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Patients' Degree of Health Literacy: A Cross-Sectional Survey from Eskisehir, Turkey.

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Abstract

Objectives: The study aimed to evaluate the levels of health literacy amongst patients admitted to the ENT department of Eskisehir Osmangazi University in June 2018.

Methods: 200 patients (comprising 107 males and 93 females), selected at random, consented to the study. They were supplied with the Health Literacy Questionnaire, which was used to evaluate health literacy.

Results: The majority of respondents indicated that they were unsure about whether particular symptoms related to disease or not, lack confidence in being able to read and fully comprehend a text about their disease and have difficulty comprehending and trusting doctors' advice. They experienced difficulty in weighing advantages and disadvantages of treatment options, finding information relating to symptomatology and particular diseases and being aware when a second opinion would be appropriate. There were deficits apparent in understanding both positive and negative influences of the environment, lifestyle and nutrition. Nutritional advice was poorly comprehended.

By contrast, no difficulties were apparent in obtaining medical appointments, making contact with doctors or using medication as directed. Respondents were confident about how to act in an emergency and when to call an ambulance, when to go for checkups and how to locate information on the management and prevention of obesity, hypertension or hypercholesterolaemia.

Conclusion: Health literacy is of prime importance in public health. Bolstering health literacy, especially where levels are low, is necessary. Healthcare staff need to work on being more easily understood in the interests of promoting effective communication across the entire social spectrum.

Key words: health literacy, health literacy questionnaire, communication

Introduction

It is a daily occurrence to encounter life choices which have an impact upon our health, whether at work or at play, in the supermarket or at the pharmacy, in a clinic, consultation room or just at home in the kitchen. Amongst such choices, a portion are made during one-to-one healthcare interactions, but a great deal of such choice is exercised without the involvement of healthcare professionals and necessitates individuals finding their way through complicated and previously unknown information. A choice may, for example, be required about the kind of health insurance a person needs, the dosage of a drug to give to a child according to the packet insert, or how cautionary advice given out concerning epidemics needs to be acted upon. There is a need for readily comprehensible information that the public can utilise to make wise choices and act in a way to safeguard and ensure good health. Despite this need, research has consistently revealed over twenty years that most adults cannot act on heath information in its current format. Approaching 90% of adults experience problems in acting on health information supplied by hospitals, shops, the media and in social settings (1-4).

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Simond was the first to coin the term "health literacy", in his 1974 paper entitled "Health Education as Social Policy". Since that publication, the term has been increasingly adopted internationally (5, 6). Of late, there is a spike in usage of the term in the literature originating both in the US and in Europe (7). The World Health Organization defines health literacy as the "ability to reach health information to protect and maintain the health status of individuals"(8). "Health literacy skills" refers to the abilities needed to benefit to the maximum from health awareness. Skills may be those of both providers and consumers of health information and related services (9).

A person in need of information about their health must possess health literacy skills to be able to:

- Locate information and service providers
- Express need and make choices whilst interacting with the information provided and the services available
- Understand what information means and know how to utilise it and benefit from services
- Comprehend what a choice means, what it entails and perceive how the information relates to them and how a service might address their need
- Identify the knowledge they need and want and realise what help is available, to enable action to be taken (9)

Likewise, doctors, nurses, dentists, pharmacists and other healthcare professionals all require health literacy skills to be able to impart healthcare information and offer healthcare services, in particular to be able to:

- Assist patients in locating health information and related services
- Speak about what health and healthcare mean
- Perceive both implicit and explicit healthcare needs
- Comprehend ways to furnish information and services in usable form
- Appreciate how healthcare information and services need to be tailored to varying circumstances and adapted for individuals to facilitate action (9).

For the purposes of this study, the Health Literacy Questionnaire was supplied to patients admitted to the ENT department of Eskisehir Osmangazi University, Medical Faculty, by 2 medical students.

Materials and Methods

Planning for the research was undertaken at the Communication Sciences Faculty of Anadolu University. The Turkish Version of the "Health Literacy Questionnaire" known as the TSOY-32, was used (Appendix 1) (1). Its validity and reliability have already been established by the Turkish Ministry of Health. The ethical principles enshrined in the Declaration of Helsinki were closely followed. Before the questionnaire was given, verbal consent from the patients was obtained by the first author (CCC). The questions were then asked and the replies noted. The participants were randomly selected from among the adult patients admitted to the ENT department of Eskisehir Osmangazi University in June 2018.

Results

The basic demographics of the group is given in Table 1.

Table 1. Basic demographics of the participants.

	Frequency	Percentage (%)
Gender		
Female	93	0.465
Male	107	0.535
Age Groups		
21 – 30	41	0.205
31 – 40	75	0.375
41 – 50	55	0.275
51 – 60	29	0.145
Marital Status		
Married	144	0.720
Single	56	0.280
Education		
Primary	3	0.016
Secondary	9	0.047
High school	9	0.047
Vocational School	17	0.089
University	121	0.637
Master	8	0.042
Doctorate	23	0.121

As it can be seen from Table 1, The study group consisted of 107 males and 93 females. There were 25 males, and 16 females, between the ages of 21-30; 42 males and 33

females between the ages of 31-40; 24 males, 31 females between the ages of 41-50; and 16 males, and 13 females between the ages of 51-60. All participants were selected from among patients who were neither in pain nor admitted as an emergency case. 72 % of those who participated were married. In terms of educational status, 121 were university graduates, 23 had a Master's degree, 8 had a post-graduate qualification, 17 had qualified from an industrial or technical high school, 9 were from a regular high school, 9 from a secondary (middle) school, and 3 had attended primary school only.

In Figure 1 The age distribution of the group is shown and also the gender distribution among the age groups are given in Figure 1-2.

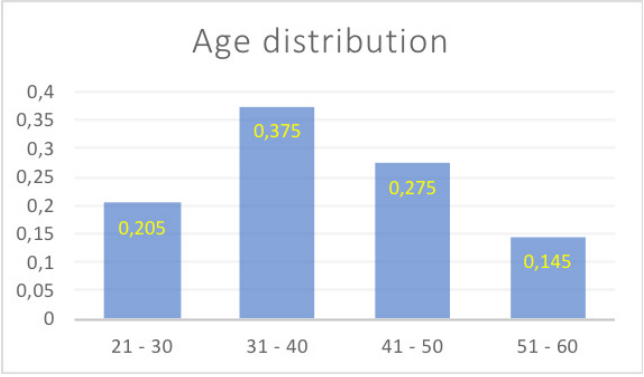

Figure 1. Age distribution of the group.

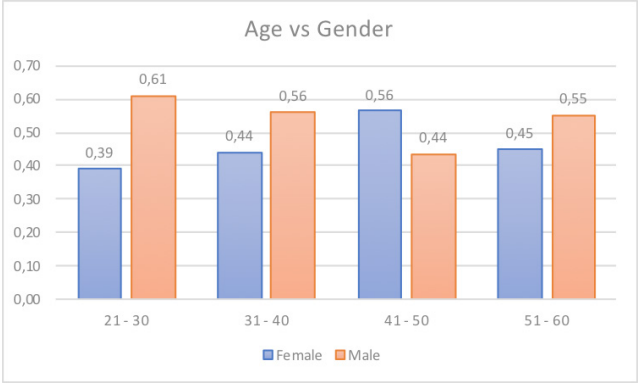

Figure 2. Age and gender distribution of the group.

As it can be seen from the Figure 2 the gender distribution among the age groups is approximately equal to each other. Except 41 - 50 age group, the percentage of male participants is higher than female participants. In 41 – 50 age group the percentage of female participants is higher than male participants.

The breakdown according to occupation was as follows: 36 homemakers, 39 civil servants, 31 lecturers, 29 self-employed individuals, 24 retirees, 21 skilled workers, 10 manual workers, 5 farmers and 5 students. In Figure 3 a pie chart of the occupations for the group is given.

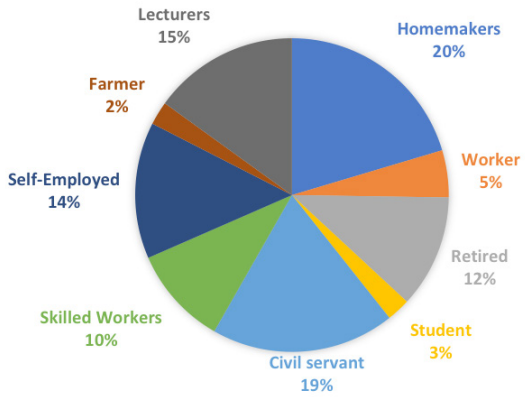

Figure 3. Occupations of participants

178 individuals reported that their monthly income matched monthly expenditure, whilst 22 had an income above their monthly requirements.

The results of the Health Literacy Questionnaire are listed in Table 2. Following data analysis, it was observed that patients gave responses indicating difficulty for items 1-3, 8, 9, 11-14, 25-27, 29, 30 and 32. No difficulties were reported for items 4-7, 10, 15-24, 28 or 31.

Discussion

Health literacy measures the extent to which an individual can locate, comprehend and think through the basic information about health and health services required to allow them to decide on health matters appropriately (11). Whilst some impairment in health literacy levels is observable in individuals of every ethnic group, age, income bracket and level of education, the effect of health illiteracy is most evident in ethnic minority individuals and those with lower socioeconomic status. Reductions in health literacy cause difficulties in finding and utilising health-related information, acting in healthy ways and reacting to warnings given out about healthcare events affecting the public. A reduction in health literacy entails a worsening of health outcome and greater costs (12).

Health literacy refers to a complicated interplay of factors such as skills, health awareness and what healthcare professionals expect lay individuals to know of and comprehend about health as a state and healthcare as a system of services. Health and healthcare services are frequently little understood by lay people, even those with advanced education, due to the technical nature of the subject and its inherent complexity (3).

The Health Literacy Questionnaire in the version TSOY-32 (10) was used for the research, using a group of 200 patients. The group as a whole was unusually highly educated compared to the general Turkish population. This may account for the responses to such items as getting an appointment and reaching doctors and laboratories, or using the drugs as advised, which indicated few difficulties in these aspects. The group typically responded that they can decide "easily" what to do and when to call an ambulance in an emergency, and judge when they need to go to a doctor for a checkup, find information on how to prevent or manage conditions such as obesity, hypertension or hypercholesterolaemia.

In Figure 4 and Figure 5 the results of the survey. There are two group of questions and the results are shown accordingly.

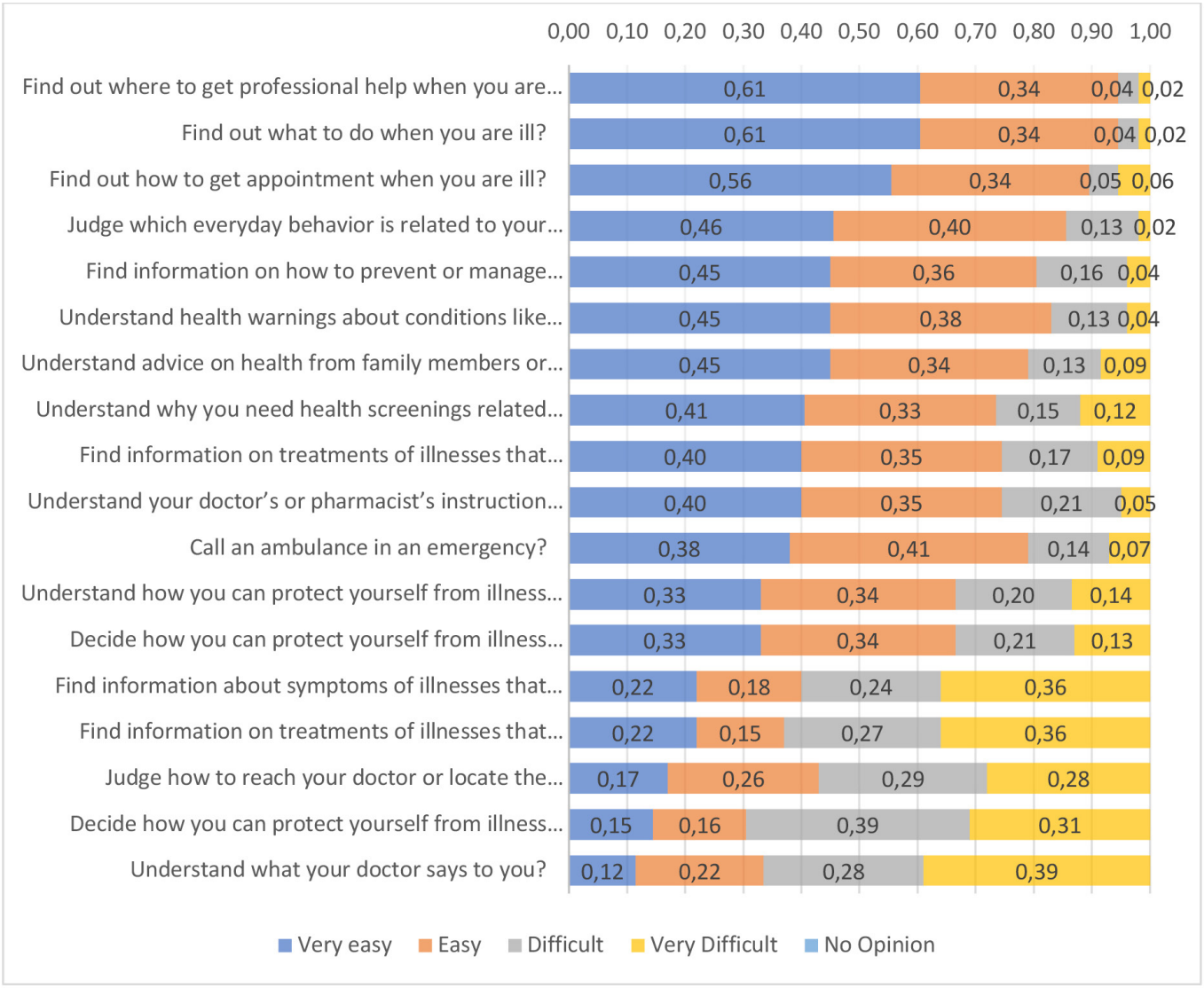

Figure 4. First group of questions.

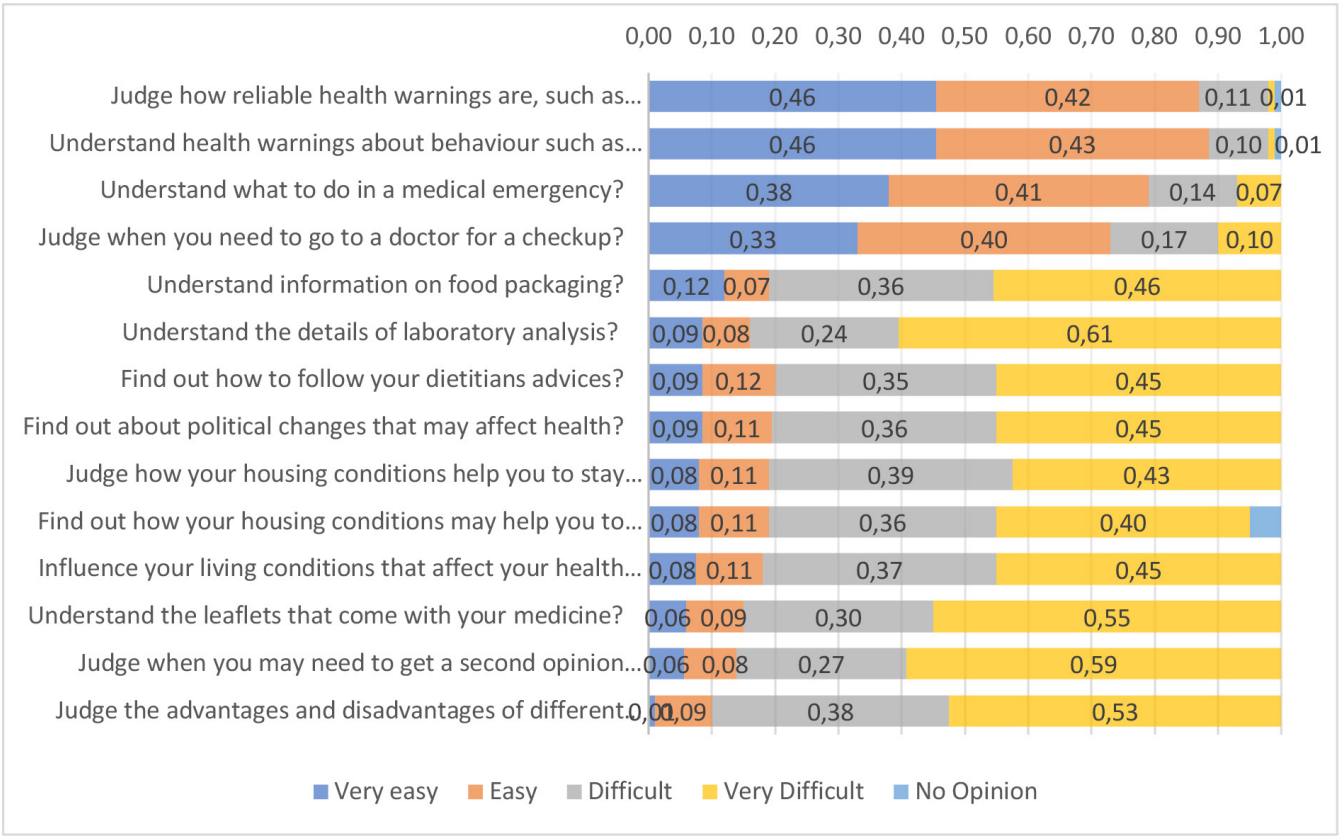

Figure 5. Second group of questions

Data analysis revealed that the majority of respondents indicated that they were unsure about whether particular symptoms relate to disease or not, lack confidence in being able to read and fully comprehend a text about their disease and have difficulty comprehending and trusting doctors' advice. They experienced difficulty in weighing advantages and disadvantages of treatment options, finding information relating to symptomatology and particular diseases and being aware when a second opinion would be appropriate. There were deficits apparent in understanding both positive and negative influences of the environment, lifestyle and nutrition. Nutritional advice was poorly comprehended.

There are overlaps between health literacy and literacy in general, but the concepts are distinct. Literacy refers to possession of adequate skills in reading, writing, simple mathematics, speaking and understanding. Being numerate is part of being literate and involves "facility with basic probability and numerical concepts" (10). Literacy skills are called upon daily for effective social functioning (13). It was established early on by researchers in the fields of education and adult literacy that literacy plays a key role in being able to locate information, deal with printed documents and be socially involved (14). The same skills are used to manage a health issue, for example reading nutritional facts on food labels or receiving influenza vaccination. Such skills take time to develop. Whilst being literate is necessary for health literacy, it is not sufficient alone (2). The length of formal education may be a poor guide to a person's literacy or health literacy. Individuals may complete their schooling without becoming health literate. Indeed, in around 45% of those leaving high school a degree of limitation exists on their health literacy (3).

A large amount of research on health literacy has been conducted globally. Looking at the US, typically viewed as amongst the most highly developed nations, health literacy level was found to be average in 53%, insufficient in 36% and limited in 22% of those assessed (5, 15). The Turkish "Health and Social Workers' Union" began investigating the matter in 2014 in Turkey, by means of the European

Union Questionnaire (HLS-EU). A random sample of 4924 adults was taken, covering 12 regions and 23 different cities (16). The study findings indicated that health literacy levels in Turkey were behind those of Europe, with a mean value on this scale of 30.4.

Values for health literacy in Turkey were as follows: "insufficient" 24.5%, "average" 40.1 percent, "sufficient" 12.4%, and "perfect" 7.6%. The values for Europe were 12.4%, 35.2%, 36% and 16.5% respectively (5, 16).

Being health literate means knowing about many different areas, such as the human body, healthy actions and how health services are organised and delivered. It depends on mother tongue, communicative capabilities (listening and speaking), age, socioeconomic factors, culture, previous acquaintance with health subjects, IQ and psychological well-being. These factors influence an individual's way of communicating, comprehending and acting upon health information. An illustration of the role these factors play is provided by considering how remembering what to do, or being able to follow labeling on drugs, is rendered more challenging if an individual is sick, regardless of other background abilities (1).

Information regarding health may be delivered by numerous channels and may have multiple origins. Thus, discussion with relatives or acquaintances, media (printed and broadcast), schools, libraries, internet sources (websites or social media), health professionals of many types (doctors, dentists, etc.), health education resources, public health announcements, labels on food or medication, product inserts and safety advice may all offer different and potentially incompatible advice, not to mention the role of one-sided or partial information. Given this situation, it is usual to face a daily barrage of health-related information, much of it very complicated (1).

Researchers have also highlighted the need for healthcare providers to lessen the demands on individual consumers' health literacy skills, and to do so in a proactive fashion. A selection of such initiatives might include simplification of consent procedures (17), adapting forms for individuals with lower reading ages (18), and highlighting the need for healthcare staff to receive instruction in health literacy matters (19, 20).

In simple terms, the onus of responsibility for communicating plainly lies with healthcare professionals, whose exhortations to act in healthy ways and follow health advice otherwise will otherwise fall on deaf ears. It is known that accuracy in health communication, coupled with ready intelligibility, leads to behaviours that are better adapted to the promotion of health and well-being (4).

Health services need to be accessible to all members of society in their time of need, which entails that those at risk of exclusion, such as the elderly, those of lower socioeconomic or educational status or ethnic minorities need greater assistance to ensure equitable access. Since immigrants and individuals from lower socioeconomic groups or with lower educational attainment are at risk of lower health literacy, this disadvantage needs to be addressed. Some chronic illnesses also produce comparable disadvantages. An association between lower income and lower levels of health literacy has been observed, as has female sex, in some research (5, 22).

For health literacy to develop, a number of issues will require being addressed together. Health policy, supported programmes and financial arrangements need to focus on increasing access to health information and relevant services. The following areas in particular warrant improvements:

- How health professionals communicate
- How the media and public health officials present issues
- Health information needs to be clearer and more accurate
- Health information needs to be targeted in a culturally appropriate way, using appropriate language.
- Public health should be structured so as to encourage healthy action
- Social structures, places of education and employers all need to encourage gaining information about health

Greater collaboration is needed to ensure health information and health providers work for the benefit of all patients. Whilst health literacy can be adversely affected by a multiplicity of causes, reducing barriers and developing the communicative efficiency of individuals working in healthcare and public health, alongside those working in education and the media, is the surest way to boost health literacy levels (1).

Since Eskisehir is unusual in having three universities, and given that our sample had a higher educational profile than average, it may be premature to extrapolate too far from the results we have obtained. Further similar studies across different locations within Turkey will provide greater opportunity to generalize on our results.

Appendix 1: Health Literacy Scale (TSOY-32)

Part 1

Age:……

Gender: ( )1. M ( ) 2. F

Marital Status: ( )1. Married ( ) 2. Single

Education:

( )1. Primary School ( )2. Secondary School ( ) 3. High school

( )4. Vocational School ( )5. University ( ) 6. Master ( ) 7. Doctorate

Profession:

( )1. Housewife ( )2. Worker ( )3. Retired ( ) 4. Student

( )5. Clerk ( )6. Skilled Workers ( )7. Self-Employed ( ) 8. Farmer ( ) 9. Other……

Social Security Status: ( )1. None ( )2. Turkish Social Security Coverage ()3. Other

Total income of your family?

( )1. Income less than expenses ( ) 2. Income equal to expenses ( ) 3. Income more than expenses

Part 2

	On a scale from very easy to very difficult, how easy would you say it is to: …	1. Very Easy	2. Easy	3. Difficult	4. Very difficult	5. Dont know
1	find information about symptoms of illnesses that concern you?					
2	find information on treatments of illnesses that concern you and understand it?					
3	decide how you can protect yourself from illness based on advice from family and friends?					
4	find out where to get professional help when you are ill?					
5	find out what to do when you are ill?					
6	find out how to get appointment when you are ill?					
7	find information on treatments of illnesses that concern you?					
8	understand what your doctor says to you?					
9	judge the advantages and disadvantages of different treatment options?					
10	understand your doctor's or pharmacist's instruction on how to take a prescribed medicine?					
11	understand the leaflets that come with your medicine?					
12	judge when you may need to get a second opinion from another doctor?					
13	understand the details of laboratory analysis?					
14	judge how to reach your doctor or locate the laboratory inside the hospital?					
15	understand what to do in a medical emergency?					
16	call an ambulance in an emergency?					
17	judge when you need to go to a doctor for a checkup?					
18	find information on how to prevent or manage conditions like being overweight, high blood pressure or high cholesterol?					
19	understand health warnings about conditions like being overweight, high blood pressure?					
20	judge how reliable health warnings are, such as smoking, low physical activity and drinking too much?					
21	understand health warnings about behaviour such as smoking, low physical activity and drinking too much?					
22	understand why you need health screenings related with your age and sex?					
23	understand how you can protect yourself from illness based on information in the media?					
24	decide how you can protect yourself from illness based on information in the media?					
25	understand information on food packaging?					
26	judge how your housing conditions help you to stay healthy?					
27	Find out how your housing conditions may help you to stay healthy?					
28	judge which everyday behavior is related to your health?					
29	influence your living conditions that affect your health and wellbeing?					
30	find out how to follow your dietitians advices?					
31	understand advice on health from family members or friends?					
32	find out about political changes that may affect health?					

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