

RESEARCH ARTICLE

Development of the Uskudar social norm scale in the social media age: Validity, Reliability studies and psychometric analysis

Nevzat Tarhan¹, Aylin Tutgun Ünal^{2,*}

¹ Prof., Department of Psychiatry, NPISTANBUL Brain Hospital & Uskudar University, Istanbul, 34662, Turkey

² Assoc. Prof., Department of New Media and Journalism, Faculty of Communication, Uskudar University, Istanbul, 34662, Turkey

* Corresponding author: Aylin Tutgun Ünal, aylin.tutgununal@uskudar.edu.tr

ABSTRACT

Nowadays, it is observed that digital life around the world is causing a transformation of social norms. The aim of this study is to develop a valid and reliable social norm scale in the self-rating type and to examine its psychometric properties in the social media age. Data was collected from 620 people from across Türkiye on a voluntary basis. As a result of the studies, the 28-item and 5-dimensional Uskudar Social Norm Scale (USNORM) was developed. The dimensions of the scale were named as “Lack of guilt and regret”, “No remorse”, “Emotional instability”, “Insensitivity to legal problems”, “Crime tendency”. The scale explained 51.72% of the total variance. The Cronbach Alpha value of the scale was found to be .89. In the confirmatory factor analysis study, goodness of fit values was found to be within the acceptable range. Some of the conclusions obtained through psychometric analysis are as follows: (a) The social norm perception level of those who use social media for 4 hours or more a day was found to be the lowest, (b) As the frequency of opening live chat on social media increases, the social norm perception level decreases, (c) The social norm perception level of those who stated that they ended their relationships after fighting on social media was low and was observed in the medium-strong impact area. The valid and reliable scale developed in this research will provide concrete data to the literature.

Keywords: Social norm; Social media; Media; Scale development; Validity; Reliability

1. Introduction

Norms determine how decisions are made in social situations and play an important role in maintaining cooperative relationships and coordinating collective action. There are many rules and norms in social interactions, and they guide some aspects of our behavior^[1]. From appropriate greeting rituals to tipping, waiting at a red light, donating to charity, or voting for redistributive policies, social norms determine what actions to take or refrain from. Rules and conventions, such as driving on the right side of the street or queueing, help to coordinate social behavior. However, following norms often requires to restrict behavior, demanding to curtail selfishness or to suppress personal goals^[2]. For example, norms demand for restricting selfish behavior in many cases such as paying taxes, returning undeserved pay, or telling the truth. This may

ARTICLE INFO

Received: 5 December 2024 | Accepted: 29 January 2025 | Available online: 31 January 2025

CITATION

Tarhan N, Tutgun Ünal A. Development of the Uskudar social norm scale in the social media age: Validity, Reliability studies and psychometric analysis. *Environment and Social Psychology* 2025; 10(1): 3290. doi:10.59429/esp.v10i1.3290

COPYRIGHT

Copyright © 2025 by author(s). *Environment and Social Psychology* is published by Arts and Science Press Pte. Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/>), permitting distribution and reproduction in any medium, provided the original work is cited.

conflict with individuals' personal goals. Again, stopping at a red light when there is no vehicle in sight unnecessarily interferes with reaching one's destination.

Social norms (a) indicate what people should or should not do or think under some circumstances, (b) are imposed on individuals at least in part by external sanctions, and (c) are standards of social behavior and/or thought that internalized by some or even many individuals^[3]. As such, they play an important role in a variety of important cognitive and behavioral processes^[4]. In the book of *The Psychology of Social Norms*, Sherif^[5] argued that understanding social norms is critical to predicting human behavior. In later times, it became one of the important topics studied in contemporary psychology^[6-9].

When the literature is examined, there are a number of explanations regarding people's compliance with social norms. One explanation is that norm following is, to some degree, internalized through socialization^[10-12]. Learning of norms occurs when violations are punished or adherence is rewarded when observed or experienced. For example, children can learn the rules of moral conduct from their parents and avoid punishments^[13]. On the other hand, through the process of socialization, people can also develop heuristics for norm abidance that result in intrinsic preferences for fairness or honesty^[14]. In the social norms literature, internalization is sometimes defined as feelings of guilt, shame, pride, and similar internal sanctions (e.g.,^[3]).

People's norm abidance is linked to the concepts of social image and self-image, which are used to explain intrinsic^[15]. People often want to be seen as fair, honest or well-intentioned by others. Such "social image concerns" may be an important driving force behind norm abidance^[16, 17]. Having a positive social image can be beneficial as it increases the chance to be seen as trustworthy, being chosen as an interaction partner, and receiving help from others^[18, 19]. On the other hand, it is a matter of curiosity why people choose to comply with social norms when they are not observed by others. Relatedly, self-image theories suggest that people like to see themselves as moral beings^[20]. People may choose to comply with norms when others do not see them, in order to avoid having to revise one's own positive self-image. According to self-image theory, people shy away from situations that tempt violation of norms to avoid damages to the self-image. In line with this prediction, some people actively avoid situations that allow them to deceive others^[21], and self-awareness reduces antisocial, selfish behavior, due to increased self-image concerns^[22].

Dana, Weber, and Kuang showed that, in uncertain situations involving others, people choose to not resolve the uncertainty, but prefer to stay unaware of the social consequences of their decisions to justify their selfish behavior ('moral wiggle room'). Their results resonate with findings that people use or create uncertainty about norms or decision consequences to make norm violations feel more justified^[23-25].

Social learning suggests that the existence of a norm in itself does not mean that it is followed. Often a critical mass of people is needed to follow the norm (or people need to believe that others follow it) to sustain norm abidance. Observing norm violations can lead to slippery slopes and quickly crowd out norm abidance, as documented in many experiments, whereas common behavior followed by many can gain normative status^[26-29].

When the literature is examined, it is stated that there are many mechanisms that have an influence on the degree of compliance with norms. One possible reason for interindividual differences in norm abidance is power. It has been argued that people in more powerful positions have a lower likelihood to follow norms, possibly because they also face a lower likelihood to get sanctioned for norm violations or develop feelings of entitlement^[30, 31]. Relatedly, individuals who belong to minority groups get punished more frequently for norm violations^[32]. Formal norms are defined here as social norms that are ultimately enforced by the institutions of the legal system. These can also be called legal norms. Informal social norms are norms that

are enforced not by the legal system but by the approval or disapproval of other people in the group or community^[33].

Research also has shown that norm enforcement is more likely when people interact with in-group rather than out-group members^[34] and that people follow norms more stringently when they interact with other people whom they identify to belong to their in-group^[35, 36]. In addition, situational factors can make norms more salient (like avoiding to cross a red traffic light in the presence of children)^[37, 38]. As a situational factor, sustained mass behavioral change is needed to combat the COVID-19 pandemic, but many of the required changes go against existing social norms (e.g., physical closeness with in-group members). As in the pandemic example, the sudden impact of digital technologies on socialization and communication habits should be examined in social norm studies.

Social media usage habits can vary significantly under the influence of social norms. Social media platforms provide an environment that enables users to both disseminate and comply with social norms^[39]. Young users in particular tend to conform to the norms of their friends and wider social networks through social media. Research shows that social media has a significant impact on an individual's self-perception and social identity^[40-42]. Young people's habits of social media use are determined by their search for social approval through likes, comments and shares on social media platforms^[43].

Social media is also a powerful tool that allows individuals to reinforce and spread social norms. For example, social media campaigns and movements can shape and disseminate social norms and values. In this context, the relationship between social media usage habits and social norms can be seen as a two-way interaction process^[44].

In addition, the algorithms of social media platforms are an important factor influencing users' adaptation to social norms. Algorithms reinforce individuals' tendency to conform to social norms by providing content based on users' interests and behaviours^[45]. This situation further complicates the relationship between social media usage habits and individuals' social norms.

As a result, the relationship between social norms and social media use habits can be assessed as a process of mutual interaction and reinforcement. Social media is a powerful tool that allows individuals to adapt to and disseminate social norms. Therefore, the analysis of social media usage habits has an important place in understanding social norms^[46]. In addition to developing a new dimensional scale of social norms, this study will also include comparative analyses of social media usage habits. This will provide initial results that can be used as a reference for further research.

1.1. Social norm theory

Social Norm Theory addresses the question “Why do people do what they do?”^[47]. The theory suggests that human behavior is either “independent” or “interdependent.” Independent actions are based on our own personal beliefs. Factual beliefs refer to how the world is, and personal normative beliefs refer to how the world should be, or what is right and wrong. In the interdependent type, what other people think and do influences our decisions and actions. Human behaviors depend on what we believe others will do (empirical expectations) and on what we think others think we should do (normative expectations).

Social Norms Theory divides a particular practice or behavior into four types: customs, a custom, a moral norm, a descriptive norm, or a social norm. “Customs” are practices we engage in primarily because we think that they will meet our needs, or satisfy our desires. For example, personal desires and material desires are often driving forces to behave outside the norm and are considered conventional.

“Moral norms” are practices we do primarily because we believe it is the right thing to do. These are the things that the moral community demands of us. For example, in many cultures, any sexual activity involving children, whether playfully, willingly, or by force, is considered a moral taboo.

“Descriptive norms” are practices we engage in because, at least in part, we want to coordinate what we do with what other people in our reference network are doing: “I do this because I believe others do the same.” For example, teens may model their friends or parents who engage in online sex activities.

Finally, “social norms” are rules we follow not only because other people do that behavior, but also because we perceive that other people expect us to do the same. When following a social norm, in part, “I do it because other people expect me to.”

1.2. Measurement tools of norm abidance

Given the wide variety of factors that determine norms, measuring these factors is important to be able to compare cross-cultural differences. In studies stating that a number of specially designed tasks can be followed for measurement, depending on the degree of norm abidance, it is emphasized that norms are unique to cultures^[48-51]. Accordingly, what is considered appropriate in one culture can be seen as highly deviant in another culture, challenging the idea of norm universals. This also means that interpreting behavior that is governed by norms, such as cooperation or honesty, is difficult without knowing the underlying norms at play^[51].

Krupka and Weber^[52] developed an incentive-compatible elicitation method to identify social norms. Participants receive a description of a situation in which a person has to choose between different actions. For each possible action that the person could take, the participant is asked to judge how socially appropriate they perceive it on a scale from ‘very socially inappropriate’ to ‘very socially appropriate’. For example, participants are asked to imagine a person A who received a sum of money and has to decide how much of this money to transfer to another person B who did not receive any money. Person A can decide to keep all the money for herself up to transferring all the money to person B. The participant rates how appropriate they perceive each possible action. Eliciting appropriateness ratings this way for all possible choice alternatives reveals a mean appropriateness rating for every action. The action with the highest mean appropriateness can be interpreted as the most socially appropriate (the norm).

Identifying a norm, however, does not mean that people will follow it. Kimbrough and Vostroknutov^[53] developed a simple ‘rule-following task’ aimed at measuring an individual’s propensity to follow norms. With this task-format measurement technique, which asks participants to distribute a fixed number of balls between two baskets, comments can be made about compliance with norms and social behavior. It is reported that many researchers working with such rule-following-task based measurement techniques have reached various results^[54, 55].

Starting from this point, as a result of these measurements, it was concluded that adherence to rules is also positively related to the need for personal structure. Tests reveal how personality dimensions can influence compliance with norms by favoring clear, unambiguous, and predictable situations. Taken together, the norm elicitation method and the rule following task provide simple tools to measure norms and the individual propensity to follow them ^[1].

1.3. Scales and psychometric features of social norms

Although individuals differ in terms of the extent to which they believe in and value social norms, no research to date has identified a measure with which to assess such dispositional variability^[4]. Bizer, Magin, and Levine^[4] assessed the reliability and validity of the Social-Norm Espousal Scale (SNES). A total of six

studies utilized 752 participants recruited from a college campus, from an Internet data-collection site, and from an interurban train station. Internal consistency reliability of the scale was found to be acceptable. The SNE Scale, consisting of 14 items in the 5-point Likert type (Extremely uncharacteristic, somewhat uncharacteristic, Uncertain, somewhat characteristic, extremely characteristic), was found to be valid and reliable.

In a study examining the relationship between norm violations and various variables, the effect of norms, attitudes and habits on speeding behavior was examined and tried to be explained with a model. In a quota sample of 334 Belgian individuals, a speeding behavior model is built, that measure subjective, personal, normative and descriptive norms, personal identity, attitude components, perceived behavioral control, habit formation, behavioral intention and behavior with respect to speeding. Personal and to a lesser extent subjective and descriptive norms have a significant effect on attitudes towards speeding and on self-reported speeding. The study concluded that although people are rationally convinced of the necessity of speed limits, if they do not like these limits, they will not comply to a certain extent. Especially the personal norm (personal belief system towards excessive speed), and to a lesser degree subjective and normative norms, that is, observation and imitation of the behavior of other people on the road (normative norm) have been shown to have a significant influence on attitudes and self-reported behavior and supported the results of studies in the literature^[56-61].

Another scale development study is the validity and reliability study of the Social Belief (Norm) Scale, conducted by Deniz^[62]. In the study conducted with 513 high school students in Türkiye, a 6-item, 5-point Likert type scale was developed. During the item analysis phase of the scale, the item-total correlation coefficient varied between .52-.58. The inter-item correlation coefficient ranged between .31-.50 and the Cronbach's Alpha coefficient was obtained as .80. The explained variance rate of the single-factor scale is 50.2%. As a result of confirmatory factor analysis, goodness of fit values was found to be within the appropriate range. The researcher reported that the scale can be used as an auxiliary tool in exploring the individual's intention to pursue a career and social beliefs that affect career choice.

There are many studies in the literature that do not directly include the word norm, as in Berkowitz and Lutterman's study "The traditional socially responsible personality" in 1968 but do include the concepts of social responsibility, harmony, personality and related scales. These scales are capable of measuring attitudes and behaviors towards social norms and establishing a root-causal relationship with the norms^[63-69].

In this study, it is aimed to develop a current and dimensional social norm scale named "Uskudar Social Norm Scale" and it will be evaluated by including the first psychometric analysis.

2. Materials and methods

2.1. Participants

The sample of this study consists of 620 participants, 511 (82%) of whom are female and 109 (18%) of whom are male. The ages of the participants ranged from 18 to 60, with the average age being 32. 54.7% of the participants are at the university level, 20.9% at the high school level, 11% at the postgraduate level, 7.2% at the university level, and 5.9% at the primary education level. 48.8% (n=302) of the participants were married, 45% (n=318) were single, and 6.3% (n=39) were widowed or divorced.

2.2. Data collection tools

The data collection tool in the study is a survey containing demographic questions and the items of the scale developed in the study.

2.2.1. Demographic information form

In the demographic information form, the participants were asked questions about their gender, age, education level, marital status and some social media usage habits (daily social media usage time, frequency of opening live chat, whether they are happy when they receive likes, whether they have terminated their relationship on social media at any time).

2.2.2. Uskudar social norms scale-usnorm

The process of validity and reliability stages was carried out for the Uskudar Social Norm Scale (USNORM), which was aimed to be developed in this study. Thus, the necessary statistical analyzes were carried out throughout the content validity, construct validity, discriminant validity, internal consistency reliability and confirmatory factor analysis stages. First of all, an in-depth literature review was conducted to create the item pool of the scale. Then, the items of the draft scale were produced. During the content validity phase, a review inventory containing draft scale items was used to present them for expert opinion. In this inventory, evaluations can be made for each item with the options “It is appropriate for the item to remain in the scale”, “The item can remain in the scale but it is unnecessary” and “It is not appropriate for the item to remain in the scale”. An expert group was formed in the study so that various fields could participate in the evaluation. The inventory was sent to the experts via e-mail. Following the feedback of experts, the fit rates of the items were calculated with the help of the formula suggested by Miles and Huberman^[70]:

$$\text{Reliability} = \frac{\text{(Number of Conciliation)}}{\text{(Conciliation + Number of Non-Conciliation)}}$$

The above formula is intended to test the agreement between the researchers (coders) and the equality obtained is expected to give a result higher than 70%^[70].

In content validity studies, data from the expert evaluation inventory were used. Compliance rates were calculated in line with the scores between “0” and “1” in the inventory. .80 was accepted as the criterion. Thus, items below this value would be eliminated from the draft scale. The USNORM draft scale form, which was initially prepared as 30 items, was graded on a 5-point scale (Never, Rarely, Sometimes, Often, Always) without eliminating any item. Then, the data collection phase began for factor analysis.

Exploratory factor analysis (EFA) technique is applied during the construct validity stage of the scale development study. Before EFA calculation, the suitability of the data set is tested with two analysis techniques called Bartlett test and Kaiser-Meyer-Olkin (KMO)^[71]. Factor analysis suitability is decided by taking into account the value obtained as a result of the KMO test (>.90 “excellent”; >.80<.89 “very good”; >.70<.79 “good”; >.60<.69 “fair”; >.50<.59 “poor”; <.50 “unacceptable”). Again, the Bartlett Sphericity test result is expected to be statistically significant ($p < 0,05$). When factor analysis is performed, the number of factors is determined by using the eigenvalue statistics (If Eigenvalue ≥ 1 “factor exists”)^[72]. The explained variance ratio, which is another factor analysis result, is expected to be within the appropriate range. In social sciences, a ratio ranging between 40% and 60% is considered ideal^[71].

In the discriminant validity stage, a 27% upper group and a 27% lower group are created by ranking the total scores obtained from the scale, and these groups are compared with an independent group t-test in order to test the measurability of the scale. In this study, the difference between the upper group of 86 people and the lower group of 86 people in the data obtained from 320 participants was examined. Next, in the criterion validity stage, data is collected with the developed scale and another scale whose subject is included in the recent scientific literature. Correlation (r) is calculated and a relationship between them is expected ($r < .30$ “weak”; $r > .30 < .70$ “medium”; $r > .70$ “high”). At the reliability stage, the Cronbach Alpha coefficient obtained

as a result of the internal consistency analysis is checked. This is calculated based on the scale total and the scale's item variance for subscales, if any.

In confirmatory factor analysis (CFA) stage, it is checked whether the factor structure that is, the dimensions obtained as a result of the factor analysis, is confirmed or not. For this, a model with factors is drawn in special programs such as Amos. When this model is compiled, it is expected to reveal goodness-of-fit values that meet the appropriate ranges specified in the literature.

2.3. Criteria for inclusion/exclusion

While creating the study group in the research, participants aged 18 and over were included. People under the age of 18 were considered as the exclusion criteria of the study.

2.4. Procedures

Pilot Study: The comprehensibility of the questions was tested by applying the online questionnaire, which was prepared as a data collection tool in the research, to 10 people for trial purposes. No problem was encountered during the pilot application.

Field Study: The online questionnaire including Demographic Information Form and USNORM was applied digitally to participants on a voluntary basis for 2 weeks between 1 November 2023 and 15 May 2023, after the approval of the Ethics committee dated 30 April 2021.

2.5. Data processing and statistical analysis

For the analyses, the data was divided into two separate data sets according to random division. A data set of 320 participants was used for Exploratory Factor analysis (EFA). Pearson product moment and correlation coefficient, independent group t-test, Cronbach Alpha coefficient analysis were applied in the validity and reliability studies of USNORM. In the confirmatory factor analysis stage, goodness of fit values (X^2/df , RMSEA, NFI, NNFI, CFI, GFI, AGFI) were calculated with the structural equation modeling on the data set of 300 people. A normality test was applied to the data for some psychometric examinations in the study. Based on the normal distribution of the data, the differentiation of independent variables according to the dependent variable was examined with parametric tests such as independent group t-test and one-way analysis of variance. SPSS 26.0 statistical program was used for all validity and reliability analyzes and comparison tests. AMOS was used in confirmatory factor analysis.

3. Results

3.1. Validity and reliability studies of uskudar social norm scale (USNORM)

Statistical analyzes such as content validity, construct validity, discriminant validity, criterion validity, internal consistency reliability and confirmatory factor analysis conducted for the validity and reliability studies of the Uskudar Social Norm Scale (USNORM) are included in this section.

Content Validity

The item pool of USNORM was initially created with 30 items. At this stage, the draft scale was presented to experts with a review inventory to get their opinions. Then, item fit indices were calculated based on the feedback received. Accordingly, it was decided to apply the 30-item draft scale. Construct validity phase was started on the data set obtained from USNORM, which was applied to 320 people.

Construct Validity

Kaiser Meyer Olkin (KMO) and Bartlett's sphericity test were used to measure the suitability of the data for factor analysis. As a result, KMO coefficient value was found to be ,85; the Bartlett test of sphericity

result was found to be significant ($X^2=3534,401$; $df=378$; $p<.00$). Thus, the data set of the 30-item draft scale was found suitable for factor analysis. After EFA, factors with an Eigenvalue greater than 1 were taken into consideration. As a result of the analysis, a suitable structure with 28 items and 5 factors was reached by eliminating 2 items with low factor loadings ($<.30$) (**Table 1**).

Table 1. Usnorm factor structure and explained variance ratio.

USNORM	Eigenvalue	Variance	Cummulative Variance
Factor 1	7.99	28.56	28.56
Factor 2	1.80	6.44	35.01
Factor 3	1.68	6.00	41.01
Factor 4	1.56	5.58	46.60
Factor 5	1.43	5.12	51.72

As seen in **Table 1**, the highest eigenvalue of the factors is 7.99 and the lowest is 1.43. The variance rate explained in the total scale was found to be 51.72%. At this step, Varimax rotation technique was used in the EFA analyses. Factor loading values of the items are seen in **Table 2**.

Table 2. Usnorm item factor loads, item total correlations and cronbach alpha values.

Factor	New Item Nu.	Items	Factor Load	Cronbach Alpha
F1	1	Q11: Sometimes I do not keep my word even if I make a promise.	.72	.82
	2	Q10: Sometimes I cannot see past the end of my nose.	.67	
	3	Q9: I sometimes act without thinking.	.64	
	4	Q15: I can always find an excuse.	.58	
	5	Q7: I can go through someone else's belongings and smoke cigarettes without asking permission.	.52	
	6	Q13: I have harmful habits (smoking, drinking, drugs, alcohol, etc.).	.52	
	7	Q19: I raise something to the sky, then sink it to the ground a little later.	.50	
	8	Q17: I do not feel responsible for duty.	.44	
	9	Q4: I feel superficial guilt and anxiety.	.39	
	10	Q5: I believe that you should have fun first and then work.	.38	
F2	11	Q27: My sexuality is very strong; I am easily influenced and try to establish relationships.	.73	.74
	12	Q14: I consider myself a sensual person.	.61	
	13	Q29: I never say no to sexual intercourse, it does not matter whether I am married or not.	.60	
	14	Q28: I do not mind deceiving gullible people instead of earning money by working, I call it: Being open-minded.	.58	
	15	Q24: When I'm hindered or when I don't get what I want, I do not	.56	

Factor	New Item Nu.	Items	Factor Load	Cronbach Alpha
		listen to laws and regulations.		
F3	16	Q21: I usually have feelings of anger.	.76	.76
	17	Q18: My emotions are changeable; I can get angry easily.	.72	
	18	Q30: My honor is very important to me and I see anyone who belittles me as an enemy.	.68	
	19	Q20: I have difficulty adapting to people.	.62	
F4	20	Q1: I have problems with the law.	.79	.70
	21	Q2: I think rules can be broken.	.74	
	22	Q8: I believe that some problems can be solved with brute force.	.55	
	23	Q6: I sometimes do dangerous things for excitement, movement and adventure.	.48	
F5	24	Q26: I do not feel uncomfortable when I lie.	.79	.70
	25	Q3: I do not mind lying.	.60	
	26	Q22: Sometimes I like that I do not feel uncomfortable when I commit a crime.	.60	
	27	Q23: If I have cut myself or make myself bleed, I feel a special sense of relief.	.58	
	28	Q16: I can be cruel to animals.	.36	
Total				.89

Table 2. (Continued)

Explanation: As a result of the EFA, the USNORM scale form, consisting of 28 items and 5 factors, was rated on a 5-point Likert type as “Never”, “Rarely”, “Sometimes”, “Often”, “Always”. A minimum of “1” and a maximum of “5” points can be obtained from each item.

As seen in **Table 2**, the factor structure of USNORM and the distribution of items to factors were revealed through EFA studies. Each item was renumbered. Then, the factors to which the items belong were given names. Accordingly, Factor 1 (Items 1-10) is “Lack of guilt and regret”; Factor 2 (Items 11-15) is “No remorse”; Factor 3 (Items 16-19) is “Emotional instability”; Factor 4 (Items 20-24) is “Insensitivity to legal problems”. Factor 5 (Items 24-28) is “Crime tendency”. In the ongoing process, the relationship between the emerging factors is calculated with the Pearson Correlation Coefficient. It is given in **Table 3**.

Table 3. Relationship between usnorm and factors.

Sub-scales/Scale	F1	F2	F3	F4	F5
F1: Lack of guilt and regret	1				
F2: No remorse	.56	1			
F3: Emotional instability	.53	.43	.1		
F4: Insensitivity to legal problems	.55	.47	.40	1	
F5: Crime tendency	.45	.41	.36	.36	1
USNORM	.89	.73	.74	.72	.61

According to **Table 3**, the factors were found to be moderately strongly related to each other ($r > .30$). When the relationship between the factors and the USNORM was examined, it was revealed that Factor 5 had a moderate correlation ($r: .61 > .30 < .70$), and the other factors had a high correlation ($r > .70$).

Discriminant Validity

For the discriminant validity study, 27% of the data set of 320 participants was taken and the number 86 was obtained. Two different groups were formed, consisting of 86 people who got the highest score and 86 people who got the lowest score from USNORM and the factors. Thus, an independent group t-test was performed for the difference between groups. The result was found to be significant in **Table 4**.

Table 4. Discriminant validity of usnorm.

Scale/ Dimensions	Group	N	X	SS	Sd	t	p
Lack of guilt and regret	Upper Group	86	25.10	5.63	170	22.28	.00
	Lower Group	86	11.31	1.08			
No remorse	Upper Group	86	9.90	3.06	170	14.85	.00
	Lower Group	86	5.00	0.00			
Emotional instability	Upper Group	86	13.94	2.08	170	38.89	.00
	Lower Group	86	4.69	0.72			
Insensitivity to legal problems	Upper Group	86	10.32	2.68	170	21.88	.00
	Lower Group	86	4.00	0.00			
Crime tendency	Upper Group	86	8.16	2.59	170	11.30	.00
	Lower Group	86	5.00	0.00			
USNORM	Upper Group	86	62.68	11.17	170	25.13	.00
	Lower Group	86	31.68	2.42			

Confirmatory factor analysis

A model was created in the AMOS program to verify the factors that emerged as a result of exploratory factor analysis with 300 people. The model was compiled by creating covariance between the factors in the model. Goodness of fit values were found to be within acceptable ranges according to the scientific literature^[73]. RMSEA was observed at the border level and the model was confirmed in **Figure 1** ($X^2/df=2.89 < 3$; RMSEA=.08 < .08; NFI=.91 > .90; NNFI=.96 > .95; CFI=.97 > .95; GFI=.91 > .90; AGFI=.86 > .85).

Subsequently, psychometric examinations of the first scores obtained with the USNORM developed in the study are included. First, the responses obtained from 620 people were averaged and the average score in the USNORM total was calculated as 44.64. The evaluation of the 28-item USNORM is made according to the score ranges obtained with the equal spacing technique (See Annex-1). Accordingly, a low level of non-compliance with social norms was determined in the participants.

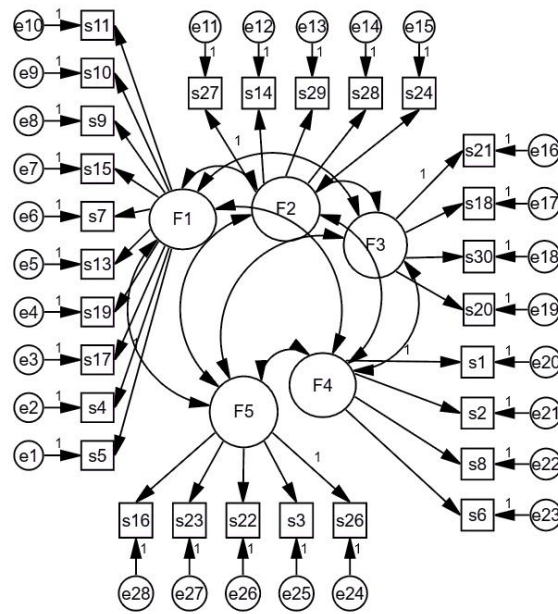


Figure 1. Usnorm path diagram model.

In the research, comparison tests were made according to independent variables. First, whether there was a difference according to gender was tested with an independent group t-test and the result was found to be significant ($p < 0.05$). The effect size level of this difference was calculated by Cohen (d) effect size analysis (Table 5).

Table 5. Average usnorm scores of groups.

Groups	X	SS	d
USNORM – Female (n=511)	1.55	.45	
USNORM – Male (n=109)	1.79	.54	.48 ^{ab}
Total (n=620)	1.59	.48	
Significant Factor			
USNORM: F1 – Female (n=511)	1.67	.57	
USNORM: F1 – Male (n=109)	1.87	.74	0,30 ^d
USNORM: F2 – Female (n=511)	1.26	.46	
USNORM: F2 – Male (n=109)	1.61	.67	0,60 ^{ef}
USNORM: F4 – Female (n=511)	1.54	.63	
USNORM: F4 – Male (n=109)	2.10	.87	0,73 ^{gh}

The range is between 1-5.

^aReference group was calculated as $USNORM_{female\ total} X_1 - X_2 / SD_{Female}$

^bReference group was calculated as $USNORM_{male\ total} X_1 - X_2 / SD_{Male}$

^cReference group was calculated as $USNORM: F1\ female\ total X_1 - X_2 / SD_{Female}$

^dReference group was calculated as $USNORM: F1\ male\ total X_1 - X_2 / SD_{Male}$

^eReference group was calculated as $USNORM: F2\ female\ total X_1 - X_2 / SD_{Female}$

^fReference group was calculated as $USNORM: F2\ male\ total X_1 - X_2 / SD_{Male}$

^gReference group was calculated as $USNORM: F4\ female\ total X_1 - X_2 / SD_{Female}$

^hReference group was calculated as $USNORM: F4\ male\ total X_1 - X_2 / SD_{Male}$

According to the analysis results, USNORM mean scores made a difference according to gender ($p < 0.05$). Men’s social norm perception level was found to be lower than women ($t = 3.45$; $X = 1.79$) in **Figure 2**. This difference created a medium strength effect size ($d = .48 > 0.2 < 0.5$). As a result of comparing the factors with the independent group t-test, a difference was found according to gender only in the dimensions called “Not feeling guilt and regret”, “No remorse” and “Insensitivity to legal problems” ($p < 0.05$). In other words, men’s level of not feeling guilt and remorse ($t = 2.27$; $X = 1.87$), level of lack of remorse ($t = 4.62$; $X = 1.61$), and level of insensitivity to legal problems ($t = 5.49$; $X = 2.10$) are higher than women. When the effect size of this difference for men and women was calculated with Cohen (d) analysis, it was observed that there was medium strength ($d = 0.30 < 0.2$) and high strength effects ($d = 0.60$ & $d = 0.73 > 0.5$). The average score of men in these dimensions ($X = 1.60$) was found to be significantly higher than the score of women ($X = 1.42$).

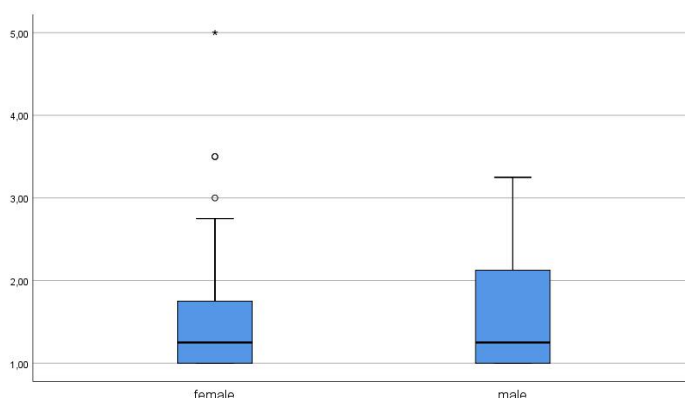


Figure 2. Usnorm scores of the groups (cutoff point 2.5 was accepted as the middle value).

Another group comparison of USNORM scores was made based on daily social media usage time. Accordingly, the differences in the total score of the USNORM and the scores of the sub-dimensions according to the daily social media usage time were tested with one-way ANOVA and LSD test. A difference was found in the total scale and all factors ($p < 0.05$). **Table 6** shows this difference and the effect size created by this difference.

Table 6. Average usnorm scores of daily social media usage groups.

Groups of Daily Use of Social Media	X	SS	d
Group 1: USNORM – Less than 1 hour (n=80)	1.46	.48	0,55 ^{ac}
Group 2: USNORM – 1-3 hours (n=348)	1.54	.45	0,17 ^{ab}
Group 3: USNORM – More than 4 hours (n=192)	1.73	.49	0,40 ^{bc}

The range is between 1-5.

^aReference group1 was calculated as USNORM – less than 1 hour of daily use $X_1 - X_2 / SD_{Less than 1 hour}$

^bReference group2 was calculated as USNORM – 1-3 hours of daily use $X_1 - X_2 / SD_{1-3 hours}$

^cReference group3 was calculated as USNORM – more than 4 hours of daily use $X_1 - X_2 / SD_{More than 4 hours}$

Table 6 shows that daily social media usage times were divided into 3 groups (“less than 1 hour”, “1-3 hours”, “more than 4 hours”). Average scores obtained from the USNORM total were compared. Accordingly, the level of perception of social norms impairment was found to be highest in those who use social media for 4 hours or more a day ($X = 1.73$). Those who use social media for less than 1 hour a day have a perception of social norms impairment ($X = 1.46$) (**Figure 3**). In other words, as the daily social media

usage time increases, the level of perception of social norms decreases. According to the Cohen (d) effect size analysis, the effect size of the difference between those who use social media less than 1 hour a day and those who use social media more than 4 hours a day is high ($d=0.55;>0.5$). The effect size of the difference between those who used it for 1-3 hours and those who used it for less than 1 hour was calculated to be low ($d=0.17<0.2$). The effect size of the difference between those who used it for 1-3 hours and those who used it for more than 4 hours was found to be very close to the medium level ($d = 0.40$). When the factors were examined, as daily social media use increased in 3 factors (Not feeling guilt and regret, Emotional instability, Insensitivity to legal problems), the level of social norm perception decreased and it was concluded that it made a significant difference ($p<0.05$). It can be said that those who use social media for 4 hours or more a day have lower levels of sensitivity to feeling guilt and regret and have legal problems, and are emotionally instable, compared to those who use social media for 1 hour or less.

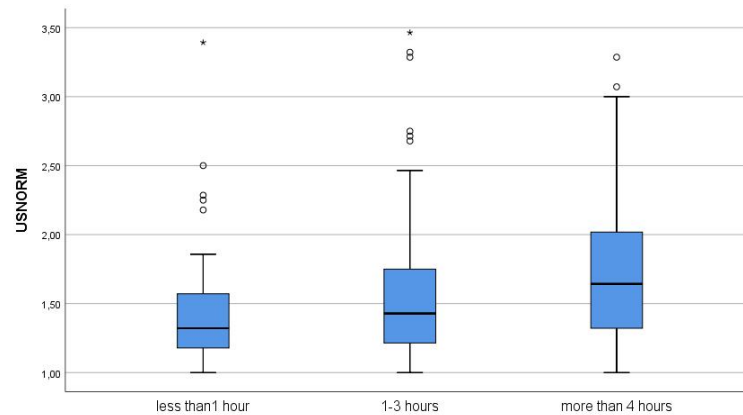


Figure 3. Usnorm scores of daily users (Cutoff point 2.5 was accepted as the middle value).

Another analysis made with USNORM scores in the study was made according to the frequency of live chatting. Live chatting frequency was divided into four groups (Never, Rarely, Sometimes, Often). One-Way Anova and LSD difference test was applied to the categories.

Table 7. Average usnorm scores of groups of live chat frequency.

Groups	X	SS	d
USNORM – Live Chat Frequency/Never (n=149)	1.47	.44	0.49 ^{ad}
USNORM – Live Chat Frequency/Rarely (n=223)	1.58	.43	0.33 ^{ac}
USNORM – Live Chat Frequency/Sometimes (n=138)	1.63	.52	
USNORM – Live Chat Frequency/Often (n=110)	1.71	.52	
Significant Factor			
USNORM: F4 – Live Chat Frequency/Never (n=149)	1.45	.58	0.54 ^{ad}
USNORM: F4 – Live Chat Frequency/Rarely (n=223)	1.65	.71	0.30 ^{ac}
USNORM: F4 – Live Chat Frequency/Sometimes (n=138)	1.65	.73	
USNORM: F4 – Live Chat Frequency/Often (n=110)	1.82	.77	
USNORM: F5 – Live Chat Frequency/Never (n=149)	1.10	.25	0.42 ^{ad}
USNORM: F5 – Live Chat Frequency/Rarely (n=223)	1.13	.26	0.27 ^{ac}
USNORM: F5 – Live Chat Frequency/Sometimes (n=138)	1.20	.44	
USNORM: F5 – Live Chat Frequency/Often (n=110)	1.28	.55	

Table 7. (Continued)

The range is between 1-5.

^aReference group was calculated as USNORM: Live Chat Frequency/Never total X_1-X_2/SD *Never*

^bReference group was calculated as USNORM: Live Chat Frequency/Rarely total X_1-X_2/SD *Rarely*

^cReference group was calculated as USNORM: Live Chat Frequency/Sometimes total X_1-X_2/SD *Sometimes*

^dReference group was calculated as USNORM: Live Chat Frequency/Often total X_1-X_2/SD *Often*

^aReference group was calculated as USNORM: F4 & F5- Live Chat Frequency/Never total X_1-X_2/SD *Never*

^bReference group was calculated as USNORM: F4 & F5 Live Chat Frequency/Rarely total X_1-X_2/SD *Rarely*

^cReference group was calculated as USNORM: F4 & F5Live Chat Frequency/Sometimes total X_1-X_2/SD *Sometimes*

^dReference group was calculated as USNORM: F4 & F5Live Chat Frequency/Often total X_1-X_2/SD *Often*

When **Table 7** is examined, USNORM scores differed according to the frequency of live chatting ($p < 0.05$). As a result of the LSD test applied to determine which categories the difference was between, those who opened live chat frequently were found to have the highest level of perception of social norms impairment compared to others ($X = 1.71$). On the other hand, those who never opened live chat had the lowest level of social norm perception ($X = 1.47$). According to the Cohen (d) effect analysis, the effect strength of the difference between those who “often” and “never” open live chat was found to be at a medium level ($d = 0.49 > 0.2 < 0.5$). When the LSD test and impact analysis was applied to other groups, it was observed that as the frequency of opening live chat increased, the level of perception of social norms decreased.

As a result of the variance analysis performed according to the factors, a difference was found in terms of Factor 4 “Insensitivity to legal problems” and Factor 5 “Crime tendency” ($p < 0.05$). Those who open live chat “frequently” have a higher level of legal problems and criminal aptitude than other groups ($X = 1.82$; $X = 1.28$) (**Figure 4**). According to group comparisons with the LSD test, as the frequency of opening live chat increased, the levels of insensitivity to legal trouble and criminal prowess increased. When the impact strength was examined, the level of insensitivity to legal problems was observed to be high ($d = 0.54 > 0.5$), and the level of criminal aptitude was observed to be medium strength ($d = 0.42 > 0.2 < 0.5$), especially among those who frequently opened live chat, compared to those who never opened live chat.

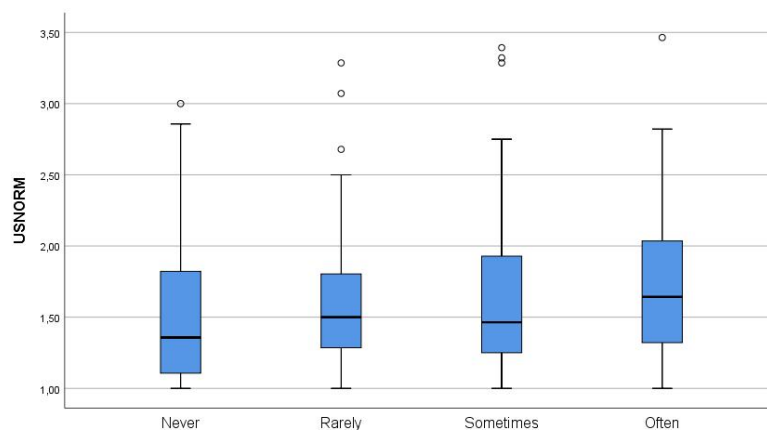


Figure 4. Usnorm scores of live chat frequency (cutoff point 2.5 was accepted as the middle value).

Finally, when they were asked to answer yes or no to the question “Have you ever fought on social media and ended your relationships?”, it was found that the USNORM scores of the participants differed ($p < 0.05$). As a result of the independent group t-test, the level of social norm perception impairment of those

who said yes was found to be higher than those who said no. The effect size of the differences obtained with USNORM and factor scores is calculated and given in **Table 8**.

Table 8. Average usnorm scores of ‘relationship breakdown on social media’ groups.

Groups	X	SS	d
USNORM – Relationship Breakdown on Social Media/Yes (n=116)	1.80	.55	0.51 ^{ab}
USNORM – Relationship Breakdown on Social Media/No (n=498)	1.54	.45	
F1 – Relationship Breakdown on Social Media/Yes (n=116)	1.93	.71	0.45 ^{ab}
F1 – Relationship Breakdown on Social Media/No (n=498)	1.64	.57	
F2 – Relationship Breakdown on Social Media/Yes (n=116)	1.53	.71	0.42 ^{ab}
F2 – Relationship Breakdown on Social Media/No (n=498)	1.28	.45	
F3 – Relationship Breakdown on Social Media/Yes (n=116)	2.47	1.01	0.41 ^{ab}
F3 – Relationship Breakdown on Social Media/No (n=498)	2.07	.91	
F5 – Relationship Breakdown on Social Media/Yes (n=116)	1.80	.56	0.43 ^{ab}
F5 – Relationship Breakdown on Social Media/No (n=498)	1.14	.33	

The range is between 1-5.

^aReference group was calculated as USNORM- Relationship Breakdown/Yes total X_1-X_2/SD_{Yes}

^bReference group was calculated as USNORM- Relationship Breakdown/No total X_1-X_2/SD_{No}

^aReference group was calculated as F1- Relationship Breakdown/Yes total X_1-X_2/SD_{Yes}

^bReference group was calculated as F1- Relationship Breakdown/No total X_1-X_2/SD_{No}

^aReference group was calculated as F2- Relationship Breakdown/Yes total X_1-X_2/SD_{Yes}

^bReference group was calculated as F2- Relationship Breakdown/No total X_1-X_2/SD_{No}

^aReference group was calculated as F3- Relationship Breakdown/Yes total X_1-X_2/SD_{Yes}

^bReference group was calculated as F3- Relationship Breakdown/No total X_1-X_2/SD_{No}

^aReference group was calculated as F5- Relationship Breakdown/Yes total X_1-X_2/SD_{Yes}

^bReference group was calculated as F5- Relationship Breakdown/No total X_1-X_2/SD_{No}

When **Table 8** is examined, the level of social norm perception impairment of those who stated that they had terminated their relationship on social media at any time was found to be higher than those who stated that they had not experienced such a situation ($X = 1.80$), and the effect size of this difference was found to be high strength ($d = 0.51 > 0.5$) (**Figure 5**). Independent group t-test results based on USNORM factor scores were found to be significant in all factors except Factor 4, and the effect size of the differences was moderate ($d > 0.2 < 0.5$). Thus, those who stated that they had a fight on social media and ended their relationship for any reason were found to have lower perception of social norms in terms of “not feeling guilt and regret”, “No remorse”, “Emotional instability” and “Crime tendency”. The graph of the groups according to USNORM total is presented in **Figure 5**.

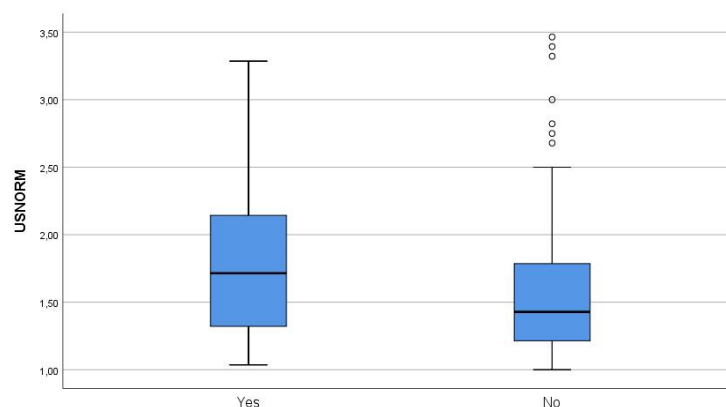


Figure 5. Usnorm scores of ‘relationship breakdown’ on social media (cutoff point 2.5 was accepted as the middle value).

4. Discussion and conclusion

The aim of the study was to develop a valid and reliable scale to measure the level of social norm perception and to include some psychometric analyses with initial scores. As a result of the scale development stages, a 5-dimensional psychometric scale called Uskudar Social Norm Scale, consisting of 28 items, emerged. The scale structure was also validated with goodness-of-fit values within the framework of the structural equation modeling. It can be said that the strength of the study is that the scale is an up-to-date and dimensional scale. The detailed findings obtained through scale scores constitute another strength of the study. As a matter of fact, when it comes to intensive use of social media behavior, it heavily influences daily life in the age of social media we live in. Therefore, it can be said that real life and online life affect each other^[74]. Thus, it is important to include social media behaviors in psychometric studies.

As societies develop and the age of the individual increases, the type and number of statuses occupied, and roles played increase. Increasing diversity causes the structure to become increasingly complex and, in parallel, some problems arise. The source of the problem is either the individual’s own-self or the social system in which the individual is located. The problem caused by the individual themselves basically stems from one’s own perception^[75]. According to Ceylan^[75], since there is a hierarchical structure among social statuses, not all statuses have the same value and do not provide the same amount of prestige to the individual. In fact, although high status is formally accepted as a measure of prestige and a source of power, it is unthinkable for the individual to fully benefit from the prestige of the status if the formal requirements are not complied with. This situation reveals that the status and the performance required to fill the status must go in parallel.

Nowadays, social media plays the role of a status determinant, and individuals represent themselves in the status they perceive in this virtual system. In the study, as the duration of daily social media use increased, the perception of complying to social norms decreased. In order to create perceived status, people’s desire to constantly be on social media is increasing. It has been revealed that those who use social media for 4 hours or more a day have lower levels of sensitivity to feeling guilt and regret and have legal problems, and are emotionally instable, compared to those who use social media for 1 hour or less.

There are two main approaches that authorities can use to try to change public behavior. The first is instrumental compliance, which involves commanding a change in behavior and expecting obedience through fear of punishment. However, this strategy may not produce sustainable behavioral change if people only comply with directions when they appear to the authority and the public resists orders that are viewed as unreasonable or detrimental to the well-being of their social group^[76-80]. Such change does not result from the

internalization of new forms of behavior and is dependent on external forces or ‘nudges’ (see^[81]). The social media environment has a free and relaxed nature, it is uncontrolled, meaning that criminal sanctions come into play for violations of moral behavior. Therefore, an individual’s virtual behavior depends on one’s own internal control mechanism. The situation of "fighting on social media and ending the relationship", which emerged in the study, may be due to the person’s inability to manage the internal control mechanism. According to the scale and subscale scores Participants who stated that they had a fight on social media and ended their relationship for any reason were found to have a lower perception of social norms in terms of “not feeling guilt and remorse”, “no remorse”, “emotional instability” and “crime tendency”. This can be noted as a significant result in the research. As a result of this research, the valid and reliable scale named USNORM has the potential to be used in new research, both in terms of being able to directly measure tendency to social norms and being dimensional and up-to-date. In subsequent research, criterion validity studies should be incorporated by utilizing scales pertinent to the topic. The absence of such an analysis in the current study can be perceived as a limitation; however, the confirmatory factor analysis, along with the model's validation through goodness-of-fit indices, substantially bolstered the robustness of the scale development process. It is recommended that the CFA be repeated on a new dataset in subsequent studies. A limitation of this study was that the same data set was used as for the EFA.

While it is clear from the research that social norms significantly influence social media use, it is important to recognise that they are only one dimension of this multi-faceted phenomenon. To fully comprehend social norms, it is imperative to conduct analyses from diverse perspectives. The current study's limitation lies in its exclusive focus on social media-specific analyses rather than adopting a multidimensional approach. Nonetheless, the primary objective of this research is to develop a novel scale. Future studies should seek to explore the determinants of social norms more thoroughly, incorporating a broader range of factors for a more nuanced and comprehensive exploration. The fact that the sample of our research, which was designed according to the accessible sample, consisted mainly of women can be seen as a limitation. It can be taken into account when referring to this research in future studies.

Abbreviations

USNORM	Uskudar Social Norms Scale
USIMS	Uskudar Immaturity Scale
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
KMO	Kaiser Meyer Olkin

Author contributions

NT was a major contributor in advising the manuscript and to the conception of the study; ATÜ collected, analyzed, reported data and wrote whole the manuscript; All authors read and approved the final manuscript.

Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Conflict of interest

The authors declare no conflict of interest.

Ethics approval and consent to participate

This study received ethical approval from the Uskudar University Non-Interventional Research Ethics Committee report number of 61351342/April 2021-27 (30 April 2021). This study was performed according to the principles set out by the Declaration of Helsinki for the use of humans in experimental research.

References

1. Gross, J.; Vostroknutov, A. Why do people follow social norms? . *Current Opinion in Psychology* 2022, (44), 1-6.
2. Bicchieri, C. *The grammar of society: The nature and dynamics of social norms*; Cambridge University Press, 2005.
3. Elster, J. Social norms and economic theory. *Journal of Economic Perspectives* 1989, (3), 99-117.
4. Bizer, G. Y.; Magin, L. A.; Levine, M. R. The Social-Norm Espousal Scale. *Personality and Individual Differences* 2014, 58 (2014), 106-111.
5. Sherif, M. S. *The psychology of social norms*; Harper & Brothers, 1936.
6. Bohner, G.; Siebler, F.; Schmelcher, J. Social norms and the likelihood of raping: Perceived rape myth acceptance of others affects men's rape proclivity. *Personality and Social Psychology Bulletin* 2006, (32), 286–297. DOI: <http://dx.doi.org/10.1177/0146167205280912>.
7. Cialdini, R. B.; Reno, R. R.; Kallgren, C. A. A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology* 1990, (58), 1015-1026. DOI: <http://dx.doi.org/10.1037/0022-3514.58.6.1015>.
8. Feldman, G.; Albarracín, D. Norm theory and the action-effect: The role of social norms in regret following action and inaction. *Journal of Experimental Social Psychology* 2017, 69 (2017), 111-120.
9. Tarhan, N. *Psychological Warfare*; Timaş Publishing, 2016.
10. Gavrillets, S.; Richerson, P. J. Collective action and the evolution of social norm internalization. *Proc. Natl. Acad. Sci. Unit. States Am.* 2017, (114), 6068-6073. DOI: <https://doi.org/10.1073/pnas.1703857114>.
11. Horne, C. The internal enforcement of norms. *Eur. Socio Rev.* 2003, (19), 335-343. DOI: <https://doi.org/10.1093/esr/19.4.335>.
12. Vostroknutov, A. Social norms in experimental economics: Towards a unified theory of normative decision making. *Analyse & Kritik* 2020, 42 (1), 3-40. DOI: <https://doi.org/10.1515/auk-2020-0002>.
13. Kochanska, G.; Koenig, J. L.; Barry, R. A.; Kim, S.; Yoon, J. E. Children's conscience during toddler and preschool years, moral self, and a competent, adaptive developmental trajectory. *Developmental psychology* 2010, 46 (5), 1320-1332. DOI: <https://doi.org/10.1037/a0020381>.
14. Giguère, B.; Lalonde, R.; Taylor, D. Drinking too much and feeling bad about it? How group identification moderates experiences of guilt and shame following norm transgression. *Pers. Soc. Psychol. Bull.* 2013, (40), 617-632. DOI: <https://doi.org/10.1177/0146167214521836>.
15. Bénabou, R.; Tirole, J. Incentives and prosocial behavior. *American economic review* 2006, 96 (5), 1652-1678. DOI: <https://doi.org/10.2139/ssrn.639043>.
16. Bursztyjn, L.; Jensen, R. Social image and economic behavior in the field: identifying, understanding, and shaping Social pressure. *Annu. Rev. Econ.* 2017, (9), 131-153. DOI: <https://doi.org/10.1146/annurev-economics-063016-103625>.
17. Grimalda, G.; Pondorfer, A.; Tracer, D. Social image concerns promote cooperation more than altruistic punishment. *Nat. Commun.* 2016, (7), 12288. DOI: <https://doi.org/10.1038/ncomms12288>.
18. Gross, J.; Simon, S.; Everett, J. Inferring and enforcing cooperativeness and dishonesty through rule abidance and partner choice. *Work. Pap.* 2020, 1-33.
19. Schwardmann, P.; Van der Weele, J. Deception and self-deception. *Nature human behaviour* 2019, 3 (10), 1055-1061. DOI: <https://doi.org/10.1038/s41562-019-0666-7>.
20. Bodner, R.; Prelec, D. Self signaling and diagnostic utility in everyday decision making. In *Collected essays. In psychology and economics*, Brocas, I., Carillo, J. Eds.; Oxford University Press, 2002.
21. Shalvi, S.; Handgraaf, M. J.; De Dreu, C. K. People avoid situations that enable them to deceive others. *Journal of Experimental Social Psychology* 2011, 47 (6), 1096-1106. DOI: <https://doi.org/10.1016/j.jesp.2011.04.015>.
22. Falk, A. Facing yourself – a note on self-image. *J. Econ. Behav. Organ.* 2021, (186), 724–734. DOI: <https://doi.org/10.1016/j.jebo.2020.11.003>.
23. Bicchieri, C.; Dimant, E.; Sonderegger, S. It's not A lie if you believe it: lying and belief distortion under norm-uncertainty. *Working Paper SSRN Electr. J.* 2022, 1-57. DOI: <https://doi.org/10.2139/ssrn.3326146>.

24. Pittarello, A.; Leib, M.; Gordon-Hecker, T.; Shalvi, S. Justifications shape ethical blind spots. *Psychological science* 2015, 26 (6), 794-804. DOI: <https://doi.org/10.1177/0956797615571018>.
25. Shalvi, S.; Dana, J.; Handgraaf, M. J.; De Dreu, C. K. Justified ethicality: Observing desired counterfactuals modifies ethical perceptions and behavior. *Organizational behavior and human decision processes* 2011, 115 (2), 181-190. DOI: <https://doi.org/10.1016/j.obhdp.2011.02.001>.
26. Bicchieri, C.; Xiao, E. Do the right thing: but only if others do so. *Journal of Behavioral Decision Making* 2009, 22 (2), 191-208. DOI: <https://doi.org/10.1002/bdm.621>.
27. Bicchieri, C.; Dimant, E.; Gächter, S.; Nosenzo, D. Social proximity and the erosion of norm compliance. *Games and Economic Behavior* 2022, (132), 59-72. DOI: <https://doi.org/10.2139/ssrn.3355028>.
28. Engel, C.; Kurschilgen, M. The fragility of a nudge: the power of self-set norms to contain a social dilemma. *Journal of Economic Psychology* 2020, (81), 102293. DOI: <https://doi.org/10.1016/j.joep.2020.102293>.
29. Lindström, B.; Jangard, S.; Selbing, I.; Olsson, A. The role of a “common is moral” heuristic in the stability and change of moral norms. *Journal of Experimental Psychology: General* 2018, 147 (2), 228-242. DOI: <https://doi.org/10.1037/xge0000365>.
30. Kimbrough, E. O.; Vostroknutov, A. A theory of injunctive norms. *Working Paper SSRN Electr. J.* 2023, (2021), 1-57. DOI: <https://doi.org/10.2139/ssrn.3566589>.
31. van Kleef, G. A.; Wanders, F.; Stamkou, E.; Homan, A. C. The Social dynamics of breaking the rules: antecedents and consequences of norm-violating behavior. *Current Opinion in Psychology* 2015, 6, 25-31. DOI: <https://doi.org/10.1016/j.copsyc.2015.03.013>.
32. Winter, F.; Zhang, N. Social norm enforcement in ethnically diverse communities. *Proceedings of the National Academy of Sciences* 2018, 115 (11), 2722-2727. DOI: <https://doi.org/10.1073/pnas.1718309115>.
33. Nee, V. Norms and networks in economic and organizational performance. *American Economic Review* 1998, 88 (2), 85-89.
34. Bernhard, H.; Fischbacher, U.; Fehr, E. Parochial altruism in humans. *Nature* 2006, 442 (7105), 912-915. DOI: <https://doi.org/10.1038/nature04981>.
35. Balliet, D.; Wu, J.; De Dreu, C. K. Ingroup favoritism in cooperation: a meta-analysis. *Psychological bulletin* 2014, 140 (6), 1556. DOI: <https://doi.org/10.1037/a0037737>.
36. Yamagishi, T.; Mifune, N. Does shared group membership promote altruism? . *Ration Soc.* 2008, 20 (1), 5-30. DOI: <https://doi.org/10.1177/1043463107085442>.
37. Keizer, K.; Lindenberg, S.; Steg, L. The spreading of disorder. *Science* 2008, (322), 1681-1685. DOI: <https://doi.org/10.1126/science.1161405>.
38. Lindenberg, S.; Steg, L. Normative, gain and hedonic goal frames guiding environmental behavior. *Journal of Social issues* 2007, 63 (1), 117-137. DOI: <https://doi.org/10.1111/j.1540-4560.2007.00499.x>.
39. Yolcu, P.; Çiftçi, H. Comparison of social media usage habits and motivations: A review on university students. *Van Yüzüncü Yıl University the Journal of Social Sciences Institute* 2023, (60), 151-173.
40. Kabar, P. Our masks in the virtual world: Relationship between virtual identity, self-esteem and internet addiction. *Journal of Dependence* 2024, 244-253. DOI: 10.51982/bagimli.1365492
41. Kavut, S. Identity construction in social media as part of Goffman’s theory of self presentation: A research on Instagram. *Nosyon: International Journal of Society and Culture Studies* 2018, (1), 1-12.
42. Tarhan, N.; Tutgun-Ünal, A. *Social Media Psychology*; Der Publishing, 2021.
43. Özdemir, B.; Yıldırım, G. The construction of identity and presentation of the self in the digitalizing communication world: a research on communication faculty students. *e-Journal of New Media* 2019, 3 (3), 178-191.
44. Taşdelen, B. The new trend of the digital age social media impressors: The effect of vloggers on university students' purchasing behavior. *Gaziantep University Journal of Social Sciences* 2020, 19 (3), 1071-1098.
45. Sezer, Ö. *Public relations transformed by algorithms in the context of the surveillance society*. Marmara University, Istanbul, Turkey, 2024.
46. Bekiroğlu, H. A.; Şahin, E. The relationship between university students’ social media use intensity and their tendency to aggression. *Social Sciences* 2019, 14 (3), 215-236.
47. Bicchieri, C.; Group, P. S. N. T. a. C. *Why People Do What They Do? A Social Norms Manual for Viet Nam, Indonesia and the Philippines*; Florence, Italy, 2016.
48. Eriksson, K.; Strimling, P.; Gelfand, M.; Wu, J.; Abernathy, J.; Akotia, C. S.; ...; Van Lange, P. A. Perceptions of the appropriate response to norm violation in 57 societies. *Nature communications* 2021, 12 (1), 1481. DOI: <https://doi.org/10.1038/s41467-021-21602-9>.
49. Gelfand, M.; Harrington, J.; Jackson, J. The strength of Social norms across human groups. *Perspect. Psychol. Sci.* 2017, (12), 800–809. DOI: <https://doi.org/10.1177/1745691617708631>.
50. Henrich, J.; Boyd, R.; Bowles, S.; Camerer, C.; Fehr, E.; Gintis, H.; McElreath, R.; Alvard, M.; Barr, A.; Ensminger, J.; et al. “Economic man” in cross-cultural perspective: behavioral experiments in 15 small-scale societies. *Behav. Brain Sci.* 2005, (28), 795–815. DOI: <https://doi.org/10.1017/s0140525x05000142>.

51. Nosenzo, D.; Görge, L. Measuring social norms in economics: Why it is important and how it is done. *Analyse & Kritik* 2020, 42 (2), 285-312. DOI: <https://doi.org/10.1515/auk-2020-0012>.
52. Krupka, E. L.; Weber, R. A. Identifying social norms using coordination games: Why does dictator game sharing vary? *Journal of the European Economic Association* 2013, 11 (3), 495-524. DOI: <https://doi.org/10.1111/jeea.12006>.
53. Kimbrough, E.; Vostroknutov, A. A portable method of eliciting respect for social norms. *Economics Letters* 2018, 168, 147-150. DOI: <https://doi.org/10.1016/j.econlet.2018.04.030>.
54. Gross, J.; Dreu, C. Oxytocin conditions trait-based rule adherence. *Soc. Cognit. Affect Neurosci.* 2017, (12), 427-435. DOI: <https://doi.org/10.1093/scan/nsw138>.
55. Gross, J.; Dreu, C. Rule following mitigates collaborative cheating and facilitates the spreading of honesty within groups. *Pers. Soc. Psychol. Bull.* 2020, (47), 395-409. DOI: <https://doi.org/10.1177/0146167220927195>.
56. Donald, I.; Cooper, S. R. A facet approach to extending the normative component of the theory of reasoned action. *Br. J. Soc. Psychol.* 2001, (40), 599-621.
57. Elliot, B. The application of the Theorists' Workshop Model of Behaviour Change to motorists' speeding behaviour in Western Australia; Office of Road safety, Department of Transport, Western Australia, 2001.
58. Groeger, J. A.; Chapman, P. R. Normative influences on decisions to offend. *Appl. Psychol.: Int. Rev.* 1997, 46 (3), 265-285.
59. Parker, D.; Manstead, A. S. R.; Stradling, S. G.; Reason, J. T.; Baxter, J. S. Intention to commit driving violations: an application of the theory of planned behavior. *J. Appl. Psychol.* 1992, 77 (1), 94-101.
60. Parker, D.; Manstead, A. S.; Stradling, S. G. Extending the theory of planned behaviour: The role of personal norm. *British journal of social psychology* 1995, 34 (2), 127-138.
61. Rothengatter, T. Normative behaviour is unattractive if it is abnormal: Relationships between norms, attitudes and traffic law. In *International Road Safety Symposium*, Copenhagen, Denmark; 1991.
62. Deniz, E. Validity and reliability study of the Social Belief (Norm) Scale. In *EGE 10th International Conference on Social Sciences*, Izmir-Turkey, December 22 -24, 2023, 2023; Academy Global Conferences & Publishing: pp 1701-1710.
63. Berkowitz, L.; Lutterman, K. G. The traditional socially responsible personality. *Public opinion quarterly* 1968, 32 (2), 169-185. DOI: <http://dx.doi.org/10.1086/267597>.
64. Crowne, D. P.; Marlowe, D. A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology* 1960, (24), 349-354. DOI: <http://dx.doi.org/10.1037/h0047358>.
65. Digman, J. M. Personality structure: Emergence of the five-factor model. *Annual Review of Psychology* 1990, (41), 417-440. DOI: <http://dx.doi.org/10.1146/annurev.psych.41.1.417>.
66. Erbiçer, E. S. Investigation of university students' cyberbullying and cyber victimisation levels according to social cohesion and some personal variables. *Yildiz Technical University, Istanbul-Turkey*, 2017.
67. John, O. P.; Srivastava, S. The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In *Handbook of personality: Theory and research*, 2 ed.; Pervin, L. A., J., O. P. Eds.; Guilford Press, 1999; pp 102-139.
68. Lilienfeld, S. O.; Widows, M. R.; Staff, P. A. R. Psychopathic personality inventory TM-revised. *Social Influence* 2005, 61 (65), 97.
69. Walters, G. D. The psychological inventory of criminal thinking styles: Part I: Reliability and preliminary validity. *Criminal Justice and Behavior* 1995, 22 (3), 307-325. DOI: <http://dx.doi.org/10.1177/0093854895022003008>.
70. Tavşancıl, E.; Aslan, E. Content analysis and application examples for special, written and other materials; Epsilon, 2021.
71. Büyüköztürk, Ş. *Handbook of data analysis for social sciences*; Pegem Citation Index, 2018.
72. Tinsley, H.; Tinsley, D. Uses of factor analysis in counseling psychology research. *J Couns Psychol.* 1987, 34 (4), 414-424.
73. Jackson, D. L.; Gillaspay Jr, J. A.; Purc-Stephenson, R. Reporting practices in confirmatory factor analysis: an overview and some recommendations. *Psychological methods* 2009, 14 (1), 6.
74. Tutgun-Ünal, A. *Social media: Effect, addiction, measurement*; Der Publishing, 2021.
75. Ceylan, T. Social status and role in social system analysis. *Atatürk University Journal of Social Sciences* 2011, 15 (1), 89-104.
76. Bonell, C.; Michie, S.; Reicher, S.; West, R.; Bear, L.; Yardley, L.; Curtis, V.; Amlot, R.; Rubin, G. J. Harnessing behavioural science in public health campaigns to maintain 'social distancing' in response to the COVID-19 pandemic: Key principles. *Journal of Epidemiology & Community Health* 2020, 74 (8), 617-619. DOI: <http://dx.doi.org/10.1136/jech-2020-214290>.
77. Haslam, S. A.; Reicher, S. D.; Birney, M. E. Nothing by mere authority: Evidence that in an experimental analogue of the Milgram paradigm participants are motivated not by orders but by appeals to science. *Journal of Social Issues* 2014, 70 (3), 473-488. DOI: <https://doi.org/10.1111/josi.12072>.

78. Jackson, J.; Posch, C.; Bradford, B.; Hobson, Z.; Kyprianides, A.; Yesberg, J. The lockdown and social norms: Why the UK is complying by consent rather than compulsion. In LSE Research Online, Policy, B. P. a., Ed.; London School of Economics: LSE Research Online, 2020.
79. Mooijman, M.; van Dijk, W. W.; Van Dijk, E.; Ellemers, N. On sanction-goal justifications: How and why deterrence justifications undermine rule compliance. *Journal of Personality and Social Psychology* 2017, 112 (4), 577. DOI: <https://doi.org/10.1037/pspi0000084>.
80. Van Bavel, J.; Baicker, K.; Boggio, P. S.; Capraro, V.; Cichocka, A.; Cikara, M.; Crockett, M. J.; Crum, A. J.; Douglas, K. M.; Druckman, J. N.; et al. Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour* 2020, 4 (5), 460-471. DOI: <https://doi.org/10.1038/s41562-020-0884-z>.
81. Mols, F.; Haslam, S. A.; Jetten, J.; Steffens, N. K. Why a nudge is not enough: A social identity critique of governance by stealth. *European Journal of Political Research* 2015, 54 (1), 81-98. DOI: <https://doi.org/10.1111/1475-6765.12073>.

Appendix 1: Uskudar Social Norm Scale (USNORM)

Social Norm Scale is a self-assessment scale prepared to measure a person's perception of social norms and their level of adaptation to social norms in this context. A high score from the scale indicates the person's tendency towards social norms. Each item in the scale is scored between 1 and 5 (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)

Item No	Items	Never	Rarely	Sometimes	Often	Always
1	Sometimes I do not keep my word even if I make a promise.					
2	Sometimes I cannot see past the end of my nose.					
3	I sometimes act without thinking.					
4	I can always find an excuse.					
5	I can go through someone else's belongings and smoke cigarettes without asking permission.					
6	I have harmful habits (smoking, drinking, drugs, alcohol, etc.).					
7	I raise something to the sky, then sink it to the ground a little later.					
8	I do not feel responsible for duty.					
9	I feel superficial guilt and anxiety.					
10	I believe that you should have fun first and then work.					
11	My sexuality is very strong; I am easily influenced and try to establish relationships.					
12	I consider myself a sensual person.					
13	I never say no to sexual intercourse, it does not matter whether I am married or not.					
14	I do not mind deceiving gullible people instead of earning money by working, I call it: Being open-minded.					
15	When I'm hindered or when I don't get what I want, I do not listen to laws and regulations.					
16	I usually have feelings of anger.					
17	My emotions are changeable; I can get angry easily.					
18	My honor is very important to me and I see anyone who belittles me as an enemy.					
19	I have difficulty adapting to people.					
20	I have problems with the law.					
21	I think rules can be broken.					
22	I believe that some problems can be solved with brute force.					
23	I sometimes do dangerous things for excitement, movement and adventure.					
24	I do not feel uncomfortable when I lie.					
25	I do not mind lying.					
26	Sometimes I like that I do not feel uncomfortable when I commit a crime.					
27	If I have cut myself or make myself bleed, I feel a special sense of relief.					
28	I can be cruel to animals.					

The scale consists of 28 items and 5 factors. Factor 1 is “**Lack of guilt and regret**” and the items it contains are: 1,2,3,4,5,6,7,8,9,10. Factor 2 is “**No remorse**” and the items it contains are: 11,12,13,14,15. Factor 3 is “**Emotional instability**” and the items it contains are: 16,17,18,19. Factor 4 is “**Insensitivity to**

legal problems" and the items it contains are: 20,21,22,23. Factor 5 is **"Crime tendency"** and the items it contains are: 24,25,26,27,28.

28-140 points can be obtained from the scale. 28-64 points: "Low Perception of Social Norms"; 65-102: "Moderate Perception of Social Norms"; 103-140: "High Perception of Social Norms".

Sub-Scales:

Lack of guilt and regret (Items: 1-10): 10-22: Low level; 23-36: Moderate level; 37-50: High level.

No remorse (Items:11-15): 5-11: Low level; 12-18: Moderate level; 19-25: High level.

Emotional instability (Items:16-19): 4-8: Low level; 9-15: Moderate level; 16-20: High level.

Insensitivity to legal problems (Items: 20-23): 4-8: Low level; 9-15: Moderate level; 16-20: High level.

Crime tendency (Items: 24-28): 5-11: Low level; 12-18: Moderate level; 19-25: High level.

Evaluation suggestions: If you have a problem with social norms at the moderate-to-high level, first thank you for your honest statement. 1) We recommend that you examine the subscales and make a plan to improve which questions you have low scores on. 2) If your reasons question social norms, you should prepare your answers to avoid being misunderstood. REMEMBER THAT HUMANS ARE RELATIONAL BEINGS, AND ESTABLISHING FLEXIBLE SOCIAL RELATIONSHIPS IS A 21ST CENTURY SKILL.