Original Article

Attitude Scale for Regular Medication Use of Individuals with Chronic Diseases

Sevda Uzun, PhD
Department of Nursing, Gumushane University Faculty of Health Sciences, Gumushane, Turkey

Nurşen Kulakac, PhD
Department of Nursing, Gumushane University Faculty of Health Sciences, Gumushane, Turkey

Eda Kes, MSc
Lecturer, Department of Nursing, Bartin University Faculty of Health Sciences, Bartın, Turkey

Elif Altun
Research Assistant, Department of Nursing, Akdagmadeni School of Health, Yozgat Bozok University, Yozgat, Turkiye

Nermin Gurhan, PhD
Professor, Tokat Gaziosmanpasa University, Faculty of Health Sciences, Nursing, Department, Tokat, Turkey

Correspondence: Sevda Uzun, PhD, Department of Nursing, Gumushane University Faculty of Health Sciences, Gumushane, Turkey. E-mail: sevdauzun50@gmail.com

Abstract
Objective: This study was conducted to develop an attitude scale towards regular medication use of individuals with chronic diseases.
Method: A draft scale consisting of 22 items and two sub-dimensions (awareness and acceptance) prepared by the researchers in the form of 5-point Likert in line with the literature was used as a data collection tool. The draft scale was submitted to the evaluation of expert opinions and as a result of the evaluation, the 10-item draft scale was used as a data collection tool. The draft scale was applied to 151 patients with chronic diseases living in Turkey via Google Form. The data were analysed using SPSS 23 and AMOS 22 package programs.
Findings: In line with the validity and reliability studies, confirmatory factor analysis was performed and the two-factor scale structure was confirmed. According to the results of the analysis, the 'Attitude Scale for Regular Medication Use of Individuals with Chronic Diseases' consisted of two sub-dimensions and 10 items. The factor loads of the scale items were found to be between 0.573-0.863 and the item total score correlations were found to be between 0.415-0.777. Cronbach's alpha reliability coefficient of the scale was found to be 0.866 and the content validity index of the items was found to be 0.831.
Conclusion: As a result of the validity and reliability analyses of the Attitudes Towards Regular Medication Use of Individuals with Chronic Diseases Scale, it was determined that it can be used as a valid and reliable scale in individuals with chronic diseases.

Keywords: Chronic diseases, scale development, regular drug use

Introduction

Chronic diseases are defined as conditions that progress slowly, can last from three months to a lifetime, require continuous medical intervention, limit activities of daily living or both, or are caused by more than one risk factor (WHO, 2010).

According to the Centre for Disease Control and Prevention (2014), chronic diseases (such as cancer, depression, stroke, hypertension, diabetes, asthma, heart disease, lung disease and Alzheimer's disease) are the cause of seven out of ten deaths each year and the treatment of people with chronic diseases accounts for 86% of health care costs.

Many studies have been conducted to learn both the medication use status of individuals in chronic diseases and medical costs.

According to a study conducted by the Association for the Promotion of Drug Awareness and Rational Medication (2017), nearly 30% of patients forget to take their medication. 5% of individuals state that they do not consciously take their medication when they feel better. It shows that 15% of individuals face worse clinical outcomes because they do not comply with the treatment. While 1 out of every 5 individuals with chronic diseases re-admitted to hospital due to non-compliance with treatment, the average length of hospital stay is 6 days. In addition, 83 per cent of doctors state that adherence to treatment is also effective in reducing medical costs. One of the most important reasons for not taking medication as prescribed is forgetfulness with a rate of 60% (Gadkari & McHorney, 2012).

According to the study on non-adherence to treatment conducted by the Canadian Health Quality Council, it was concluded that only 29% of patients were prescribed statin drugs within 90 days of being hospitalised for a heart attack. Non-adherence to treatment also affects medical costs (Chisholm-Burns and Spivey, 2012).

In cases where non-compliance with treatment is so important, the way in which it is done is also of great importance. The ways in which non-compliance with treatment can be realised; the individual may take the wrong dose of medication, not fully understand the treatment or refuse to use medication voluntarily (Bogan & Korkmaz, 2020). In the process of chronic disease, the person's experiences, attitudes and acceptances about health can also cause treatment non-compliance (Toh et al., 2010).

There are many studies investigating why individuals choose non-adherence to treatment. Most studies indicate that individuals consciously do not take medications due to the side effects of medications and this is a strong reason for medication non-adherence (Laba et al., 2015; Ozdemir et al., 2016). Many studies emphasise that individuals' beliefs about the necessity of treatment and the benefits of treatment play an important role in their decisions not to take medication as prescribed (Kasar & KizilciI, 2017).

In this context, although many studies have been conducted in our country and in the world literature on drug use, no scale study evaluating the attitudes of individuals with chronic diseases towards regular drug use has been found. This scale, which is important in terms of eliminating this deficiency, may be important in terms of determining which factors affect the attitudes of individuals with chronic diseases towards regular drug use. Because it is known that positive or negative attitudes towards regular drug use of individuals with chronic diseases affect the quality of life of individuals and have costs for the individual and the country's economy. This study was carried out because there is no national and internationally developed scale that evaluates the attitude towards regular drug use in individuals with chronic diseases and the attitude issue is of great importance for individuals with chronic diseases.

Method

Purpose and design of the study: This study was conducted in a methodological design to develop an attitude scale towards regular medication use of individuals with chronic diseases.

Population and sample of the research: The data of the study were collected from patients with chronic diseases living in Turkey between 01.08.2021-01.02.2022. In sample selection, snowball sampling method was used from the purposive method. Although there are different opinions about the targeted sample size for factor analyses of scale development studies, it is generally stated that 5-10 times the number of items in the scale is sufficient for the sample size (Aksu et al., 2017, De Vellis, 2017). Considering this criterion in the study, it was predicted that the sample size was at least 50 or 100 in the validity and reliability study of the Attitude Scale towards Regular Drug Use of Individuals with Chronic Diseases, which consists of 10 items. Due to the COVID-19 outbreak, the form created electronically through Google Form was delivered to the participants via Whatsapp messaging. 151 individuals with chronic diseases voluntarily agreed to participate in the study.

Data collection tools: The data of the study were collected using the Introductory Information Form and the Attitudes Towards

Regular Medication Use of Individuals with Chronic Diseases Scale.

Introductory Information Form: The form prepared by the researchers consisted of 5 questions about the age, gender, educational status, economic status and chronic diseases of the participants.

Development of Attitude Scale for Regular Medication Use of Individuals with Chronic Diseases: In the first stage of the development of the scale, a pool of 22 items was created to measure the regular medication use of individuals with chronic diseases by reviewing the literature by the researchers in order to determine the items (Lemayet, al., 2018;Uneo et al., 2018;Alhalaiqa et al., 2015; Tommelein et al., 2014) The pool included 18 items in the awareness sub-dimension and 4 items in the acceptance sub-dimension. Rather than whether the items were proportionally equal to each other or not, it was tried to take into consideration the characteristics of covering the features that make up the dimension. For this reason, the awareness dimension, which has a wider area in terms of scope, was formed with more items. The 22-item form was submitted to eight academicians with a doctorate degree in the field of nursing who had knowledge in the subject area and were informed about the subject of the study in order to obtain expert opinions. It was also sent to a Turkish language expert for evaluation in terms of grammar and meaning. In line with the opinions given by the experts, Davis technique was used to determine the content validity of the items. In this technique, there are 4 answer options for each item: "not appropriate", "somewhat appropriate: it needs to be adapted", "quite appropriate: appropriate but minor changes may be required" and "very appropriate" (Davis, 2020).The content validity index (CVI) of the obtained data was calculated. The minimum value of the CGI is accepted as 0.80 (Karagoz, 2014). In our study, the items with a CGI below 0.80 were removed and the CGI average of the remaining 10 items in the scale was found to be 0.831. The draft form of the scale created after these studies consists of 10 items and two sub-dimensions, 8 positive and 2 negative (items 5 and 7) attitudes (Table 1). The participants were expected to express their perceptions on a 5-point Likert-type scale ranging from "Strongly agree-5", "Agree-4", "Undecided-3", "Disagree-2" and "Strongly disagree-1". A minimum score of 10 and a maximum score of 50 is obtained from the scale. As the score increases, it is thought that the attitudes of individuals with chronic diseases towards regular medication use are positive.

Pre-application: A pilot study was conducted with 10 individuals with chronic diseases to determine the comprehensibility of the draft form of the scale and the estimated completion time. The individuals who participated in the pilot study were not included in the study population.

Ethical dimension of the research: Ethics committee permission to conduct the research was obtained from Gumuşhane University Scientific Research and Publication Ethics Committee (2019/5). Electronic informed consent was obtained from each participant before starting the study. The Declaration of Helsinki was adhered to in the research.

Statistical Analysis: The data were analysed with SPSS 23 and AMOS 22 package programs. In the study, Davis Technique was used for content and content validity, Kaiser Meyer Olkin and Bartlett sphericity tests were used for item analysis, and exploratory and confirmatory factor analyses were used for construct validity. In reliability analysis, Cronbach's alpha coefficient was used to determine internal consistency.

Exploratory factor analysis (EFA) was performed using principal component analysis with promax rotation to determine the construct validity of the scale. Kaiser-Meyer Olkin (KMO) coefficient and Barlett's Sphericity test were applied to determine the suitability of the data for factor analysis. The KMO value being greater than 0.60 (Pallant, 2001) and approaching 1 indicates that the data are suitable for factor analysis, and the Barlett's Sphericity Test being significant ($p<0.05$) shows that the relationships between the items are significant. In factor analysis, it is stated that the factor load should be at least .40 for an item to be shown in a factor (DeVellis, 2003; Field, 2005). Therefore, the factor loadings of all items in our study were above 0.40. Confirmatory factor analysis (CFA) was conducted to evaluate the construct validity of the model that emerged after EFA (Kline, 2005). In this study, $\chi 2/df$

Chi-square/Degree of freedom, Root Mean Square Error of Approximation (RMSEA), Standardised Root Mean Square Residual (SRMR), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Normed Fit Index (NFI) and Comparative Fit Index (CFI) were considered as model fit indices.

Results

A 70.2% of the participants were female and the mean age was 32.70±15.84 (min.18-max.90). It was determined that 32.5% of the individuals with chronic diseases were university graduates, 62.3% had a medium income level and 39.7% had a chronic disease of the cardiovascular system.

Construct Validity: Kaiser-Meyer-Olkin (KMO) test was applied to determine the suitability of the sample size in the exploratory factor analysis and the KMO value was found to be 0.863. According to Bartlett's test results, it was found that the chi-square value was at an acceptable level and the data were suitable for factor analysis ($\chi2$=717.144; df: 45; p<0.001). As a result of the principal components factor analysis, it was seen that the two factor loadings of the scale were between 0.573-0.821. The obtained two factors explained 59.72% of the total variance (Table 2).

According to the results of confirmatory factor analysis, the structural equation model of the scale was found to be significant and the data were found to be related and verifiable with the 10-item scale structure. By improving the model, the items that reduced the fit were identified and new covariances were made to those with high covariance among the residual values (e6-e7; e7-e8). According to the results of the first level factor analysis of the revised fit index, the goodness of fit indices of the scale showed that it was at good fit level with RMSEA 0.088 acceptable, CFI 0.946, NFI 0.906, IFI 0.943, GFI 0.923, AGFI 0.868, and CMIN/df ($\chi2$/sd) 2.160 (p<0.001) values (Figure 1) (Table 3).

Reliability Analyses: Internal consistency and item total score correlation coefficients were used to determine the reliability of the study.

Internal Consistency Analyses: Table 4 shows the independent group t-test results and item-total score correlation coefficients indicating the discrimination power of the items. It is stated that the minimum value for the adequacy of item-total test correlation is 0.30 (Kline, 2000). In our study, it was determined that there were no items below 0.30. The item-total test correlation values of the items in the scale vary between 0.415-0.777. In order to determine the discrimination of the items in the scale, the raw scores obtained from the scale were sorted from largest to smallest, and independent group t-test was applied to analyse the mean scores of the groups in the lower 27% and upper 27%. It can be stated that the scale is distinctive in terms of measuring the desired situation.

Cronbach Alpha Reliability Coefficient: The internal consistency of the scale was determined by Cronbach's alpha coefficient. Cronbach's alpha coefficient was found to be 0.866 and it was determined that the scale had a high degree of reliability. Cronbach's alpha coefficient for the acceptance sub-dimension of the scale (8th and 10th items) was 0.690, and Cronbach's alpha coefficient for the awareness sub-dimension (1st, 2nd, 3rd, 4th, 4th, 5th, 5th, 6th, 7th, 9th and 10th items) was 0.868.When the item descriptive statistics of the scale were analysed, it was found that the lowest mean was item 5 (3.56±1.38) and the highest mean was item 9 (4.25± 1.10) (Table 5).

Attitude Scale for Regular Medication Use of Individuals with Chronic Diseases					
	Completely disagree	Disagree	Undecided	I agree	Totally agree
1. I think that regular use of medication is beneficial.	1	2	3	4	5
2. I believe that regular medication is necessary in my life.					
3. I think it is safe to take medication regularly.					
4. I think that regular use of my medication reduces my complaints.					
5. Regular medication makes me nervous.					
6. Regular medication makes me feel safe.					
7. Regular medication makes me unhappy.					
8. When I forget to take medication, I think that my treatment is interrupted and I blame myself.					
9. I take my medication regularly.					
10. I worry that I will forget to take my regular medication.					

Table 1. Attitude Scale for Regular Medication Use of Individuals with Chronic Diseases

Table 2. Exploratory factor analysis for the Scale of Attitudes towards Regular Medication Use of Individuals with Chronic Diseases

	Factor Loadings	**Total explained variance**
Article 1	0.814	59.72
Article 2	0.771	
Article 3	0.670	
Article 4	0.701	
Article 5	0.628	
Article 6	0.710	
Article 7	0.581	
Article 8	0.814	
Article 9	0.573	
Article 10	0.821	
Kaiser-Meyer-Olkin test	0.863	
Bartlett Sphericity test	<0.001	
$\chi 2$=717.144, df:45		

Figure 1. Multifactor confirmatory factor analysis model of the Attitudes towards Regular Medication Use of Individuals with Chronic Diseases Scale

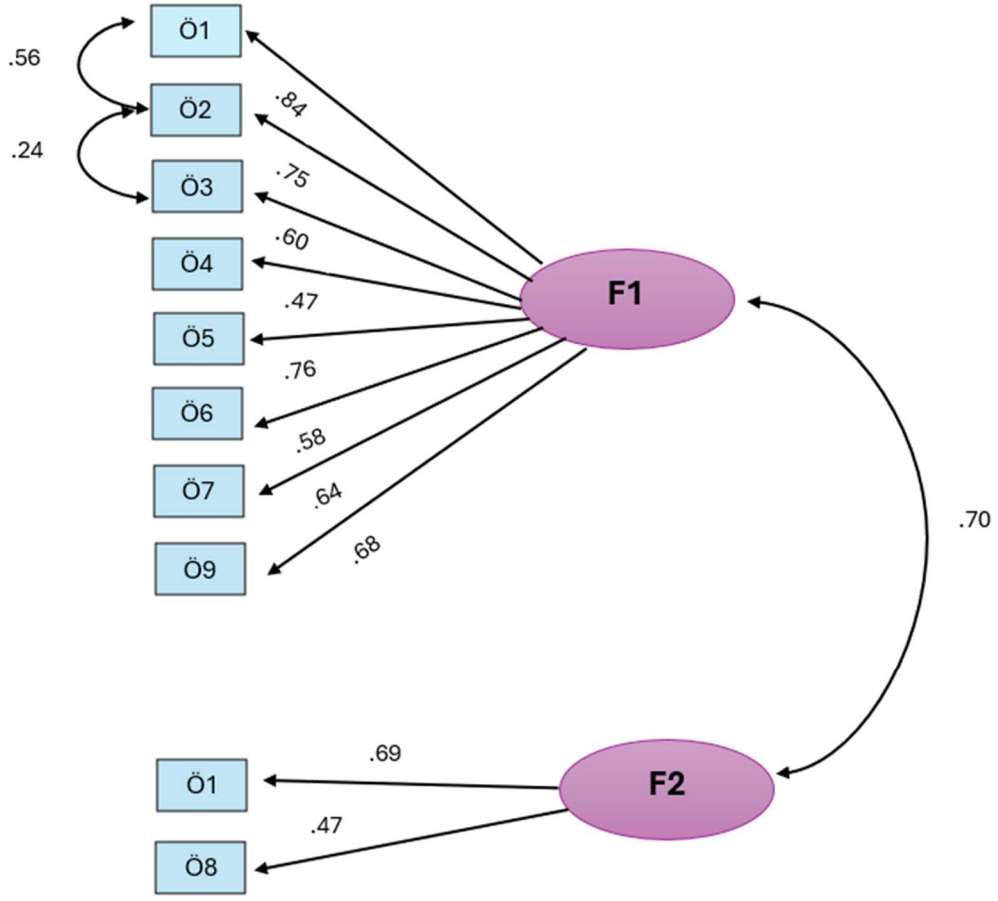

Table 3. One-factor model confirmatory factor analysis fit indices of Attitude Towards E-Learning Scale

RMSEA	CFI	NFI	IFI	GFI	AGFI	CMIN	CMIN/df
0.088	0.946	0.906	0.943	0.923	0.868	69.124	2.160

RMSEA: Root mean square root of approximate errors; NFI: Normed fit index; CFI: Comparative fit index; IFI: Incremental fit index; GFI: Goodness of fit index; TLI: Turkerlewindex; AGFI: Adjusted goodness of fit index; CMIN: Chi-squared.

Table 4. Item analysis results based on item-total correlation

Scale items	Item Total Score Correlation	t (Lower 27%**-Upper 27%**)	p value (Lower 27%**-Upper 27%**)
Article 1	0.777	-8.782	<0.001
Article 2	0.700	-7.719	<0.001
Article 3	0.770	-10.507	<0.001
Article 4	0.506	-4.985	<0.001
Article 5	0.415	-4.735	<0.001
Article 6	0.719	-7.603	<0.001
Article 7	0.509	-8.119	<0.001
Article 8	0.454	-8.276	<0.001
Article 9	0.626	-8.763	<0.001
Article 10	0.466	-9.190	

Table 5. Distribution of scale descriptive statistics values

Articles	Average value	SS	Median value	Lowest value	Highest value
Article 1	4.15	1.06	4.00	1	5
Article 2	4.06	1.08	4.00	1	5
Article 3	3.98	1.20	4.00	1	5
Article 4	4.02	1.12	4.00	1	5
Article 5	3.56	1.38	4.00	1	5
Article 6	3.97	1.14	4.00	1	5
Article 7	3.71	1.43	4.00	1	5
Article 8	3.42	1.25	4.00	1	5
Article 9	4.25	1.10	4.00	1	5
Article 10	3.62	1.37	4.00	1	5

SD: Standard deviation

Discussion

In this study, which aimed to develop an attitude scale towards regular medication use of individuals with chronic diseases, the 22-item scale trial form was applied to 151 individuals over the age of 18. As a result of

KMO, it was found that the scale consisted of 10 items, two factors and two components, and these components explained 59.72% of the total variance. Naqvi et al., (2018) and Nielsen et al., (2012) obtained a three-factor structure in their study in chronic patients (Naqvi et al., 2018; Nielsen et al., 2012).

It is important to evaluate item discrimination power index and difficulty index to determine the effectiveness of test items in evaluating knowledge. The difficulty index of the items of the KHSBTO scale was found to be 0.83 and the item discrimination power index was found to be 0.27. Items with an item discrimination power index of less than 20 are considered weak. The higher the item discrimination power index, the better the item is; because high values indicate that the item discriminates in favour of the higher group who should answer more items correctly (McCowan & McCowan, 1999). It was determined that the discrimination index of the items of the KHSBTO scale was at appropriate levels.

In addition, similar to our study, in the study conducted by Gokdogan and Kes (2017) in individuals with chronic disease, it was found that the two-factor structure met 59.36% of the total variance (Gokdogan & Kes, 2017).

In another study conducted in chronic patients, a two-factor structure was obtained. In this study, instead of "yes" and "no", people were allowed to answer the questions as "strongly disagree", "partially agree", "mostly agree", "completely agree". In this way, it was aimed for the respondents to express themselves fully. In this study, it was observed that the two-factor structure explained 50% of the variance. Items 3 and 6 were not clustered in any factor. However, item 3 (I take my medication voluntarily) was considered to be related to insight and treatment adherence and was kept in the scale as a separate item (Sigrid et al.,, 2013). The findings of our study were found to be consistent with this study.

As a result of the analysis, the fit index was found as $\chi 2/df = 2.16$ ($p<0.001$). A fit index less than 5 indicates a moderate fit, while a fit index less than 3 indicates a perfect fit. Therefore, the value of 2.16 found in the study indicates perfect fit (Grave & Cipher, 2017; Oruc, 2018). In addition, other goodness-of-fit indices of the model [GFI=0.92, RMSEA=0.088, CFI=0.94, AGFI=0.86, NFI=0.90] show that the model proposed for the scale is at an acceptable level. Similar to our study, in the study conducted by Gokdogan and Kes (2017) in individuals with chronic diseases, the fit index of the 7-item scale was found to be $\chi 2$ /df= 2.61 and other fit indices were calculated as RMSEA = 0.11, SRMR = 0.07, CFI = 0.91, AGFI = 0.83, NNFI = 0.86, GFI = 0.92 (Gokdogan & Kes, 2017).

For a reliable scale, the Cronbach's alpha coefficient representing internal consistency should be above 0.70 (Malinowska et al.,, 2015). As a result of the reliability analysis of the final form of the scale developed within the scope of this study, it was determined that Cronbach's alpha coefficient was 0.86. The fact that Cronbach's alpha values did not increase significantly when any of the items in the scale were removed showed that there was good agreement between the scale items. Naqvi, et al., (2018) found that the Cronbach's alpha value of the 11-item scale was 0.84 in their study with chronic patients, which is consistent with our study (Naqvi, et al.,, 2018).Ueno et al., (2018) reported that the Cronbach's alpha value was 0.78 in their 4-factor study with a 12-item five-point Likert-type scale with chronic patients in Japan (Ueno et al.,, 2018).In another study conducted in China in outpatients aged 18 years and older, the Cronbach's alpha value of the test containing 20-item yes-no questions about rational drug knowledge was reported as 0.78 (Bian et al.,, 2015). In a study evaluating rational drug knowledge in newly graduated doctors, Cronbach's alpha value was reported as 0.92 (Chaudhari et al.,, 2017). Acceptable item total correlation value is 0.20 and above (Malinowska et al., 2015); the total correlation values of the items in the study were found to vary between 41-77%. When the results of the study are evaluated, it can be said that the scale developed reflects the attitudes of individuals with chronic diseases

towards regular medication use in a reliable and valid way.

Conclusion: The HRQOL scale was designed as a simple and rapid measurement tool that can be applied in the general population. The scale is the first scale to be used in Turkey to assess the attitudes of individuals with chronic diseases towards regular medication use, and it has been validated and reliable. The reliability of the scale needs to be tested in special groups; the scale needs further research and development.

References

Aksu G, Eser MT, Guzeller CO. (2017). Exploratory and confirmatory factor analysis and structural Anı publishing.

Bardhan, I., Chen, H., & Karahanna, E. (2020). Connecting systems, data, and people: A multidisciplinaryresearchroadmapforchronicdiseaseasemanagement. *MIS Quarterly*, *44*(1), 185-200.

Bian C, Xu S, Wang H, Li N, Wu J, Zhao Y et al., (2015). A study on theapplication of theinformation-motivation-behavioralskills (IMB) model on rationaldrugusebehavioramongsecond-levelhospitaloutpatients in Anhui, China. PlosOne;10:e0135782.

Bogan, F.,& Korkmaz, M. (2020). Does Drug Compliance in the Patient Group with Chronic Heart Failure Affect Quality of Life?. *Suleyman Demirel University Journal of Health Sciences*, *11*(2), 191-198.

CDC. (2014). "National DiabetesStatistics Report," Centers for Disease Control and Prevention (available at http://www.cdc.gov/diabetes/pdfs/data/2014-report-estimates-of-diabetesand-itsburden-in-the-united-states.pdf).

Chaudhari V L, Mali S N, Dawari A, Nishandar T B. (2017). Awareness about rationaluse of medicines among fresh bachelor of medicine and bachelor of surgery graduates. Journal of Education and Health Promotion. 6:94.

Chisholm-Burns M, Spivey C. (2012). The "cost" of medicationnonadherence: consequences we cannot afford to accept. J Am Pharm Assoc. 52(6):823-826.

Cokluk O, Sekercioglu G. and Buyukozturk S. (2012). Multivariate Statistics for Social Sciences: SPSS and Lisrel Applications, Pegem Akademi Publishing, Ankara

Davis LL. (1992). "Instrument review: Getting the most from a panel of experts". Applied Nursing Research. 1992;5, 194-197. Economic Forum. From<https://www.weforum.org/agenda/2020/04/coronavirus-education-globalcovid19-onlinedigital-learning> (Retrieved on 12 May 2020).

DeVellis, R. (2003). Scale development: theory and applications (2nd ed.). Thousand Oaks, CA: Sage.

Field, A. (2005). Discovering statistics using SPSS (2nd ed.). London: Sage.

Gadkari AS, McHorney CA. (2012). Unintention alnon-adherence to chronic prescription medications: how unintentional is it really? BMC HealthServRes. 12:98.

Gokdogan F, Kes D. (2017). Validity And Reliability Of The Turkish Adherence To Refills And Medications Scale. Int J Nurs Pract;E12566. Https://Doi.Org/10.1111/Ijn.12566.

Grave, S., & Cipher, D. (2017). Statistic For Nursing Research: A Workbook For Evidence-Based Practise (2nd Ed.). St Louis: Elsevier.

Karagoz Y. (2014). SPSS 21.1 Applied Biostatistics. 1st Edition. Ankara: Nobel Academic Publishing Education Consultancy Tic. Ltd. Şti.; 2014.p.50-160.

Kasar, K. S. & KizıilcıI, S. (2017). Oral antidiabetic drug use errors and affecting factors. *Gumuşhane University Journal of Health Sciences*, *6*(3), 128-137.

Kline P. (2000). The Handbook of Psychological Testing. (Second Edition). London: Taylor & Francis Group

Kline, P. (2005). An Essay Guide to Factor Analysis. New York: Routledge.

Laba, T. L., Lehnbom, E., Brien, J. A., & Jan, S. (2015). Understanding if, how andwhynon-adherentdecisionsaremade in an Australiancommunitysample: a key to sustainingmedicationadherence in chronicdisease?. *Research in SocialandAdministrativePharmacy*, *11*(2), 154-162.

Malinowska K S, Kaczmarek U, Zietek M, Malicka B. (2015). Validation of the Polishversion of the oral healthimpactprofile-14. AdvClinExpMed;24:129-137.

McCowan R J, McCowan S C. (1999). Item Analysis forCriterionReferencedTests. Online Submission.

Nielsen RE, Lindstrom E, Nielsen J. Levander S. (2012). DAI-10 is as good as DAI-30 in schizophrenia. EurNeuropsychopharmacol;22:747-750. [CrossRef].

Oruc, E. (2018). Turkish Adaptation of Psychological Capital Scale Short Form: Validity and Reliability Study. *Electronic Turkish Studies*, *13*(14).

Ozdemir, O., Akyuz, A., & Doruk, H. (2016). Compliance of geriatric hypertensive patients with drug therapy. *Bakirkoy Medical Journal*, *12*(4), 195-201.

Rational Medicine Association (2017). Treatment Adherence Study 2017, Physician and Patient Survey Quantitative Research Report. Web Address: https://www.akilciilacdernegi.com/ckfinder/userfiles/files/KronikHastalardatedavi.pdf. 17-20.

Pallant, J. (2001). SPSS survival manual. Maidenhead: Open University Press.

Sigrid S, Karin P, René N, Eva T, Sten L. (2013). A modified Drug Attitude Inventory used in long-termpatients in sheltered housing. EurNeuropsychopharmacol;23:1296–1299.

T.C. Ministry of Development (2018.)Healthy Life and Combating Addiction Working Group Healthy Life Sub-Working Group Report, Ankara 2018.Web Address: https://www.sbb.gov.tr/wpcontent/uploads/2020/04/SaglikliYasam_ve_BagimliliklaMucadeleCalismaGrubuSaglikliYasamAltCalismaGrubuRaporu.pdf. 40.

Toh CT, Jackson B, Gascard DJ, Manning A, Tuck EJ. (2010). Barriers to Medication Adherence in Chronic Heart Failure Patients During Home Visits, Journal of PharmacyPracticeandResearch. 2010; 40:27-30.