



Original Research

# Evaluation of instruments to assess health literacy in Arabic language among Iraqis

Ali Azeez Al-Jumaili, M.S.<sup>a,b,\*</sup>, Mohammed Dakhil Al-Rekabi, Ph.D.<sup>c</sup>,  
Bernard Sorofman, Ph.D.<sup>a</sup>

<sup>a</sup>University of Iowa, College of Pharmacy, Iowa City, IA, USA

<sup>b</sup>University of Baghdad, College of Pharmacy, Baghdad, Iraq

<sup>c</sup>University of Kufa, Faculty of Pharmacy, Al-Najaf, Iraq

## Abstract

**Background:** Low health literacy is associated with lack of medical information, less use of preventive measures, low medication adherence rates, high health care costs and high risk of hospitalization.

**Objective:** The aims were to compare the results of the three health literacy tests, to measure for the first time the health literacy level of Iraqis, to describe the use of standardized health literacy tests, to evaluate reliability and validity of the Arabic versions of these tests, and to investigate whether there is relationship between the participant characteristics and the health literacy level.

**Methods:** A convenience sample of 95 subjects was studied in five community pharmacies in Al-Najaf and Babylon governorates, Iraq. Three health literacy tests, the Single Item Literacy Screener (SILS), the New Vital Sign (NVS) and the Short version of the Test of Functional Health Literacy in Adults (S-TOFHLA), were translated in the Arabic language and administered to the pharmacy customers.

**Results:** There were no statistically significant associations between age, gender, education and current education status and NVS score, but there were significant positive associations between the level of education and each one of SILS, New SILS, and S-TOFHLA scores.

**Conclusions:** SILS has one subjective, possibly culturally biased question. Since Iraqis are generally not exposed to reading product labels, the NVS test might be not an accurate measure for them. S-TOFHLA was the most comprehensive test and gave equitable results. The Arabic version of S-TOFHLA can be used to measure health literacy in 22 Arabic speaking countries.

© 2015 Elsevier Inc. All rights reserved.

**Keywords:** Health literacy; SILS; NVS; S-TOFHLA; Iraq; Pharmacy

## Introduction

According to the U.S. National Assessment of Adult Literacy (NAAL), literacy is “the ability to

use printed and written information to function in society and to achieve one’s goals”.<sup>1</sup> Health literacy is the ability of a person to read, compute,

The authors Ali Azeez Al-Jumaili and Mohammed Dakhil Al-Rekabi are joint first authors.

\* Corresponding author. University of Iowa, College of Pharmacy, PHAR S532, Iowa City, IA, 52242, USA. Tel.: +1 319 936 4354 (mobile); fax: +1 319 353 5646.

E-mail address: [aliazeezali-aljumaili@uiowa.edu](mailto:aliazeezali-aljumaili@uiowa.edu) (A.A. Al-Jumaili).

1551-7411/\$ - see front matter © 2015 Elsevier Inc. All rights reserved.

<http://dx.doi.org/10.1016/j.sapharm.2015.02.002>

and understand health-related information such as in a physician appointment slip, medication labels and pamphlets.<sup>2</sup> Health literacy is not only basic literacy, but also knowledge of health-related topics. A limited literacy does not mean illiteracy, which is inability to read or write.<sup>3</sup> The NAAL (2003) survey reported that 14% of the U.S. adults had below basic health literacy, only 12% had proficient health literacy, more than half (53%) had intermediate health literacy and 22% had basic health literacy.<sup>1</sup> Elderly people age 65 and older had lower health literacy than younger adults.<sup>1</sup>

Literacy and health are linked. The average reading skills of American adults is between the seventh and eighth-grade levels.<sup>4</sup> Health education materials require a reading level higher than the average reading skills of U.S. adults.<sup>5</sup> Weiss and colleagues concluded that populations with lower literacy rates have poorer health status especially in non-industrialized countries.<sup>6</sup> Low health literacy is associated with poor health-related outcomes, such as high risk of hospitalization.<sup>7</sup> Low health literacy is associated with lack of medical information, impaired health care knowledge, less use of preventive measures, lower medication compliance rates and higher health care costs.<sup>8</sup> Similarly, Howard and colleagues concluded that the medical costs of patients with inadequate health literacy were significantly higher than that for patients with adequate health literacy.<sup>9</sup>

There are several measures of health literacy; one is the Single Item Literacy Screener (SILS) developed by Morris and colleagues and asking about the amount of help that is needed to read and understand doctor or pharmacy-written instructions.<sup>10</sup> The Short version of the Test of Functional Health Literacy in Adults (S-TOFHLA) developed by Baker and colleagues<sup>11</sup> shortened the time required by the TOFHLA.<sup>12</sup> S-TOFHLA is a standard for assessment of health literacy and takes 12 min.<sup>10,11</sup> In 2009, a review article included 42 literacy studies and concluded that S-TOFHLA was considered as a standard test for the comparison of other health literacy tests.<sup>13</sup> The New Vital Sign (NVS) test developed by Weiss and colleagues<sup>6</sup> measures both reading and numeracy skills of subjects through reading an ice cream label contents and answering six related questions.<sup>6</sup> The NVS is shorter but less comprehensive than the S-TOFHLA.

SILS, NVS and S-TOFHLA are the most popular health literacy tests. Four of the health literacy studies that used TOFHLA, S-TOFHLA, NVS or NVS-UK stratified the health literacy

results according to the gender, age, and years of school education.<sup>8,11,14,15</sup> A recent SILS study in Iran classified the health literacy results by age, education degree and socioeconomic status.<sup>16</sup>

Many studies investigated using one test (S-TOFHLA,<sup>8,12,16–19</sup> NVS,<sup>20</sup> or SILS<sup>16</sup>), and others compared two health literacy tests (NVS vs S-TOFHLA,<sup>6,11,14,21,22</sup> NVS vs SILS<sup>15</sup> or SILS vs S-TOFHLA<sup>10</sup>), but comparing the three most common tests (SILS, NVS and S-TOFHLA) was the major contribution of the present study.

#### *Instruments; standard measures of health literacy*

##### *The Single Item Literacy Screener (SILS)*

SILS is a primary indication that participants have inadequate reading abilities and may request help to read health-related information.<sup>10</sup> SILS was administered in written format: “How often do you ask someone for help to read the instructions and leaflets from a doctor or pharmacy?” A participant could choose one of the following answers (5-point Likert scale): 5-never, 4-rarely, 3-sometimes, 2-often or 1-always. If a participant chooses sometimes, often or always, that indicates a difficulty with reading of health materials. Never and rarely indicate adequate reading ability.<sup>10</sup>

##### *Short version of the Test of Functional Health Literacy in Adults (S-TOFHLA)*

S-TOFHLA evaluates both the numeracy and reading skills of participants. The reading part has two prose passages while the numeracy section includes four questions that evaluate understanding of glucose monitoring, prescription labels and appointment slips.<sup>2,11</sup>

The reading sections of the S-TOFHLA test included this statement: “fill in the blanks using a word from a list which best completes the sentence grammatically and contextually.” The passages are related to preparation for an upper gastrointestinal X-ray and Medicaid rights & responsibilities.<sup>11</sup> When the S-TOFHLA was translated to Arabic, one of the 36 cloze items was dropped from the passages because it did not make cultural sense after translation to Arabic. The dropped item was the third one in the X-Ray passage with four choices (is, am, if, it). “Medicaid” was translated as health care assistance for needy people.

The two prose passages have a total of 35 cloze items totaling 70 points (two points per each item). The cloze process includes deleting every fifth to seventh word in a passage. The participant should choose the most appropriate answer to fill the blank from a list of four words.<sup>11</sup> The score of

Download English Version:

<https://daneshyari.com/en/article/2508301>

Download Persian Version:

<https://daneshyari.com/article/2508301>

[Daneshyari.com](https://daneshyari.com)