S-FHL

Scale for functional health literacy
Swedish version

Guidelines for use of the scale

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Introduction

These guidelines were developed to give researchers and healthcare personnel basic information about the use of the Scale for Functional Health Literacy (S-FHL). The scale is based on the “Japanese Functional Health Literacy Scale” developed by Ishikawa et al.

The guidelines give information about the scale, how the translation and adaptation were done and the results of the texts that were used to investigate the quality of the scale. Thereafter follows guidance in how to administrate the scale, how data that are collected shall be analyzed and how the results can be interpreted. We also discuss how the results can form the basis for efforts to promote health and bring up common questions about the use of the scale. The actual scale is shown at the end of this document.

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Background

Health literacy is defined by WHO as the cognitive and social skills that determine the motivation and ability people have to acquire, understand and use information in a way that promotes and maintains good health (1). The concept has been divided into different dimensions. A common division is: functional, communicative and critical health literacy. The functional dimension covers basic skills in understanding texts, figures and number in health information. The communicative dimension covers more advanced cognitive and social skills to apply information in common situations and to communicate information to other people. The critical dimension covers the ability to evaluate information in order to gain better control over events, situations and life as a whole (1).

The functional aspects of health literacy are of great interest in context where the focus is on information that is given will reach individuals, be read and be understood. This can be summons to healthcare visits, instructions for exercise or use of medications, information about activities that promote health and preventive actions, warning texts on chemical products etc. The functional aspects can also be important as a starting point for identifying groups in society that risks being without important information and that thus have a need of special educational efforts.

Development and construction of the scale

Ishikawa et al. FHL Scale (8) is intended for self assessment and consists of five statements (items) on functional skills. The assessments are made on a five-grade ordinal scale according to how often items agree with the person’s own experiences. The first two items focus on the visual ability related to the design of the text and its accessibility, the two following deal with an understanding of words and concepts, the fourth focuses on an ability to persevere in reading and the last asks about the need of help in reading and understanding information.

Translation and adaptation of the scale

The Swedish version of the Functional Health Literacy Scale was developed in several steps that are described in detail in a scientific article (2). The Japanese scale was first translated into Swedish by two independent professional translators and these were in turn translated back into Japanese by two further independent translators. The research team (JW and LM) then judged which translation was most suitable with respect to theories about and definitions of functional health literacy (3). In the next step, the content validity of the Swedish version was tested, i.e. that the meaning of items in the translated version agreed with WHO’s definition (3) and the Japanese original version of
the scale (1). A committee consisting of nine persons with expert knowledge or research experience in the area of health was useful in making this judgement. Three of the members of the committee spoke both Japanese and Swedish. After this review, the committee gave suggestions for changes in the formulation and choice of items, which led to a development of the translations for a first version of the Swedish scale.

To test the Swedish scale, a test group was recruited that had variation with respect to sex, age, education, socio-economic status and native country. The intention was to create a representation of the target group of the scale. The test group consisted of 35 persons; the majority were women, most had a high school or university education, and a third came from a country other than Sweden. The test group was used to make a test-retest, which means that the test group makes assessments on the scale on two occasions at an interval of seven to ten days. The purpose of this is to investigate the reliability over time by examining how the different assessments agree with one another. The tests were carried out together with group activities from which the test persons were recruited (free exercise pass and driving practice at a health center).

The assessments made were then analyzed statistically with a method intended for this type of data, i.e. ordinal data (4). The scale could be fixed when the items showed agreement between the two assessments.

**Administration of the scale**

The scale is intended to be used in several different contexts, e.g. in healthcare, education and research. As in all use of scales and instruments, the person who is expected to make the assessment is informed of its purpose, i.e. why he/she shall make the assessment, how the results of the assessment will be analyzed and managed and who will have access to the results. It is also important to inform that making the assessment is voluntary; it is not ethical to try to convince an uninterested individual to make the assessment.

Before you suggest someone to make the assessment with the scale you should have considered the suitability of the context for the assessment. You should also have reflected over the individual’s/group’s ability to understand and use the scale. If it is obvious that a person’s ability is on the limit of understanding the contents or of filling in the scale, it is unsuitable to ask the person to make the assessment independently.

The assessments must be specified according to how the individual who will fill in the scale interprets items and response alternatives; it is thus not necessary that someone sits next to the person and explains. If a person has difficulty reading/can not read, you or someone else can read the items and response alternatives and fill in the response that the person chooses himself/herself. The important thing is that the person is not given help in interpreting the questions in a way such that it affects his/her assessments.
Name of the Swedish scale

In English language and research contexts, the scale should be named the Swedish FHL Scale.

Analysis of data collected

The assessments can be divided into either three or two categories depending on which statistical calculations will be used. The numerical values are primarily meant for statistical calculations in the context of research.

Division into three categories

In this analysis, the assessments of the five response alternatives are first re-categorized into three new category levels: lack of, problematic and sufficient health literacy. These levels are given a numerical value of 1000, 100 and 1, respectively.

Inadequate functional health literacy covers assessments of response alternatives 1 and 2, i.e. “Never” and “Seldom”. This level is given the value of 1000. Problematic health literacy covers the middle alternative, i.e. “Sometimes”, and is given the value of 100. Sufficient health literacy covers response alternatives 4 and 5, i.e. “Often” and “Always”, and is given the value of 1.

<table>
<thead>
<tr>
<th>Inadequate functional health literacy</th>
<th>Problematic functional health literacy</th>
<th>Sufficient functional health literacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value = 1000</td>
<td>Value = 100</td>
<td>Value = 1</td>
</tr>
</tbody>
</table>

The next step in the analysis is interpreting the level of communicative and critical health literacy by summing the answer values for all of the items. A categorization is also done here in the form of a SCCHL index on three levels. Sums above 1000 are interpreted as inadequate of functional health literacy. Sums > 100 but < 1000 belong to the category of problematic functional literacy. Finally, sums < 100 are categorized as sufficient functional health literacy.
Division into two categories

In dichotomizing (division into two categories) the scale, “inadequate functional health literacy” from the division above is categorized as lack of communicative and critical health literacy and is given the value of 1. “Problematic functional health literacy” and “sufficient health literacy” from the division above are categorized as not inadequate functional health literacy and given the value of 0.

<table>
<thead>
<tr>
<th>Inadequate functional health literacy</th>
<th>Value = 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not inadequate health literacy</td>
<td>Value = 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Frequently asked questions

What information is aimed at, written or verbal?

- It has to do with all forms of health information. The individual making the assessment must himself/herself interpret the meaning of this concept.

May a member of the personnel help a person to fill in the scale?

- Yes, you can help by reading each item and clarify what the different answer alternatives stand for and in this way guide the person who then makes the assessment. However, it is important that you make it clear that it is not you who is responsible for the interpretation of the meaning of the items.
Referenser


Swedish functional health literacy scale - English version

Questions about how it is for you to take in information related to health, illness and medical care.

*Select the option on each line that best matches your answer.*

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Seldom</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Do you think that it is difficult to read health information because the text is difficult to see (even if you have glasses or contact lenses)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Do you think that it is difficult to understand word or numbers in health information?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Do you think that it is difficult to understand the message in health information?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Do you think that it takes a long time to read health information?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Do you ever ask someone else to read and explain health information?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Wangdahl, J.M. and L.I. Martensson, *Measuring Health Literacy – The Swedish Functional Health Literacy Scale.* Scand J Caring Sci. 2014; doi: 10.1111/scs.12125. For more information contact: Josefin Wångdahl, MSc Public Health, Social medicine, Department of Public Health and Caring Sciences, Uppsala University. e-mail: josefin.wangdahl@pubcare.uu.se Lena Mårtensson, Assoc. Occupational Therapist, Institute of Neuroscience and Physiology/Occupational Therapy, Gothenburg University. e-mail: lena.i.martensson@gu.se, or see: www.halsolitteracitet.se.