The Relationship between Trust in Nurses and Medication Adherence Among Individuals with Chronic Illnesses

Nadiye BARIŞ EREN*

Abstract

Aim: This study aimed to determine the relationship between trust in nurses and medication adherence among individuals with chronic diseases.

Method: This cross-sectional and correlational study was conducted between January and April 2025 with 358 individuals who applied to the internal medicine outpatient clinic of a state hospital. Data were collected using a Personal Information Form, the Trust in Nurses Scale, and the Modified Morisky Medication Adherence Scale. Descriptive statistics, Mann–Whitney U test, Kruskal–Wallis test, and Spearman correlation analysis were used for data analysis.

Results: The mean score of the Trust in Nurses Scale was 27.03±4.29, and the mean score of the Modified Morisky Medication Adherence Scale was 4.46±1.53. Significant differences were observed in trust in nurses according to duration of chronic illness, economic status, access to healthcare, perceived health status, presence of individuals with the same disease in the social environment, and frequency of physician visits ($p<0.05$). Medication adherence differed significantly according to family type, disease-related knowledge, and frequency of physician visits ($p<0.05$). A statistically significant positive correlation was found between trust in nurses and medication adherence ($r=0.216$, $p<0.001$).

Conclusion: The findings of the study demonstrated that there is a positive and significant relationship between trust in nurses and medication adherence among individuals with chronic diseases. Strengthening the trust relationship between nurses and patients may contribute to increased treatment adherence and improved health outcomes.

Keywords: Chronic disease, trust in nurses, medication adherence, nursing care, patient compliance.

Kronik Hastalığı Olan Bireylerde Hemşirelere Duyulan Güven ile İlaç Uyumu Arasındaki İlişki

Öz

Amaç: Bu çalışma, kronik hastalığı olan bireylerde hemşirelere güven ile ilaç uyumu arasındaki ilişkinin belirlenmesi amacıyla yapılmıştır.

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* Asst. Prof., Tarsus University, Faculty of Health Science, Department of Nursing, Mersin, Türkiye.
E-mail: nbariseren@tarsus.edu.tr ORCID https://orcid.org/0000-0002-1935-244X

ETHICAL STATEMENT: Ethical approval for the study was obtained from the Noninvasive Clinical Research Ethics Committee (approval date: 27/11/2024, approval number: 2024/121). In addition, written permission was obtained from the institution where the study was conducted (approval date: 23/01/2025, approval number: 12).

Yöntem: Bu kesitsel ve ilişkisel araştırma, Ocak–Nisan 2025 tarihleri arasında bir devlet hastanesinin dahiliye polikliniğine başvuran 358 bireyin katılımıyla yürütülmüştür. Veriler; Kişisel Bilgi Formu, Hemşirelere Güven Ölçeği ve Modifiye Morisky İlaç Uyum Ölçeği kullanılarak toplanmıştır. Verilerin değerlendirilmesinde tanımlayıcı istatistikler ile birlikte Mann–Whitney U testi, Kruskal–Wallis testi ve Spearman korelasyon analizinden yararlanılmıştır.

Bulgular: Hemşirelere Güven Ölçeği puan ortalaması 27,03±4,29, Modifiye Morisky İlaç Uyum Ölçeği puan ortalaması 4,46±1,53 olarak bulunmuştur. Hemşirelere güvenin; kronik hastalık süresi, ekonomik durum, sağlık hizmetine ulaşım, sağlık algısı, çevrede aynı hastalığa sahip birey varlığı ve doktora gitme sıklığına göre anlamlı farklılık gösterdiği belirlenmiştir ($p<0,05$). İlaç uyumunun ise aile tipi, hastalıkla ilgili bilgi varlığı ve doktora gitme sıklığına göre anlamlı düzeyde farklılık olduğu belirlenmiştir ($p<0,05$). Hemşirelere güven ile ilaç uyumu arasında pozitif yönde ve istatistiksel açıdan anlamlı bir ilişki bulunmuştur ($r=0,216$, $p<0,001$).

Sonuç: Çalışma bulguları, kronik hastalığı olan bireylerde hemşirelere duyulan güven ile ilaç uyumu arasında pozitif yönlü ve anlamlı bir ilişki olduğunu göstermiştir. Hemşire-hasta arasındaki güven ilişkisinin güçlendirilmesi, tedavi uyumunun artırılmasına ve sağlık sonuçlarının iyileştirilmesine katkı sağlayabilir.

Anahtar Sözcükler: Kronik hastalık, hemşireye güven, ilaç uyumu, hemşirelik bakımı, hasta uyumu.

Introduction

Chronic diseases are considered a significant public health problem both worldwide and in Türkiye[1]. With increasing life expectancy, the prevalence of chronic diseases has risen in recent years[2]. These conditions require lifelong treatment and care, and adherence to treatment is a key factor in improving clinical outcomes[3,4].

Non-adherence to treatment is a well-documented problem among individuals with chronic diseases, with reported rates ranging from 22% to 93%[5-8]. Non-adherence leads to poor disease control, increased complications, and higher healthcare costs[3].

Factors affecting treatment adherence include health literacy, medication costs, irregular medication use, concerns about medications, difficulties in accessing healthcare services, inadequate communication between healthcare professionals and patients, and beliefs that physicians prescribe excessive medications[7-10]. In this context, nurses play a critical role in improving treatment adherence by identifying barriers and facilitators and establishing trust-based relationships with patients[11-14].

According to Virginia Henderson's nursing theory, effective care requires a holistic approach addressing individuals' physiological, psychological, spiritual, sociocultural, and developmental needs, and trust forms the foundation of the nurse–patient relationship.[11] Nurses' professional competence, communication skills, and caring behaviors are key determinants of patients' trust in nurses[15].

A strong trust relationship enhances patient participation, strengthens communication, and supports adherence to treatment recommendations[13,16]. In addition, shared decision-making processes have been reported to positively influence adherence[17,18]. Furthermore, trust in nurses has been found to be positively associated with perceived

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quality of care[19], and nurse-led interventions have been shown to improve both trust and medication adherence[20,21].

Although many studies have examined factors affecting treatment adherence and nurse-related variables, studies directly investigating the relationship between trust in nurses and medication adherence remain limited[22,23].

This study aims to determine the relationship between trust in nurses and medication adherence among individuals with chronic diseases.

Research Questions:

1: Is there a relationship between trust in nurses and medication adherence among individuals with chronic diseases?

2: Does trust in nurses differ according to the sociodemographic characteristics of individuals with chronic diseases?

3: Does medication adherence differ according to the sociodemographic characteristics of individuals with chronic diseases?

Material and Methods

Study Design

This study was conducted as a cross-sectional and correlational descriptive study.

Setting and Time

The study was carried out in the internal medicine outpatient clinic of a state hospital between January and April 2025.

Population and Sample

The population of this study comprised patients who attended the internal medicine outpatient clinic of a state hospital within the defined study period.

The sample size was calculated based on a correlation analysis designed to investigate the relationship between trust in nurses and medication adherence. Previous research has indicated that the associations between medication adherence and its related factors in individuals with chronic diseases are typically weak to moderate[24]. Therefore, the effect size was accepted as r=0.15. According to Cohen (1988), correlation coefficients of 0.10, 0.30, and 0.50 represent small, medium, and large effect sizes, respectively[25].

Assuming a significance level of $\alpha=0.05$ and a statistical power of $(1-\beta)=0.80$, the minimum required sample size was determined to be 347 participants. To compensate for potential data loss, it was planned to recruit a larger number of participants than the

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minimum requirement. Accordingly, all eligible individuals who consented to participate during the data collection period were included, and the study was finalized with a total of 358 participants.

Individuals who were 18 years of age or older, had a chronic disease, had been using medication for at least six months, voluntarily agreed to participate, were able to communicate verbally, and had no mental impairment were included in the study. Participants who did not meet the inclusion criteria were not included in the study.

Data Collection Instruments

Data were collected using the "Personal Information Form," the "Trust in Nurses Scale," and the "Modified Morisky Medication Adherence Scale."

Personal Information Form: This form was developed by the researcher in line with the literature[8,26,27]. It consists of a total of 21 items, including information on participants' sociodemographic characteristics and their chronic diseases.

Trust in Nurses Scale: The scale was developed by Radwin and Cabral in 2010[28], and its Turkish validity and reliability study was conducted by Yücel and Ay in 2013[29]. The Cronbach's alpha coefficient of the Turkish version was reported as 0.95. In the version adapted for the general patient population, İspir Demir et al.[26] reported a Cronbach's alpha value of 0.89. In the present study, Cronbach's alpha coefficient was 0.951. This scale is used to assess individuals' level of trust in nurses. It is a single-dimensional, 6-point Likert-type scale consisting of five items, with response options ranging from "never" to "always." The total score ranges from 5 to 30, with higher scores indicating a higher level of trust in nurses. The scale does not have an established cut-off point for categorizing trust levels.

Modified Morisky Medication Adherence Scale: The scale was developed by adding two items to the scale originally created by Morisky et al., in 1986[30] and is used to assess medication adherence among individuals with chronic diseases. The Turkish validity and reliability study of the scale was conducted by Vural et al. in 2012[31], and the Cronbach's alpha coefficient was reported as 0.64. In the present study, Cronbach's alpha coefficient was 0.646. The scale consists of six dichotomous (yes/no) items and evaluates individuals' levels of motivation and knowledge regarding medication use. For items 2 and 5, a "yes" response is scored as 1 and a "no" response as 0, whereas the scoring is reversed for the remaining items (yes = 0, no = 1). The scale comprises two subscales: motivation (items 1, 2, and 6) and knowledge (items 3, 4, and 5), each with a possible score ranging from 0 to 3. Scores of 0–1 indicate low and 2–3 indicate high levels of motivation or knowledge. In the present study, a total score ranging from 0 to 6 was also calculated, with higher scores indicating better medication adherence, consistent with previous research using the Turkish version of the scale[31,32].

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Data Collection Procedure

Data were collected by the researcher between January and April 2025 in the internal medicine outpatient clinic of a state hospital. Individuals who met the inclusion criteria and agreed to participate voluntarily were included in the study. Before data collection, participants were informed about the purpose and procedures of the study, and written and verbal informed consent was obtained. Data were collected through face-to-face interviewer-administered interviews using a structured questionnaire form. Completion of the questionnaire required approximately 10–15 minutes.

Ethical Considerations

Ethical approval for the study was obtained from the Noninvasive Clinical Research Ethics Committee (approval date: 27/11/2024, approval number: 2024/121). In addition, written permission was obtained from the institution where the study was conducted (approval date: 23/01/2025, approval number: 12). Participants were informed about the study, and both written and verbal informed consent were obtained based on voluntary participation. The confidentiality of the participants was ensured, and the study was conducted in accordance with the principles of the Declaration of Helsinki.

Data Analysis

Statistical analyses were performed using the SPSS version 23.0 software. The significance level was accepted as $p<0.05$. The distribution of the data was evaluated with the Shapiro–Wilk test, which indicated that the variables did not follow a normal distribution. Accordingly, non-parametric methods were preferred. The Mann–Whitney U test was applied for comparisons between two independent groups, while the Kruskal–Wallis test was used for comparisons involving more than two groups. When a statistically significant Kruskal–Wallis test result was obtained, post hoc pairwise comparisons with Bonferroni-adjusted p values were conducted to determine which groups differed significantly. Associations between continuous variables were analyzed using Spearman's correlation coefficient. Descriptive data were expressed as mean, standard deviation, frequency, and percentage.

Results

According to Table 1, the most common chronic diseases were hypertension (49.2%) and diabetes (44.4%), followed by heart disease (21.5%). Regarding disease duration, 24.3% of the participants had a chronic disease for 1–5 years, while 28.8% had a duration of 6–10 years. The majority of participants were aged 61–70 years (31.0%).

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Table 1. Distribution of participants according to demographic characteristics.			
Variables		**n**	**%**
Age	≤40 years	26	7.3
	41-50	50	14.0
	51-60	72	20.1
	61-70	111	31.0
	71-80	76	21.2
	≥80 years	23	6.4
Gender	Female	189	52.8
	Male	169	47.2
Marital Status	Married	325	90.8
	Single	33	9.2
Chronic Diseases	Asthma	12	3.4
	DM	159	44.4
	HT	176	49.2
	Heart Disease	77	21.5
	CKD	17	4.7
	COPD	32	8.9
	Other*	66	18.4
Duration of Chronic Disease	Less than 1 year	12	3.4
	1-5 years	87	24.3
	6-10 years	103	28.8
	11-15 years	58	16.2
	16-20 years	54	15.1
	More than 20 years	44	12.3
Number of Children	0	31	8.7
	1	14	3.9
	2	75	20.9
	3	69	19.3
	≥4	169	47.2
Family Type	Nuclear family	266	74.3
	Extended family	88	24.6
	Other	4	1.1
Education Level	Illiterate	83	23.2
	Literate	11	3.1
	Primary school	177	49.4
	Secondary school	34	9.5
	High school	30	8.4
	University	23	6.4

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Place of Residence	Village	85	23.7
	District	235	65.6
	City	38	10.6
Occupation	Unemployed	173	48.3
	Worker	33	9.2
	Civil servant	10	2.8
	Retired	131	36.6
	Other	11	3.1
Employment Status	Employed	52	14.5
	Unemployed	174	48.6
	Retired and working	20	5.6
	Retired and not working	112	31.3
Social Security	Yes	276	77.1
	No	82	22.9
Economic Status	Low	168	46.9
	Middle	178	49.7
	High	12	3.4
Access to Healthcare	Easy	255	71.2
	Difficult	103	28.8
Previous Hospitalization	Yes	336	93.9
	No	22	6.1
Hospitalization Due to Chronic Disease	Yes	190	56.5
	No	146	43.5
Perceived Health Status	Poor	76	21.2
	Moderate	194	54.2
	Good	88	24.6
Knowledge About Disease	Yes	284	79.3
	No	74	20.7
Received Education About Disease	Yes	118	33.0
	No	240	67.0
Presence of Similar Disease in Environment	Yes	252	70.4
	No	106	29.6
Frequency of Visiting Physician	Frequently	129	36.0
	Every 3 months	131	36.6
	Every 6 months	98	27.4
Total		358	100.0

n: Number; %: Percentage; DM: Diabetes Mellitus, HT: Hypertension, CKD: Chronic Kidney Failure, COPD: Chronic Obstructive Pulmonary Disease, Other*: Alzheimer's disease, anemia, bronchitis, dementia, epilepsy, familial Mediterranean fever (FMF), goiter, hyperthyroidism, hypothyroidism, lung cancer, colon cancer, lymphoma, migraine, pancreatitis, Parkinson's disease, prostate disease, rheumatic disease, cirrhosis, stroke (SVO), thalassemia, idiopathic thrombocytopenic purpura (ITP), vertigo, and hyperlipidemia.

Of the participants, 52.8% were female and 90.8% were married, while 74.3% had a nuclear family structure. Nearly half of the participants were primary school graduates (49.4%) and 65.6% resided in districts. In terms of employment, 48.6% were not working and 31.3% were retired and not working, while 77.1% had social security. Regarding economic status, 46.9% reported low income and 49.7% reported moderate income. Additionally, 71.2% reported easy access to healthcare services.

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A large proportion of participants (93.9%) had previous hospitalization experience, and 56.5% had been hospitalized due to their chronic disease. In terms of perceived health status, 54.2% reported moderate and 21.2% reported poor health. Most participants (79.3%) had knowledge about their disease, although 67.0% had not received formal education. Furthermore, 70.4% reported having individuals with the same disease in their environment. Regarding physician visits, 36.0% reported visiting frequently and 36.6% reported visiting every three months.

Table 2. Participants' mean scale scores (n=358).

Variables	X̄±SD	Min-Max	Med	Cronbach's Alpha
Trust in Nurses Scale	27.03±4.29	10-30	29	0.951
Modified Morisky Medication Adherence Scale	4.46±1.53	0-6	5	0.646

X̄= Mean, SD= Standard deviation, Min–Max: Minimum–Maximum, Med: Median

The mean score of the Trust in Nurses Scale was 27.03±4.29, and the mean score of the Modified Morisky Medication Adherence Scale was 4.46±1.53.

Table 3. Comparison of scale scores according to participants' sociodemographic characteristics.

Variables			Trust in Nurses Scale				Modified Morisky Medication Adherence Scale			
			Med	X̄±SD	Test Value	p	Med	X̄±SD	Test Value	p
Chronic Diseases	Asthma	Yes	27.5	25.67±4.38	-1.583**	0.113	5	4.33±1.87	-0.003**	0.998
		No	30	27.07±4.29			5	4.47±1.52		
	DM	Yes	30	27.44±3.86	-1.396**	0.163	5	4.31±1.58	-1.649**	0.099
		No	29	26.69±4.59			5	4.58±1.48		
	HT	Yes	30	27.30±4.24	-1.520**	0.128	5	4.45±1.54	-0.148**	0.882
		No	29	26.76±4.34			5	4.47±1.52		
	Heart Disease	Yes	30	27.39±4.16	-1.163**	0.245	5	4.55±1.59	-0.787**	0.431
		No	29	26.93±4.33			5	4.44±1.51		
	CKD	Yes	30	28.06±3.85	-1.098**	0.272	6	4.88±1.41	-1.275**	0.202
		No	29	26.97±4.31			5	4.44±1.53		
	COPD	Yes	30	27.78±4.09	-1.364**	0.173	5	4.97±1.23	-1.927**	0.054
		No	29	26.95±4.31			5	4.41±1.55		
	Other*	Yes	30	27.21±3.99	-0.464**	0.642	5	4.71±1.44	-1.539**	0.124
		No	29	26.98±4.36			5	4.40±1.54		
Duration of Chronic Disease		Less than 1 year (0)	25	24.00±6.30	14.301***	**0.014* 5>0**	5.5	4.92±1.38	3.714***	0.591
		1-5 years (1)	29	27.21±3.86			5	4.51±1.49		
		6-10 years (2)	28	26.57±4.65			5	4.38±1.64		
		11- 15 years (3)	29.5	26.36±4.63			5	4.26±1.56		

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	16-20 years (4)	30	27.69±4.09			5	4.44±1.49		
	20 yıldan fazla (5)	30	28.61±2.41			5	4.73±1.37		
Age	≤40 years	29.5	26.73±4.35	3.022***	0.697	5	4.88±1.40	5.333***	0.377
	41-50	28.5	27.16±3.92			5	4.36±1.61		
	51-60	30	27.29±3.92			5	4.49±1.56		
	61-70	29	26.41±4.93			5	4.30±1.57		
	71-80	30	27.45±4.21			5	4.64±1.45		
	≥80 years	29	27.78±2.84			5	4.30±1.43		
Gender	Female	29	27.05±4.13	-0.218**	0.828	5	4.41±1.54	-0.702**	0.483
	Male	30	27.00±4.48			5	4.51±1.52		
Marital Status	Married	30	27.08±4.29	-0.802**	0.423	5	4.44±1.54	-0.579**	0.563
	Single	28	26.48±4.35			5	4.64±1.43		
Number of Children	0	30	27.23±3.98	1.261***	0.868	5	4.77±1.50	8.300***	0.081
	1	30	28.29±2.20			4.5	4.71±1.14		
	2	30	27.48±3.57			5	4.68±1.45		
	3	29	27.09±3.92			5	4.68±1.33		
	≥4	29	26.66±4.87			4	4.20±1.63		
Family Type	Nuclear family (1)	30	27.29±4.01	3.269***	0.195	5	4.62±1.50	2.951***	**0.002* 1>2**
	Extended family (2)	28	26.31±4.90			4	4.01±1.49		
	Other (3)	28	25.25±6.90			4.5	3.75±2.63		
Education Level	Illiterate	28	26.46±4.57	7.265***	0.202	5	4.17±1.58	6.030***	0.303
	Literate	30	27.27±5.52			4	4.27±1.42		
	Primary school	30	27.43±4.22			5	4.54±1.56		
	Secondary school	28	26.71±4.10			5	4.68±1.39		
	High school	28	27.00±3.82			5	4.73±1.28		
	University	29	26.35±4.14			5	4.30±1.61		
Place of Residence	Village	30	27.46±4.40	2.217***	0.330	5	4.24±1.66	2.698***	0.259
	District	29	26.86±4.29			5	4.56±1.48		
	City	28.5	27.11±4.07			4	4.34±1.49		
Occupation	Unemployed	30	27.31±4.02	5.066***	0.281	5	4.38±1.58	7.544***	0.110
	Worker	28	26.42±4.15			4	4.00±1.54		
	Civil servant	27.5	26.00±5.16			5	4.80±1.23		
	Retired	30	27.05±4.48			5	4.62±1.44		
	Other	27	25.00±5.66			6	5.00±1.61		
Employment Status	Employed	28	26.12±4.63	3.614***	0.306	5	4.50±1.49	2.160***	0.540
	Unemployed	30	27.18±4.15			5	4.34±1.60		
	Retired and working	29.5	27.95±3.05			5	4.85±1.31		
	Retired and not working	30	27.04±4.51			5	4.55±1.46		
Social Security	Yes	29	26.81±4.51	-0.948**	0.343	5	4.52±1.53	-1.664**	0.096
	No	29.5	27.74±3.39			5	4.26±1.51		
Economic Status	Low (1)	30	27.67±3.71	7.397***	**0.025* 1>2**	5	4.52±1.52	4.005***	0.135
	Middle (2)	29	26.57±4.54			5	4.47±1.51		
	High (3)	28.5	24.75±6.38			4	3.58±1.68		
Access to Healthcare	Easy	30	27.57±3.39	-2.002**	**0.045***	5	4.56±1.44	-1.594**	0.111
	Difficult	29	25.67±5.76			5	4.20±1.71		
Previous Hospitalization	Yes	29	27.02±4.32	-0.024**	0.981	5	4.45±1.54	-0.251**	0.802
	No	30	27.05±3.87			5	4.59±1.37		
	Yes	30	27.11±4.43	-0.802**	0.423	5	4.57±1.44	-1.335**	0.182

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Hospitalization Due to Chronic Disease	No	29	26.92±4.19			5	4.29±1.65		
Perceived Health Status	Poor (1)	29	26.59±4.92	13.474***	**0.001* 3>1, 3>2**	5	4.37±1.54	0.603***	0.740
	Moderate (2)	28	26.57±4.46			5	4.46±1.54		
	Good (3)	30	28.40±2.85			5	4.53±1.50		
Knowledge About Disease	Yes	29	27.00±4.23	-0.516**	0.606	5	4.64±1.40	-3.809**	**0.000***
	No	30	27.14±4.53			3	3.76±1.78		
Received Education About Disease	Yes	29.5	27.25±3.90	-0.278**	0.781	5	4.53±1.49	-0.613**	0.540
	No	29	26.92±4.47			5	4.43±1.55		
Presence of Similar Disease in Environment	Yes	30	27.50±3.74	-2.618**	**0.009***	5	4.50±1.49	-0.529**	0.597
	No	28	25.89±5.22			5	4.37±1.62		
Frequency of Visiting Physician	Frequently (1)	30	28.12±2.93	8.354***	**0.015* 1>3**	5	4.71±1.39	13.886***	**0.001* 1>3, 2>3**
	Every 3 months (2)	29	26.60±4.60			5	4.58±1.49		
	Every 6 months (3)	29	26.15±5.06			4	3.97±1.64		

X= Mean, SD= Standard deviation, Med: Median, *p<0.05, **Mann Whitney U test, ***Kruskal Wallis test; DM: Diabetes Mellitus, HT: Hypertension, CKD: Chronic Kidney Failure, COPD: Chronic Obstructive Pulmonary Disease, Other*: Alzheimer's disease, anemia, bronchitis, dementia, epilepsy, familial Mediterranean fever (FMF), goiter, hyperthyroidism, hypothyroidism, lung cancer, colon cancer, lymphoma, migraine, pancreatitis, Parkinson's disease, prostate disease, rheumatic disease, cirrhosis, stroke (SVO), thalassemia, idiopathic thrombocytopenic purpura (ITP), vertigo, and hyperlipidemia.

The comparison of scale scores according to the demographic characteristics of the participants is presented in Table 3.

As shown in Table 3, Trust in Nurses Scale scores differed significantly according to duration of chronic disease, economic status, access to healthcare, perceived health status, presence of similar disease in the social environment, and frequency of physician visits (p<0.05). Post hoc analysis indicated that participants with a chronic disease duration of 20 years or more had higher scores compared to those with a duration of less than one year. Participants with low economic status and those who had easy access to healthcare services also had higher scores. In addition, individuals who perceived their health as good, those who had individuals with the similar disease in their environment, and those who visited physicians more frequently had higher trust scores.

Similarly, Modified Morisky Medication Adherence Scale scores differed significantly according to family type, disease-related knowledge, and frequency of physician visits (Table 3, p<0.05). Post hoc analysis revealed that participants with a nuclear family structure and those who had knowledge about their disease had higher adherence scores. In addition, participants who visited physicians frequently or every three months had higher scores compared to those who visited every six months.

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Table 4. Relationship between the trust in nurses scale and the modified morisky medication adherence scale.

Variables	Trust in Nurses Scale	
	r	p
Modified Morisky Medication Adherence Scale	0.216	**<0.001***

r: Spearman correlation coefficient, *p <0.001

As presented in Table 4, a statistically significant weak positive correlation was found between the Trust in Nurses Scale and the Modified Morisky Medication Adherence Scale (r=0.216, p<0.001).

Discussion

This study contributes to the literature by examining the relationship between trust in nurses and medication adherence among individuals with chronic diseases. The findings highlight the multidimensional nature of trust and treatment adherence within the nurse–patient relationship.

In this study, participants demonstrated a relatively high level of trust in nurses, consistent with previous findings[15]. This may be attributed to the frequent and continuous interactions between individuals with chronic diseases and healthcare professionals due to long-term care needs.

Another noteworthy finding is that medication adherence was also high. In contrast, previous studies have reported high rates of non-adherence among individuals with chronic diseases[6,7]. This discrepancy may be explained by differences in sample characteristics, access to healthcare services, and levels of communication and trust with healthcare professionals.

Participants with a longer duration of chronic illness, lower economic status, easier access to healthcare, better perceived health status, the presence of similar chronic conditions in their social environment, and more frequent physician visits reported significantly higher trust in nurses. These findings may reflect the importance of sustained interactions between patients and nurses in developing trusting relationships, as well as the influence of individual and contextual factors on trust. Trust has been described as a dynamic process shaped by nurses' professional competence, interpersonal caring behaviours, and the continuity of the therapeutic relationship rather than as a static characteristic[11]. Likewise, Taylor et al.[33] emphasized that trust in healthcare is a multidimensional and context-dependent construct that develops within ongoing relationships among patients, healthcare professionals, and healthcare organizations.

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The association between a longer duration of chronic illness and higher trust in nurses is consistent with the concept that prolonged engagement with healthcare services provides greater opportunities for therapeutic interaction. Similarly, Kamimura et al.[34] reported that continuity of care was associated with stronger patient-provider relationships among vulnerable patients. Supporting this interpretation, Darby et al.[35] demonstrated that sustained nurse-led primary care significantly improved trust in healthcare providers, highlighting the importance of repeated and continuous contact in fostering trust. Therefore, patients living with chronic illnesses for longer periods may gradually develop greater confidence in nurses through repeated interactions and continuity of care.

Participants who reported easier access to healthcare also demonstrated higher trust in nurses. Although few studies have directly examined this relationship, easier access may facilitate regular contact with healthcare professionals and strengthen therapeutic relationships over time. This interpretation is consistent with Kamimura et al.[34], who emphasized the role of continuity of care in strengthening patient-provider relationships, and with the findings of Darby et al.[35], who showed that sustained nurse-patient interactions were associated with improved trust in healthcare providers.

Better perceived health status was also associated with higher trust in nurses. A similar pattern was reported by Kamimura et al.[34], who found that individuals with better self-rated health had more positive patient-provider relationships. Positive healthcare experiences, effective communication, and continuity of care may contribute simultaneously to both improved health perceptions and stronger trust in healthcare professionals.

Interestingly, participants with lower economic status reported higher trust in nurses. This finding differs from that of Lu et al.[36], who found that greater relative income deprivation was associated with lower trust in physicians among individuals with chronic diseases.

Participants who had family members or acquaintances with similar chronic conditions also reported higher trust in nurses. Although direct evidence regarding this association remains limited, previous experiences shared within patients' social networks may positively influence expectations of nursing care and increase confidence in healthcare professionals. Further research is needed to clarify the mechanisms underlying this relationship.

In contrast, trust in nurses did not differ according to chronic disease type in the present study, suggesting that patients' trust may be influenced more by the quality and continuity of nurse–patient interactions than by the specific chronic condition itself. Previous studies have reported mixed findings regarding demographic variables. While Ozaras and Abaan[15] found higher trust among certain age groups and males, other studies have reported no significant differences according to demographic characteristics[19].

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Higher medication adherence was observed among individuals with a nuclear family structure, those with disease-related knowledge, and those who used healthcare services more frequently. These findings are consistent with the literature emphasizing the importance of social support, patient education, and regular interaction with healthcare professionals in relation to medication adherence[10].

Individuals living in a nuclear family may have greater opportunities for support in managing treatment routines, which may be associated with better medication adherence. Similarly, participants with greater disease-related knowledge may be more aware of the importance of adhering to treatment recommendations and the potential consequences of non-adherence. More frequent use of healthcare services may also provide opportunities for regular follow-up, continuous education, and timely resolution of treatment-related concerns, which may support medication adherence.

The literature also indicates that clear information provided by healthcare professionals and regular follow-up are associated with improved medication adherence[24]. In addition, Abel and Efird[22] identified age and the number of medications as important factors associated with adherence. Although previous studies have reported differences in medication adherence according to chronic disease type[23], no significant association was found between chronic disease type and medication adherence in the present study. This discrepancy may be related to differences in study populations, disease characteristics, or healthcare settings.

A positive and statistically significant relationship was found between trust in nurses and medication adherence, consistent with previous studies[22,23,37]. In addition, the high level of trust in nurses observed in this study may have contributed to better adherence behaviors.

Evidence from systematic reviews and meta-analyses further supports the role of nurse-led interventions in improving medication adherence and clinical outcomes[21,38]. These interventions may enhance communication and strengthen trust between nurses and patients. In addition, nurses' active roles in medication management and patient education are considered important contributors to adherence, while lack of trust has been identified as a barrier[39].

However, the weak correlation found in this study suggests that medication adherence cannot be explained solely by trust in nurses and is influenced by multiple factors. Medication adherence is a multidimensional phenomenon shaped by individual, social, and healthcare systems–related variables. Therefore, although trust is important, it may not be sufficient alone.

The literature indicates that patient participation and shared decision-making processes are associated with treatment adherence[17]. This underscores the importance of active patient involvement in the treatment process. In addition, effective communication and trust-based relationships between healthcare professionals and patients are closely associated with adherence behaviors[40].

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In this context, nurses should be considered not only as care providers but also as key facilitators of treatment adherence. Enhancing communication skills, increasing patients' knowledge about their disease, and establishing a trust-based care environment may support improved medication adherence.

The limited number of studies examining trust in nurses and medication adherence together suggests that this study provides a meaningful contribution to the literature. These findings indicate that trust and medication adherence are associated not only with individual factors but also with social and environmental determinants.

Limitations

This study has some limitations. Since the research was conducted using a cross-sectional design, it does not allow for establishing causal relationships between the variables. Data collected through self-report measures may have led to potential response bias. Furthermore, the fact that the study was carried out in a single center restricts the generalizability of the results.

Conclusion

This study found a positive and statistically significant relationship between trust in nurses and medication adherence among individuals with chronic diseases. The findings suggest that higher levels of trust in nurses are associated with higher levels of medication adherence. However, the weak strength of this relationship suggests that medication adherence is a multidimensional phenomenon and is associated with multiple factors beyond trust in nurses.

Trust in nurses differed according to duration of chronic illness, economic status, access to healthcare services, perceived health status, presence of individuals with similar diseases in the social environment, and frequency of physician visits. Medication adherence, on the other hand, varied according to family type, level of disease-related knowledge, and frequency of physician visits. These findings emphasize the importance of addressing nursing care within a multidimensional framework that includes individual, social, and environmental factors.

Based on these findings, the positive association between trust in nurses and medication adherence highlights the potential importance of fostering trusting nurse–patient relationships in the care of individuals with chronic diseases. In addition, disease-related knowledge and regular physician follow-up should be considered when addressing medication adherence among individuals with chronic diseases.

Recommendations

Future research should examine this relationship using longitudinal or experimental designs and investigate the associated factors using more comprehensive models. In addition, future studies should examine additional factors that may influence medication

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adherence in conjunction with trust in nurses to provide a more comprehensive understanding of medication adherence among individuals with chronic diseases.

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