Evaluation of functional health literacy among primary health care users in Kosovo: a cross-sectional study

Haxhi Kamberi[1], Ervin Toçi[2], Naim Jerliu[3], Kreshnik Petrela[2], Herion Muja[2], Gentiana Qirjako[2]

1 Regional Hospital "Isa Grezda", Gjakove, Kosovo;
2 Institute of Public Health, Tirana, Albania;
3 Institute of Public Health, Prisitne, Kosovo;

Corresponding author: Haxhi Kamberi
Address: Rr. "Deshmoret e Lirise", p.n. 500000, Gjakove, Kosovo;
Telephone: +37744134189; E-mail: kamberi.dr@gmail.com

Abstract

Aim: Adequate functional health literacy is critical for the appropriate function of individuals in health settings. The aim of this study was to assess the functional health literacy of adult primary care patients in Kosovo.
Methods: This cross sectional study included 1035 primary health care patients aged e"18 years old during November 2012-February 2013 in the Principal Family Medicine Centers of Prishtina, Gjakova and Prizren municipalities in Kosovo (response rate: 86.3%). Functional health literacy of the participants was measured via the validated Albanian long version of TOFHLA test, an instrument used to assess reading comprehension and numerical abilities. TOFHLA scores range between 0-100 with higher scores implying better functional health literacy. Cronbach's alpha was used to estimate the internal consistency of the instrument. Mean values of TOFHLA were reported. One way ANOVA test was used to assess differences in mean TOFHLA scores according to demographic and socioeconomic characteristics of the subjects.
Results: Mean age of participants was 44.3 years and 60% of them were females. Cronbach's alpha internal consistency coefficient was 0.88. Mean functional health literacy was significantly higher among younger participants, men, highly educated individuals and those with better self-reported economic conditions.
Conclusions: The validated Albanian version of TOFHLA showed good internal consistency when applied in large-scale settings. Specific groups of primary care patients in Kosovo experience lower functional health literacy skills and might be more exposed to adverse health outcomes this situation entails.

Keywords: *functional health literacy, health literacy, Kosovo, TOFHLA.*

Introduction

Health literacy entails the ability to obtain, understand and process basic information which enables the individuals to make appropriate health decisions (1). Although the term has gained increasing attention in the international arena, still there is no single definition of health literacy (1-5). Regardless of how health literacy is measured and the different tools used for assessing it in various studies, evidence suggests that inappropriate or limited health literacy might be associated with poorer health outcomes, increasing use of health care services and health care costs, worse management of chronic diseases, added difficulty to orient oneself in the health system and lower participation in screening programs (5). One of the most frequently used tools for the assessment of health literacy among patients is the test of functional health literacy in adults (TOFHLA) which focuses on the numerical skills and reading comprehension capabilities (6). These skills are supposed to be fundamental for the appropriate function and orientation of the single patient in the health care environment. Patients need to understand oral and written health information and to follow certain written and numerical instructions in order for the treatment or management of health conditions to succeed (6).

Information regarding health literacy levels of primary health care patients in Kosovo is scarce. This transitional country is undergoing deep reforms which have also affected the health sector. The perplexity of the situation requires primary care patients to adapt to the changing environment. Recently, the long version of TOFHLA test has been validated in a limited sample of primary care users in Kosovo (7), thus creating the opportunity to use it on a larger scale for evaluating functional health literacy. In this context, the aim of this study was to assess functional health literacy in a representative sample of adult primary care patients in Kosovo using the validated TOFHLA instrument.

Methods

This is a cross-sectional study conducted in three main regions of Kosovo and namely Prishtina (the capital), Gjakova and Prizren during November 2012-February 2013.

According to the 2011 Census, Kosovo has a total population of 1739825 inhabitants and it is divided in 37 municipalities. The selected municipalities represent around 27.1% of the total population (8). Each municipality has a Principal Family Medicine Center (PFMC), which is a primary health care center (9). Our study was conducted in the three PFMCs of these municipalities. Adopting conservative assumptions, with power of the study set at 80%, the sample size resulted in 1200 individuals using WINPEPI software. We included only patients aged 18 years or older. Also, not cooperating individuals, those unable to see, read, comprehend and too sick to participate were excluded from the study. Of the 1200 enrolled individuals, 165 refused to participate. Thus, the response rate was 86.3% (1035/ 1200).

To assess functional health literacy of primary care patients we used the long version of TOFHLA test in the Albanian language. The validation procedures of TOFHLA in Kosovo have been described elsewhere (7). In brief, the instrument was translated and back-translated by two professional experts and cultural contextual changes were applied. Then, it was administered to a quota sample of primary care patients in Pristina PFMC. The Albanian version of TOFHLA reported good total internal consistency (Cronbach's alfa = 0.94) (7).

The score of the long version of TOFHLA ranges from 0-100. This enabled us to calculate the mean score of functional health literacy.

We also collected data about demographic and socioeconomic characteristics of the participants, including age, sex, level of education and self-rated economic situation.

Mean values and standard deviation of health literacy score by demographic and socioeconomic variables were reported. ANOVA test was used to assess the differences in mean TOFHLA scores by these variables. In addition, Cronbach's alpha and test-retest procedure reporting was used to assess the internal consistency of the Albanian version of TOHLA applied in full scale study. These figures were than compared with those reported by the validation study.

All analysis was carried out using the Statistical Package for Social Sciences (SPSS) software, version 17.0.

Results

The mean age of participants was 44.3 years ± 17.0

years ranging from 18 years old to 92 years old. Three out of five participants (60%) were females. On average, the subjects had 11.3 years of formal education ±3.5 years. Regarding the economic conditions, 8% reported to be in a good economic situation, 77.9% and 14% reported an average and bad economic situation.

The overall internal consistency as measured by Cronbach's alpha was 0.88. The test-retest consis)-tency as measured by the Guttman Split-Half coefficient was 0.78.

The mean TOFHLA score in this sample of adults aged e" 18 years old was 61.8 ± 14.8. The mean TOFHLA scores by demographic and socio-economic characteristics are presented in the following Figures.

Figure 1. Mean TOFHLA score by age and gender

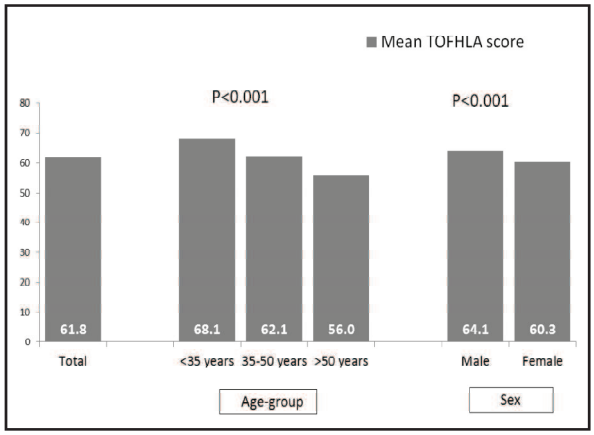
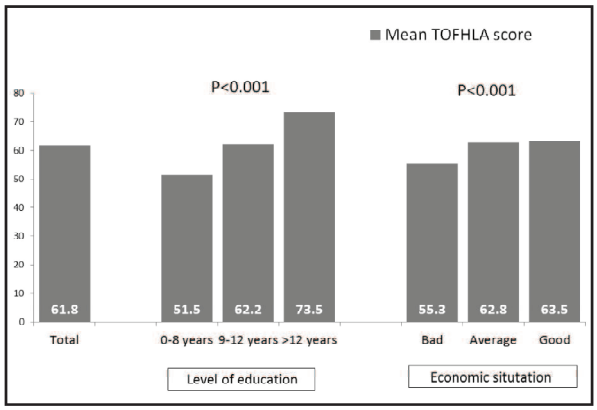


Figure 2. Mean TOFHLA score by education level and economic situation



Mean TOFHLA scores were statistically higher among younger persons, males, those individuals highly educated and those perceiving themselves as being in a good economic situation (P<0.001 in all cases).

Discussion

The present study assessed the functional health literacy in a sample of adult primary care patients in Kosovo. To our knowledge, this is the first time the TOFHLA test was used in a full scale popula-tion-based study in this country. The instrument showed good overall and test-retest consistency. Mean functional health literacy scores varied significantly according to demographic and socioeconomic characteristics of the participants.

The internal consistency of the instrument applied in the large scale was comparable to that reported by the validation study of TOFHLA in Kosovo (7). This suggests that it might be used as a reliable tool within the Albanian settings. However, the validation exercise warrants extreme caution as the adaptation of the instruments to the local cultural context may be a complicated process (10).

Similar to the findings reported by studies in the region and beyond, functional health literacy level in our study was associated with individual charac-teristics of primary health care patients. For example, a study among primary care patients in Serbia (11) reported a higher mean TOFHLA score among males than females (79.9 vs. 66.1, respecti-vely) whereas these figures in Kosovo were 64.1 and 60.3, respectively. In addition, the mean TOFHLA score among those highly educated in Serbia was 77.9 vs. 73.5 reported in our study. Furthermore, the associations between health literacy with demographic and socioeconomic factors reported in our study are in accordance with results published in the international arena as well (12-14). Patients with limited health literacy are common in health care settings (15). Since low health literacy is associated with a whole range of adverse health outcomes, higher system resources' utilization and less adherence to medical and health instructions then it is important to detect those patients most at risk and who could benefit more if the appropriate measures are taken.

In conclusion, the Albanian version of the validated TOFHLA instrument yielded comparable results in this sample of primary care patients in Kosovo. The findings suggest that certain groups of patients in Kosovo might experience lower health literacy levels thus making them less compatible with the health care environment and potentially more prone to adverse health events associated with this situation.

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