

Vital Decisions: A Critical Look at Health Literacy in Turkey

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Abstract:

Turkish health care system is very complicated. Access to comprehensive information about available health care services in the community is necessary to determine health literacy level and meet the needs of their clients. Health care workers, public health organisations, nationwide organizations, ministries, educational materials, websites and librarians play an important role in linking their clients with appropriate health services.

This study will describe the development of health literacy projects which have been practiced since 2000 in Turkey. In the context of study, 25 written case studies – reports have been examined and 2 of them have been found very important and critical projects for health literacy studies in Turkey. Common challenges and opportunities for providing accessible health literacy studies are presented in this paper through 2 case studies, including: National Health Network, and Ankara Project. In “National Health Network” study, data was obtained via using questionnaire to evaluate health literacy, General Health Survey, “Evaluation of the Written Materials Appropriateness” has been formed to evaluate available patient educational materials in healthcare centres, DISCERN (Quality Criteria for Consumer Health Information) tool has been used to determine reliability and information quality of the education materials. In “Ankara Project” study, data was collected via face – to – face interview with patients and was analyzed by using One – Way ANOVA, T test and chi-square tests. Based on the results from these 2 studies, the goal is to decrease the existing information gap for this increasing demand. While this study is facilitating access to information on health literacy studies in Turkey, it may be possible to discuss both the opportunities and challenges for the provision of equitable information services in health.

Keywords: Health literacy; health information; community health; health system; evaluation of Turkish health literacy literatures

1. INTRODUCTION

Increased emphasis on health care delivery brings a whole complex of different demands on the health system with itself. Whereas the medical library and hospital library were predominant in the past, patients' health literacy is now recognized as a critical factor affecting health communication and outcomes, so that knowledge, personal skills, changing personal lifestyles and living conditions can have direct impact on patient care.

This study will describe the development of health literacy projects which have been practiced since 2000 in Turkey. In the context of study, 25 written case studies – reports have been examined and 2 of them have been found very important and critical projects for health literacy studies in Turkey. Common challenges and opportunities for providing accessible health literacy studies are presented in this paper through 2 case studies, including: National Health Network, and Ankara Project. Based on the results from these 2 studies, the goal is to decrease the existing information gap for this increasing demand. While this study is facilitating access to information on health literacy studies in Turkey, it may be possible to discuss both the opportunities and challenges for the provision of equitable information services in health.

2. TURKISH HEALTH SYSTEM

The organization of health service delivery was the definition of the role of the Ministry of Health (MoH) as the sole provider, in 1920. The health system in Turkey was composed of health stations (*sağlık evi*), health posts (*sağlık ocağı*), health centres (*sağlık merkezi*), hospitals, various preventive care organizations, regional hospitals, regional laboratories, training departments and the central organization of the MoH. The population is 76 667 864 with 81 provinces in seven large geographic regions. 130.000 Physicians, 124.000 dentists, 176.887 nurses, as a total of 700.000 healthcare personnel work in Turkey (Turkish Statistical Institute, 2014).

When the socialization project was completed in 1984, only the rural populations and the urban poor benefited from the primary care facilities, whereas the insured and the better-off went directly to the hospitals. A mixed but in-egalitarian system was thus created which constituted the status quo before the 2004 reform initiative. The health benefits of the civil servants and Retirement Fund members were comprehensive including treatment, clinical and laboratory examinations, hospitalization, and the necessary medicine and curing equipment and they could receive these services from public hospitals, sanatoriums, rehabilitation centres, examination and treatment houses, government and municipality doctors, and health posts.

Scarcity of nurses and midwives was a chronic problem repeatedly discussed in major health policy documents alongside the lack of a consistent approach to develop primary health services, and the weakness of MoH in terms of planning the organization of health services. As the new century began, there were substantial improvements in the health status of the Turkish population thanks to improvements in living conditions, public health interventions and progress in medical care. As the OECD reports indicated, Turkey recorded one of the greatest gains in life expectancy between 1960 and 2012, with an overall increase in longevity of 26 years, rapidly narrowing the gap with the average across OECD countries. In 2000, life expectancy in Turkey was 70.5 and, according to the data, in 2012 it was 74.6 years

compared to the OECD average of 79.7 years. Infant mortality rate has also fallen dramatically over the past few decades, down from 190 deaths per 1 000 live births in 1960 to 7.4 deaths in 2012 (Ağartan 2008; OECD 2014; OECD 2013).

3. COMPONENTS OF HEALTH LITERACY

The dissemination of health advice to the general public has always been important. Health literacy does not simply mean health knowledge. A number of factors have contributed to a continual growth in the seeking of medical information by patients. Health literacy is a relatively recent topic in health care. The development of the health literacy is a work in progress. The health literacy presented a program focusing on the following:

1. *Consumer Health Information*

- Define as “an umbrella term” and provide to lay people, where the venue for delivery may be informal as well as formal;
- Obtain, process and understand basic health information and services needed to make appropriate health decisions.

2. *Health Information Seeking Behaviour*

- Understand new terms, using text structure to assist in comprehension, word recognition, and organizing and integrating new information as reading skill;
- Obtain knowledge of a specific event or situation;
- Any activity undertaken to satisfy a query.

3. *Health Literacy*

- Read and comprehend prescription bottles, appointment slips and other essential health related materials;
- Read and understand numbers, and perform basic mathematical computations as numeracy skill;
- Have the ability to locate, evaluate, and use effectively the needed information.

4. *Evaluating Criteria*

- Use the specific quality criteria to measure the consumer health information evaluation competence of the users of the related study;
- Refer to empowerment, context, motivation and appraisal of information (Pleasant and Kuruvilla 2008; Rowlands 2009; Yi 2012).

4. TRENDS IN THE TURKISH LITERATURE

The health literacy literature has grown rapidly over the last decade. In the 2000s there were seven articles in the health literature that focused on general literacy and health issues. In the 2010s, especially after the results from the New Health System were released, there was an increased focus on health literacy and its impact and effect on disease knowledge and health outcomes. This literature focuses on individuals with two or more risk factors for cardiovascular diseases, diabetes, smoking, hypertension, drug using, and etc. In the 2000's over 11 books and brochures on health literacy were published. These books and brochures mainly focused on patient medical forms and health education materials. 2010's saw a

continued growth in the number of articles published. These articles focused on the development of health literacy assessments and the differences in disease knowledge of patients with varying health literacy levels. The current decade continues to see an increased number of publications, especially dissertations. While a majority of the articles continue to place an emphasis on literacy levels related to health education materials, there is a noticeable shift to documenting interventions designed to test various mechanisms and technologies for communicating health information more effectively to patients, describing an expansion in the number of health literacy assessments available, increased recognition of numeric demands on the patient, and a focus on the oral exchange of health information.

5. RESEARCH AND DEVELOPMENT

The research and development of health literacy studies were intended to encourage research in health, communication skills and to share health information with patients in a way they can understand. Librarians have an ethical and legal duty to make allowances for people's communication needs with the development of new techniques, systems and equipment for information storage and retrieval. The literatures have been grouped in three categories:

1. *Defining Health Literacy*

Previous studies in Turkey have focused on defining health literacy and health information – seeking behaviours of users including their information needs. These studies identified the user needs in term of their:

- **Population groups** (Avcı, Sönmez 2013; Bilir 2014; Çınarlı 2008; Erbaydar 2003; Erkoç, Yardım 2011; Gücük, Alkan, Arıca, Ateş 2011; Güçlü, Uysal, 2013; Meydanlıoğlu, Emiroğlu 2004; Savaş, Karahan, Saka 2002; Şener, Samur 2013; Topbaş,Yarış, Can 2003; Yıldız, Ateş, Yıldırım, Rasinski, 2011);
- **Health issues or topics** (Bilir 2014; Çetin 2012; Hergenç 2011; Safer, Kenan 2005);
- **Health information – seeking problems and the related challenges** (Akalin 2009; Ateş, Erbaydar, Demirkıran, Özhan, Cevahir, İşci 2004; Avcı, Sönmez 2013; Ayaz, Tezcan, Akıncı 2005; Ayrancı 2005; Bilir 2006; Çınarlı 2008; Erkoç, Yardım 2011; Hergenç 2011; Okay 2014; Şener, Samur 2013; Sezer 2012);
- **Preference of information materials** (Avcı, Sönmez 2013; Çetin 2012; Demir, Özşeker, Özcan 2008; Uğurlu 2011).

2. *Measuring Health Literacy*

Although health literacy is a complicated and multifaceted construct, Turkish researchers have used several instruments to assess health literacy. Existing health literacy assessment tools and their usages in Turkish health literacy literature onto the four categories are listed below:

- ***Test of Functional Health Literacy in Adults (TOFHLA)—print literacy and numeracy*** (Akalın 2009; Çetin 2012; Erkoç, Yardım 2011; Hergenç 2011);
- ***Rapid Estimate of Adult Literacy in Medicine (REALM)—print literacy*** (Çetin 2012; Erkoç, Yardım 2011; Hergenç 2011; Özdemir, Alper, Uncu, Bilgel 2010);
- ***Health Activities Literacy Scale (HALS)— print literacy and numeracy***(Akalın 2009; Ateş, Erbaydar, Demirkıran, Özhan, Cevahir, İşci 2004; Çetin 2012; Erkoç, Yardım 2011; Hergenç 2011);
- ***Newest Vital Sign (NVS)—print literacy and numeracy*** (Çetin 2012; Erkoç, Yardım 2011; Hergenç 2011; Özdemir, Alper, Uncu, Bilgel 2010; Topbaş,Yarış and Can 2003).

3. Promoting Health Literacy

Specifically, promoting health literacy studies in Turkish literature is categorized into four areas:

- ***Improving communication between healthcare providers and people*** (Avcı, Sönmez 2013; Ayaz, Tezcan, Akıncı 2005; Çetin 2012; Çınarlı 2008; Erbaydar 2003; Güçlü, Uysal, 2013; Meydanlıoğlu, Emiroğlu 2004; Okay 2014; Safer, Kenan 2005; Savaş, Karahan, Saka 2002; Şener, Samur 2013; Sezer 2012; Yıldız, Ateş, Yıldırım, Rasinski, 2011);
- ***Providing information in variety of formats*** (Demir, Özşeker, Özcan 2008; Şener, Samur 2013; Uğurlu 2011);
- ***Seeking to improve access to healthcare services*** (Ateş, Erbaydar, Demirkıran, Özhan, Cevahir, İşci 2004; Çınarlı 2008; Demir, Özşeker, Özcan 2008; Erkoç, Yardım 2011; Okay 2014; Sezer 2012; Topbaş,Yarış, Can 2003);
- ***Suggesting how healthcare providers can help people*** (Avcı, Sönmez 2013; Ayaz, Tezcan, Akıncı 2005; Çetin 2012; Gücük, Alkan, Arıca, Ateş 2011; Hergenç 2011; Meydanlıoğlu, Emiroğlu 2004; Safer, Kenan 2005; Şener, Samur 2013; Uğurlu 2011).

6. RESEARCH APPLICATIONS

Data from the present survey offer rich opportunities for both basic research aimed at a better understanding of health literacy studies in Turkey as entitles that evolve under complicated and often conflicting influences, and applied research to improve health literacy services. In the context of study, 25 written case studies – reports have been examined above and 2 of them have been found very important and critical projects for health literacy studies in Turkey. Therefore; here we will confine ourselves to describe 2 research studies in detailed in terms of certain efforts that are needed to extend the utility of the health literacy.

Specifically, these 2 health literacy studies in Turkey that are examined in accordance with **Components of Health Literacy** include the following:

6.1. National Health Network

Özdemir, H.; Alper, Z.; Uncu, Y. and Bilgel, N. (2010). “Health literacy among adults: A Study from Turkey”. *Health Education Research*, **25** (3): 464–477.

1. Consumer Health Information

- Patients’ health literacy is increasingly important as a critical factor affecting health communication and outcomes. This study has aimed to assess the levels of health literacy by using Rapid Estimate of Adult Literacy in Medicine (REALM) and Newest Vital Sign (NVS) instruments.
- This study was conducted in a suburban area of a metropolitan city in Turkey.
- A total of 456 patients participated in the study. The mean age of the participants was 36.21. Female participants consisted 60.5% of the study group. Most of the participants were primary school educated. Economic situation was reported as middle by 57.9% of the participants. Types of occupation vary among male participants but most of the female participants (76.8%) were housewives.
- Patients needed to understand basic health information and services.

2. Health Information Seeking Behaviour

- REALM and NVS tests were not available in Turkish; therefore, first of all these tests were translated into the Turkish language.
- 66 Medical terms in the original REALM instrument were rearranged in order of pronunciation difficulty in the Turkish language, starting with simple one-syllable words (e.g. pill, dose, eye and flu) and ending with multisyllabic words (e.g. osteoporosis, antibiotics, potassium, obesity and depression).
- A statistically significant relationship between age, educational attainment, economic condition and gender and test scores of both REALM and NVS tests were found.

3. Health Literacy

- Test scores have found out patients’ health literacy levels.
- The REALM test scores have showed that 2.7% of patients had inadequate, 38.6% of patients had marginal and 58.7% of patients had adequate health literacy.
- By using the NVS test score, it has been found that 28.1% of patients had adequate health literacy.
- Educational attainment has been the most important demographic characteristic found to be related to the health literacy.

- Reading and vocabulary skills have been better than numerical capabilities. Female, primary school educated and poor economic condition participants and those who were older had the lowest scores in both tests.

4. Evaluating Criteria

- This study has used several limitations, such as: research was conducted in a localized geographic area, REALM and the NVS tests were translated into Turkish because they did not have any valid Turkish versions, communication styles of health providers were not measured, and patient-provider relationship was not established. At the end of all these, it has been realized that these results cannot represent the whole Turkey.
- Patients' satisfaction and their willingness to undergo literacy assessment are important factors.
- The importance of making health literacy studies in Turkey has been pointed out.
- Health literacy studies will be great contribution to community health.

6.2. Ankara Project

Uğurlu, Z. (2011). Evaluation of health literacy and appropriateness of the educational materials to the health literacy of the patients who applied to the healthcare centres. PhD Dissertation. Ankara: Başkent Üniversitesi Sağlık Bilimleri Enstitüsü Halk Sağlığı Anabilim Dalı. [In Turkish]

1. Consumer Health Information

- This study aimed to determine health literacy of the patients who applied to the healthcare centres and evaluation of the appropriateness of educational materials that have been used in these centres to the health literacy. Data was obtained via using questionnaire to evaluate health literacy, General Health Survey, "Evaluation of the Written Materials Appropriateness" has been formed to evaluate available patient educational materials in healthcare centres, DISCERN (Quality Criteria for Consumer Health Information) tool has been used to determine reliability and information quality of the education materials.
- This study has been conducted at Başkent University Ankara Hospital and Prof. Dr Celal Ertug Etimesgut State Hospital in Ankara.
- Study included total of 688 patients who volunteered to interview and were able to communicate verbally; 385 patients from Başkent University Ankara Hospital and 303 patients from Prof. Dr Celal Ertug Etimesgut State Hospital participated. Mean age of the patients was 46. 21; more than half of them were married (72.2%) and women (67.6%), 44.8 % of them are not working and one in third have less income than expenditure.
- Patients needed to understand basic health information and services.

2. *Health Information Seeking Behaviour*

- In this study, 35 written educational materials like books, brochures, signboards, prescriptions, drug prospective, specific internet web sites, diet programs etc. have been examined.
- The content of these materials have also been examined in terms of writing style, pictures and arrangement of the material according to DISCERN.
- According to General Health Survey (GHS), which educational materials were appropriate for which diseases were determined. After that some terms about their diseases were asked to patients.
- 7 of educational materials have been inappropriate in terms of information quality and appropriateness.

3. *Health Literacy*

- Health literacy levels of patients and GHS levels of patients were found low.
- 7 of 35 educational materials examined according to DISCERN were found insufficient.

4. *Evaluating Criteria*

- It was concluded that health materials should be prepared in accordance with DISCERN criteria and social features in terms of content and physical layout throughout the country.
- Also it was decided that researches towards educational materials should be practiced in various hospitals.

7. RESULTS

This study presents an overview of the health literacy literature in Turkey that helps the understanding of the previous developments. Health literacy has become an important issue that has developed in various ways. Previous studies have focused on:

- Health literacy;
- Health information seeking behaviours of users including their information needs;
- Health information regarding physical illness, preventing disease, and preserving health;
- Financial, social, and economic impact of illness;
- User preference of information materials in diverse formats;
- Published literature depends on knowledge about special health issues.

The present study may be the important one in Turkey that has been done on health literacy in Library and Information Science. Considering the important role of libraries (e.g., health science libraries, hospital libraries, medical libraries, public libraries, academic libraries, special libraries, etc.) in providing consumer health information, disseminating

information to serve users and offering practical advice for healthcare providers, partnership is necessary among diverse key sectors (e.g., governments, research institutions, universities, healthcare providers, librarians).

8. RECOMMENDED STRATEGIES FOR LIBRARIES

Primary health care is universal and free of charge for everyone. In the 1950's, a healthcare related issue was recognized solely as physicians' job. Effective communication skills are needed for physicians, nurses and health care providers to develop and maintain this therapeutic relationship (Yi, 2012). Rather than using a health literacy assessment tool, more suitable strategies are recommended. These small changes make future libraries more effective:

- Public libraries may provide free health educational activities and several campaigns, which are part of the primary health care system instead of healthcare professionals because they generally cannot implement such services due to their time limit. With the help of these activities, public libraries will be strengthening their health information services.
- Some of the key challenges and opportunities that were identified in the National Network for reaching out to a wider community will be an opportunity to invite new users of services with the help of libraries.
- Collaboration, resource sharing and informing patients on patients' rights are essential working areas for libraries.
- Libraries assist users to find satiable answers for their health questions.
- Libraries can provide high quality evidence-based health information either in print or electronic format with the help of professional health information providers, such as librarians.
- Libraries can provide educational programs and topical seminars to improve health literacy skills for the public.
- Librarians never give health or medical advice to users based on their personal knowledge. However, the librarians may encourage the users to discuss the health information they find with health professionals.

9. CONCLUSIONS

Assessment of health literacy is a neglected area in Turkey, and research concerning this matter is very rare. Over the past few years, changes in the health system, improvements in social, economic and cultural areas, and changing demands of patients have inspired the traditional view to re-think how patients can be a part of the decisions regarding their health. Furthermore, within the health system patients did not used to be obligated to read, understand, fill out and sign many forms. However they need to perform these actions on their own. Partnerships among health care institutions, hospitals and libraries can potentially improve health literacy. The growing focus on health literacy is reflected by an increasing number of policies, literature on the subject, needed even in this globalized, standardized, computerized and automated medical world. All these factors can influence patients' vital decisions and their willingness to implement recommended strategies.

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