

Development and Psychometric Properties of Lifestyle Health Literacy Questionnaire (LHLQ-33) among Iranian Soldiers

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ABSTRACT

Background and Objectives: Even though there are existing studies on the correlation between health literacy (HL) and lifestyle, to this day, the concept of Lifestyle health literacy (LHL) has not been considered. This study was conducted to design and evaluate the validity and reliability of the LHLQ among military bases of Tehran.

Materials and Methods: In the present study, first the questionnaire was designed, and then the validity and reliability of the LHLQ in soldiers were evaluated from 2020 to 2021. The face and content validity and quantitative and qualitative content validity were performed and eventually 33 questions were examined for reliability. The Cronbach's alpha and Intra-class Correlation Coefficient (ICC) were used. Factor analysis was performed on 300 soldiers who were available through four selected garrisons in Tehran.

Results: The mean of CVI was 0.92 and CVR was 0.71. Also, in the ICC reliability study, the total questions were 0.85 and the Cronbach's alpha's questions were 0.93. The exploratory factor analysis identified a 6-factor structure of responsibility, nutrition, physical activity, stress control, spiritual growth, and interpersonal relationships for the LHLQ, which were plotted in 33 terms and explained 58.58% of the total variance. The 6 factors model was approved via the confirmatory factor analysis method $\chi^2/df=2.974$ RMSEA=0.77, GFI=0.870, and NFI= 0.902.

Conclusion: The questionnaire's indices have an acceptable level of validity and reliability, therefore the soldiers' LHLQ can be used to measure the LHL of this group.

Paper Type: Research Article

Keywords: Health literacy, Lifestyle, Psychometrics, Soldier.

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Introduction

Health literacy (HL) is a set of skills that consists of reading, comprehension, analysis, decision making, and the ability to apply these skills in problematic health situations (1). According to WHO's definition, (HL) is one of the most critical determinants of health that affects the motivation and ability of individuals to access, understand, and use information that leads to maintaining and promoting health (2). Low levels of HL are related to issues such as health misconceptions, less participation in following medical instructions (3-6), delayed diagnosis of patients, lack of attention to preventive behaviors (7, 8), lack of self-care skills, and lack of adherence to healthy lifestyle behaviors (9, 10). Health literacy is related to health outcomes, health promotion behaviors, and self-mutilating behaviors (11).

Lifestyle plays an important role in creating and maintaining health (12). Lifestyle results from the interaction between personal and social characteristics, environmental conditions, and socioeconomic situations (13). According to WHO, many health problems such as obesity, cardiovascular disease, colon cancer, hypertension, and chronic obstructive pulmonary disease are related to unhealthy lifestyles and are the causes of 60% of global deaths, and 80% of deaths in developing countries (14).

It has been shown that changing lifestyles such as improving nutrition, weight control, physical activity, and avoiding smoking can prevent 90% of type 2 diabetes, 80% of heart diseases, and even a third of cancers (15, 16).

Lifestyle health literacy is also considered to be important by the officials and policy-makers of the health system in Iran. Thus, increasing health literacy and healthy lifestyles are the main priorities of the ministry of health and in the vision program of the Office of Education and Health Promotion of Iran (15).

Given the importance of lifestyle health literacy

(LHL), conducting a study in this field requires the availability of a specific and standard tool. A review of the literature shows that there is no tool for measuring LHL in studies, and most studies that have measured the relationship between HL and lifestyle used one tool for lifestyle and another tool for HL, which were both separately completed by the participants.

For instance, the healthy lifestyle scale for university student's questionnaire (with 38 items and eight factors) was an evaluation tool for health counseling in college health centers (17), and the health-promoting lifestyle profile-II (HPLP-II) with 48-item and six dimensions which was an older tool in comparison (18).

The HL tools consist of the health literacy questionnaire (HLQ) with 9 areas which is used for the general population, patients, healthcare professionals, and policymakers (19), and the health literacy measure for adolescents (HELMA) with 44 items which is used for evaluating different levels of functional, interactive, and critical health literacy among adolescents. But, there is no special questionnaire for military personnel in the above-mentioned fields.

This study is the novel study because several studies on measuring HL and lifestyles have been separately conducted, no study on measuring HL and lifestyles combined and no existing study about measuring LHL on young soldiers has been conducted.

A specific tool is needed in order to measure LHL, and ideally, the items of the health literacy questionnaire should focus on lifestyle and should be integrated with it. Therefore, considering the importance of men as one of the important groups of society and their important role in promoting family health and a healthy society (20, 21), it is necessary to know the level of their LHL to eliminate or correct undesirable health behaviors through educational interventions. Therefore, this

study was conducted to design a tool to assess LHL in soldiers with 19 to 29-year-old .

Material and Method

The present study was conducted to develop and evaluate the psychometric properties of the lifestyle health literacy questionnaire (LHLQ-33) among young Iranian men in the city of Tehran, Iran, from 2020 to 2021. This study was done in two phases. In the first phase, the questionnaire items were generated and the main draft was developed, and in the second phase, the psychometric properties of the questionnaire in Iranian young men were evaluated. In the sampling phase, for each item, five to ten subjects were used. This section included 33 items, so the number of samples for construct validity was estimated to be 280 people, and taking into account the possibility of dropping samples, 300 questionnaires were distributed. The inclusion criteria consisted of being soldiers and not having any severe illness in their medical documents. The exclusion criteria included incomplete questionnaires. The quota sampling was done from 4 selected garrisons in Tehran.

Phase 1: Item Generation and Questionnaire Development

In order to design the questionnaire's items, the relevant studies of literature and available tools were reviewed. The research team investigated Persian (Irandoc, SID and Magiran) and English (Scopus, PubMed / Medline, and Science direct) databases by using keywords such as health literacy scales, lifestyle scales, health promotion questionnaire, and youth health.

All relevant documentation of the subject was investigated if the full text was available, and the scientific documentations related to the HL and lifestyle instruments in the world from 2019 to 2020 were reviewed (22-24).

In defining the dimensions of the questionnaire, the adult health literacy questionnaire developed

by Montazeri and HPLP -II validated by Mohamadi Zeidi et al. were used (25).

Also, the components of lifestyle according to HPLP II, which consist of responsibility, nutrition, physical activity, stress control, spiritual growth, and interpersonal relationships were considered. The components of health literacy consist of reading, accessing, understanding, transmission (Evaluation), and the use of information and decision-making. These two concepts in a matrix of horizontal and vertical columns were set as questions.

Finally, an item pool containing 41 items was generated. Each item was rated on a five-point Likert scale (From "always" to "not at all"). Higher scores represent higher lifestyle health literacy. Reverse scoring was carried out for negative statements. The 41-item version was developed to evaluate the psychometric properties of the study, which was included in the second phase of the study.

Phase 2: Psychometric Evaluation (Validity and Reliability)

Face Validity: The face validity was assessed through the qualitative method. To assess the qualitative face validity of the questionnaire, 15 young Iranian men between the ages of 19 to 29 years old were asked to complete the questionnaire and express their viewpoints about the appearance, clarity, and simplicity of the questionnaire.

Content Validity: Two approaches (Quantitative and qualitative) were used to assess the content validity. In the quantitative phase, two indicators of content validity assessment were measured which were the content validity ratio (CVR) and the content validity index (CVI).

First, to assess the content validity by using the CVR, a panel of experts including 15 researchers assessed the content validity of the questionnaire. The experts specialized in health education and health promotion (Five experts), psychiatry (Two experts), nutrition

(Three experts), physical activity (Two experts), and nursing (Three experts).

The necessity of the items was evaluated according to a three-point scale: not necessary, useful but not necessary, and necessary. After the evaluation by the experts, the CVR was calculated for each item. According to Lawsche, items with CVR > 0.49 (Based on the 15 experts' evaluations) were kept and considered to be significant items (26).

The method of Waltz and Bausell was used to assess the content validity via the use of CVI (27). The CVI was based on three criteria: relevancy, simplicity, and clarity. The CVI was calculated and each item of the questionnaire was assessed on a 4-point Likert scale (From 1=irrelevant, not simple and not clear to 4=totally relevant, very simple, and very clear). The items were accepted only if their CVI score was greater than 0.79. The experts evaluated the grammar, the wording, the item allocation, the scaling and any needed modifications, eliminations, or additions to the questionnaire. Every point was reviewed and edited based on the experts' opinions.

To determine the factor structure of the questionnaire, the Exploratory Factor Analysis (EFA), Kaiser-Meyer-Olkin (KMO) sampling adequacy test, Bartlett's sphericity test, and scree plot were implemented by using the principal components analysis and Varimax rotation. KMO (0.91) and Bartlett's test of sphericity (658.4545, $df=528$, $P < 0.001$) showed the data was suitable for performing the EFA (Table1).

Table 1: Adequacy of sampling by KMO and Bartlett's sphericity test of the LHLQ questionnaire

Index	Quantit (N)
KMO	0.91
Bartlett's test	658.4545
df	528
Sig.	(**) 0.001

(**) Significance at the level of 0.01

Confirmatory Factor Analysis: In order to fit the confirmatory factor analysis model of the health literacy questionnaire, the structural equation method (Factor analysis) was used. According to the model of the fit criteria, if the value (c^2/df) is less than 3, the root index of mean squares of RMSEA estimation error is between 0.05 and 0.08, the Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI) is higher than 0.80, and the Normed Fit Index (NFI) is at least 0.90, then the model has a proper fit (28, 29).

Reliability: To achieve internal consistency, Cronbach's alpha coefficients were calculated. Due to the classification, the value of the index between 0.8 and 0.9 is good, 0.8-0.7 is acceptable, and lower than 0.5 is qualified as unacceptable (30).

The test-retest reliability was conducted to assess the stability of the scale by estimating and interpreting the Intra-class Correlation Coefficient (ICC). A total of 20 participants completed the questionnaire twice in 2-week intervals. Then the scores of these 2 stages were compared and according to Rosner, the ICC values of ≥ 0.75 were considered to be satisfactory (31).

Statistical Analysis

The SPSS software (Statistical package for the social sciences, version 16.0, SPSS Inc, Chicago, Illinois, USA) was used for calculating the correlation coefficient and the frequencies of baseline characteristics of the study's participants, explanatory factor analysis, and reliability. The internal consistency and test-retest reliability were performed by Cronbach alpha and ICC. The KMO, Bartlett's test of Sphericity and scree plot were calculated in explanatory factor analysis. Factor analysis was conducted via Principal Component Analysis (PCA) and varimax rotation. Analysis of Moment Structures (AMOS) program ver.24 was used for confirmatory factor analysis of the questionnaire.

Results

Face Validity

In this section, none of the items were removed and 9 questions were modified based on qualitative face validity,

Content Validity

According to qualitative content validity based on the experts' opinions, the dimensions of the LHLQ were changed as follows:

In health responsibility, three questions were revised and one question was added. In the dimension of nutrition, two questions were removed, five questions were revised, and two questions were merged. In physical activity dimension, three questions were revised, in stress management dimension, two questions were revised and one question was added, in spiritual growth dimension, three questions were revised and two questions were added and in interpersonal relations dimension, the last two questions were corrected and two questions were added. Consequently, the total number of questions transformed to 44 questions.

In quantitative validity a total of 11 questions with CVR <0.49 were omitted (three nutrition questions, two physical activity questions, one stress question, four spirituality questions, and one interpersonal relationship question), so the number of items decreased from 44 to 33 items.

At first, the total CVI of the questionnaire was 0.84. The CVIs obtained for all dimensions of the questionnaire were as follows: health responsibility =0.78, nutrition=0.74, physical activity=0.77, stress control=0.81, spiritual growth=0.7, and interpersonal relationships=0.82. After being omitted and revised, the total CVR and CVI of the remaining items were 0.71 and 0.92, respectively.

Factor Analysis

In this stage, 300 subjects were examined separately from the previous stages. Their mean

age was 24.86 ± 3.58 . In terms of education, 33%, 44.3%, 19.3%, and 3.3% had a diploma, a bachelor's degree, master's degree, and doctorate, respectively. Other demographic profiles are stated in Table 2.

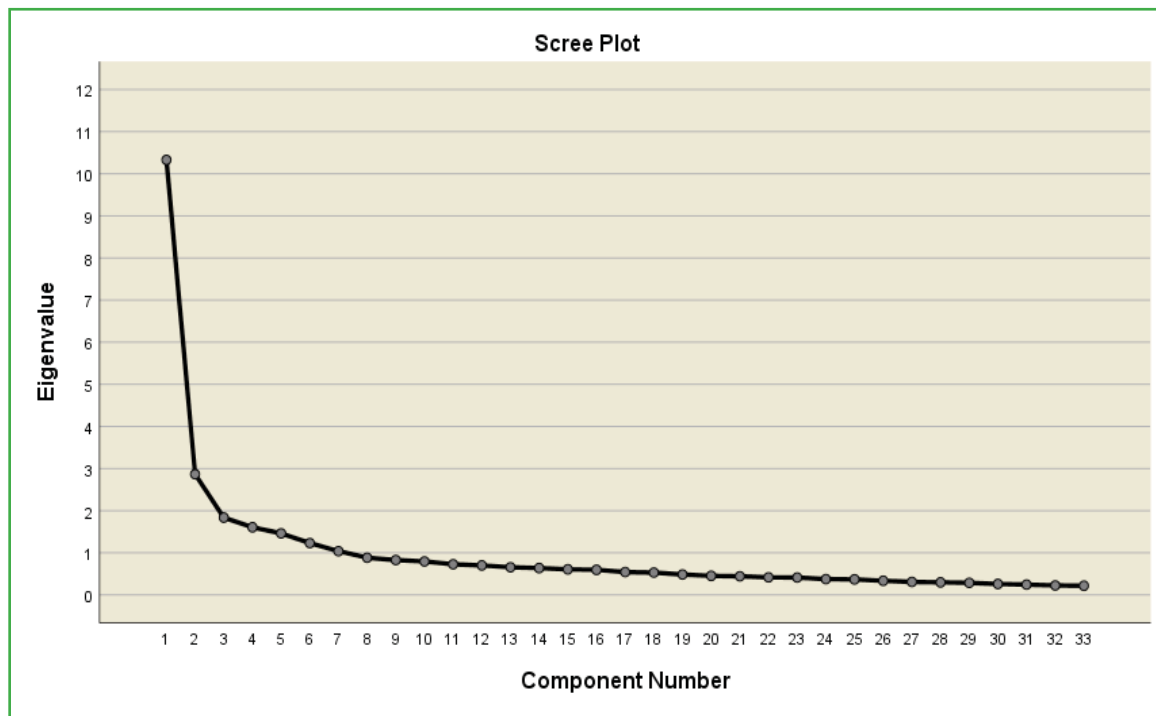
Table 2: Demographic profile of samples (N=300)

Variables		N	%
Physical activity	yes	137	45.7
	no	163	54.3
Smoking	yes	86	28.4
	no	214	71.3
Disease history	yes	47	15.7
	no	253	84.3
Annual Check up	yes	114	38
	no	186	62
Age (years)	mean (SD)	24.86 (± 3.58)	
Education level	Diploma	99	33
	Bachelor's degree	133	44.3
	Master's degree	58	19.3
	Doctorate	10	3.3

The results showed that the LHLQ consists of six factors with a factor load of more than 0.40 and an eigenvalue of higher than one, which explains 58.58% of the total variance. The first factor is responsibility, the second factor is nutrition, the third factor is physical activity, the fourth factor is stress control, the fifth factor is spiritual growth and the sixth factor is interpersonal relationships (Figure 1 and Table 3).

Table 3: Factors and factor loadings of the LHLQ (N=300)

question	Health responsibility	question	Nutrition	question	Physical activity	question	Stress management	question	Spiritual growth	question	Interpersonal relations
	factor loading		factor loading		factor loading		factor loadings		factor loading		factor loading
Q1	0.71	Q8	0.73	Q13	0.65	Q19	0.60	Q25	0.58	Q29	0.49
Q2	0.68	Q9	0.55	Q14	0.63	Q20	0.55	Q26	0.81	Q30	0.60
Q3	0.75	Q10	0.53	Q15	0.62	Q21	0.73	Q27	0.70	Q31	0.66
Q4	0.73	Q11	0.55	Q16	0.72	Q22	0.69	Q28	0.67	Q32	0.80
Q5	0.61	Q12	0.51	Q17	0.80	Q23	0.69			Q33	0.70
Q6	0.71			Q18	0.54	Q24	0.53				
Q7	0.52										
Eigevalue	10.33	Eigevalue	2.87	Eigevalue	1.84	Eigevalue	1.61	Eigevalue	1.46	Eigevalue	1.23
Explained variance	16.47	Explained variance	9.21	Explained variance	9.01	Explained variance	8.39	Explained variance	8.01	Explained variance	7.41

**Figure 1. Scree Plot of LHLQ (n=300)**

Furthermore, according to Table 4, all factors have a significant correlation with each other, but the highest inter-factor correlation was between the subscales of spiritual growth, interpersonal relationships ($r=0.67$), and nutrition and physical

activity ($r=0.7$). All factors were correlated with lifestyle health literacy tools and ranged from $r=0.69$ to $r=0.82$.

Table 4: Interdimensional correlation for the LHLQ

Variables	Health responsibility	Nutrition	Physical activity	Stress management	Spiritual growth	Interpersonal relationships	Total score
1. Health responsibility	1						
2. Nutrition	0.55**	1					
3. Physical activity	0.53**	0.70**	1				
4. Stress management	0.54**	0.57**	0.58**	1			
5. Spiritual growth	0.42**	0.40**	0.46**	0.46**	1		
6. Interpersonal relations	0.41**	0.47**	0.46**	0.47**	0.67**	1	
7. Total score of LHLQ	0.77**	0.80**	0.82**	0.80**	0.69**	0.73**	1

Confirmatory Factor Analysis

The results showed that the confirmatory factor analysis of the health literacy questionnaire has a proper fit (Figure 2 and Table 5). In addition,

according to figure 2, the nutrition and physical activity subscales had the highest relevance of 0.87.

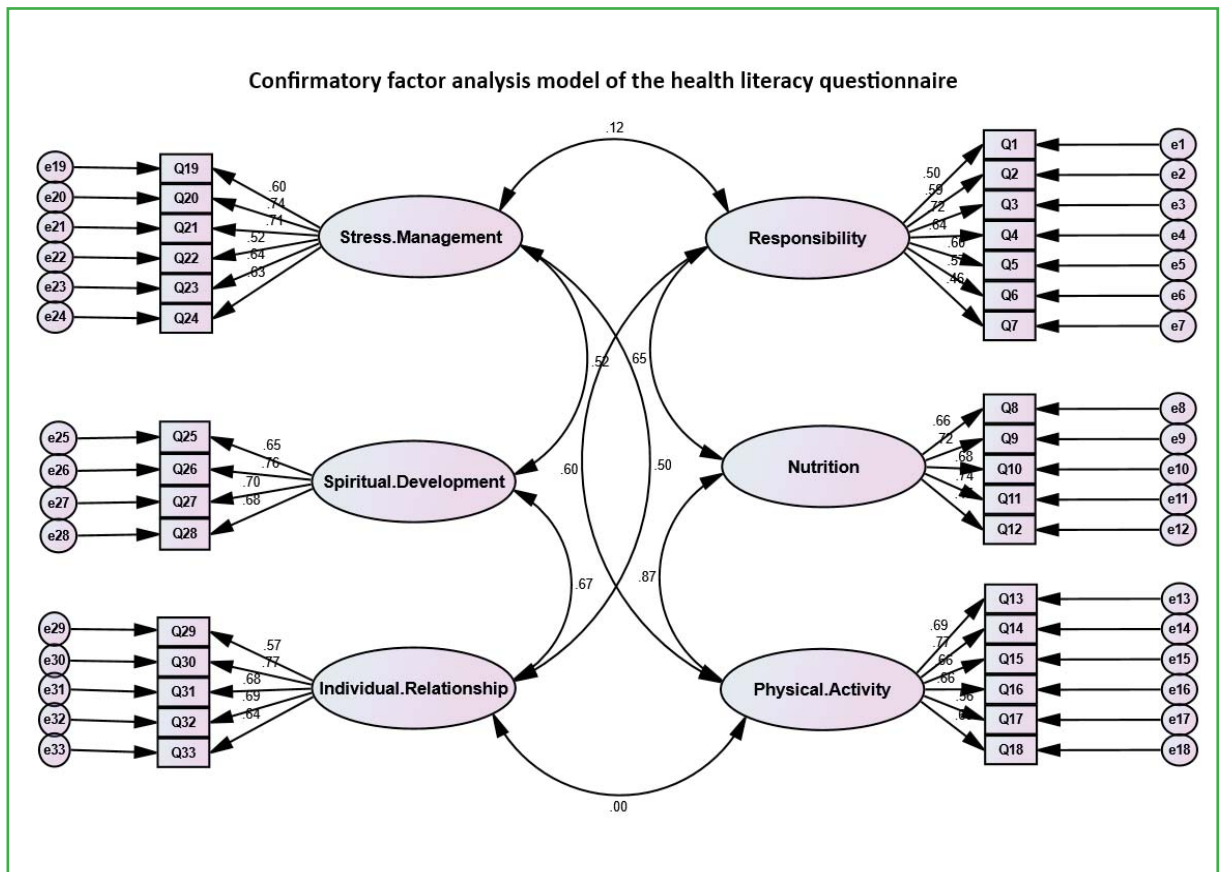


Figure 2. Confirmatory factor analysis and goodness of fit parameters of LHLQ

Table 5: Results of fitness indicators of confirmatory factor analysis model of the LHLQ

it indices	Fit index type	Acceptable Criterion	Obtained value
X2/df	Affordable indicators	Less than 3	2.974
RMSEA	Affordable indicators	Less than 0.08	0.077
GFI	Absolute indicators	Higher than 0.8	0.870
AGFI	Absolute indicators	Higher than 0.8	0.810
NFI	Comparative indicators	Higher than 0.9	0.902

χ^2 Chi-square value, df Degree of Freedom, p p-value (Chi-square), RMSEA Root Mean Squared Error Approximation, GFI Goodness of Fit Index, AGFI Adjusted Goodness of Fit Index, NFI Normed Fit Index.

Reliability

A total of 20 men between the ages of 19 to 29 years old participated in the test–retest phase. The mean age of the participants was 28.19 (SD=2.41), and 81% of them were single and 71.4 % had an MSc degree. The total internal

consistency was evaluated using the Cronbach's alpha coefficient, which was 0.93. The Cronbach's alpha values obtained for all subscales ranged from 0.78 to 0.82 (Table 6).

Table 6: Mean and standard deviation and consistency of the LHLQ and subscales (N=300)

Dimensions	Mean	SD	N of items	Cronbach α
Health responsibility	25.87	5.10	7	0.78
Nutritional	17.78	3.93	5	0.79
Physical activity	21.35	4.78	6	0.82
Stress management	21.30	4.72	6	0.81
Spiritual growth	14.87	3.35	4	0.78
Interpersonal relations	22.29	4.65	5	0.80
Total score	119.65	19.92	33	0.93

Table 7 show that the ICCs for all domains separately as well as for the whole questionnaire. The overall ICC was 0.85. All domains of the developed questionnaire showed satisfactory

reliability (ICC > 0.70). Also, the significance of the correlation coefficient of the LHLQ's subscales in the pre-test along with the post-test at the level of $P < 0.01$ indicates the reliability of proper retesting.

Table 7: Pearson correlation coefficients and ICC of post-test with the pre-test of the LHLQ subscales (N=20)

LHLQ dimensions	Mean of pre-test	Mean of post-test	Correlation coefficients	ICC
Health responsibility	14.52	14.78	0.61**	0.78
Nutrition	11.13	10.96	0.52*	0.80
Physical activity	14.30	14.09	0.50*	0.80
Stress management	13.13	12.13	0.57**	0.89
Spiritual growth	7.87	7.70	0.51*	0.87
Interpersonal relations	11.39	12.74	0.68**	0.78
Total score of the questionnaire	70.52	70.22	0.64**	0.85

(**) Significance at the level of 0.01 and (*) significance at the level of 0.05

ICC > 0.7 considered acceptable ICC intra-class correlation coefficient

Discussion

This study was done with the intention of designing and evaluating the validity and reliability of the LHLQ. The CVI (0.92) and the CVR (0.71) values showed a suitable validity for developed health tool in terms of being connected to the issue of healthy literacy in lifestyle and the usefulness of the above instrument in terms of the necessity of the questions. Regarding the healthy lifestyle tools, in the elderly, the CVI index of the questions (with 20 experts) were 0.76 and it was less than this questionnaire (32). Although in the sexual health literacy questionnaire of Iranian adults (with 10 specialists), the CVI and CVR were 0.84 and 0.81, respectively, in which the CVI index was lower than the present questionnaire (33).

According to the participants, in the face validity study 9 items obtained an index below 1.5 which have been revised. In regard to the reliability of the above instrument, the internal stability test was done with Cronbach's alpha index of each structure, and the score above was 0.78 that shows the usability of the instrument and the appropriateness of the structures' questions. This number indicates the stability of about 78% of the instrument's questions' score. The overall index of Cronbach's alpha was also 0.93, which shows the excellent condition of the whole instrument. Also regarding the present instrument, physical activity, stress management, and interpersonal relationship had the highest Cronbach's alpha score which was 0.82, 0.81, and 0.80, respectively. Cronbach's alpha for other constructs such as nutrition, responsibility, and spiritual growth were 0.79, 0.78 and 0.78, respectively.

Similar to this finding, the composite reliability index in the 44 items health literacy tool with 9 subscales on the French population was reported to be above 0.8 except for one scale (34).

In this regard, the Turkish version of the

European health literacy survey questionnaire (HLS-EU-Q47) with 12 subscales (Turkish version of the European health literacy survey) and its Cronbach's alpha (From 0.86 to 0.91) was close to the present study and the overall coherence of the instrument was 0.95 which is more than our study (35). In the Sinhala HPLP-II version, the total Cronbach's alpha of the subscales was above 0.88 and it was above the current instrument. The overall Cronbach's alpha of the instrument was 0.98 which reported the highest internal consistency of the available versions of the studies(36). Despite the higher sample size in 44 items (ALP-R2 scale among late adolescents), all subscales except for physical activity (Which was 0.85) had a lower score than the present instrument, and the total Cronbach's alpha of the questions was lower than our instrument (0.87). Also in ALP-R2, there is a positive life perspective subscale, and the spiritual growth index is named "Spiritual Health"(37). In the Chinese version studied on Taiwanese women, all subscales except nutrition (0.73) and stress (0.81) were greater than our instrument and the total Cronbach's alpha of the questions was 0.95 (38). The Portuguese version (European version) had a total Cronbach's alpha of 0.92, nutrition of 0.72 and stress management of 0.69 and had a lower Cronbach's alpha score than the other indicators(39).

The Cronbach's alpha of the adolescent health literacy tool in Tehran, was calculated between 0.61 and 0.89 and the total Cronbach's alpha of the instrument was 0.93(40). Regarding the sexual health literacy of Iranian adults, Cronbach's alpha was between 0.84 and 0.94 and the total Cronbach's alpha of the instrument was 0.95(33). In the case HPLP II instrument in an Iranian study on people above the age of 15, the overall Cronbach's alpha of the questionnaire was 0.92

and its range for domains was calculated which was 0.71 to 0.86. (Aghamalaee, Ghanbarnejad et al.) In the same questionnaire in Qazvin, the sub-categories were also 64 to 0.91 and the total Cronbach's alpha of the questions was 0.82, except for the spiritual growth (0.64) which had a bigger difference compared to the results of the present study in which this subscale obtained a higher alpha. The rest of the items had a closer Cronbach's alpha range, which is probably due to the differences in the study population (Isa, Amir et al.). The Cronbach's alpha of the previous instrument in Chinese elderly was 0.96 (41).

In regard to the reliability of the open-test, the ICC index above 0.78 shows the desired stability and in the case of the present instrument, the total scales were calculated to be 0.85, which indicates the desired stability and the time based stability of the instrument. The health literacy scale of stress management had the highest ICC (0.89), which shows its high temporal stability. The interpersonal relationships scale and the responsibility to health scale had the lowest ICC (0.78). Generally, ICC scales ranged from 0.78 to 0.89 that showed excellent reliability.

The test-retest reliability of the Spanish version of HPLP was nearly similar to our instrument (0.86) (42). The Sinhala version of HPLP-II had an ICC of 0.98, which showcases higher time stability than the current instrument. In addition, our instrument examined the health literacy index of lifestyle components and did not directly measure the components of a healthy lifestyle. It should be noted that the present questionnaire is structurally close to HPLP II.

The results of factor analysis indices also showed that all six factors were added in the final factor analysis and that the LHLQ consists of six factors and 33 items that explain 58.58% of the total variance. This rate was 45.9% in the Spanish version of the instrument, which

is lower than our instrument (Walker, Kerr et al. 1990). Although, the instrument's Iranian version of HPLP II with six factors had the same rate and was 58%(25). The Sinhala version with seven factors illustrates 80.65% of cumulative variance, which is more than our study. Due to the novelty of the instrument and the survey of its validity and reliability, for the first time, it is apparent that there are more items in that area that were not examined in the present study and are considered part of the variance. All questions had a factor load larger than 0.30 and their eigenvalues were higher than one, so all items were retained in the final factor analysis. The scale of responsibility with 16.47% was the highest of the total variance and the factor related to interpersonal relationships with 7.41% was the lowest. Similar results of this sequence were observed in the Sinhala version of HPLP II.

Also, the highest correlation coefficient is between the nutrition subscale and the physical activity subscale ($r=0.7$). These two lifestyle components have a close connection between them. In addition, the strong connection between the spiritual health literacy and interpersonal relationships had similar outcomes in other studies as well (25).

Among the strong points of this study, one of them is developing a new instrument in order to evaluate LHL in soldiers. Also, the use of a low sample size, the lack of a separate sample allocation for a confirmatory factor analysis and the inability to study the concurrent validity are among the limitations of the current study. Another limitation of this study is that the samples consist of soldiers from one military organization and have not been tested in the general population. The questions of LHLQ can be used in every health literacy lifestyle for the purpose of preventing any diseases including

covid -19, although in the future studies, it can be specialized for covid-19.

Conclusion

This study shows that the self-designed LHLQ has proper validity, reliability and factor analysis indicators. Even so, in terms of psychometrics and the expansion of the above items further study is recommended. It is important to note that, there is no health education for soldiers as a part of their military training so this tool can be used for health literacy, lifestyle need assessment and educational intervention. Finally, this questionnaire was confirmed by 33 questions and 6 sub-scales.

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Ethics Approval: This article is part of an approved research plan. The ethics committee of the Baqiyatallah medical science university, Tehran, Iran approved the study (The approval letter was issued under the IR.BMSU.REC.1398.242). The participants were informed that participation was voluntary, and an anonymous and informative written consent consisting of the general conditions of the study and its applications was obtained from all participants, they were all assured about the protection of the privacy

and confidentiality of their information and comments.

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