managed by patients (or family members) can be found on the Hardin Meta Directory of Internet Health Sources: http://www.lib.uiowa.edu/hardin/md/consumer.html. Over 20 sites on self-management for diabetics appear on the Hardin Meta Directory. The sites range from those who discussed different diagnoses of problems that can develop as a result of diabetes, message boards for diabetics, reports from conferences reviewed by diabetics, and useful recommendations for improving quality of life.

CHS in Israel is taking on this challenge of diabetic self-management. A plethora of information sources is surfacing and both diabetics and health professionals are in need of tools to review the information critically and appropriately, particularly in the era of managed care.

Table 1 provides a summary of the key characteristics of different health literacy types and their practical application to diabetes self-management through the CHS programme.

<table>
<thead>
<tr>
<th>Typology/topic</th>
<th>Basic/functional literacy</th>
<th>Communicative/interactive literacy</th>
<th>Critical literacy</th>
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<tbody>
<tr>
<td><strong>Characteristic</strong></td>
<td>Sufficient basic skills in reading and writing to be able to function effectively in everyday situations</td>
<td>More advanced cognitive and literacy skills used in everyday activities; applying new information to changing circumstances</td>
<td>More advanced cognitive skills which can be applied to critically analyse information and use it to exert greater control over life events and situation</td>
</tr>
<tr>
<td><strong>Diabetes (type II)</strong></td>
<td>• Functional use of basic information on diabetes including causes, treatment and risk factors</td>
<td>• Identifying the best sources of information on diabetes</td>
<td>• Ability to critically assess the quality of information, including the reliability of sources</td>
</tr>
<tr>
<td></td>
<td>• Understanding importance of self-care: diet, exercise, smoking cessation, foot-care, medication etc.</td>
<td>• Ability to seek personally adapted information from medical team</td>
<td>• Ability to apply information and understanding in a wide variety of situations</td>
</tr>
</tbody>
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Table 1: Summary of key characteristics of different health literacy types and their practical application to diabetes self-management
**IMPLICATIONS OF INCORPORATING SELF-MANAGEMENT OF DISEASE AND HEALTH LITERACY INTO HEALTH SYSTEMS**

**Rethinking the health professional paradigm**

Striving for improved health literacy, patient empowerment and self-management cannot occur without the co-operation and active contribution of the health professionals providing care within health systems. This is relevant whether the health system offers primary, secondary or tertiary care.

Some health professionals are threatened by the issue of patient partnership and empowerment, but others have demonstrated their ability and willingness to improve their attitudes and communication skills in this area. For example, Carlson and colleagues in the Karolinska Hospital in Sweden have successfully trained professionals treating diabetics to capture the essence of patient empowerment and incorporate it into their day-to-day practice (Anderson *et al.*, 2000).

Their evaluation showed that as a result of a 2 day workshop, participants were more patient centered, less judgemental of their patients and less apt to give advice rather to listen to the patients. It is clear however, that any training programme must be supported with the organizational infrastructure that enables the health professional to apply his/her health-empowering skills. Option disclosure, active listening, consulting the patient, making shared decisions regarding treatment goals, understanding cultural preferences and acknowledging the role of patients’ organizations are new concepts to many health providers and must be introduced as early as possible in professional training in order for them to be put effectively into practice. These concepts, along with benchmarks for patient education, must be incorporated into clinical guidelines which set the standards of best professional practice.

As a contribution to improving the way in which relevant information is offered to clients by providers, a health literacy listserve for professionals interested in improving health literacy among adults should be developed and adapted for application at several levels; in medical clinics and hospitals, in health product industries that produce instructions for use of self-help technology and in public health information published by public health agencies (Davis *et al.*, 1998).

In one study, Davis *et al.* suggests that as effective health communication requires providers understanding of patients’ reading limitations, the literacy level must be assessed individually in order to communicate effectively (Davis *et al.*, 1998). He suggests the use of literacy tests, which can be used successfully in the clinical setting. This is particularly important since it is often difficult to disclose health literacy levels merely through a clinical intake. Since this is a source of shame for some people, low levels of basic health literacy are often hidden. Reports show that many people never tell anyone of their difficulty reading, including their spouses and/or children. In addition, it is now clear that health literacy is significantly lower among elderly patients (Williams *et al.*, 1995). Furthermore, health providers, especially those in managed care, will be increasingly challenged with clients that are active consumers who prefer to use the providers as consultants and want to engage ‘in a joint process of clinical negotiation’ (Ferguson, 1992).

Although it is expected that both parties will come to an agreement on a proposed course of action, the active consumer controls the decisions and actions related to his or her health. Hence a call for more patient-centered care in the health system has been made by many health/patient consumer organizations. The premise is that the appropriateness are discussed online among professionals interested in improving health literacy at http://www.nifl-health@literacy.nifl.gov.

Clearly, there is a need to involve health care professionals in the process to increase health literacy among patients. Provider training should incorporate the concept of health literacy and the knowledge and skills to help patients learn how to manage their condition best on their own and in conjunction with the health system and its services.
‘health care journey’ is divided into three steps: (i) seeking advice; (ii) making a decision that requires reliable, valid and accessible information; and (iii) implementing the decision, which is a fruitful partnership with the health care professional and one that promotes health literacy (PPBH, 1997).

Yet if health literacy is to go beyond the mere conveying of clear information and be able to increase motivation, skills and confidence in taking action based on informed decisions, then the indicators sought must be measures of those constructs.

Using the example of diabetes type II, Table 2 identifies the potential indicators that could be used to assess successful outcomes. These indicators can be determined and applied to other chronic health issues as well as when improving health literacy in acute health issues, such as childhood health problems and others.

CONCLUSIONS AND RECOMMENDATIONS

Using the concept of health literacy to guide the development of self-management skills offers a solution to the challenge faced by health systems in achieving good health outcomes while struggling with rising costs. Improving health literacy, and thereby achieving improved self-management outcomes, will prove beneficial for both the individual as well as the health system.

Health care providers need to examine where their patients are getting information on disease and self-management, whether or not that information is reliable, and inform their patients of the best sources of information and its use. The improved collaboration with patient and consumer groups whose goals are to promote rights and self-management capabilities, and advocate for improved health services, can be very beneficial. Patients need to have a level of health literacy that allows for critical analysis of information on their own and make certain decisions regarding their care. Provider training and the resulting patient/provider relationship is critical in improving health literacy. Finally, indicators such as the understanding of the local health care system, the sense of empowerment in making rational health decisions as well as health consumerism indicators including use of hospitalization services, consuming of prescription and over-the-counter medication, and co-operation with the health care team must be adopted in order to establish benchmarks, measure trends and evaluate interventions aimed at improving the determinants of health and sustaining the health outcomes.

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