

DEVELOPMENT AND VALIDATION OF GRATITUDE SCALE FOR UNIVERSITY STUDENTS

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ABSTRACT

The study aims to explore the nature of gratitude in university students. To achieve this objective, this study was comprised of three phases. In phase 1, the nature of gratitude was explored through focus groups with university students and review of literature. Two focus groups were conducted to generate a comprehensive pool of items. Verbatim of participants was compiled in the form of statements (35 items) and dubious content was deleted from the list of items. Content validity of Gratitude Scale (GS) was established through experts (psychologists) ratings (N=4). Eight items were excluded from the scale through experts' ratings. Pilot study was conducted on a student sample (N=20) to check the ease of understanding. In phase 2, construct validity was explored through exploratory factor analysis (N=300). Two factors emerged on 27 items and named as Gratitude towards Others and Gratitude towards Allah. In phase 3, psychometric properties of GS were established. Convergent validity (N=150) was explored through using Satisfaction with Life scale (Ghani et al., 2004) ($r=.50, p<0.01$). Discriminant validity (N=150) was explored using Depression Scale of DASS-21 (Aslam & Kamal, 2017) ($r=-.23, p<0.01$). GS is a reliable and valid scale for assessing gratitude among university students of Pakistan.

Keywords: Nature, gratitude, life satisfaction and depression.

INTRODUCTION

The word gratitude has been derived from the word 'gratita' which is a Latin word, which means kindness, generosity, assistance, or receiving something for nothing. (Pruyser, 1976). Gratitude has been explained as a feeling of gratefulness, thankfulness and appreciation that can be expressed by a person to nature and non-human sources (God and the Universe) (Emmons et al., 2019). Gratitude is a way of living that focuses on identifying and appreciating the good things in life (Wood et al., 2010). It is difficult to claim that people are born thankful (Emmons et al., 2019). According to the developmental perspective, youngsters start figuring out how to be grateful through the customary activities and keen to play a part with family, mates, and other basic social associates. Particularly young children are being trained to say "thank you" after receipt of a gift (Visser, 2009).

In Islam, gratitude is a condition of a person's understanding and accepting favors from Allah (al-Ghazālī, 2005). Both the Holy Quran and the Sunnah praised and encouraged expressing thankfulness in daily and practical life (sayings from Prophet Mohammad peace be upon Him). The concept of Shukr is not only emphasized in Islam in the words of gratitude and appreciativeness but also recognized by the actions of people- to perform gratitude (shukr) to acknowledge and appreciate the blessings from Allah (Shah-Kazemi, 2014). In all religions, gratitude is recognized as a universal virtue, including Christianity, Judaism, and Islam. Christianity gives Christians the message of gratitude for their source of life. In addition, individuals show gratitude in various settings. For example, in the United States, thanksgiving is

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honored to express gratitude. Judaism emphasizes the surprising importance of giving thanks to God from ancient Israel (Ajmal et al., 2018). In Islam, the Quran emphasizes gratitude and the need for gratitude to Allah. In the Qur'an Surah al-Imran, Allah clearly told the Muslims that those who serve him with gratitude would be rewarded. Exploring youth's gratitude is a matter of importance for many years. Early adolescence is a critical period when adolescents have the ability to understand the acts of kindness of people and encounter gratitude. This is when teenagers begin to experience the challenges of discovering adult social roles and the development of participation in society (Marcia, 1980). Youth can succeed and acquire a greater level of social integration when they are grateful (Keyes, 1998). According to certain studies conducted on adults, adults who express gratitude more frequently are happier and have lower levels of stress and despair (Miller et al., 2006).

In this research, nature of gratitude was explored among university students. There is limited research on gratitude with reference to Pakistan. Some Western scales for measuring and assessing gratitude are available. The Gratitude Questionnaire (McCullough, 2002), is a self-report questionnaire to measure gratitude as an emotion. Gratitude Resentment and Appreciation Test (Watkins, 2003) assesses the three particular characteristics of a grateful person; lack of any sense of difficulty, tendency to value simple pleasures and capability to recognize how others have contributed to ones accomplishments and express gratitude to them. Gratitude Adjective Scale (McCullough, 2002), this scale consists of adjective items that are grateful, thankful and appreciative and assesses the expressions of gratitude. These scales have been developed according to the expression of gratitude in western countries and are not applicable for the Pakistani population because every culture has its own unique way in the manifestation and expression of any emotion. Being as Muslims, we acknowledge/ express our gratitude towards Allah by saying "SHUKAR ALHUMDOLILAH". The concept of being grateful to Allah is missing in all these scales. This is the main reason to develop culturally relevant scale to assess nature and manifestation of gratitude among Pakistan university students.

Objectives of the Study

- To explore the nature of gratitude among Pakistani university students.
- To develop an indigenous scale for gratitude (GS) among university students.
- To establish its psychometric properties.

REVIEW OF LITERATURE

Gratitude is favorably associated with social support, affective well-being, life satisfaction, and self-esteem, and is negatively correlated with depressive symptoms, hostility, and anger. Study was conducted on university students in Karachi to see how gratitude and forgiveness influenced subjective well-being in young adults. Results of the study revealed that gratitude is a non-significant predictor of subjective well-being, but forgiveness is found to be a significant predictor of subjective well-being and a weak positive relationship between gratitude and subjective well-being, and forgiveness and subjective well-being (Hermaen & Bhutto, 2020). Findings revealed that emotional state is a mediator in the relationships between psychological well-being (PWB) and trait gratitude components. Trait gratitude and PWB were correlated, although state gratitude was not a significant mediator (Mairean et al., 2019).

Literature reveals that there is a significant positive relationship between gratitude and life satisfaction. Life satisfaction can be defined as an overall cognitive assessment of people's level of happiness with their lives (Diener et al., 2003). This study explores how positive and negative affects mediate the relationship between gratitude and satisfaction of life in late youth. A multi-group study revealed that more than men, women with lower negative affect scores were predicted to have higher life satisfaction levels. In contrast, men who scored well on gratitude were more likely to have higher levels of positive affect (Sun & Kong, 2013). Another study shows that an individual who is grateful for the blessings enables him to form better social interactions, greater satisfaction and joy in life and also enables him to fight against the tough situations of life (Schkade et al., 2005). Empirical evidence shows that gratitude is assuredly connected with positive appraisal in life (Emmons et al., 2003). Another research revealed that gratitude has the most significant impact on the life satisfaction level of adolescents (Proctor et al., 2010). Another research looked at the association between gratitude and life satisfaction among 877

adolescents in Korea. The results of the study found that individuals who expressed greater levels of gratitude throughout their early adolescent years had higher levels of life satisfaction also appreciative students have more social support and experienced less emotional issues, resulting in higher life satisfaction (You et al., 2018). Life satisfaction was positively connected with gratitude and the presence of significance in one's life, the presence of purpose in life was found to be negatively linked with the desire for founding meaning in life and the presence of significance in one's life was found to partially moderate the association between gratitude and subjective well-being (Datu et al., 2015). Research included 415 Filipino volunteers aged 13 to 28 years old aimed to see how life satisfaction, spirituality and gratitude are linked. Helpful connections were discovered between life satisfaction and gratitude, spirituality and gratitude, and satisfaction of life and spirituality. Spirituality was also shown to facilitate the link between happiness and gratitude (Perez et al., 2021). Life satisfaction, materialism, envy, gratitude, sadness, social integration, and academic functioning were all assessed among college students. Results revealed that gratitude, when controlling for materialism, predicts all of the outcomes studied: more excellent grade point average, life happiness, and social integration, as well as decreased envy and despair. By looking at gratitude and materialism as predictors, gratitude is a better predictor of these six outcomes than materialism (Froh et al., 2011). The impact of gratitude on life satisfaction after the Ya'an earthquake tragedy was explored. The findings revealed that adolescent's survivors' appreciation might have an indirect and positive relationship with life satisfaction via social support, self-esteem, and hope after the natural disaster (Zhou et al., 2019). The findings of the study set out to investigate the role of gratitude as a mediator between life happiness and forgiveness among 396 university students. Gratitude and life happiness were strongly connected with forgiveness (Aricioglu, 2016).

Literature further reveals that gratitude has a significant negative relationship with anxiety and depression (Wood et al., 2010). Depression has a detrimental impact on one's emotions, thinking, and behavior. Undergraduate student samples have been used to study the relationships between gratitude and depression. Findings showed that people with more dispositional gratitude, exhibit fewer depression symptoms over time (Lambert et al., 2012). Results of another study show that the lower levels of depressions predicted by high Gratitude trait (Wood et al, 2008). Furthermore, peacefulness, and rumination totally mediated the relationship between gratitude and depression (Liang et al., 2020). Another study explored the relation between self-esteem, psychological well-being, gratitude and depression in university students of Taiwan (N=235). Path analysis revealed that self-esteem and psychological well-being are strong mediators between gratitude and depression (Lin, 2015). Another study explored the relationships between signs of psychological distress (negative mood and depression) and gratitude among 198 university students from South Africa. The findings demonstrated that gratitude is favorably correlated with well-being measures and negatively connected to indices of psychological distress (Mason, 2019).

Rationale of the Study

Assessing gratitude is an important issue. Unfortunately, Pakistan does not have a unique measure of appreciation among university students with sound psychometric properties. There are several Western measures that have been widely used in previous studies to assess gratitude. However, due to the fact that we adhere to a number of traditions and values that are distinct from those in the West, these measurement scales do not accurately depict our society. Being Muslims, we prioritize our religious values. There is a concept of "SHUKAR", "TASHAKUR" which suggests being thankful to the creator for His blessings or being thankful to people/significant others who help/facilitate at the time of need. The scales developed in western culture do not include these elements. Therefore, it is essential to explore the nature of gratitude among university students of Pakistan and develop a scale with sound psychometric properties that is culturally relevant.

METHODS

The development of this scale is comprised of three phases. In phase 1, the nature of Gratitude was explored. Three steps were followed to explore the nature of Gratitude. Step 1 was comprised of item generation

through focus groups and review of literature. In step II, content validity index of Gratitude Scale was found out and in step III, pilot study was conducted to check the ease and understanding of the participants.

Phase 1: Exploring the Nature of Gratitude

Three steps were followed to explore the nature of Gratitude. Step I was comprised of item generation through focus groups and review of literature. In step II, content validity index of Gratitude Scale was found out and in step III, pilot study was conducted to check the ease and understanding of the participants.

Step I: Focus Group

Two separate focus group sessions were conducted with the interval of 4 days. Purposive sampling strategy was used. The sample was comprised of eight (N=8) university students. Their age ranged from 17-28 years ($M= 21.56, SD= 1.57$). These students were of both genders selected from BS and MS. The aim and purpose of the focus groups was explained to the participants and informed consents was taken to participate in a discussion. The confidentiality was also assured to the participants before starting a focus group session. Both focus group sessions lasted about 50-55 minutes and were recorded. Participants were asked different questions e.g., “apkay nazdeeq shukar guzaari sey kya muraad hai?” “Ap kin halaat (situation) ya cheezon pe shukar guzaar hotay hain? Kis tarhan sey shukar guzaari ka izhaar kartay hain?”. Participants were encouraged to share their experiences of gratitude. At the end of the both sessions, responses of the participants were noted and compiled in the form of list. Final list of 35 items was compiled after removing the dubious items.

Literature Search

Foreign and local researches were reviewed carefully to explore the construct (Gratitude) among university students. Researches related to gratitude among adolescents and teenagers were also reviewed. Some of the already existing scales of gratitude were not culturally appropriate as they lack the concept of Allah/God and some of them had not sound psychometric properties. Basically, the purpose to review a literature was to understand the concept of gratitude carefully.

Step 2: Content Validity through Experts Ratings

For empirical validation of the Gratitude Scale, four qualified psychologists (N=4) from Psychology Department of Lahore College for Women University were approached through purposive sampling strategy. Their age ranged from 30-40 years ($M=36, SD= 2.94$) and their teaching experience ranged from 10-12 years. They were asked to rate each item on the basis of their knowledge, understanding about gratitude, clarity of the statements and readability on a 4 point rating scale (1-4) where 1 stands for “Not Relevant” and 4 stands for “Highly Relevant”. It took about 10 to 15 minutes average to respond to the questionnaire. After then on the basis of expert ratings, Item Content Validity Index (I-CVI) was calculated. I-CVI was calculated by combining the ratings given by experts into two categories (1 & 2 = Not relevant and scored as 1, 3 & 4 = Relevant scored as 2) for each item and then by dividing the number of agreement on each item with the total number of experts.

Table No 1: Content Validity through Expert Ratings

Sr No.	Expert 1	Expert 2	Expert 3	Expert 4	# agreement	CVI
1	4	4	4	4	4	1
2	4	4	4	4	4	1
3	4	3	4	2	3	0.75
4	4	3	4	2	3	0.75
5	4	4	4	3	4	1
6	3	3	3	2	3	0.75
7	4	4	4	3	4	1
8	3	3	3	2	3	0.75
9	3	4	2	2	2	0.5
10	4	4	4	3	4	1
11	4	4	4	2	3	0.75
12	4	3	4	3	4	1

13	4	4	4	4	4	1
14	4	4	4	2	3	0.75
15	4	4	4	3	4	1
16	3	4	2	2	2	0.5
17	4	3	4	4	4	1
18	4	4	4	3	4	1
19	4	4	4	3	4	1
20	4	3	4	3	4	1
21	4	4	4	4	4	1
22	4	4	4	4	4	1
23	4	4	4	3	4	1
24	4	4	4	3	4	1
25	4	3	4	4	4	1
26	4	4	4	4	4	1
27	4	4	4	4	4	1
28	4	4	4	4	4	1
29	4	4	4	4	4	1
30	4	4	4	4	4	1
31	4	4	4	4	4	1
32	4	4	4	4	4	1
33	4	4	4	4	4	1
34	4	4	4	4	4	1
35	4	4	4	4	4	1

According to the above mentioned criteria, 27 items out of 35 items retained in the scale. Scale's Content Validity Index was calculated

Scale CVI= Total CVIs/Total no. of items

$$= 33/35$$

$$= 0.94$$

.80 Scale CVI is considered as acceptable and above.90 is considered very good (Wynd et al., 2003).

Step 3: Pilot Study

Pilot study was conducted on a sample of 20 university students (male=8, female=12). Age ranged from 19-24 years ($M=21.8$, $SD=1.66$) and their education ranged from Bachelors to M.Phil. Purposive sampling strategy was used for selection of a sample for pilot study. The participants were administered a Gratitude scale along with demographic sheet. They were asked to point out any ambiguity in the statements. They did not report any ambiguity in the scale.

Phase 2: Establishing Construct Validity through Exploratory Factor Analysis

In this phase, scale's construct validity was established through Factor analysis

Determining the Factor Structure of Gratitude Scale (GS)

Exploratory factor analysis was performed to determine the factor structure of GS. The purpose of EFA is to examine the loading of each item on relevant factors, and to examine the factor structure of large related variables without imposing a predetermined structure (Child, 1990). The goal of EFA is to extract the dimensions that explain the covariance with a larger set of variables (MacCallum & Stranhan, 1999).

Sampling Strategy

Purposive sampling strategy was used to select a sample for data collection in this research. Data was collected by visiting four different universities of Lahore after taking permission from departmental authorities.

Sample

Sample size for this research consisted of 300 university students, with equal representation of both genders. Their age ranged from 17-25 years ($M= 21.56, SD= 1.57$) and the students were selected from BS and MS. In a sample, BS students were 90% ($N= 270$) and MS students were 10% ($N= 30$).

Inclusion Criteria

- Only BS and MS students were included

Exclusion Criteria

- University students with having any physical disability were not included.

Instruments

Consent Form

Informed consent was taken from all the participants participated in this current research in which the aim of the study was explained and confidentiality was assured to participants. They were given the right to withdraw from research at any time.

Demographic Sheet

Demographic sheet were comprised of gender, age, class, major, department, last semester GPA, university name, family system and monthly income.

Gratitude Scale (GS)

Final version of the Gratitude Scale was administered on the sample. It consists of 27 items with a 5-point likert scale (0=totally disagree and 4=totally agree). This scale was developed in Urdu Language in the present study. Higher scores on the Gratitude Scale (GS) represents higher gratitude in individuals.

Procedure

After approval from the Ethical Committee and Board of Studies, permission to use scales was sought from authors. Written permission for data collection was taken from university authorities. Initially, six universities were approached but only four universities permitted for data collection. After then, the researcher introduced herself to the participants and explained the aim of the research. Then, all those participants who agreed to participate were provided with the research protocol. All the instructions given to the participants were in Urdu. It took about 15 minutes to complete the questionnaire. After completion of the questionnaire, students were given a time of 5 minutes for any queries, feedback, debriefing regarding research projects and questionnaires, and also thanks note was presented to the participants from a researcher for participating in a study.

Assumptions testing for Factor Analysis

Factor Structure of GS was explored through factor analysis by using principal Component Analysis with varimax rotation. Different assumptions were tested to reach an appropriate factor structure. Bartlett and KMO tests were applied with the value of $KMO= .94$ which represents the adequacy of sample (Kaiser, 1974). Kaiser (1974) criteria were followed to determine the number of factors. The criteria is as follows, Eigen value greater than 1. Scree plot was used to identify the structure of scale. Lastly, items with higher loadings were retained in a specific factor. Best factor structure was emerged in two factor solution with 27 items.

Phase 3: Establishing Psychometric properties of Gratitude Scale

In this phase, scale's psychometric properties were established.

Sampling Strategy

Purposive sampling strategy was used to select the sample. Data was collected from four different universities of Lahore after taking permission from departmental authorities. Students were randomly selected from different departments to fill the questionnaire.

Sample

Sample was consisted of 150 university students, males were 42% ($N=50$) and females were 58% ($N=70$). Their age ranged from 18-26 years ($M= 22.37, SD= 1.41$) and students were selected from BS and MS.

Inclusion Criteria

- Only BS and MS students were included

Exclusion Criteria

- University students with having any physical disability were not included

Instruments

Consent Form

Informed consent was taken from all the participants participated in which all the aims, purpose, confidentiality concerns of this research were explained. Participants have a free choice to either participate in this research or not.

Demographic Sheet

Demographic sheet were comprised of gender, age, class, major, department, last semester GPA, university name, family system and monthly income.

Gratitude Scale (GS)

Final version of the Gratitude Scale was administered on the sample. It consists of 27 items with a 5-point likert scale (0=totally disagree and 4=totally agree). Higher score on Gratitude Scale (GS), represents higher gratitude in individuals. Alpha coefficient of GS is .95. GS consists of two subscales, which are Gratitude towards Others ($\alpha=.92$) contains 14 items and Gratitude towards Allah ($\alpha=.92$) contains 13 items.

Life Satisfaction Scale (LSS)

Urdu translated version of Life Satisfaction Scale (LSS) (Ghani et al., 2004) was used in this study. This scale consists of 5 items. It is a 7-point Likert scale (1-7). Alpha coefficient of LSS is .82. Higher score in LSS reflects higher satisfaction with life.

Depression Anxiety Stress Scale (DASS)

Urdu translated version of Depression Anxiety Stress Scale (Aslam & Kamal, 2017) was used. Depression subscale of DASS was used in this study which consists of 7 items. It is a 4-point likert scale (0-3). Alpha coefficient of Depression scale is .85. Higher score in Depression subscale of DASS reflects the high levels of Depression.

Procedure

After approval from the Ethical Committee and Board of Studies, permission to use scales was sought from authors. Written permission for data collection was taken from university authorities. Participants were approached through a purposive sampling strategy. Researcher introduced herself to the participants. Participants were informed about the aim and assured confidentiality. Then, all those participants who gave consent to participate were provided with the research protocol. All the instructions given to the participants were in Urdu. It took about 25 minutes to complete the questionnaire. Afterwards, participants were thanked by the researcher.

Ethical Considerations

All ethical considerations were taken into account during research. Permission for research was sought from the Ethical Committee and Board of Studies. Permission to use scales was sought from authors. Written permission for data collection was taken from different university authorities. Informed consent has also been taken from the participants. Confidentiality of the participants has also been assured that the data will only be used for research purposes.

RESULTS

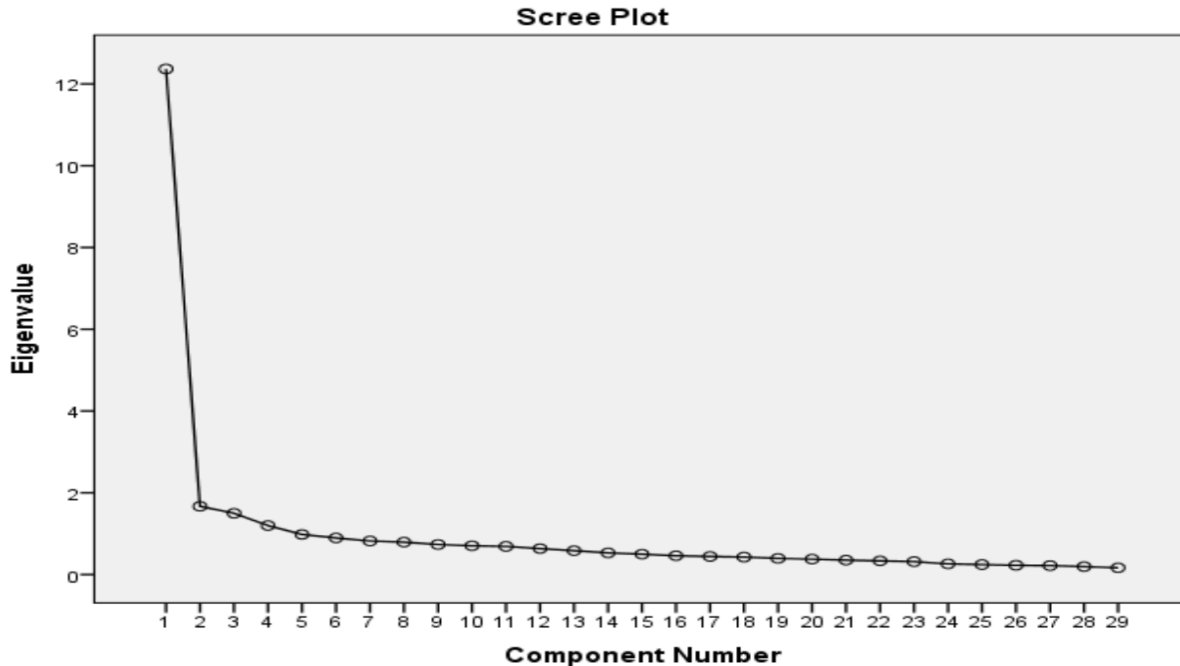
Sample age ranged from 17-25 years ($M= 21.57$, $SD= 1.57$) and the students were from BS (90%). To determine the factor structure of GS, exploratory factor analysis was performed. Factor Structure of GS was explored by using Principal component analysis with varimax rotation. The criteria that was followed for extraction of the factors were Eigen values greater than 1 and scree plot. Bartlett and KMO tests were applied with the value of $KMO= 0.94$. Two factors emerged after running a factor analysis.

Table No 2: Table of Exploratory Factor Analysis (N=300)

Serial no.	Item No.	Factor	
		F1	F2
Factor 1: Gratitude towards Others			
1	1	.68	.40
2	2	.64	-.38
3	5	.44	.40
4	7	.53	.23
5	10	.60	.12
6	12	.67	.21
7	17	.54	.16
8	19	.57	.39
9	21	.52	.44
10	22	.68	.26
11	24	.67	.41
12	25	.43	.34
13	26	.66	.14
14	28	.68	.27
Factor 2: Gratitude towards Allah			
15	13	.53	.56
16	15	.34	.54
17	18	.34	.39
19	23	.15	.58
20	27	.49	.50
21	29	.43	.60
22	30	.44	.70
23	31	.41	.72
24	32	.30	.71
25	33	.16	.71
26	34	.25	.78
27	35	.29	.77

Note. F1= Gratitude towards Others, F2= Gratitude towards Allah.

Figure 1: Scree plot showing Factor Structure of GS



According to the Scree plot, 2 clear factors were made with Eigen value greater than 01.

Table No 3: Eigen values and total Variance explained by the Factor Structure of GS

Factors	Eigen Values	% of Variance	% Cumulative
F1	12.36	42.63	42.63
F2	1.66	5.75	48.39

Factors Description

Two best factors were emerged through Exploratory Factor Analysis.

F1: Gratitude towards Others

It includes 14 items (1, 2, 5, 7, 10, 12, 17, 19, 21, 22, 24, 25, 26, 28) and the factor is named as Gratitude towards Others. The content of items is related to be thankful to people/ significant others who helped the individual in life. It includes items e.g. “meray doston nay meray liye jo kuch kiya uskay liye mai onki/onka shukar guzaar hoon”, “mai un logon ka shukariya ada karta/karti hoon jinhon nay rastay mein meri madad ki takay mei zindagi mein kamyabi haasil kar sakun”, mai apny walidaen ka/ki shukar guzar hon jinhone ny meri zaroriyat kakhayal rakha”.

F2: Gratitude towards Allah

It includes 13 items (13, 15, 18, 20, 23, 27, 29, 30, 31, 32, 33, 34, 35) and the factor is named as Gratitude towards Allah. The content of item in this factor is related to the expression of gratitude towards Allah for the blessings. It includes items e.g. “jab bhi mai koi kamyabi haasil karta/karti hoon toh uss per Allah ka shukar guzaar hota/hoti houn”, “mai namaz ada kar kay Allah ki naimaton ka shukar ada karta/karti houn”, “jab bhi mai apni zindagi per nazar dalta/dalti houn to iss cheez ka ehsaas hota hai kay mujh per Allah ka khaas karam hai”.

Table No 4: Reliability Analysis of the Gratitude Scale along with its Subscales

Variables	M	SD	Range	Cronbach’s Alpha
Gratitude Scale	83.8	15.8	0-108	.95
Gratitude towards Others	41.7	8.7	0-56	.92
Gratitude towards Allah	42.1	7.9	0-52	.92

Note: M= Mean, SD=Standard Deviation

Table shows the alpha coefficients of Gratitude Scale along with its subscales. The findings reveal that Gratitude Scale along with its subscales has significant internal consistency. The Cronbach alpha values ranged from .92- .95.

Table No 5: Correlation of Gratitude Scale with its Subscales

Scale	1	2	3
Gratitude Scale	-	.95**	.94**
Gratitude towards others	-	-	.80**
Gratitude towards Allah	-	-	-

Note. **p < 0.01.

Table shows the correlation among Gratitude Scale and its subscales. The correlation findings reveal that there is a significant positive correlation gratitude and its subscales. Gratitude towards others has significant positive correlation with gratitude (.95**) and with Gratitude towards Allah (.94**). This reveals that higher the gratitude, higher will be the gratitude towards other as well as Allah. The value of correlation ranged from .80-.95.

Table No 6: Item total Correlation of Gratitude Scale

Sr no.	Item no.	r	Sr no.	Item no.	R
1	1	.72**	15	23	.60**
2	2	.70**	16	24	.74**
2	2	.70**	16	24	.74**
3	5	.65**	17	25	.61**
4	7	.61**	18	26	.60**
5	10	.50**	19	27	.67**
6	12	.66**	20	28	.70**
7	13	.77**	21	29	.70**
8	15	.64**	22	30	.77**
9	17	.60**	23	31	.77**
10	18	.60**	24	33	.71**
11	19	.70**	25	33	.63**
12	20	.50**	26	34	.70**
13	21	.70**	27	35	.73**
14	22	.70**			

Note. **p < 0.01.

Table indicates that all the items significantly correlate with the total score of GS which represents the scale's (GS) internal consistency. The value of correlation ranges from .50-.75.

Table No 7: Convergent and Discriminant Validity of Gratitude Scale (N=150)

Scales	1	2	3
Gratitude Scale	-	.50**	-.23**
Life Satisfaction Scale	-	-	-.24**
Depression Scale	-	-	-

Note. **p < 0.01.

Table indicates GS is positively correlated with the Life Satisfaction Scale (.50**). However, GS is negatively correlated with Depression Scale (-.23**) which represents that higher gratitude is associated with low depression.

DISCUSSION

The tendency to be grateful has strong correlations with many other facets of mental health, according to a growing body of recent research findings (Mills et al., 2018; Tabik & Aghababaei, 2012; Millstein et al., 2016). In addition to having more satisfying, meaningful relationships (Gabel et al., 2010), grateful people

have lower levels of several psychological problems, including depression and anxiety (Kendler et al., 2003). Gratefulness acts as a protective barrier against depression because being grateful lowers the feelings of worthlessness and self-hatred. Being thankful also makes people more likely to treat themselves with kindness, understanding, support, and a feeling of satisfaction with life when they experience disappointments and difficulties. Many studies also revealed that there is a strong association between gratitude and satisfaction with life (Froh et al., 2010), which means a grateful person is more satisfied with his/her life. So, gratefulness is positively correlated with life satisfaction (Allemand et al., 2011).

Gratitude has a substantial and persistent correlation with greater happiness, according to positive psychology research. Gratitude improves one's ability to feel more upbeat emotions, enjoy pleasant events, take advantage of good health, overcome challenges, and develop close bonds with others. Meanwhile, the person who is ungrateful and not able to utilize the opportunities in front of him, always suffers with discouragement and even with depression. For this reason, indigenous gratitude scale is also needed to develop.

It was reviewed in literature, that there is a lack of culturally relevant scale to assess gratitude among individuals. The main objective of this present study was to develop a culturally relevant Gratitude Scale for university students with sound psychometric properties. Initially, after reviewing literature and conducting separate focus groups, the nature of gratitude was explored. Firstly, after focus group sessions, a total 35 items emerged. Empirical validation of the Gratitude Scale was accessed by calculating Content Validity Index (CVI). Four qualified psychologists from Psychology Department of Lahore College for Women University were approached for calculating CVI. CVI was calculated by combining the ratings given by experts into two categories for each item and then by dividing the number of agreements on each item with the total number of experts. Scale's total CVI was .94. After calculating CVI, 8 items were excluded and a total 27 items were left in scale. Final version of Gratitude Scale comprises 27 items with 5 point rating (0-4). Pilot study was conducted to check the ease and understanding of Gratitude Scale (GS). The participants did not report any ambiguity in the scale.

Afterwards, Exploratory factor analysis was run to check the factor structure of GS. Total two (2) factors emerged through varimax rotation. These two factors are named as Gratitude towards others which contains 14 items, and Gratitude towards Allah which contains 13 items. Although, some of the dimensions which Gratitude scale encompasses are relevant to the literature, past theories and western scales. But the uniqueness of GS is that it assesses the grateful of individuals towards Allah/God. This unique factor expresses the level of religiosity of Muslims towards their Creator. Moreover, the explanation of two (2) factors that were manifested through EFA is as follows:

The first factor (F1) that emerged was "Gratitude towards others". The content of items is related to be thankful to people/ significant others who helped the individual in life. This factor includes 14 items (1, 2, 5, 7, 10, 12, 17, 19, 21, 22, 24, 25, 26, 28) e.g. "e.g. "meray doston nay meray liye jo kuch kiya uskay liye main shukar guzaar hoon", "mai un logon ka shukariya ada karta/karti hoon jinhon nay rastay mein meri madad ki takay mei zindagi mein kamyabi haasil kar sakun", mai apny walidaen ka/ki shukar guzar hon jinhone ny meri zaroriyat kakhayal rakha". This category is supported by Literature (Emmons et al., 2002; Watkins et al., 2003; Lin et al., 2010). The content of the items in this factor is related to the expression and performing Gratitude towards friends, worldly things, incidents and nature. Some people develop negative beliefs about themselves, about their life and for others, and often think that they are not lucky, that everything bad occurs to them and not feel grateful for what they actually have in their life which leads to different psychological problems. A grateful person does not develop negative beliefs about themselves and about negative events occurred in his life. Grateful people also feel blessed for actually what he gains in his life which leads to the life satisfaction. So, this factor measures to what extent the person is grateful towards others and worldly things.

The second factor that emerged was "Gratitude towards Allah". This factor includes 13 items (13, 15, 18, 20, 23, 27, 29, 30, 31, 32, 33, 34, 35) e.g. "jab bhi mai koi kamyabi haasil karta/karti hoon toh uss per Allah ka shukar guzaar hota houn", "mai namaz ada kar kay Allah ki naimaton ka shukar ada karta/karti hoon", "jab bhi mai apni zindagi per nazar dalta/dalti houn to iss cheez ka ehshaas hota hai kay mujh per Allah ka khaas karam hai". This category of items is unique because western scales did not assess it. The

content of the items is related to the expression and performing Gratitude towards Allah and blessings bestowed upon by Allah. People who are thankful to God recognize each blessing given by Allah and remain thankful whenever something negative occurs to them. Ungrateful people do not feel gratitude for the blessings given upon them which leads to make one's life miserable. So, this factor measures to what extent the person is grateful towards Allah.

After running Exploratory Factor Analysis which manifests two factors, the alpha coefficient of the gratitude scale along with its subscales was also found out. The value of alpha coefficients reveal significant internal consistency of the newly developed scale. Correlation among factors and item total correlation was found out. Both the factors of GS have shown a significant positive correlation with the total GS, which represents the internal consistency of all factors with GS. Item total correlation has also represented the significant correlation of each item with the total score of GS.

Psychometric properties of GS (convergent and discriminant validity) were also explored. Convergent validity of the GS was explored by using an Urdu translated version of Life Satisfaction Scale (LSS) (Ghani et al., 2004). Discriminant validity was explored by using the Urdu translated version of Depression Anxiety Stress Scale (Aslam & Kamal, 2017) has been used in this study. Depression subscale of DASS was used in this study which consists of 7 items. The Alpha coefficient of the Depression scale is 0.85. There is a negative correlation between GS and Depression scale (subscale of DASS). Furthermore, the gratitude in relation to life satisfaction and depression has also been explored. Results of the correlation reveal that all the GS factors with total GS are positively correlated. GS total is also positively correlated with life satisfaction which shows higher scores in GS represents higher satisfaction with life, and low scores in GS represents less satisfaction with life. While total GS is negatively correlated with depression which shows that higher score in GS represents lower depression, and low scores in GS represents high depression. These findings also support this link with literature (Froh et al., 2009; Sun & Kong., 2013; Allemand et al., 2011).

Exploring the construct of gratitude in Pakistani culture was one of the study's contributions. Positive psychologists have done a significant amount of work supporting and validating earlier gratitude scales, the findings of the current study are consistent with earlier studies and also there is a strong positive connection between a number of current measures and our new Gratitude scale. This study's goal was to determine the psychometric properties, including the validity and reliability of the Gratitude scale designed for university students in Pakistan. The evaluation of the internal consistency and item correlations showed that the gratitude scale is sufficiently reliable.

The majority of psychological theories, ideas, concepts and assessment techniques are inherited from Western civilized cultures and societies. With minimal regard for ecological validity for application in the Eastern culture. All of these evaluation instruments were designed, created, and standardized in Western culture. Therefore, these instruments might not be very useful and would not provide much knowledge about the problematic behavior that they are intended to address in various cultural contexts (Matsumoto, 2000). The risk of losing some of the important information that is uniquely relevant to the issues in a particular culture if these culturally insensitive tools and evaluation techniques are used. Distorted pictures of the problem and misleading preventive and intervention strategies are given by the tools that are not culturally appropriate and relevant (Stewart et al., 1999). So, there is an imperative need to develop a culturally relevant scale.

GS is a reliable scale for assessing the Gratitude in university students. This can be used by any counselor/clinical psychologist and future researchers to assess gratitude among university students of both genders in Pakistan.

CONCLUSION

The unique aspect of this indigenously developed scale, that it encompasses all those dimensions that are not prevalent in Western culture (Gratitude towards Allah). It consists of 27 items and is easy to administer. It can be administered individually or in a group setting. The scale's items are easy to understand even for the students who are from diverse backgrounds. The scoring of GS is based on a 5 point rating scale from 0-4 where "0" stands for "strongly disagree" and "4" stands for "strongly agree". Interpretation of GS

scoring is quite easy, higher the score represents higher gratitude. So, GS is a reliable scale with sound psychometric properties for assessing gratitude in university students.

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