

## Psychometric Properties of Gratitude Scale-Urdu

شکرگزاری کا پیمانہ (اردو) اور اسکی نفسی پیمائشی صفات

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### Abstract

The study establishes the psychometric properties of the Gratitude Scale-Urdu GS-U (Shahid & Kazmi, 2022) using university students. In phase 1, exploratory factor analysis (EFA) was used to determine the factor structure of GS with a sample of university students ( $N = 200$ ). Two factors emerged *Gratitude towards Allah (GtA)*, and *Gratitude towards Others (GtO)* which accounted for 46.70% variance. In phase 2, confirmatory factor analysis (CFA) was performed to verify its factor structure. A larger purposive sample ( $N = 500$ ) of students from different public and private universities in Lahore was selected. The overall internal consistency of GS-U and its subscales were good to excellent (alpha range: .87 - .91). One statement (item 25) was excluded in this phase as it had low loading, thus the CFA model consisted of 26 items with a good model fit. In phase 3, convergent validity with Satisfaction with Life Scale (Butt et al., 2014) was significant ( $r = .30, p < .01$ ) and the discriminant validity with Kessler Psychological Distress Scale (Kessler et al., 2003) was also substantial ( $r = -.29, p < .01$ ). Gratitude Scale is a valid, reliable, and valuable tool for the assessment of gratitude in university students of Pakistan.

**Keywords:** gratitude, Gratitude towards Allah (GtA), Gratitude towards Others (GtO), Assessment

Gratitude involves acknowledging the occurrence of a positive event (Cunha et al., 2019). It is a feeling of appreciation. Gratitude may be a transient emotion or a characteristic of a person (Wood et al., 2008). A characteristic is something that a person does regularly. When an individual conveys appreciation for another, it is termed a state. This assists people in acknowledging the advantageous elements that enhance their lives (Millacci, 2017). Expressing gratitude fosters pleasant feelings that enhance well-being and prosperity (Emmons & McCullough, 2003).

Gratitude is valued in Islam and seen as a commendable attribute. It is appreciated by both the Sunnah and the Holy Quran (Mohamed, 1995). Allah says in the Holy Quran, "But Allah will reward those, who serve Him with gratitude" (3:144). In Islam, gratitude is recognized as a form of faith, "Therefore, remember Me, and I will remember you. Be grateful to Me, and don't be ungrateful" (2:152). Muslims perceive gratitude as recognition of Allah's bounties in all situations, whether favorable or unfavorable. In Islam, the notion of *shukkr* (شکر) encompasses not only the articulation of appreciation but also the demonstration of acts and recognition of the bounties sent by Allah (Kazemi, 2014).

It urges individuals to surrender to divine will and to express gratitude for both the rewards and hardships they encounter. Furthermore, it highlights the significance of altruism, justice, accountability, and acknowledging the interdependence of all individuals and entities (Ali et al., 2020).

Research indicates that thankfulness is associated with social, emotional, and mental well-being. The characteristic of gratitude is a primary predictor of well-being (Millacci, 2017). Expressing thankfulness enables individuals to see their lives positively, fosters and sustains connections, and leads to optimism, life satisfaction, and proactive engagement with others (Passmore & Oades, 2016). A grateful attitude correlates with life satisfaction, emotional well-being, optimism, positive impact, and happiness. Individuals with elevated thankfulness levels often express enhanced life satisfaction and greater subjective well-being (McCullough et al., 2002).

A negative correlation exists between thankfulness and psychological suffering (Chandrakar et al., 2023). Psychological discomfort is a worldwide issue that includes worry, bewilderment, stress, and sadness (Belay et al., 2021). College students exhibit heightened susceptibility to psychological discomfort, with around 20% encountering various mental health issues, including anxiety, stress, and depression (Pedrelli et al., 2015). During the transition to early adulthood, students have several challenges with academics, social interactions, and personal requirements, which may result from stress. Psychological discomfort among college students is a global issue, with studies indicating that perceived stress is a contributing factor

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(Matud et al., 2020). Further research identified a correlation between psychological discomfort (bad mood and sadness) and thankfulness among undergraduate students. The results indicate that thankfulness is favorably associated with well-being and adversely associated with psychological distress (Shahid & Kazmi, 2022). These findings reveal the importance of gratitude in enhancing mental well-being, which helps to alleviate psychological distress in students.

### The Rationale of the Study

One difficulty in conducting research around gratitude studies in Pakistan stems from the unavailability of a good Urdu standardized scale that can effectively measure this construct among individuals comfortable with Urdu. To address this issue, this scale was indigenously developed by Shahid and Kazmi (2022) because the available Western scales were not culturally relevant. To ensure the psychometric soundness of the Gratitude Scale-Urdu (GS-U), we established its psychometric properties, which included exploratory and confirmatory factor analyses, construct, convergent and discriminant validities using Urdu versions of the Satisfaction with Life Scale (SWLS, Butt et al., 2014) and Psychological Distress Scale-K10 (PDS-K10, Kessler et al., 2003).

### Method

The research aimed to establish the psychometric properties of the GS-U. The Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were carried out in the first and second phases of this study and convergent and discriminant validities in the third phase.

#### Phase 1: Exploratory Factor Analysis

EFA was performed to determine the factor structure of GS-U without imposing a predetermined structure.

#### Sample

A purposive sample of university students comprising 70 males and 130 females ( $N=200$ ) was used in this study. Their age ranged from 18-30 years ( $M=23.17$ ,  $SD=2.89$ ) and the students were selected from BS and MS with equal representation of both programs. Most students belonged to the Natural and Applied Sciences group (61%) and 29% were from the Humanities and Social Sciences group. Only BS and MS students of public and private sector universities were selected. University students with any physical disability were not included in this study.

#### Procedure

After obtaining ethical approval from the Board of Studies, data collection was initiated with written permission from the university authorities. In each data collection session, researchers introduced themselves to the participants, explained the purpose of the study in Urdu, and assured confidentiality and anonymity of personal and data information that would come about completing the scale. Consent forms were obtained from eligible and willing participants and it took approximately 20-25 minutes to complete the questionnaire. Participants were thanked for their time and participation.

#### Phase 2: Confirmatory Factor Analysis

The confirmatory factor analysis was run to confirm the factor structure found in EFA.

### Sample

For CFA, a second purposive sample of students was collected from six public and private sector universities in Lahore, collecting 250 males and 250 females ( $N = 500$ ). Their age ranged from 18-30 years ( $M = 22.44$ ,  $SD = 3.10$ ) and they were selected from BS and MS with equal representation of both programs. The majority of students (67%) were from the Natural and Applied Sciences group and 23% belonged from Humanities and Social Sciences group. BS and MS students were included. University students with any physical disability were not included in this study.

### Instrument

#### Gratitude Scale-Urdu (GS-U)

Developed by Shahid and Kazmi (2022), this scale (GS-U) measures the aspects of gratitude using 27 items. These aspects divide GS-U into two subscales named gratitude towards others (GtO, 14 items), and gratitude towards Allah (GtA, 13 items). Each item is scored on a 5-point Likert scale with response options that range from 0 (*completely disagree*) to 4 (*completely agree*). The total score ranged from 0-135, where a high score indicates a higher level of gratitude. The scale (GS-U) along with the subscales (GtO and GtA) have good to excellent internal consistencies ( $\alpha = .90$ ,  $\alpha = .90$ , and  $\alpha = .88$ ) see Table 2.

#### Procedure

The departmental authorities of different universities were requested for the permission of data collection. The researchers introduced themselves in Urdu informed the participants regarding the study purpose and assured confidentiality about the collected data. A written consent was obtained from each participant and were asked to complete the scale and other demographic information, which took no more than 20-25 minutes. The participants were thanked for their time and effort.

#### Phase 3: Convergent and Discriminant Validities

Convergent validity GS-U was established by Satisfaction with Life Scale, (Butt et al., 2014) and the discriminant validity by Kessler Psychological Distress Scale (Kessler et al, 2003).

#### Sample

A sample size of 250 women and 250 men ( $N=500$ ) university students, that ranged in age ranged from 18-30 years ( $M = 22.44$ ,  $SD = 3.10$ ) was taken. Bachelors and master's students were included, and any students with physical disability were not included in the study.

### Instrument

#### Gratitude Scale-U (GS-U)

For a description of the scale see above. Item 25 was excluded after EFA because loaded weakly on the first factor (GtA, 12 items) which changed internal consistencies slightly for the scale and subscales GS-U ( $\alpha = .91$ ), GtA ( $\alpha = .87$ ), and GtO ( $\alpha = .88$ ) see Table 5.

#### Kessler Psychological Distress Scale-K10 (PDS-K10)

This scale, PDS-K10 was developed by Kessler et al. (2003), measures the level of distress in individuals using 10 items and was translated and back-translated into Urdu language in the present study. Each item is scored on a 5-point Likert scale, ranging from 1 (*none of the time*) to 5 (*all of the time*). The total score ranged from 10 - 50, where high scores reflect a higher level of psychological distress.

Internal consistency of the scale (Cronbach's alpha = .92) was excellent (Kessler et al., 2003).

#### Satisfaction with Life Scale (SWLS)

The Urdu-translated version of SWLS was used in this study (Butt et al., 2014). This scale measures the level of life satisfaction using 5 items and each item is scored on a 7-point scale, ranging from 1 (*totally disagree*) to 7 (*totally agree*). The composite scores can range from 5 – 35 and higher scores reflect higher satisfaction with life. The internal consistency of the scale (Cronbach's alpha = .85) was good (Butt et al., 2014).

#### Procedure

Before administering the instruments to the participants, the study received approval from the Ethical Committee and Board of Studies, and relevant authorities were consulted. Permission was sought from the authors of all the scales and university authorities before data collection. The researchers explained the purpose and procedure of the study and assured the confidentiality and anonymity of demographic variables (measured similarly as above) and collected data. All instructions were given in Urdu, and consent of the participants was obtained before the beginning of the data collection process. Participants completed the questionnaire in 20-25 minutes approximately. Upon completion, the researchers expressed gratitude for their time and effort.

#### Results

**Table 1**

*Exploratory Factor Analysis of GS-U (N = 200)*

Factor Loading		Statement	Item	
F2	F1		No	No
.09	.72	مجھے لگتا ہے کہ جب مجھے اپنی ضرورت کی چیز ملتی ہے تو خدا مجھے برکت دے رہا ہے۔	15	1
.08	.71	نقصان کے تجربات نے مجھے زندگی کے ہر لمحے پر توجہ دینا اور اللہ کا شکر بجا لانا سکھایا ہے۔	16	2
.34	.50	کھانے کے بعد، میں اکثر سوچتی/ سوچتا ہوں، "کیا شاندار کھانا اللہ نے نصیب کیا ہے!"	17	3
.12	.84	موت کا خیال مجھے ہر روز ایک بھرپور زندگی گزارنے اور اللہ کا شکر ادا کرنے کی یاد دلاتا ہے۔	18	4
.11	.83	میں اکثر سوچتی/ سوچتا ہوں کہ زندگی واقعی ایک نعمت ہے۔	19	5
.11	.83	میرے خیال میں ہر روز اللہ کا شکر گزار ہونا بہت ضروری ہے۔	20	6
.11	.74	اللہ تعالیٰ نے مجھے بہت سی نعمتوں سے نوازا ہے جس پر میں اللہ کا/کی شکر گزار ہوں۔	21	7
.16	.66	جب بھی میں کوئی کامیابی حاصل کرتی/کرتا ہوں تو اس پر اللہ کی/کا شکر گزار ہوتی/ہوتا ہوں۔	22	8
.20	.61	جب بھی میں اپنی زندگی پر نظر ڈالتی/ڈالتا ہوں تو اس چیز کا احساس ہوتا ہے کہ مجھ پر اللہ کا خاص کرم ہے۔	23	9
.22	.56	میں نماز ادا کر کے اللہ کی نعمتوں کا شکر ادا کرتا/کرتی ہوں۔	24	10
.13	.36	میں کھانا شروع کر نے سے پہلے اور ختم کرنے کے بعد اللہ کا شکر ادا کرتا/کرتی ہوں۔	25	11
.16	.51	میں اللہ کا/کی شکر گزار ہوں جس نے مجھے میری ضروریات کا خیال رکھنے والے والدین عطا کیے۔	26	12
.19	.51	میں اللہ کا/کی شکر گزار ہوں جس نے مجھے ایسے والدین عطا کیے جو ہر موقع پر میرا احساس کرتے ہیں۔	27	13
.55	.38	میرے پاس زندگی میں لوگوں کا شکر گزار ہونے کے لیے بہت کچھ ہے۔	1	14
.70	.29	اگر مجھے ہر اس چیز/لوگوں کی فہرست بنانی پڑے جن کے لیے میں شکر گزار ہوں تو یہ ایک بہت لمبی فہرست ہوگی۔	2	15
.69	.08	جیسے جیسے میری عمر بڑھ رہی ہے، میں خود کو ان لوگوں، واقعات اور حالات کی تعریف کرنے کے قابل محسوس کرتی/ کرتا ہوں جو میری زندگی کی تاریخ کا حصہ رہے ہیں۔	3	16

**Table 1**  
*Exploratory Factor Analysis of GS-U (N = 200)*

Factor Loading		Statement	Item	
F2	F1		No	No
.69	-.01	میرے دوستوں نے میرے لیے جو کچھ کیا اس کے لیے میں شکر گزار ہوں۔	4	17
.55	.21	میں ان چیزوں/لوگوں کی قدر کرتا/کرتی ہوں جو میرے پاس ہیں کیونکہ میں جانتا/جانتی ہوں کہ میں انہیں کسی بھی وقت کھو سکتا/سکتی ہوں۔	5	18
.58	.32	میں یہ تسلیم کرتا/کرتی ہوں کہ دوسرے لوگوں (والدین، اساتذہ، دوست، احباب) نے میرے لیے کیا کچھ کیا ہے۔	6	19
.53	.02	میں دوسرے لوگوں کو بتاتا/بتاتی ہوں کہ میں ان کا/کی کتنا/کتنی شکر گزار ہوں۔	7	20
.63	.28	میرے پاس زندگی میں جو کچھ ہے اس کیلئے میں مطمئن ہوں اور لوگوں کا/کی شکر گزار ہوں۔	8	21
.52	.24	میرے خیال میں اپنے ارد گرد کے لوگوں کا شکر گزار ہونا خوبصورت چیزوں کی تعریف کرنا ایک خوشگوار عمل ہے۔	9	22
.66	.23	میں ان لوگوں کا شکریہ ادا کرتا/کرتی ہوں جنہوں نے راستے میں میری مدد کی تاکہ میں زندگی میں کامیابی حاصل کر سکوں۔	10	23
.66	.23	میں ان لوگوں کا/کی شکر گزار ہوں جنہوں نے مجھے میری بنیادی ضروریات (مثلاً کھانے کے لیے کچھ، پہننے کے لیے کپڑے، رہنے کی جگہ) حاصل کرنے میں مدد کی۔	11	24
.73	.07	جب بھی میری ان لوگوں (دوست، احباب، والدین) سے ملاقات ہوتی ہے جنہوں نے میری مدد کی، میں ان کا شکریہ ادا کرتا/کرتی ہوں۔	12	25
.76	.13	میں اپنی زندگی میں دوسروں کی طرف سے میرے لیے کیے گئے کاموں کے لیے شکر گزار ہوں۔	13	26
.70	.06	میں بہت سے لوگوں کی/کا شکر گزار ہوں جنہوں نے مجھے قیمتی مشورے یا مدد دی جس سے آج میں جہاں ہوں، وہاں تک پہنچنے میں مدد ملی۔	14	27

#### Description of Factors

Based on Eigen values two factors were retained using eigenvalue criterion greater than 1 (Cattell, 1996; Kaiser 1960), along with the researcher's judgment on the meaningfulness of factors. The meaningful components emerged from two factors, so the final structure retained those two factors.

#### F1: Gratitude towards Allah

It includes 13 items (15 - 27) and was named as Gratitude towards Allah (GtA). The Eigen value (6.34) was high, and the factor accounted for 23.51% of variance. The content of this factor expressed gratitude towards Allah for His blessings. For example,

اللہ تعالیٰ نے مجھے بہت سی نعمتوں سے نوازا ہے جس پر میں اللہ کا/کی شکر گزار ہوں۔ جب بھی میں اپنی زندگی پر نظر ڈالتی/ڈالتا ہوں تو اس چیز کا احساس ہوتا ہے کہ مجھ پر اللہ کا خاص کرم ہے۔

#### F2: Gratitude towards Others

The second factor includes the rest of the items (1-14) and the factor is named Gratitude towards Others (GtO). The content of the items depicts being thankful to people/significant others who helped individuals in life. The Eigenvalue (6.26) was high, and this factor accounted for 23.19% of the variance. The content of this factor expressed GtO and for His blessings, for example,

میرے دوستوں نے میرے لیے جو کچھ کیا اس کے لیے میں شکر گزار ہوں میرے پاس زندگی میں جو کچھ ہے اس کیلئے میں مطمئن ہوں اور لوگوں کا/کی شکر گزار ہوں۔

**Table 2***Means, Standard Deviations, Internal Consistencies, and Intercorrelations among GS-U, GtA, and GtO (N = 200)*

Scales-Subscale	M	SD	Range	$\alpha$	GS-U	GtA	GtO
GS-U	87.66	12.99	0-108	.90	-		
GtA	45.16	5.97	0-52	.88	.79**	-	
GtO	42.50	9.03	0-56	.90	.91**	.47**	-

Note. GS-U = Gratitude Scale-Urdu, GtA = Gratitude towards Allah, GtO = Gratitude towards Others,  $\alpha$  = Cronbach alpha

\*\* $p < .001$

Table 2 also shows means, standard deviations, ranges, internal consistencies, and intercorrelations of GS-U, GtA, and GtO; the internal consistencies of the scale and subscales were excellent (Cronbach alphas = .88 - .90). These two factors as subscales correlated positively and

significantly with each other, GtA correlated ( $r = .47$ ) significantly ( $p < .001$ ) with GtO, and so did the two subscales with the overall scale, GtA correlated ( $r = .79$ ) significantly ( $p < .001$ ) with GS-U and so did GtO with GS-U ( $r = .91$ ,  $p < .001$ ) significantly.

**Table 3***Model Fit Indices of CFA for GS-U (N = 500)*

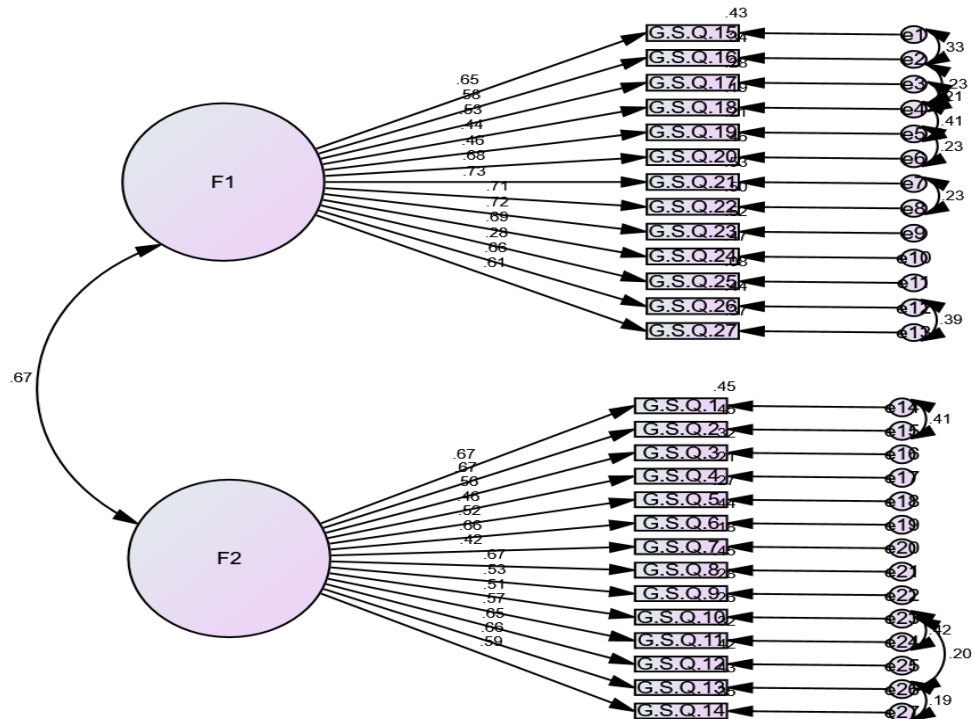
Model	df	$\chi^2$	$\chi^2/df$	GFI	CFI	TAG	RMSEA
Two Factor Solution	287	783.61	2.73	.89	.90	.89	.05

Note. GFI = Goodness of Fit Index, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index, RMSEA = Root Mean Square Error of Approximation

\*\*\* $p < .01$

**Figure 2**

Model of GS-U and its subscales



Confirmatory Factor Analysis (CFA) conformed two factor loadings for all items as revealed in EFA, except item 25 (میں کھانا شروع کرنے سے پہلے اور ختم کرنے کے بعد اللہ کا شکر ادا کرتا/کرتی ہوں) that was excluded for its low loading. Factor loadings ranged from .42 - .73, which represented good internal consistency of GS-U. Table 3 and Figure 2 represent the model fit indices of CFA for GS-U. Concerning the initial criteria, the EFA model was tested in CFA and the overall factor structure revealed a good fit to the data with the value of chi-square 783.61 ( $df = 287$ ), CFI = .90, GFI = .89 and RMSEA = .05. In CFA, a non-

**Table 4**

*Means, Standard Deviations, Internal Consistencies and Correlations Depicting Convergent and Discriminant Validities among GS-U, GtA, GtO, PDS-K10, and SWLS (N = 500)*

Scale-Subscale	M	SD	Range	$\alpha$	GS-U	GtA	GtO	PDS-K10	SWLS
GS-U	86.85	13.50	0-104	.91	-				
GtA	43.80	7.17	0-48	.88	.86**	-			
GtO	43.04	8.13	0-56	.87	.89**	.55**	-		
PDS-K10	47.19	28.80	1-50	.89	-.29**	-.28**	-.23**	-	
SWLS	33.06	15.26	1-35	.82	.30**	.15**	.34**	-.34**	-

*Note.* GS-U = Gratitude Scale-Urdu, GtA = Gratitude towards Allah, GtO = Gratitude towards Others, PDS-K10 = Psychological Distress Scale-K10, SWLS = Satisfaction with Life Scale,  $\alpha$  = Cronbach alpha

\*\* $p < .01$

Table 4 shows well to excellent internal consistencies of scales and subscales that ranged from .82 - .91. Like before with another sample (see above) GS-U positively and significantly ( $p < .01$ ) correlated ( $r = .86$ ) GtA and with GtO ( $r = .89$ ,  $p < .01$ ) and the two subscales (GtA and GtO) positively and significantly ( $p < .01$ ) correlated ( $r = .55$ ) with each other. Convergent validity was established because GS-U positively and significantly ( $p < .01$ ) correlated ( $r = .29$ ) with SWLS, and GS-U negatively and significantly ( $p < .01$ ) correlated with K-10 ( $r = -.29$ ) discriminating clearly from a distress scale.

## Discussion

Many recent research findings show, that being grateful has a strong association with many aspects of psychological health. Grateful people are more satisfied, live with more meaningful relationships, and decreased levels of mental issues (Petrocchi & Couyoumdjian, 2015). Gratefulness has a positive correlation with happiness, psychological well-being, self-esteem, social support, and life satisfaction (Bilonget et al., 2021; Lin, 2014; You et al., 2018). Gratitude and spirituality are significantly and positively associated (Emmons & Knezeel, 2005), and spirituality predicts gratitude; belief in God in many ways means to be thankful and appreciative of God. A review of the literature showed a lack of scales that would measure gratitude towards Allah. Therefore, we developed GS-U that could measure gratitude in Muslims in Pakistan towards Allah and other fellow human beings (Shahid & Kazmi, 2022). The religious aspect of this scale distinguishes it from other gratitude measures for it includes the concept of shukkr and *tashakkur* (تشکر), being thankful to Allah for His blessings and being thankful to significant people in life or people in general that help and facilitate at the times of need.

The main objective of this study was to establish the psychometric proprieties of GS-U. The study was divided

significant value of chi-square is desirable. However, in larger samples, the chi-square value is typically significant. To account for this, it is recommended to divide the chi-square value by the degrees of freedom. A value less than 3 is generally considered acceptable (Gable & Wolf, 1993; Hatcher, 1994). The value of the normed chi-square is 2.73 (783.61/287) which shows the model fit because its value is within the acceptable limit. The CFA model consisted of 26 items on two factors with factor loadings ranging from .42 - .73.

into two phases, such that in the first phase, a sample of 200 students was selected to establish the factor structure (EFA) of GS-U without imposing a predetermined structure (Shahid & Kazmi, 2022). Two factors emerged, the first factor was named GtA, which contained 13 items, and the second factor was GtO, which contained 14 items. The first factor GtA, was unique because it assessed the gratefulness towards Allah. This factor included 13 items (15 – 27) with items related to the expression of gratefulness towards Allah for His blessings (see items above). Muslims grateful towards Allah recognize their blessings and do not become ungrateful when challenges arise in their lives. They believe that everything happens according to the will of Allah and occurs for their welfare. The second factor GtO included 14 items (1 – 14, see items above) that were related to significant people and others who helped individuals in various domains of life. This factor is also found in other religious and psychological literature (Emmons et al., 2002; Lin et al., 2010; Watkins et al., 2003) and assesses how individuals feel obliged and appreciative towards their family members, friends, worldly things, events, and nature. The factor structure of GS-U is consistent with our previous study (Shahid & Kazmi, 2022). The overall scale GS-U, and subscales GtA and GtO correlated positively and significantly.

Confirmation of the factor structure of GS-U was revealed by CFA examined the predefined model from an observed data set (Field, 2009). AMOS-21 verified the factor structure retaining EFA. Best model fit was based on strong measures of GFI ( $> .90$ ), CFI ( $> .90$ ), TLI ( $> .90$ ) and RMSEA ( $\leq .05$ ) proposed by various researchers (Bentler, 1990; Kazmi & Muazzam, 2017; Joreskog & Sorborn, 1989; McDonald & Ho, 2002). One item (25) was excluded in CFA because of low loading resulting in 26 items in the entire scale with fewer items in GtA (12 items) than in GtO (14 items). Since these items had significant loadings, this resulted in higher internal consistency of GS-

U. Convergent validity ( $r = .30$ ) of GS-U with SWLS (Butt et al., 2014) was positive and significant and so was discriminant validity ( $r = -.29$ ) measured against PDS-K10 (Kessler et al., 2003).

The findings reveal GS-U is a reliable and valid scale that can measure gratitude in Pakistani Muslims which was recently developed. Most gratitude scales are developed in Western culture and thus applicable in Western settings so there was a need for the development and validation of gratitude scale for Pakistani Muslims.

### Conclusion

The GS-U has a unique aspect (GtA) that distinguishes it from other gratitude measures. A 26-item scale for Pakistani Muslims or other Muslims of the subcontinent has strong internal consistency and validity. A higher score on the GS-U, GtA, and GtO indicates higher gratitude towards Allah and people and can be used in clinical assessments and against other measures in research.

### Limitations and Future Recommendations

This study was conducted in Lahore, Pakistan, and therefore, its results cannot be generalized. Future studies should be conducted in other cities or provinces of Pakistan. This study did not propose any appropriate plans or interventions for students who are less grateful. Future studies should focus on providing intervention plans for such students.

### Implications

This study contributes to the expanding body of literature on gratitude in Pakistan. The scale is written in simple and understandable language it can be used for young people and adults of both genders and can be useful for psychologists, counselors, and other professionals. Based on this scale, campus counselors/clinical psychologists may design appropriate plans and interventions for students who are less grateful and experience distress.

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