

# ATTITUDE SCALE TOWARD GUN OWNERSHIP (ASTGO): A VALIDITY AND RELIABILITY STUDY

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**Citation** Yasuntimur, A., Ögünç, G.İ. & Bayhan, V. (2026). Attitude scale toward gun ownership (astgo): a validity and reliability study. *Journal of Academic Approaches*, 17, 007, 01–15. DOI: 10.54688/ayd.1753162

**doi** 10.54688/ayd.1753162

**Received:** July 29, 2025 / **Revised :** February 24, 2026 / **Accepted:** March 09, 2026 / **Published:** April 20, 2026

## Abstract

While research on gun ownership has expanded in recent years, existing measurement tools are still limited in scope and fail to capture the multidimensional nature of public attitudes. The objective of this research is to design a valid and reliable measure of individuals' attitudes toward firearm ownership. A preliminary pool of 25 items was developed drawing upon a comprehensive review of the literature and insights provided by experts. After pre-testing and pilot implementation, the pool was refined to 19 items. Data were collected from 570 individuals aged 18 to 60. Exploratory Factor Analysis was performed with a subsample of 340 individuals, while Confirmatory Factor Analysis was applied to a different sample of 230 participants. Analyses resulted in a two-dimensional structure with 10 items, named "Attitude Toward Societal Gun Ownership" and "Attitude Toward Individual Gun Ownership." The factor loadings ranged from 0.710 to 0.888, and the model fit indices indicated satisfactory values ( $X^2/df = 2.198$ , RMSEA = 0.072, CFI = 0.979). The total Cronbach's alpha was calculated as 0.936, with values of 0.941 and 0.890 for the two subdimensions. These findings show that the developed instrument proves to be a dependable and valid means of evaluating multidimensional perceptions of firearm ownership.

**Keywords:** Gun ownership, Attitude toward gun ownership, Firearm.

**Gel Codes:** C18, I12, K14

## 1. Introduction

Gun ownership is defined as the legal acquisition of firearms by individuals for purposes such as personal security, hobby, hunting, or sport shooting, depending on personal and societal factors (Yasuntimur & Ögünç, 2022). However, this phenomenon is not solely shaped by personal choices; it is also influenced by a complex set of dynamics including cultural values, legal regulations, economic conditions, and societal perceptions of safety (Ward et al., 2024; Yamane, 2023). Globally, it is estimated that over one billion small and light firearms are in circulation, approximately 85% of which are owned by civilians (Small Arms Survey [SAS], 2019). According to SAS (2018), civilians own approximately 857 million firearms, whereas military forces hold about 133 million and law enforcement agencies possess 22.7 million. The consequences of widespread gun ownership are severe. Firearms are responsible for over 200,000 deaths annually, including approximately 150,000 homicides, 65,000 suicides, and over 20,000 accidental deaths (Naghavi et al., 2018). In Türkiye, official figures indicate that between January 1, 2020, and June 13, 2024, a total of 2,579,553 firearm licenses were issued (Sivas İrade, 2024). A 2024 report released by the Umut Foundation indicated that 37,998 firearm-related incidents had been covered in the media over the past eleven years, leading to 23,804 fatalities (Umut Vakfı, 2025). These statistics underscore the significance of gun ownership as a pressing public safety concern both globally and within Türkiye. Unlicensed gun ownership is often cited as a core factor underlying this issue (Yasuntimur & Ögünç, 2022).

Despite the gravity of the problem, there remains a limited number of empirical studies evaluating measurable attitudes toward gun ownership. Prior research has explored a range of issues including the demographic and psychological profiles of firearm license applicants (Korkmaz et al., 2024), trauma history and firearm-related attitudes (Wamser-Nanney et al., 2021), firearm policy in the U.S. (Lancaster et al., 2025), the link between mental health and license applications (Özmen et al., 2024), gender roles and cultural values (Şahiner, 2023), and psychiatric or criminal history within the family (İmre, 2025). Measurement tools developed to assess attitudes toward gun ownership are generally survey-based and tend to focus on the reasons behind acquiring firearms. Field studies have addressed issues such as firearm possession tendencies in homes and workplaces (Buhara, 2007), the relationship between armament and societal violence (Avcı, 2018), the link between femicide and individual gun ownership (Pehlevan, 2019), psychological well-being and gun carrying (Çavuş, 2019), the freedom-security dilemma (Aydın, 2019), deaths from stray bullets (Güzelyalçın, 2024), concern about crime (Ömerov, 2024), and perceptions of personal security (Kuş, 2023). However, most of these studies analyze gun ownership through behavioural tendencies or risk indicators rather than comprehensive attitudinal structures.

Existing scales in the literature also present several limitations. Most fail to reflect the multidimensional nature of attitudes toward gun ownership. For instance, the Gun Attitude Scale (GAS) primarily focuses on self-efficacy and comfort levels, excluding socio-psychological components such as values, identity, and perceptions of security (Tenhundfeld et al., 2020). Similarly, the three-factor model developed by Branscombe et al. (1991) covers themes such as the right to own firearms, protective functions, and criminal associations but omits contextual influences. Furthermore, these scales have been primarily developed within the cultural and legal contexts of Western societies, raising questions about their validity in diverse socio-cultural environments. Some studies (Grene & Siegel, 2023; Warner et al., 2022) rely on individual items to measure attitudes rather than validated scales, which often neglects the structural components of attitudes. The scale developed by Meyler and Lester (1997) was applied only to students, limiting its contextual validity. Tools like the AGVQ (Shapiro et al., 1997) were designed exclusively for adolescent populations and are therefore inadequate for assessing adult attitudes. Although not all studies have developed specific scales, some have analyzed motivations for gun ownership. For example, the protective motivations of gun-owning parents have been linked to perceptions of safety (Sokol et al., 2023), and Lacombe et al. (2019) introduced the concept of “gun owner identity,” suggesting that individuals’ political attitudes and behaviours are shaped through identity-based mechanisms. While such studies offer critical contextual insights into gun ownership, they fall short of providing valid and reliable measurement tools (Schutten et al., 2024).

Thus, current research tends to address the issue of gun ownership through fragmented themes, hindering a holistic evaluation of the phenomenon. Particularly in countries like Türkiye, which have distinct socio-cultural structures, few context-sensitive, multidimensional instruments exist that are specifically developed to assess attitudes toward gun ownership. This underscores the necessity of developing a valid, reliable, and culturally contextualized attitude scale on civilian firearm ownership. Accordingly, this research seeks to develop a comprehensive, valid, and reliable instrument for assessing individuals' perceptions of firearm ownership.

## **2. Method**

### **2.1. Research Design**

This research was structured within a survey design and implemented through a five-phase scale development process. In the first phase, a comprehensive review of the relevant literature was undertaken to generate an item pool consistent with the conceptual dimensions targeted for measurement. These items were subsequently reviewed for content validity by six subject matter experts. In the second phase, a preliminary draft of the scale was administered to 30 participants, and adjustments were made in light of their feedback. During the third phase, the revised form of the scale was distributed to a sample of 340 volunteers. In the fourth phase, Exploratory Factor Analysis (EFA) was carried out to assess construct validity, and this was followed by Confirmatory Factor Analysis (CFA) conducted on an independent sample of 230 participants. Finally, the reliability of the scale was tested using Cronbach's alpha coefficient. In the final stage, revisions were made based on the analytical results, a scoring system was established, and the scale was finalized. Ethics approval for the research was obtained (April 18, 2025; Decision No: 1, Session No: 9). Throughout the research process, participants' rights were respected, voluntary participation was ensured, and all data collected were used exclusively for scientific purposes.

### **2.2. Item Pool Development and Scale Format**

The ASTGO was developed following a structured procedure aligned with established scale development guidelines (Boateng et al., 2018). During the initial phase, a comprehensive literature review was conducted to establish a conceptual framework that reflects attitudes toward gun ownership. This review was carried out using academic databases and indexes such as WOS, Scopus, and the National Academic Network and Information Center (ULAKBİM). Keywords such as "gun ownership," "firearm attitudes," "gun carrying perception," "public safety," and "risk perception" were employed. Only peer-reviewed studies published in Turkish or English, specifically addressing individuals' perceptions and attitudes toward gun ownership, were included. All items were measured using a five-point scale ranging from strong disagreement (1) to strong agreement (5), where higher scores indicate greater approval of gun ownership. The completed scale contained no reverse-coded items. Accordingly, the ASTGO was designed as a dependable and valid instrument for investigating the social dimensions of firearm ownership. Construct validity was assessed using both exploratory and confirmatory factor analyses, and content validity was established through evaluation by experts.

### **2.3. Expert Evaluation**

An initial item pool consisting of 25 statements was developed based on the theoretical framework. To establish content validity, consultations were held with a panel of six experts specializing in sociology, psychology, criminology, and security studies. Experts reviewed the items qualitatively, assessing their clarity, conceptual consistency, and alignment with the theoretical framework. Based on their feedback, items that were vague, conceptually inconsistent, or redundant were eliminated. As a result, the scale was reduced to 19 items.

## 2.4. Pilot Study and Finalization of the Scale

A pilot study was carried out to assess the draft scale's clarity, internal consistency, and technical functionality. A diverse sample of 30 participants, aged 18 to 60, was recruited to capture a wide range of perspectives on firearm ownership. The main goal was to evaluate how understandable, clear, and feasible the scale items were for the target population. Feedback from this phase led to minor adjustments to improve linguistic clarity and simplify item wording. Following these refinements, the finalized scale included 19 items. Additionally, the pilot study supported the validation of the administration process and provided a methodological basis for subsequent reliability and validity assessments.

## 2.5. Participant Group

The minimum required sample size for this study was estimated using G\*Power software (version 3.1.9.7; University of Düsseldorf, Germany). Based on a medium effect size (0.15), a 5% significance level ( $\alpha = 0.05$ ), a statistical power of 95% ( $1 - \beta = 0.95$ ), and considering 19 predictor variables, the minimum number of participants was calculated to be 217. Participants were eligible if they (1) had reached at least 18 years of age, (2) voluntarily agreed to participate, and (3) were not members of any armed organization or unit. A total of 570 individuals aged 18 to 60 participated voluntarily. Of these, 340 took part in the first phase, while 230 were included in the second phase. The participants' demographic characteristics are presented below.

**Table 1.** Characteristics of the Study Sample

Variable		EFA Group	CFA Group
Sex	Female	128	86
	Male	212	144
Marital Status	Single	138	94
	Married	186	122
	Widowed/Divorced	16	14
Education	High school or lower	30	20
	University degree	214	150
	Postgraduate	96	60
Monthly Income (TL)	0 – 22.104 TL	56	35
	22.105 – 44.208 TL	48	35
	44.209 – 66.312 TL	102	73
	66.313 – 88.416 TL	53	37
	88.417 TL and above	81	50
Total		340	230

TL=Turkish Lira

An examination of Table 1 reveals that, in both the EFA ( $n = 340$ ) and CFA ( $n = 230$ ) groups, the number of male participants exceeded that of female participants. In terms of marital status, married individuals comprised the majority in both samples, followed by single participants, while the number of widowed or divorced individuals was relatively low. Regarding educational attainment, the majority of participants in both groups held a university degree, followed by those with postgraduate education. Participants with a high school education or lower constituted a small proportion. In terms of monthly income, most participants fell within the 44.209 – 66.312 TL range, followed by those in the 88.417 TL and

above category. Participants in the lowest income bracket (0–22,104 TL) were underrepresented in both groups. Overall, the demographic composition of the EFA and CFA samples was found to be broadly similar.

## 2.6. Validity and Reliability Analyses

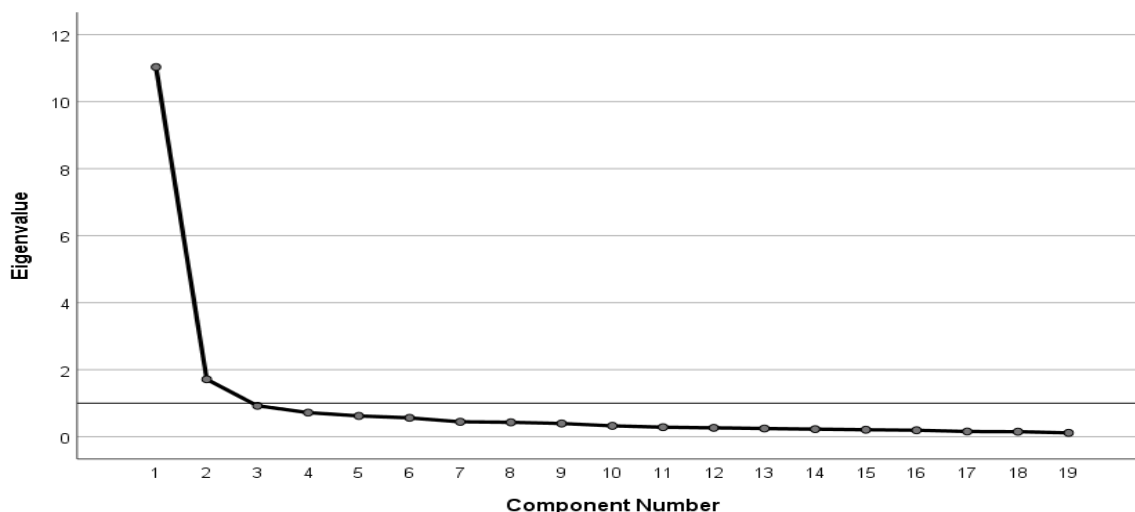
The data were summarized using descriptive measures such as averages, standard deviations, frequencies, and percentages. To evaluate the scale's validity and reliability, both EFA and CFA were performed. EFA and Cronbach's alpha computations were conducted using IBM SPSS Statistics 26.0, while CFA was carried out through AMOS 24.0. The dataset's suitability for factor analysis was initially assessed using the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. KMO values greater than 0.50 along with statistically significant results for Bartlett's test ( $p < 0.05$ ) indicated that the data were appropriate for factor analysis (Fabrigar et al., 1999). Exploratory factor analysis was conducted employing Principal Component Analysis with Varimax rotation. Factors with eigenvalues exceeding one were retained, and the scree plot was visually inspected. Only items with factor loadings of 0.50 or higher were included in the final factor structure (Bao et al., 2018).

For CFA, multiple fit indices were used to evaluate model adequacy: normed "chi-square ( $\chi^2/df \approx 2$ ), Comparative Fit Index ( $CFI \geq 0.90$ ), Tucker–Lewis Index ( $TLI \geq 0.90$ ), Root Mean Square Error of Approximation (RMSEA;  $< 0.05 = \text{good}$ ,  $< 0.10 = \text{acceptable}$ ), PCLOSE ( $> 0.05$ ), and Standardized Root Mean Square Residual (SRMR  $< 0.08$ )" (Hair et al., 2010; Shevlin & Miles, 1998). Internal consistency was assessed with Cronbach's alpha for each subscale and the overall scale, all of which exceeded 0.70, demonstrating adequate reliability (Kline, 2023). Moreover, Composite Reliability (CR) and Average Variance Extracted (AVE) were computed to further evaluate the scale's internal consistency and convergent validity (Fornell & Larcker, 1981). These combined analyses confirmed that the scale demonstrated adequate reliability across multiple statistical criteria.

## 3. Results

### 3.1. Examination of the Scale's Factor Structure

Before performing EFA to assess the scale's construct validity, the suitability of the dataset for factor analysis was evaluated using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity. The KMO value was 0.962, indicating an excellent level of sampling adequacy (Kaiser, 1974), and Bartlett's test yielded a statistically significant result ( $\chi^2 = 5597.364$ ;  $df = 171$ ;  $p < .001$ ), confirming the appropriateness of the data. To determine the number of factors to retain, multiple criteria were applied, including eigenvalue analysis, examination of the scree plot, and the proportion of total variance explained. Subsequently, Varimax rotation was conducted to enhance the clarity and interpretability of the extracted factor solution. Through this rotation process, a meaningful and theoretically consistent factor structure was achieved. In identifying how many factors should be retained, components with eigenvalues greater than one were considered, in accordance with widely accepted standards in factor analysis (Büyüköztürk, 2010). The analysis revealed a two-factor structure, where the first factor exhibited an eigenvalue of 11.032, explaining 58.06% of the total variance, and the second factor had an eigenvalue of 1.713, accounting for an additional 9.02%. Combined, these two factors accounted for 67.07% of the overall variance, a level deemed acceptable within social science research (Field, 2013). Afterwards, the scree plot was also reviewed to further evaluate the items. The analysis verified the presence of a two-factor solution for the scale, as displayed in Figure 1.



**Figure 1.** Scree Plot of Extracted Factors

Following the identification of a two-factor structure, a rotation procedure was applied, resulting in the Rotated Component Matrix. The factor loadings of each item were evaluated in relation to the factors under which they clustered. A minimum loading value of 0.50 was adopted as the cut-off point for retaining items in the scale. Furthermore, items that displayed substantial and comparable loadings across multiple factors were carefully reviewed. Items failing to load distinctly on a single factor were eliminated, as such overlaps risk undermining the conceptual clarity of the scale and the differentiation between factors. In line with these criteria, an initial rotated component matrix with 19 items was established. However, Items 9 and 13 were subsequently excluded from the scale due to unsatisfactory loading patterns. Factor analysis was performed again, resulting in the finalized scale comprising 17 items. The KMO value for this revised 17-item version was 0.956, indicating excellent sampling adequacy (Kaiser, 1974), and Bartlett's Test of Sphericity remained statistically significant ( $\chi^2(136) = 4838.097$ ;  $p < 0.001$ ). A subsequent eigenvalue evaluation confirmed a two-factor structure, with both factors having eigenvalues above 1. Collectively, these factors explained 67.37% of the total variance, with the first factor contributing 57.31% and the second 10.05%. The rotated component matrix for the final 17-item scale is presented in Table 2.

**Table 2.** Rotated Component Matrix (n = 340)

Item No	Item Content	Factor 1 (Attitude Toward Societal Gun Ownership)	Factor 2 (Attitude Toward Individual Gun Ownership)
6	The presence of firearms among people around me enhances public safety.	0.823	
8	The widespread ownership of firearms supports societal safety.	0.823	
15	Owning a firearm is a sign of personal freedom.	0.805	
5	Gun ownership contributes to maintaining public order.	0.794	
7	The increase in gun ownership helps individuals feel safer.	0.759	
18	Owning a firearm brings prestige in society.	0.714	
14	Having a firearm increases a person's independence and self-confidence.	0.645	
16	Gun ownership holds a significant place in our cultural values.	0.613	
17	Firearms can serve as tools for delivering justice when necessary.	0.567	
2	Owning a gun increases my chances of self-protection in dangerous situations.		0.882
11	Possessing a firearm is important for protecting myself and my loved ones when needed.		0.872
1	Keeping a firearm at home enhances my safety.		0.835
3	Firearms are effective for personal defense.		0.796
12	The presence of firearms increases individuals' capacity to defend themselves.		0.740
4	Owning a gun is necessary for living in a dangerous environment.		0.674
10	The responsibility that comes with gun ownership is beneficial for conscious individuals.		0.673
19	Owning a firearm strengthens my responsibility to protect my family and loved ones.		0.641

As illustrated in Table 2, results from the factor analysis reveal that the ASTGO includes two main factors. The first factor encompasses items that emphasize the relationship between civilian gun ownership and concepts such as social order, public safety, freedom, social status, and cultural values. These items suggest that individuals associate gun ownership not only with personal security but also with broader societal constructs such as social standing, prestige, and cultural identity. The second factor highlights the individual-level protective and defensive functions of gun ownership. It includes items that reflect the perception that owning a firearm enhances one's ability to defend oneself and loved ones against threats. This structure reflects a meaningful and internally consistent framework within the scale, capturing both societal and personal dimensions of gun ownership attitudes.

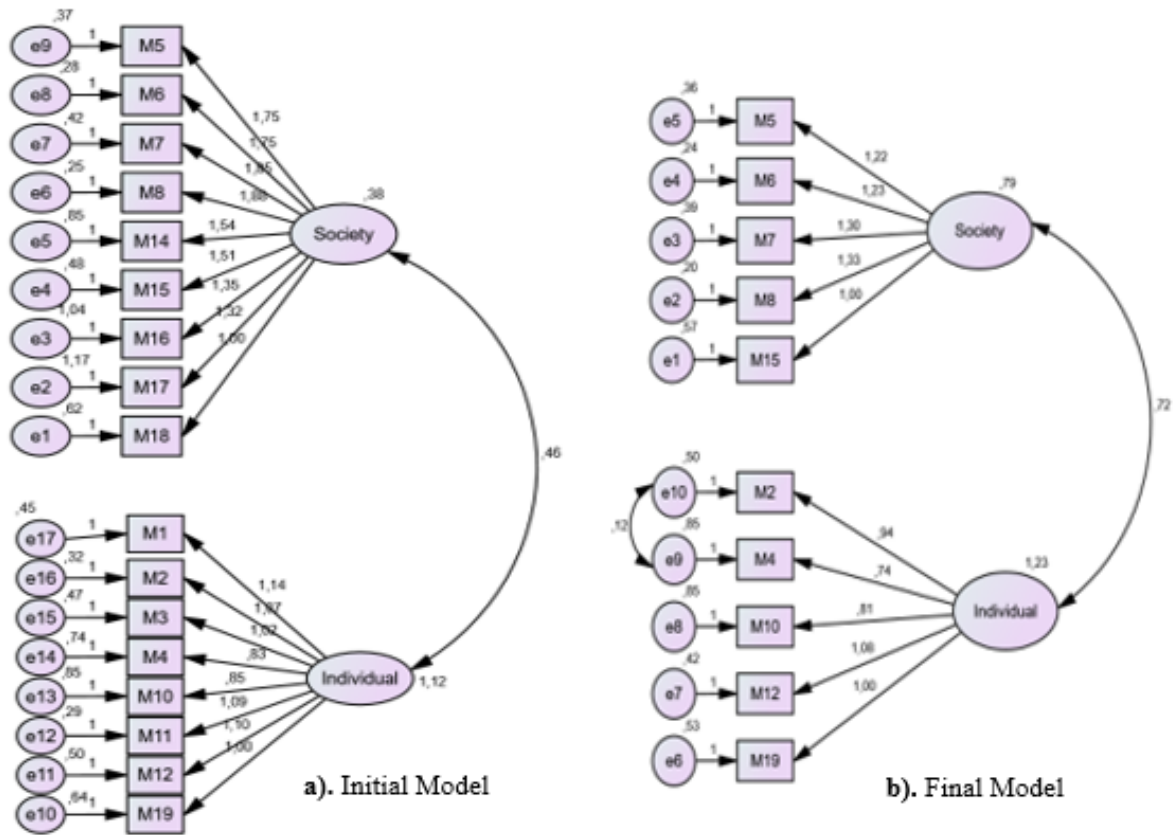
### 3.2. Confirmatory Factor Analysis Results

To evaluate the factorial structure of the scale, a CFA was performed. In order to enhance the fit of the initially specified two-factor model, several items were excluded from the scale. The items identified as impairing model fit and subsequently excluded were items 18, 14, 16, and 17, which measured attitudes toward societal gun ownership, and items 11, 1, and 3, which measured attitudes toward individual gun ownership. The final model, obtained after the removal of these items, is presented in Table 3.

**Table 3.** Model Fit Indices

Model	X <sup>2</sup>	df	X <sup>2</sup> /df	CFI	GFI	AGFI	RMR	RMSEA	ECVI
Initial Model	401.888	118	3.406	0.917	0.810	0.753	0.105	0.102	2.061
Final Model	72.541	33	2.198	0.979	0.943	0.905	0.055	0.072	0.509

As indicated in Table 3, the final model's fit indices reflect a significant improvement over those of the preliminary solution. The chi-square statistic ( $\chi^2 = 72.541$ ,  $df = 33$ ) resulted in a  $\chi^2/df$  ratio of 2.198, which reflects a good fit as it is below the recommended cutoff value of 3 (Kline, 2023). Additionally, the CFI (0.979), GFI (0.943), and AGFI (0.905) all exceeded the commonly accepted threshold of 0.90, indicating a strong model fit (Hu & Bentler, 1999). The RMR (0.055) remained well below the 0.08 criterion, suggesting residuals were within acceptable limits (Hu & Bentler, 1999). Moreover, the RMSEA (0.072) fell within the 0.05–0.08 range, reflecting a moderate but acceptable level of fit (Browne & Cudeck, 1993). Furthermore, the relatively low Expected Cross-Validation Index (ECVI = 0.509) suggests that the model is likely to perform similarly across different samples, supporting its generalizability. Overall, these findings indicate that the finalized model achieves a strong and satisfactory fit, consistent with widely recognized criteria in measurement and structural equation modeling research. The path diagram depicting the validated factor structure is presented in Figure 2.



**Figure 2.** Path Diagram Results of the CFA

The model presented in Figure 2 includes two primary latent factors, attitudes toward societal gun ownership and attitudes toward individual gun ownership, along with their associated observed variables. In the finalized model, the societal gun ownership factor is represented by items M5, M6, M7, M8, and M15, while the individual gun ownership factor is represented by items M2, M4, M10, M12, and M19. The standardized factor loadings for these items are generally high, ranging from 0.74 to 1.33, indicating that the items strongly represent their respective factors. Furthermore, the items exhibited low error variances, supporting the reliability of the measurements. The estimated correlation between the two latent factors was 0.72, indicating a moderate positive relationship. This implies that although attitudes toward societal and individual gun ownership are closely linked, they continue to represent conceptually separate dimensions. Reliability analyses for the instrument are reported in Table 4.

**Table 4.** Final Model Factor Loadings, Item-Total Correlations, Cronbach's Alpha Coefficients, and AVE and CR Values (n = 230)

Factor	Item No	Item Content	Factor Loading	Mean ± SD	Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha	AVE	CR
Factor 1 (Attitude Toward Societal Gun Ownership) n=5	6	The presence of firearms among people around me enhances public safety.	0.888	2.08±1.21	0.793	0.926			
	8	The widespread ownership of firearms supports societal safety.	0.887	2.10±1.27	0.814	0.925			
	15	Owning a firearm is a sign of personal freedom.	0.858	2.02±1.17	0.724	0.930			
	5	Gun ownership contributes to maintaining public order.	0.802	2.04±1.25	0.778	0.927	0.941	0.701	0.921
	7	The increase in gun ownership helps individuals feel safer.	0.743	2.30±1.32	0.808	0.925			
Factor 2 (Attitude Toward Individual Gun Ownership) n=5	2	Owning a gun increases my chances of self-protection in dangerous situations.	0.853	3.52±1.26	0.718	0.930			
	12	The presence of firearms increases individuals' capacity to defend themselves.	0.776	2.99±1.37	0.775	0.927			
	4	Owning a gun is necessary for living in a dangerous environment.	0.762	3.43±1.23	0.626	0.934			
	10	The responsibility that comes with gun ownership is beneficial for conscious individuals.	0.755	3.40±1.29	0.644	0.934	0.890	0.588	0.871
	19	Owning a firearm strengthens my responsibility to protect my family and loved ones.	0.710	2.71±1.33	0.741	0.929			
<b>Total</b>							0.936	0.639	0.924

Table 4 indicates that the developed scale possesses a solid psychometric structure, supporting both its construct validity and reliability. Findings from the exploratory factor analysis revealed that the items loaded meaningfully onto two distinct dimensions. The factor loadings ranged from 0.710 to 0.888, exceeding the widely accepted minimum of 0.30 (Tabachnick & Fidell, 2007), with values above 0.70 considered strong (Field, 2013). Thus, all items exhibited substantial

factor loadings, confirming the stability of the factorial structure. Item means and standard deviations also supported the alignment of items with the overall structure of the scale. Moreover, the correlations between each item and the total scale ranged from 0.626 to 0.814, indicating that every item was strongly related to the overall scale, as correlations above 0.30 are typically considered evidence of conceptual alignment with the underlying construct (Büyüköztürk, 2010). All items satisfied this criterion. With regard to reliability, the Cronbach's alpha coefficient for the entire scale was found to be 0.936, indicating excellent internal consistency (Field, 2013). The reliability coefficients for the two subscales were 0.941 and 0.890, respectively, both reflecting high reliability. CR and AVE were also calculated to provide further evidence for construct validity (Fornell & Larcker, 1981). The CR values for the two subscales were 0.921 and 0.871, while the AVE values were 0.701 and 0.588, respectively. These findings exceed the recommended minimum values of 0.70 for CR and 0.50 for AVE, supporting high internal consistency and sufficient convergent validity for both factors. Based on these findings, the scale satisfies the required statistical conditions for validity and reliability and can be considered a psychometrically sound tool for assessing attitudes toward gun ownership.

#### 4. Conclusion

The present study aimed to examine the validity and reliability of the ASTGO, a tool developed to assess attitudes toward gun ownership. The scale represents a contextually grounded and psychometrically robust tool that captures both individual and societal dimensions of gun ownership within the Turkish context. ASTGO comprises two subdimensions: attitudes toward societal gun ownership (measured by items 5, 6, 7, 8, and 15) and attitudes toward individual gun ownership (measured by items 2, 4, 10, 12, and 19). Participants rated each item using a 5-point scale, where 1 indicated strong disagreement and 5 indicated strong agreement. The overall scores spanned from 10 to 50, while each subscale ranged between 5 and 25. There are no reverse-coded items. Higher scores reflect more favourable attitudes toward gun ownership, while lower scores indicate opposing views. EFA indicated a two-factor solution that corresponded with the theoretical framework and observed data. The loadings on the factors, spanning 0.710 to 0.888, demonstrate strong item-factor associations (Field, 2013). These results suggest that attitudes toward firearm ownership are influenced not only by individual safety considerations but also by wider social, cultural, and environmental factors. Moreover, all item-total correlation coefficients were above 0.60, reflecting strong internal consistency and scale homogeneity (Büyüköztürk, 2010). CFA confirmed the hypothesized model, with a  $\chi^2/df$  ratio of 2.198, indicating a good fit according to Kline (2023). Additional fit indices, including CFI (0.979), AGFI (0.905), GFI (0.943), and RMSEA (0.072), further supported that the model exhibited both statistical adequacy and theoretical validity (Browne & Cudeck, 1993; Hu & Bentler, 1999).

The scale achieved excellent internal consistency, reflected by a Cronbach's alpha of 0.936, which is above the accepted threshold for high reliability ( $\alpha > .90$ ) (Büyüköztürk, 2010; Field, 2013). The alpha values for the two subscales were 0.941 and 0.890, respectively, demonstrating that both dimensions provide consistent measurement. No notable improvement in reliability was observed when any item was removed, highlighting the contribution of each item to the scale's structure. Moreover, the CR and AVE values for both the subscales and the total scale were above the recommended thresholds (CR > 0.70; AVE > 0.50), further supporting robust construct validity and internal consistency (Fornell & Larcker, 1981). Based on these results, the ASTGO serves as a reliable and valid measure for examining perceptions of gun ownership within the sociocultural context. The scale's multidimensional design addresses an important gap in the literature by enabling analyses at both individual and societal levels. Its clear and accessible language enhances its usability across diverse participant groups. As such, the ASTGO is not only suitable for academic research but also for studies in public policy, security perception, and social psychological analysis.

Beyond its academic contribution, the ASTGO offers practical implications for policymakers, security professionals, and civil society organizations. By identifying patterns in societal and individual attitudes toward gun ownership, the

scale can inform evidence-based policy development, public awareness campaigns, and preventive strategies aimed at reducing firearm-related risks. The instrument may also assist governmental and non-governmental institutions in monitoring public opinion trends over time, thereby contributing to more responsive and context-sensitive regulatory frameworks. Furthermore, understanding attitudinal dimensions can support the design of targeted educational programs and community-level interventions that address cultural and social determinants of firearm perceptions.

In conclusion, the ASTGO is a theoretically grounded, statistically supported, and highly reliable measurement tool that offers a systematic, multidimensional, and context-sensitive approach to evaluating attitudes toward gun ownership. The scale is available for use by researchers for academic and non-commercial purposes, including studies, theses, and scholarly publications. Permission from the authors is not required for such uses, provided that appropriate citation is given and the scale is not modified without proper validation.

**Peer-review:** Externally peer-reviewed.

**Contribution Rate Statement:** First Author (Corresponding Author): 33.3%, Second Author: 33.3%, Third Author: 33.3%.

**Conflicts of Interest:** The authors declare that there is no potential conflict of interest.

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