Validity and Reliability Study of the Turkish Version of the Patriarchal Beliefs Scale

Ataerkil İnançlar Ölçeği'nin Türkçe Formunun Geçerlik ve Güvenirlik Çalışması

Esra BAYRAKÇEKEN[1] iD

[1]Atatürk University, Health Services Vocational School, Erzurum, Türkiye

Cantürk ÇAPIK[2] iD

[2]Atatürk University, Faculty of Nursing, Erzurum, Türkiye

Meltem ORAL[3] iD

[3]Atatürk University, Faculty of Letters, Department of Psychology, Erzurum, Türkiye

Nurgül KARAKURT[4] iD

[4]Erzurum Technical University, Faculty of Nursing, Department of Psychiatric Nursing, Erzurum, Türkiye

Serap BUZTEPE[5] iD

[5]Erzurum Technic University, Health Services Vocational School, Erzurum, Türkiye

ABSTRACT

Patriarchal beliefs continue to shape social, political, and interpersonal dynamics across cultures, yet few psychometric tools exist to measure these beliefs within non-Western societies. This study aimed to adapt the Patriarchal Beliefs Scale (PBS) into Turkish and examine its validity and reliability among a sample of Turkish adults. The adaptation process followed standard translation-back translation procedures, followed by expert review for content validity. A sample of 503 participants (aged 18-69) was recruited for Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Internal consistency, test–retest reliability, item-total correlations, and inter-item correlations were assessed. Content validity was evaluated using Content Validity Index (CVI). EFA supported a single-factor structure consistent with the original scale. CFA confirmed good model fit (χ^2/df = 2.14, GFI = 0.99, CFI = 0.98, RMSEA = 0.067). The PBS demonstrated high internal consistency (Cronbach's α = .959) and strong test–retest reliability (r = .815, *p* < .001). Inter-item correlation coefficients ranged from 0.39 to 0.86, supporting the internal coherence of the scale. The CVI was .99, indicating excellent content validity. The Turkish version of the PBS is a valid and reliable instrument for assessing attitudes toward patriarchy in Turkish cultural contexts. It holds potential for use in sociological, psychological, and gender-based research, as well as intervention studies aiming to explore or challenge patriarchal norms.

Keywords: Patriarchal beliefs, scale adaptation, validity, reliability, gender norms, psychometric

ÖZ

Ataerkil inançlar, kültürler arası sosyal, politik ve kişilerarası dinamikleri şekillendirmeye devam etmektedir. Ancak Batı dışı toplumlarda bu inançları ölçmeye yönelik psikometrik araçlar oldukça sınırlıdır. Bu çalışmanın amacı, Ataerkil İnançlar Ölçeği'nin (AİÖ) Türkçeye uyarlanması ve geçerlik ile güvenirliğinin Türk yetişkin örnekleminde incelenmesidir. Uyarlama sürecinde standart çeviri–geri çeviri prosedürleri izlenmiş ve kapsam geçerliği için uzman görüşüne başvurulmuştur. Açımlayıcı Faktör Analizi (AFA) ve Doğrulayıcı Faktör Analizi (DFA) için 18-69 yaş aralığında 503 katılımcıdan oluşan bir örneklem kullanılmıştır. İç tutarlılık, test-tekrar test güvenirliği, madde-toplam puan korelasyonları ve maddeler arası korelasyonlar değerlendirilmiştir. Kapsam geçerliği, Kapsam Geçerlik İndeksi (KGİ) ile incelenmiştir. AFA, orijinal ölçekle tutarlı şekilde tek faktörlü bir yapıyı desteklemiştir. DFA sonuçları iyi düzeyde model uyumu göstermiştir (χ^2/sd = 2,14, GFI = 0,99, CFI = 0,98, RMSEA = 0,067). Ölçeğin iç tutarlılığı oldukça yüksektir (Cronbach's α = ,959) ve test-tekrar test güvenirliği güçlüdür (r = ,815, *p* < ,001). Maddeler arası korelasyon katsayıları 0,39 ile 0,86 arasında değişmekte olup, ölçeğin içsel tutarlılığını desteklemektedir. KGİ değeri ,99 olarak bulunmuş ve bu durum kapsam geçerliğinin mükemmel olduğunu göstermektedir. Ataerkil İnançlar Ölçeği'nin Türkçe formu, Türkiye kültürü bağlamında ataerkilliğe yönelik tutumları değerlendirmek için geçerli ve güvenilir bir ölçme aracıdır. Sosyolojik, psikolojik ve toplumsal cinsiyet temelli araştırmaların yanı sıra, ataerkil normları incelemeyi veya sorgulamayı amaçlayan müdahale çalışmalarında da kullanılma potansiyeline sahiptir.

Anahtar Kelimeler: Ataerkil inançlar, ölçek uyarlaması, geçerlik, güvenirlik, cinsiyet normları, psikometri

Introduction

Patriarchy is a universal ideology that legitimizes masculine dominance over women, shaping gender roles that reinforce unequal power dynamics. This ideology significantly influences gender relations by creating structural inequalities in areas such as employment, family, and culture (Ahmad et al., 2004).

The Patriarchal Beliefs Scale (PBS) developed by Yoon et al. (2015) is a reliable and valid tool that measures patriarchal beliefs at the macro level. Its relevance extends to predicting attitudes and behaviors related to societal structures, including politics, workplace dynamics, and interpersonal relationships.

The purpose of this study is to adapt the PBS into Turkish and assess its validity and reliability within the Turkish cultural context. Given the multifaceted nature of patriarchy and its pervasive effects across various social domains, adapting a psychometrically sound instrument is essential for accurately measuring these beliefs in different cultural settings.

Theoretical Framework

Walby (1990) conceptualizes patriarchy as a dynamic system consisting of six interdependent structures: paid work, household production, culture, sexuality, violence, and the state. These structures serve as mechanisms through which patriarchy operates and adapts, often transforming women's social gains into new forms of subordination. Understanding these dimensions provides the theoretical foundation for measuring patriarchal beliefs at the societal level.

Paid Work

One of the most visible domains of patriarchal inequality is the labor market. Walby (1990) argues that men dominate high-wage, secure jobs, while women are relegated to low-paid, precarious, and often part-time roles. This economic marginalization is further exacerbated by discriminatory workplace policies and cultural expectations. Ataklı Yavuz (2016) notes that in Turkey, women's labor force participation remains low due to limited job opportunities, low wages, and inflexible working conditions. Globally, women's participation rate is 48.5%, trailing men by 26.5 percentage points (International Labour Organization [ILO], 2018). Türkiye İstatistik Kurumu (2018) data confirms that in Turkey, only 28% of women aged 15+ are employed, compared to 65.1% of men, although education significantly increases female participation.

Household Production

Patriarchy also persists in the unpaid sphere of domestic labor. Women are expected to take on a disproportionate share of housework and childcare, which limits their access to education and paid employment (Walby, 1990). Research shows that despite increasing participation in the workforce, women's burden at home remains high (Arrighi & Maume, 2000; Lachance-Grzela & Bouchard, 2010). Organisation for Economic Co-operation and Development (OECD, 2018) data shows women spend an average of 4.5 hours daily on household tasks, while men spend just over two. In Turkey, women spend 3 hours and 31 minutes on daily household chores compared to just 51 minutes for men (Turkish Statistical Institute [Türkiye İstatistik Kurumu-TÜİK], 2018). Başak et al. (2013) also report that employed women continue to carry more domestic responsibilities than their male partners.

Culture

Cultural norms and traditions are powerful tools of patriarchy. According to Walby (1990), modern Western and traditional cultures reinforce gendered expectations and practices that disadvantage women. Harmful customs, such as early marriage and unsafe maternal practices, persist in many societies. For instance, Myers and Harvey (2011) found that 14% of women in Turkey were married before the age of 18. The Turkish Population and Health Survey (2008) reports this figure at 25% for women aged 25-49. Traditional beliefs also affect reproductive health: harmful practices like ingesting unsafe substances to induce miscarriage or salting newborns are still documented in parts of Turkey (Biltekin et al., 2004; Çokar, 2009).

Sexuality

Despite the rise of sexual freedom in some societies, patriarchal norms continue to regulate women's sexuality. Walby (1990) highlights how women are judged by a double standard-criticized for being sexually active, yet also objectified if passive. Aylin (2015) explains that traditional views reduce the female body to roles of reproduction and male pleasure. In Turkish society, discussions around female sexuality are often taboo. Girls are expected to remain chaste until marriage, while men are socially permitted-even encouraged-to be sexually active, reflecting deep-seated gender inequalities.

Violence

Walby (1990) and other feminist scholars assert that violence is both a method and consequence of patriarchal control. Gender-based violence, including physical and sexual abuse, is widespread globally. The UN estimates that 35% of women worldwide experience such violence, with some data suggesting the rate is even higher (United Nations, 2015). In Turkey, early marriages are linked to increased exposure to violence-48% of women married young reported experiencing physical abuse, compared to 31.2% of those married later (Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü, 2015).

State

Finally, the state itself can be a patriarchal institution. According to Walby (1990), state structures often fail to enforce gender equality policies or implement them meaningfully. Laws may exist, but societal and institutional barriers limit women's participation in the public sphere. As Ersöz (2015) notes, feminist discourse critiques the public/private divide that confines women to domestic roles. Political representation illustrates this disparity: the global average of women in parliament is 23.4%, while in Turkey, it's only 14.9%. With 82 female deputies, Turkey ranks 132nd among 186 countries (UN Women, 2017). Together, these six structures illustrate how patriarchal systems are embedded in both public and private life.

The Patriarchal Beliefs Scale

Yoon et al. (2015) emphasize that such structural inequalities become internalized as patriarchal beliefs through social learning, shaping attitudes, decision-making, and interpersonal behavior. Their PBS was developed to measure these macro-level ideological structures. The study aims to perform the Turkish reliability and validity study of the PBS, which is a conceptually grounded and psychometrically validated instrument developed by Yoon et al. (2015) to assess internalized patriarchal values. The scale was designed to measure macro-level ideological beliefs that influence attitudes and behaviors in domains such as politics, employment, and gender roles-extending beyond interpersonal contexts to include institutional and societal perceptions.

The original scale consists of 35 items rated on a 7-point Likert scale ranging from *strongly disagree* to *strongly agree*. It includes three sub-dimensions: "Institutional Power of Men" (12 items), "Inherent Inferiority of Women" (12 items), and "Gendered Domestic Roles" (11 items). The

scale demonstrated high internal consistency, with a Cronbach's Alpha of .94 for the total scale in the original study, and strong validity across diverse samples. It was developed using both exploratory and confirmatory factor analysis, supporting a stable three-factor structure. The authors emphasized its utility for capturing culturally embedded patriarchal ideologies that influence gendered decisions in both public and private domains. Adapting this scale into Turkish enables the examination of patriarchal attitudes within the Turkish sociocultural context, supporting comparative and localized gender studies through a statistically robust instrument.

By adapting and validating the PBS for the Turkish context, this study addresses a significant gap in the availability of culturally appropriate instruments for measuring deeply internalized gender ideologies. Although research on gender roles is growing, there remains a need for standardized, psychometrically sound tools that can assess patriarchal beliefs beyond interpersonal domains and capture broader ideological constructs. This scale offers the potential to explore how patriarchal values influence attitudes, decision-making, and institutional outcomes in areas such as education, politics, employment, and family life. By providing a reliable and valid tool to measure the internalization of patriarchal beliefs, this study lays the groundwork for future cross-cultural research and evidence-based interventions aimed at promoting gender equality at both individual and societal levels.

Methods

Procedures

This study employed a methodological research design aimed at adapting and validating the PBS for use in the Turkish context. Data were collected during April–May 2019 in the province of Erzurum, Turkey. The instruments used for data collection included a Personal Information Form, designed to gather demographic data, and the PBS developed by Yoon et al. (2015). Ethics committee approval was received for this study from the ethics committee of Atatürk University (Date: December 5, 2018, Number: 2018-12/3). After obtaining ethical approval, informed and voluntary consent was obtained from all participants.

Data Collection Tools

Personal Information Form

Researchers prepared the personal information form and the form included items describing the socio-demographic

characteristics of individuals.

Patriarchal Beliefs Scale

The PBS used in this study is the Turkish adaptation of the 35-item scale developed by Yoon et al. (2015), which was designed to assess internalized patriarchal beliefs at a macro-ideological level. The scale's theoretical background, structure, and psychometric properties are detailed in the Introduction section. In this study, the PBS was translated into Turkish, reviewed for cultural and linguistic equivalence by a panel of experts, and pilot-tested with 20 individuals. No items were excluded, and the finalized version was used in the full sample for validation.

In the present study, the scale was translated into Turkish by three bilingual experts. It was reviewed by a panel of seven scholars for cultural and linguistic equivalence, followed by back-translation and refinement. A pilot test was conducted with 20 participants to ensure clarity and contextual appropriateness. The finalized version was then administered to the full sample.

Translation Process and Content Validity

In the study, the PBS was translated into Turkish independently by 3 different people who have a good command of both languages. Then, the items of the scale were edited by the researchers to develop a new version of the scale.

Linguistic Validity

For the linguistic validity of the scale, the translation-back translation method was used. The English form of the scale was translated into Turkish by 3 different experts who know both languages well. The Turkish scale was back-translated into its original language by a different expert.

Content Validity

In scale adaptation studies, after ensuring the linguistic equivalence of the scale, a more meaningful adaptation is made by submitting it to the experts for their opinions. The number of experts must be between 3 and 20 (Tavşancıl, 2002). Experts are asked to assess each item as *Not suitable*, *The item needs to be changed to make it suitable*, *Suitable, but needs minor correction*, and *Very suitable*, and to make recommendations, if any. After the translation process is completed, the scale was presented to the opinions of the expert group of 7 scholars. Experts assessed the scale items in terms of intelligibility and cultural

conformity. Items were reviewed according to the expert opinion, and their linguistic suitability was evaluated by a Turkish language expert. For the content validity based on expert opinions, the Davis technique was employed. The final version of the scale was translated back into its original language to assess whether there is a difference in meaning. The back-translation was performed by another translator, who knew both languages well and was not involved in the translation process. The native language of the translators is Turkish.

Pilot Study

After completing the translation and content validity procedures, the preliminary version of the Turkish PBS was administered to a pilot group of 20 individuals. This group was selected to assess the clarity, comprehensibility, and cultural appropriateness of the scale items before implementation in the full study. The pilot participants were aged between 19 and 52, and included both male and female adults from diverse educational backgrounds (high school, undergraduate, and postgraduate) and residential settings (urban and semi-urban areas of Erzurum).

The aim was to ensure that individuals with varying levels of education and life experience could interpret the items accurately. Feedback from the pilot group was used to make minor revisions for linguistic clarity. Importantly, individuals who participated in the pilot phase were not included in the main study sample to prevent bias in the psychometric evaluation.

Data Collection and Analysis

All 35 items of the PBS were included in the factor analysis. To assess the factor structure of the Turkish version, exploratory factor analysis (EFA) was performed using the principal component analysis method with varimax rotation. The criteria for factor extraction were:

1. Eigenvalues greater than 1.00,

2. Factor loadings of .30 or above as the minimum threshold for item retention, and

3. Interpretability of factor structures based on theoretical alignment with the original scale.

The Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity were conducted to ensure sample adequacy and suitability for factor analysis. Confirmatory factor analysis (CFA) was then performed to validate the factor structure identified in the EFA, using indices such as χ^2/df, RMSEA, CFI, GFI, and AGFI. Internal consistency for each factor was

assessed using Cronbach's Alpha coefficients.

Factor Structure and Internal Validity Analysis

The final version of the Turkish PBS was administered to a sample of 258 individuals. Participants were selected from the province of Erzurum, Turkey, and included adults aged between 18 and 64 years (mean age: 31.19 ± 10.82). The sample consisted of 50.4% females, with 51.6% single, 48.1% university graduates, and 80.2% residing in urban areas. Additionally, 43.4% of the participants had children, and the average number of children was 0.97 ± 1.28.

To evaluate the suitability of the dataset for factor analysis, KMO and Bartlett's test of sphericity were applied. The KMO value was .941, and the Bartlett's test was statistically significant (χ^2 = 6814.946, p < .001), indicating sampling adequacy. For internal validity, Cronbach's Alpha coefficients were calculated for the overall scale and subscales, and item-total score correlations were examined.

Both EFA and CFA were conducted to assess the factor structure, along with internal consistency metrics, to establish evidence for the validity and reliability of the Turkish version of the scale.

Evaluation of the Data

Analyses of the data collected within the scope of the study were carried out with SPSS 22.00 (IBM SPSS Corp., Armonk, NY, USA) statistical package program and Lisrel 8.8 software. During the evaluation of the data, Cronbach's Alpha, KMO, EFA, CFA statistical tests were used.

Ethical Principles of the Study

Permission was obtained from the author via e-mail to develop the Turkish version of the PBS. Then, permission was obtained from the Ethics Committee of Atatürk University Faculty of Nursing (date December 5, 2018, and No:2018-12/3). Verbal consent of individuals who accepted to participate in the study was taken.

Sample and Participants

The study sample consisted of 258 individuals aged between 18 and 64 years, residing in Erzurum, Turkey. In scale adaptation studies, it is generally recommended that the sample size should be between 5 and 10 times the number of items on the scale to ensure sufficient power for psychometric analysis (Gözüm & Aksayan, 2002). Since the

PBS consists of 35 items, the suggested sample size ranges from 175 to 350 participants. In the present study, data were collected from 258 individuals, which falls within the recommended range and is considered adequate for conducting both exploratory and confirmatory factor analyses.

Participants were selected using a convenience sampling method, with data collected from a variety of settings such as public spaces, community centers, universities, and workplaces across urban and semi-urban areas. This approach was chosen due to practical considerations and time limitations during data collection.

While the sample was not randomly selected, efforts were made to include participants with diverse socio-demographic characteristics, including variation in gender, marital status, education level, parental status, and residence type (urban vs. rural). This diversity aimed to enhance the variability and general relevance of the data.

However, it should be noted that due to the non-probabilistic sampling method and the geographical concentration in Erzurum, the sample may not be fully representative of the entire Turkish population. This limitation is acknowledged when interpreting the generalizability of the study's findings. The demographic information of the individuals participated in the study is presented in Table 1.

Table 1
Demographic Characteristics of the Participants

Characteristics		$\overline{X}$±SD	Min-Max
Age		31.19±11.62	18-64
Number of Children		0.97±1.28	0-4
		N	%
Gender	Female	130	50.4
	Male	128	49.6
Marital Status	Married	121	46.9
	Single	133	51.6
	Other	4	1.6
Educational Status	Elementary School	8	3.1
	Secondary School	15	5.8
	High School	86	33.3
	Bachelor's Degree	124	48.1
	Master's Degree	18	7.0
	PhD	7	2.7
Longest Place of Residence	Village	33	12.8
	Town	16	6.2
	City	207	80.2
	Foreign Country	2	0.8
Child	Yes	112	43.4

| | | No | 146 | 56.6 | | |

Of the individuals agreed to participate in the study, 50.4% was female, 51.6% was single, 48.1% was university graduate, 80.2% lived in a city as the longest place of residence, and 43.4% had children. The age range of individuals was varying from 18 to 64, and the average age was 31.19. In the study, the number of children of the individuals was between 0 and 4, and the average number of children was 0.97±1.28.

Results

Findings on the validity and reliability of the PBS are as follows:

Forms completed by experts were evaluated to determine whether the items adequately measured the relevant constructs. Each item was found to have a Content Validity Index (CVI) ranging from .88 to 1.00. The total CVI score of the scale was .96. The internal validity results are presented in Table 2.

Table 2

Internal Validity Results of the Patriarchal Beliefs Scale

Item No	$\overline{X}_{item}$	sd_{item}	$\overline{X}^a$	σ^{2a}	r	α^a
Item 1	2.84	2.15	101.93	2098.82	.64	.96
Item 2	3.24	2.24	101.53	2082.58	.69	.96
Item 3	3.55	2.25	101.22	2081.91	.69	.96
Item 4	3.48	2.28	101.28	2089.99	.64	.96
Item 5	3.49	2.25	101.28	2073.99	.73	.96
Item 6	3.14	2.19	101.62	2070.87	.77	.96
Item 7	3.20	2.20	101.57	2100.64	.61	.96
Item 8	3.03	2.12	101.74	2084.29	.72	.96
Item 9	2.71	2.07	102.05	2080.98	.76	.96
Item 10	3.04	2.11	101.72	2076.01	.77	.96
Item 11	2.93	2.05	101.83	2086.50	.74	.96
Item 12	2.76	2.09	102.01	2112.45	.59	.96
Item 13	1.51	1.21	103.26	2184.20	.38	.96
Item 14	1.83	1.62	102.94	2162.86	.42	.96
Item 15	1.64	1.37	103.13	2160.93	.52	.96
Item 16	2.40	1.93	102.37	2154.82	.39	.96
Item 17	2.65	1.97	102.12	2161.89	.34	.96
Item 18	2.55	2.03	102.22	2111.79	.60	.96
Item 19	2.25	1.91	102.52	2111.63	.65	.96
Item 20	2.98	2.21	101.79	2167.39	.27	.96
Item 21	2.20	1.79	102.57	2121.24	.63	.96
Item 22	2.59	1.97	102.18	2134.94	.50	.96
Item 23	2.26	1.89	102.51	2109.39	.67	.96
Item 24	2.05	1.81	102.71	2132.32	.56	.96
Item 25	3.44	2.34	101.33	2090.17	.62	.96
Item 26	3.50	2.27	101.26	2071.58	.73	.96
Item 27	3.72	2.23	101.04	2082.85	.69	.96
Item 28	3.11	2.12	101.66	2104.85	.61	.96
Item 29	3.59	2.23	101.18	2098.99	.61	.96
Item 30	3.53	2.29	101.24	2074.56	.71	.96
Item 31	3.66	2.22	101.11	2077.21	.72	.96
Item 32	4.17	2.41	100.60	2079.39	.65	.96
Item 33	3.24	2.16	101.53	2084.34	.71	.96
Item 34	4.14	2.33	100.62	2087.22	.64	.96
Item 35	4.35	2.20	100.41	2094.03	.64	.96

(continued)

Table 2 (continue)
Internal Validity Results of the Patriarchal Beliefs Scale

Scale's		$\overline{X}$	σ^2	sd	Number of items		α	
		104.77	2228.64	47.208	35		.96	
	Groups	N		$\overline{X}$	Sd	t		p
Total	Sub-group	70		51.65	10.16	-30.182		.000
score	Parent-group	70		166.17	30.07			

Note. r is the Adjusted item-total score correlation
[a] This statistic was calculated by removing the item from the scale.

The Cronbach's Alpha coefficient of the entire Patriarchal Beliefs Scale was .96. The adjusted item-total score correlations—excluding the 3rd item—were all above .30. Subscale reliability was also high, with alpha values of .95 for the Institutional Power of Men subscale, .94 for Gendered Domestic Roles, and .85 for Inherent Inferiority of Women.

The t-values between the parent and subgroup total scores of the PBS were statistically significant at the *p* < .001 level. These findings indicate that all items and total scores are capable of distinguishing between individuals with higher and lower patriarchal attitudes.

Inter-item Correlation

The inter-item correlation matrix shows relationships between selected items of the scale. Several item pairs, especially Items 3–6 and Items 5–10, show strong correlations (*r* > .70), indicating consistent measurement of the same latent construct. Lower correlations (e.g., around .40–.50) suggest diversity among items, which is desirable to capture the full scope of the patriarchal beliefs construct without redundancy. These findings further support the internal consistency of the scale and validate its factorial structure. Table 3. presents the inter-item correlation matrix.

Table 3
Inter-item Correlation Matrix

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
Item 1	1.00	.73	.61	.53	.58	.57	.39	.47	.63	.60
Item 2	.73	1.00	.74	.60	.66	.61	.44	.58	.70	.68
Item 3	.61	.74	1.00	.77	.78	.75	.41	.61	.70	.70
Item 4	.53	.60	.77	1.00	.72	.69	.40	.56	.61	.66
Item 5	.58	.66	.78	.72	1.00	.83	.47	.67	.73	.78
Item 6	.57	.61	.75	.69	.83	1.00	.51	.72	.75	.78
Item 7	.39	.44	.41	.40	.47	.51	1.00	.64	.50	.52
Item 8	.47	.58	.61	.56	.67	.72	.64	1.00	.68	.72
Item 9	.63	.70	.70	.61	.73	.75	.50	.68	1.00	.86
Item 10	.60	.68	.70	.66	.78	.78	.52	.72	.86	1.00

Results on the Factor Structure of the Scale

Before conducting EFA, preliminary tests were performed to assess the suitability of the data. The KMO value was found to be .94, indicating excellent sampling adequacy, while Bartlett's Test of Sphericity yielded a Chi-Square value of 6814.95 (*p* < .001), confirming that the data were appropriate for factor analysis.

Following these assumptions, EFA was conducted using the

Principal Component Analysis (PCA) method with varimax rotation. PCA was chosen as the extraction method to identify the underlying structure of the Turkish version of the scale, in line with the approach taken in the original development study by Yoon et al. (2015). Varimax rotation was applied to achieve a simpler and more interpretable factor structure by maximizing the variance explained by each factor and minimizing cross-loadings.

The analysis revealed a three-factor structure consistent

with the theoretical framework of the original scale. The detailed factor loadings and subscale groupings are presented in Table 4.

Table 4
Distribution of the Items of the Patriarchal Beliefs Scale to Factors and Factor Loads

	F1	F2	F3
Item 1	**.64**	.18	.31
Item 2	**.75**	.21	.25
Item 3	**.83**	.21	.14
Item 4	**.77**	.21	
Item 5	**.83**	.24	.18
Item 6	**.80**	.28	.24
Item 7	**.49**	.36	.22
Item 8	**.72**	.30	.23
Item 9	**.80**	.20	.33
Item 10	**.83**	.26	.24
Item 11	**.81**	.27	.19
Item 12	**.55**	.21	.29
Item 25	.26	**.59**	.26
Item 26	.31	**.71**	.28
Item 27	.18	**.81**	.23
Item 28	.24	**.60**	.26
Item 29	.19	**.70**	.17
Item 30	.30	**.73**	.21
Item 31	.21	**.80**	.27
Item 32	.24	**.78**	.11
Item 33	.26	**.72**	.26
Item 34	.19	**.79**	.13
Item 35	.24	**.81**	
Item 13			**.75**
Item 14	.18		**.59**
Item 15	.23	.10	**.70**
Item 16	.13	.17	**.49**
Item 17	.15		**.47**
Item 18	.31	.34	**.48**
Item 19	.40	.23	**.59**
Item 20		.25	**.34**
Item 21	.29	.29	**.63**
Item 22	.20	.26	**.49**
Item 23	.33	.35	**.57**
Item 24	.25	.23	**.61**
Variance explained %	22.71	20.74	14.39
Total variance explained %	22.71	43.45	57.84

Note. F1: Institutional Power of Men, F2: Gendered Domestic Roles, F3: Inherent Inferiority of Women

As shown in Table 4, 22.71% of the total variance explained the first factor (institutional power of men), 20.74%

explained the second factor (gendered domestic roles) and 14.39% explained the third factor (inherent inferiority of women), and all factors were found to explain 57.84% of the total variance.

The factor structure of the 35-item PBS was found to be similar to the original scale. Figure 1 presents the scree plot showing the eigenvalues of each component extracted in the exploratory factor analysis. The clear inflection point supports the retention of three factors, consistent with the original scale's structure.

Figure 1
Scree Plot from the Exploratory Factor Analysis of the Turkish Patriarchal Beliefs Scale
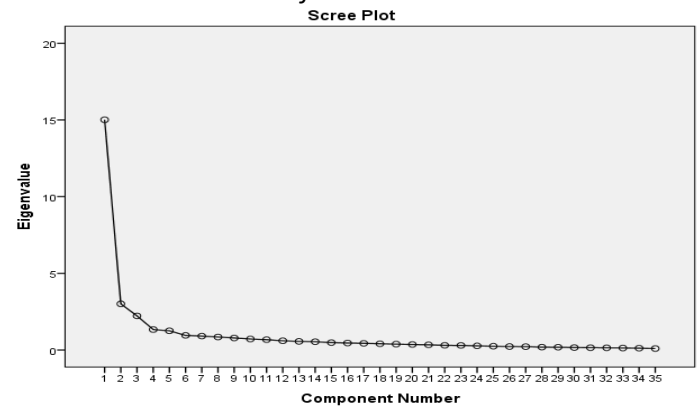
Note. The elbow point suggests a three-factor solution.

Confirmatory Factor Analysis Results

Table 5
Results of Goodness of Fit Indicators

Index	Normal value	Acceptable value	The value found in this study
χ^2/df	<2	<5	2.14
GFI	>.95	>.90	.99
AGFI	>.95	>.90	.98
CFI	>.95	>.90	.98
RMSEA	<.05	<.08	.07
SRMR	<.05	<.08	.06

As shown in Table 5, multiple fit indices were used to assess the model fitness of the scale during CFA. These indices and their interpretation criteria are as follows:

Chi-Square / Degrees of Freedom (χ^2/df): A value below 2 indicates excellent fit; values up to 5 are acceptable.

Goodness-of-Fit Index (GFI): Values above .95 indicate good fit; > .90 is acceptable.

Adjusted Goodness-of-Fit Index (AGFI): Should be > .90 for

acceptable fit.

Comparative Fit Index (CFI): Should be > .95 for good fit; > .90 is acceptable.

Root Mean Square Error of Approximation (RMSEA): Values below .05 suggest close fit, and values between .05-.08 indicate reasonable fit.

Standardized Root Mean Square Residual (SRMR): Should be < .08; values below .05 are ideal.

In this study, the results showed that the model had acceptable to excellent fit ($χ^2$/df = 2.14, GFI = .99, AGFI = .98, CFI = .98, RMSEA = .07, and SRMR = .06). Based on these values, the model was considered to have a good fit in its current form. The Path diagram illustrating the standardized factor loadings of the model is presented in Figure 2

Figure 2
Path Diagram for the Patriarchal Beliefs Scale
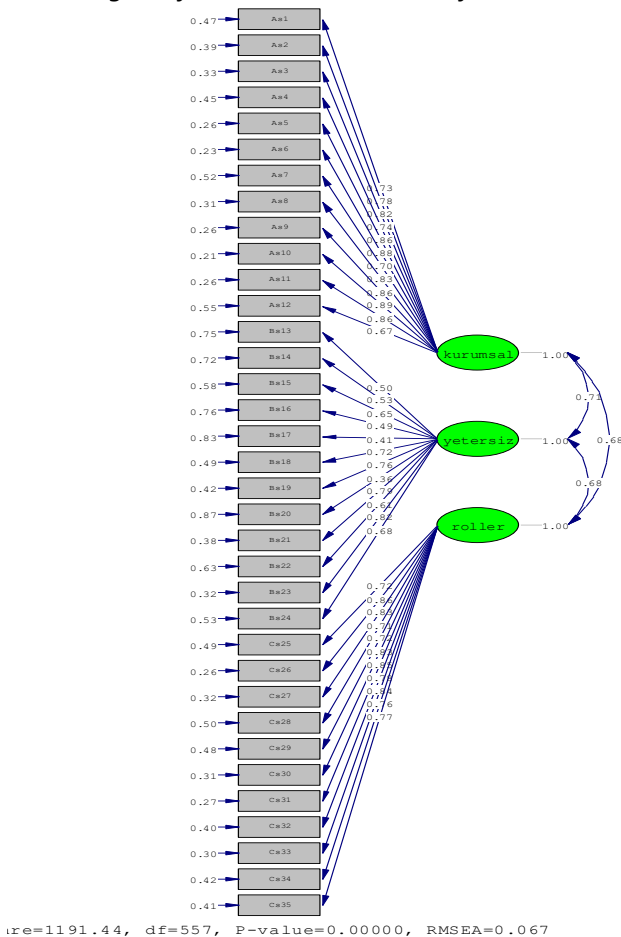
The test-retest correlation value of the scale between the first and second applications was *r* = .82, and the relationship between the two applications was found to be significant at *p* < .001 level of significance.

Table 6
Items in the Sub-Scales of the Patriarchal Beliefs Scale, The Minimum-Maximum Scores that can be Taken and Taken Scores in the Scale, The Sub-Scales and Total Average Scores in the Scale

Patriarchal Beliefs Sub-Scales	Patriarchal Beliefs Scale Sub-Scales' Items	The Min-Max Scores	Taken Min-Max Scores	X̄±SD
Institutional Power of Men	1-2-3-4-5-6-7-8-9-10-11-12	12-84 points	12-84 points	37.42±21.00
Inherent Inferiority of Women	13-14-15-16-17-18-19-20-21-22-23-24	12-84 points	12-84 points	26.90±13.60
Gendered Domestic Roles	25-26-27-28-29-30-31-32-33-34-35	11-77 points	11-77 points	40.45±19.77
Patriarchal Beliefs Scale	35 items	35-245		104.77±47.21

Looking at Table 6, the institutional power of men sub-scale score average of the current scale was 37.42 ± 21.00, the scoring average of the inherent inferiority of women sub-scale was 26.90 ± 13.60, the gendered domestic roles sub-scale score average was 40.45 ± 19.77, and the total score average of the scale was 104.77 ± 47.21. The lowest and highest scores taken in the overall scale were in the range 35-245 points. The patriarchal beliefs scale is composed of three sub-scales and has no reverse coded items.

Discussion

Discussion of Reliability Findings

To detect reliability in scale adaptation studies, it is necessary to look at internal consistency. As an internal consistency criterion, Cronbach's Alpha coefficient and the item-total score correlation should be considered (Akgül, 2003; Güleç, 2009; Seçer 2015). According to the literature, a Cronbach's Alpha coefficient between .60 < α < .80 indicates a reliable and .80 < α < 1.00 indicates a highly reliable scale (Akgül, 2003). The Cronbach's Alpha

According to the findings of the explanatory and confirmatory factor analyses, the 35-item the PBS was found to be suitable in the Turkish language with 3 factors.

coefficient was found as .96 in this study. It was .95 for the institutional power of men sub-scale, .94 for the gendered domestic roles sub-scale, and .85 for the inherent inferiority of women sub-scale. Since Cronbach's Alpha coefficient values are in the range of $.80 < \alpha < 1.00$, the scale can be said to be highly reliable.

For a measuring instrument, the item-total score correlation of an item must be at least .20 and not negative (Aiken, 1994). An item-total score correlation value between .00 - .19 indicates a little or no discrimination, .20 - .39 indicates a moderate level of discrimination, and .40 - 1.00 indicates a good level of discrimination (Aiken, 1994; Erkuş, 2014; Şeker & Gençdoğan, 2014). In the current study, all item-total scale correlations were found to be between .27 and .77. The scale's 17th and 20th items were found to have moderate correlation, and the remaining items demonstrated good discriminative power. According to these findings, the PBS has no problematic item.

For test-retest, the scale should be applied again after 2-4 weeks (Seçer, 2015). The correlation between the first and second measurements should be minimum .70, and above .80 preferably (Erkuş, 2014; Mayers, 2013; Şeker & Gençdoğan, 2014). In this study, the correlation value between the first and second measurements was $r = .82$, and there was a significant relationship between the two measurements at $p < .001$ level of significance. According to this result, it can be said that the scale has a good invariance over time.

The score averages of the sub and parent-groups of the patriarchal beliefs scale were calculated, and the t value of the difference between the sub and parent-group averages was found to be significant at a $p < .001$ level of significance. This result shows that the total score of the scale distinguishes between those with higher and lower patriarchal beliefs attitudes.

Discussion of Validity Findings

The form created for the content validity must be submitted to a minimum of 3 experts and a maximum of 20 expert opinions (Tavşancıl, 2002). In this study, the adaptation of the measurement tool was presented to the opinions of 7 experts. According to the experts' feedback, the content validity was evaluated using the Davis technique. According to this technique, the CVI value should be greater than .80 (Yurdugül, 2005). In this study, the CVI value of each of the 35 items was greater than .80. The overall content validity was .96. These results suggest that the content validity of the patriarchal beliefs scale is appropriate.

It is necessary to determine whether the sample group is sufficient for the suitability of factor analysis in the literature (Tavşancıl, 2002). For this, the KMO test is performed (Alpar, 2016; Seçer 2015). For the suitability of factor analysis, it is recommended that the KMO value should be greater than .60 (Büyüköztürk, 2014). Suitability of the correlation matrix is also necessary for factor analysis. For the suitability of the correlation matrix, Bartlett's sphericity test needs to be significant (Büyüköztürk, 2014). In this study, the KMO value was .94, Bartlett's test result Chi-Square value was 6814.95 at $p < .001$ level of significance. These results show that factor analysis can be performed on the data. According to the factor analysis, the scale's total explained variance was 57.84%. As a result, a 3-factor structure was obtained with eigenvalues above 1. When the item distributions are examined, it is observed that they overlap with the original scale. The variance of a scale must be between 40-60% to be considered acceptable (Şencan, 2005). It is observed that the variance in this study is acceptable.

In scale adaptation studies, a CFA is performed for the similarities of factor structure between the original scale and the adapted scale (Gözüm & Aksayan, 2003). CFA is performed to validate the compatibility of the data set with the theoretical structure (Şimşek, 2007). In CFA, a Chi-square / degree of freedom (df) ratio below 5 indicates that the model has an acceptable goodness of fit (Kyriazos, 2018). As a result of the structural equation modeling (SEM) analysis in this study, it was found that $\chi^2 = 1191.44$, df = 557, and $\chi^2/df = 2.14$. These results are proof that the model has an acceptable goodness of fit. In general, indexes indicating a model fit include (GFI), RMSEA, CFI (Comparative Fit Index), NFI (Normed Fit Index), RFI (Relative Fit Index), IFI (Incremental Fit Index), and AGFI (Adjusted Goodness of Fit Index) for CFA. The acceptable value for the NFI, NNFI, CFI, RFI, IFI and GFI indices is .80 and the perfect fitness value is .95. The acceptable fitness value for the AGFI index is .85 and the perfect fitness value is .90 and above (Bayram 2010; Meydan & Şeşen, 2015; Şimşek, 2007). In the RMSEA value, however, .08 and smaller values indicate that the model is acceptable for the fitness of the data, and a value close to zero and less than .05 indicates a perfect model-data fitness (Bayram 2010; Meydan & Şeşen, 2015; Şimşek, 2007). In this study, the GFI value was .99, the AGFI value was .98, the CFI value was .98 and the RMSEA value was .07 and the SRMR value was .06. These results indicate the acceptability of the model's goodness of fit. As a result of the study, it was found that

the 35-item scale adapted to Turkish culture is a valid and reliable measurement tool. It was concluded that this scale can be used to measure patriarchal beliefs and attitudes in Turkish society.

Limitations and Future Research

One limitation of the present study is the timing of data collection. The data were gathered in 2019, following ethics committee approval in late 2018. While the psychometric validation of the Turkish version of the Patriarchal Beliefs Scale remains robust and theoretically grounded, sociocultural changes in gender roles and public discourse may have occurred in the intervening years. Therefore, the findings should be interpreted in light of the temporal context, and future research is recommended to reassess the scale's applicability and scores in more recent populations to capture potential shifts in patriarchal beliefs.

Conclusion and Recommendations

This study aimed to adapt the PBS into Turkish and evaluate its validity and reliability within the Turkish cultural context. The findings of the study demonstrate that the Turkish version of the scale maintains a three-factor structure consistent with the original version and exhibits strong psychometric properties. Both exploratory and confirmatory factor analyses supported the construct validity of the scale, and internal consistency coefficients for the overall scale and subscales were found to be high. The test-retest reliability further confirmed the scale's temporal stability.

The Turkish adaptation of the PBS provides researchers, practitioners, and policymakers with a culturally appropriate and statistically robust instrument for assessing internalized patriarchal beliefs in various domains such as employment, education, politics, and family life. It enables comparative studies across cultures and supports the development of evidence-based interventions aimed at addressing gender inequality.

Given the dynamic nature of gender norms and societal attitudes, future research is encouraged to apply this scale in different regions and demographic groups within Turkey and to reassess its performance over time. Overall, the validated Turkish version of the PBS fills a critical gap in gender studies and can serve as a reliable tool for advancing research on patriarchal ideologies and their impact on social structures.

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