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Urdu Translation and Validation of Fate Control, Short Hardiness, Psychological Wellbeing, Gratitude, and Brief Resilience Scales

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The current study aimed to translate and validate the Fate Control scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire, and Brief Resilience Scale. The study comprised of three phases; phase-I was the translation of the scales by using forward-backward translation method. In phase-II, cross language validation was established on a sample of 60 (male=25, female=35) bilingual young adults of age range 26 to 31 years (*M*=27.75, *SD*=1.29), selected through a convenient sampling technique. They were divided into three equal groups. Each group was given all versions of the scales (i.e., Urdu, English, and Original) in three slots to analyze inter-versions correlations. Significant positive inter-correlations were found between original, forward translated and backward translated versions of the scales. In phase-III, the reliability and validity analyses were run to establish the psychometric properties of the translated versions. Confirmatory factor analysis (CFA) was carried out to confirm the factor structure of the translated versions of the scales on a sample of 200 individuals (male=142, and female=58) of age range from 24 to 50 years (*M*=33.62, *SD*=6.72). Furthermore, convergent and discriminant validity of the translated instruments was assessed to establish the construct validity. Results supported the original structure of the scales.

Keywords: Translation and validation, Fate Control scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire, Brief Resilience Scale

International, collaborative and cross-cultural studies in the field of Psychology determine the scope of translation and cross language validation of psychological measures. Therefore, it is necessary to translate the research instruments into the national language of the culture being studied (Maneesriwongul et al., 2004). Various instruments have been translated into Urdu language through a standardized procedure of translation guided by Brislin (1976) to qualify the assessment of study variables in Pakistan and to control the language barrier. Translation issues demand consensus among experts in how to achieve quality of instrument translation in cross-cultural research, and the experts are cautiously trying to achieve and report the evidences of the reliability and validity of the translated instruments (Maneesriwongul et al., 2004). Jamadin and Noordin (2018) briefly described the techniques and process of the scale translation by highlighting the issues that were found during the processes of translation. As suggested by the several bilingual and bicultural experts, multiple combinations of few approaches are used to translate the quantitative research instruments (Mallinckrodt & Wang, 2004). The indigenization of the contents or psychological instruments needs to be supported by their psychometric properties (Khan & Batool, 2013).

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The present study aimed to translate and validate the assessment tools of some psychological constructs (viz., fate control, hardiness, psychological wellbeing, gratitude and resilience) keeping in view the fact that these constructs have great importance in the field of Positive as well as Health Psychology. These constructs represent the different aspects of cognition. Due to the significance of these constructs in the major fields of psychology, these measures have been translated in different languages and validated in several countries. For example, the English version of the Fate Control Scale (FCS) was translated into the Chinese language by Leung et al. (2012). The results supported the internal consistency of the translated scale with test re-test reliability, criterion and construct validity. Researchers also established the factors solution of the Fate Control Scale with the confirmatory factor analysis. Similarly, the Short Hardiness Scale (SHS) and the Psychological Wellbeing Scale (PWS) were also previously translated and validated into Norwegian and Portuguese languages (Bartone, Eid, Hystad, Laberg & Johnsen, 2010; Caetano, Spagnoli, & Silva, 2012). The Brief Resilience Scale (BSR) was translated and validated into Spanish language. After EFA and CFA, the psychometric properties of the scale have been established for further utilization (Rodriguez-Rey, Alonso-Tapia, & Hernansaiz-Garrido, 2016). Likewise, the Gratitude Questionnaire (GQ-6) was translated in Spanish, Italian and Japanese languages (Sumi, 2017; Caputo, 2016; Aguilar-Parra, Araya-Veliz, Brito, Langer, & Ulloa, 2016). Once research instruments are

translated into the local language, the concerned population can easily comprehend the actual meanings of the statements.

The term fate control refers to as a belief on the forces which are out of our control that make things happen (i.e., matters of life and death, characteristics of an individual, physical appearance, a day of birth, destiny) and disastrous events or tragedies of life determined by these forces. There are two components of fate, fate determinism: predetermined nature of fate, and fate alterability: fate can be perceived to be alterable using certain means (Leung et al., 2012). Shahabi, Powell, and Thoresen (2003) defines fate as a combination of those factors and powers that are beyond the power of human being to control. The important circumstances of men's life, such as illnesses over which a person has no control, people's parentage, heredity, place of birth and socioeconomic status of his parents. By believing that these factors are playing a significant role in person's life is called fate control.

Psychological hardiness is generally assumed of as being comparable to psychological resilience, though they are comparable but experts define some basic differences between the two. Hardiness is assumed to be a personality trait, while resilience is mostly supposed as a defense mechanism or process that adopts in life. Hardiness stresses more on the endurance in a hard-hitting situation, and resilience focuses more on the thought process after the stressful event, or the ability to get better after the trauma. The factors included in hardy personality are commitment, control, and challenge but a hardy-resilient person shows robust future orientation and optimism (Bartone et al., 2012). Brooks (2003) defines the positive impacts of hardiness along with psychosocial adaptive conditions. It is a personality trait that empowers individuals to resolve actual or potential problems through control (internal and external locus of control), commitment (considering a purpose in our lives and connection among community, communal circle, peers, religious beliefs, and ourselves), and challenge that allows the individual to believe that change is a normal and positive thing (Pollock, 1989). Hardiness enables individuals to fight against unpredictable challenges of life and strengthens them for better outcomes (Hoare, Solomons, Pollock, & Verran, 1989).

Psychological wellbeing is an essential aspect of human's life. The conceptual framework of psychological wellbeing includes positive thinking, self-acceptance, positive relationships with others, environmental mastery, self-esteem, person's self-perceived function, autonomy, purpose in life, personal growth and optimism (Shapiro et al., 2005). Diener et al. (2010) suggested few factors of wellbeing that contribute to an individual towards purposeful and meaningful happy life, interests in daily life's routines, competence of an individual, and supportive and rewarding social relationships. Davis, Mendis, and Norrving (2015) described that positive mental wellbeing is the state that allows individuals to realize their abilities, cope better with the normal stresses of life, and work productively for the contribution to their community .

Gratitude refers to as a quality to being grateful, or thankful, able to appreciate people, events, situations, and appreciative to a wide variety of people (McCullough, 2002). It is also defined as a habit, moral virtue, personality trait, emotion, attitude, and coping response (Emmons, McCullough, & Tsang, 2004). Gratefulness is the appreciation, recognition, and admiration of a gift (Emmons & McCullough, 2003). Further, it was explored that gratitude is an attitude of acknowledging and thankfulness for what the people received in their life (Stone, Kolts, Watkins, & Woodward, 2003). Researchers described that gratitude is a very important component in an individual's life to enhance his/her self-interest quality. It is one of the major trait to achieve self-actualizational tendencies by feeling pleasure in repeating manners (Watkins et al., 2003).

Resilience is defined as a process of healthy adjustment in adverse life circumstanceslike; pain, trauma, catastrophe, pressures or significant sources of stress, such as relationship hitches,and family problems, serious health issues and financial stressors (Southwick, Bonanno, Masten, Panter-Brick, & Yehuda, 2014). Resilience is the capacity of a man to secure or recover his/her psychological well-being regardless of the presence of target challenges. It is not a single element of the individual, rather it is a consequence of the interaction between numerous identity attributes and natural elements (Becker, Cicchetti, & Luthar, 2000). Prince-Embury and Saklofske (2014) describe that resilience is indicated by adapting with the physiological changes, considering oneself stronger after dealing with the hardships, bouncing back after critical circumstances, dealing with unpleasant feelings, stressful situations by focusing and thinking clearly.

The study was conducted to achieve the following objectives:

1. To translate five scales (The Fate Control Scale, The Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire and Brief Resilience Scale) into Urdu language;
2. To determine the cross language validity of the Urdu translated scales;
3. To establish the psychometric properties and confirm the factor structure of the Urdu translated scales.

Method

Participants

The sample was drawn from the two sets of populations:

Sample I. In order to investigate the cross-language validity of the scales, the data were collected from the 60 paricipants (male=25 and female=35) with the age range of 26 to 31 years (*M*=27.75, *SD*=1.29) through a convenient sampling technique. Participants were categorized into three equal groups, each group consisted of 20 participants, all the participants from the each group were tested and re-tested in three different slots (on alternate days) to control practice effect. Everytime, they were given a different versions of the scale (i.e., orginal scale, forward translated version, and backword translated version of the scales) and their responses were collected on these three versions of scales.

Sample II. To establish model fit indices and to determine the factor loadings of the each item in translated versions of the scales, a confirmatory factor analysis (CFA) was carried out on the new sample of 200 participants, including 142 male and 58 female with the age range from 24 to 50 years (*M*=33.62, *SD*=6.72), having three levels of education (*Bachelors*=55, *Masters*=84, and *MS/M.Phil*= 61) were selected through a purposive sampling technique.

Instruments

Fate Control Scale. The Fate Control Scale was developed by Leung et al. (2012) to measure the beliefs of the individuals regarding their illness, precautionary measures against diseases and treatments. There are two sub-factors of

this scale: fate alterability and fate determinism. It comprises 20 items with five-point rating scale (1 = *Strongly Disbelieve* to 5 = *Strongly Believe*). In this scale, seventeen items are positively worded, and three items (5, 7, and 18) are negatively worded. The alpha coefficients for fate determinism and fate alterability are .81 and .84 respectively. The overall reliability of the scale is .84 (Leung et al., 2012).

Short Hardiness Scale. The Short Hardiness Scale is used to determine the individual's capacity to bear of health-related problems in the perspective of commitment, control and challenge (Bartone, 1995). It consists of 15 items with four-point rating scale (0 = *Not at all true* and 3 = *Completely true*) with reverse scored items (3, 4, 8, 11, 13, and 14). The reliability of this scale is .83 (Bartone, 1995).

Psychological Wellbeing Scale. The Psychological Wellbeing Scale was developed by Diener et al. (2009) to measures the complete state of wellbeing and different aspects of life such as relationship, self-esteem, purpose in life and optimism level. It comprises eight items. It is a Likert-type seven-point rating scale with response format (*1= Strongly Disagree*, to *7= Strongly agree*). The reliability of this scale ranging from α.78 to .95 respectively (Diener et al., 2010).

The Gratitude Questionnaire. The Gratitude Questionnaire was designed to measure the individual differences in the proneness to experience gratitude in daily life. It comprises six items, a seven-point rating scale with response format (1=*Strongly disagree* and 7= *Strongly agree*). Item number 3 and 6 are inversely scored items in the scale. The alpha coefficients of this scale were ranging from .76 to .84 respectively ((McCullough et at., 2002).

Brief Resilience Scale. The Brief Resilience Scale is used to determine the resilience of the patients who are facing chronic illness. It was developed by Smith et al. (2008). The instrument consists of six items and five-point rating response format (1 = *Strongly Disagree*, to 5 = *Strongly Agree*). There are three reverse scored items (2, 4, 6) in the scale. The reliability of this instrument is ranging from .80 to .91 respectively (Smith et al., 2008).

Procedure

Phase - I: Translation of the Questionnaires into Urdu Language

Before starting the translation and validation process, authors' permission was sought and they accorded their consent for translation and adaptation into the Urdu language. The translation process was divided in four stages involving forward-backward method as suggested by Brislin (1970, 1976, 1980).

Step-1: Forward translation. The major technique to translate the subject matter can be possible engaging a team of potential experts who are proficient in both languages and cultural contexts (Brislin, 1980). Three bilingual experts from the department of psychology independently translated the scales. Being conscious about the cultural relevance and technical equivalence of the language such as grammar, question length, acceptable level of abstraction and their relationship to the social-cultural context, three independent forward (Urdu) translated versions of questionnaires were generated.

Step-2 Committee approach. Committee approach was used to evaluate the forward (Urdu) translations. The committee was chaired by an expert researcher having Ph.D. in psychology including accumulated teaching and research experience, with three researchers to evaluate and finalize the translation of the questionnaires. Each and every item of the scales was critically analyzed with reference to their context, grammar and wording in order to have a better final forward (Urdu) translation. Similarly, few items (2, 4, & 5) of the Brief Resilience Scale, Short Hardiness Scale items (4, & 14), and Fate Control Scale items (14, & 15) were rephrased by the committee. Furthermore, items were finalized by the committee keeping in view the content equivalence between English and Urdu versions of the scales. Finally, all the items were retained, no item was removed on the basis of content and cultural relevance.

Step-3 Backward translation. Forward (Urdu) translated versions of the scales were backward translated (English) to identify points of equivalence and discrepancy between the two versions. For this investigation, forward (Urdu) translated versions finalized through committee approach were given to an independent bilingual translator for backward (English) translation.

Step-4 Committee Approach. After receiving the backward translations, the linguaistic and theoratical equlance between original versions and backward translated versions of the scales thoroughly checked by the same committee. The committee found the equivalence between back translated versions and original instruments. Finally, we had three versions of the scales (i.e., original, forward translation and backward translation).

Phase - II: Cross Language Validity of Translated Scales

After completing the translation procedure, cross language validity for these five scales was determined. For assessing the validity of the five scales: The Fate Control Scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire and Brief Resilience scales, the three versions (i.e., original, Urdu and English) of the scales were administered on the same sample at three different slots. This procedure was helpful in evaluating the equivalence of Urdu translated versions to the original scale.

Phase - III: Determining the psychometrics of the translated versions of the scales. Reliability of the translated versions were determined through SPSS-21. Factor structures of the scales were confirmed via confirmatory factor analyses (CFA) by using AMOS-20.0.

Results

The results showed that the significant positive correlations between original, forward translated (Urdu) and backward translated (English) versions of the Fate control Scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire, and Brief Resilience scale (See Table 1).

Table 1
Inter-correlation Between Original, Forward Translated and Backward Translated Versions of the Scales (N = 60)

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.Fate Control Scale (Original)	-	.64**	.60**	-	-	-	-	-	-	-	-	-	-	-	-
2.Fate Control Scale (Forward)		-	.60**	-	-	-	-	-	-	-	-	-	-	-	-
3.Fate Control Scale (Backward)			-	-	-	-	-	-	-	-	-	-	-	-	-
4.Short Hardiness Scale (Original)				-	.89**	.79**	-	-	-	-	-	-	-	-	-
5.Short Hardiness Scale (Forward)					-	.88**	-	-	-	-	-	-	-	-	-
6.Short Hardiness Scale (Backward)						-	-	-	-	-	-	-	-	-	-
7. Psychological Wellbeing Scale (Original)							-	.88**	.60**	-	-	-	-	-	-
8. Psychological Wellbeing Scale (Forward)								-	.68**	-	-	-	-	-	-
9. Psychological Wellbeing Scale (Backward)									-	-	-	-	-	-	-
10.The Gratitude Questionnaire (Original)										-	.64**	.80**	-	-	-
11.The Gratitude Questionnaire (Forward)											-	.68**	-	-	-
12.The Gratitude Questionnaire (Backward)												-	-	-	-
13.Brief Resilience Scale (Original)													-	.94**	.66**
14.Brief Resilience Scale (Forward)														-	.68**
15.Brief Resilience Scale (Backward)															-

Note: *Only the required results are reported.* ***p* <.01

Table 2
Alpha Coefficients of the Trarslated Urdu Versions of the Instruments (N = 60)

Scale	*k*	*M* (*SD*)	*α*	Range		*Skew*
				Potential	Actual	
Fate Control Scale (Urdu)	20	61.84 (7.94)	.65	20-100	43-79	.01
Short Hardiness Scale (Urdu)	15	26.60 (4.29)	.87	0-45	14-37	-.24
Psychological Wellbeing Scale (Urdu)	8	41.64 (6.81)	.80	8-56	24-54	-.40
The Gratitude Questionnaire (Urdu)	6	30.28 (5.31)	.61	6-42	12-34	.42
Brief Resilience Scale (Urdu)	6	17.11 (2.94)	.60	6-30	12-26	.42

Note: k = No of items, *M* (*SD*) = Mean (Standard Deviation), *α = Cronbach's alpha.*

Table 2
Indicates that the instruments have acceptable reliability and skewness range. Cronbach's alpha reliability coefficients values suggest that all the translated research instruments are reliable, ranging from .60 to .87.

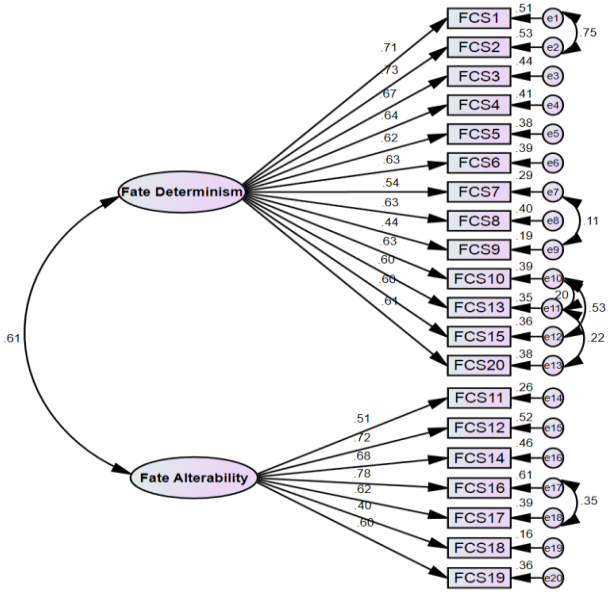

Figure 1. Two-factors structure solution of the translated Fate Control Scale.

Table 3
Model Fit indices for the Fate Control Scale (*N*=200)

Fit Indices	χ^2	*df*	CMID/DF	RMSEA	GFI	CFI	TLI
The Fate Control Scale	420.92	163	2.58	.07	.85	.90	.85

Note. **p* =*REMSEA* < .01, **p*= *CMID* <3.0

Table 4
CFA Sample Maximum Likelihood Solution of the Fate Control Scale: Factor Correlation

Factor	1	2
1. Fate Determinism	---	.61**
2. Fate Alterability		---

***p* < .01, **p*< .05

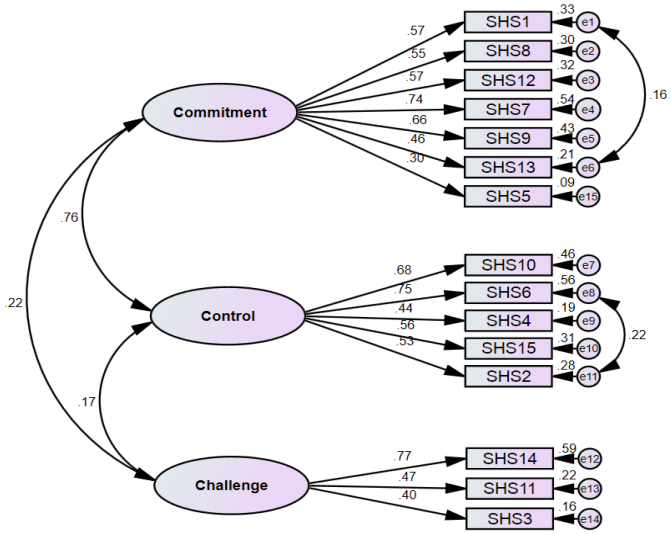

Figure 2. Three-factor structure solution of the translated Short Hardiness Scale.

Table 5
Model Fit indices for Short Hardiness Scale (*N*=200)

Fit Indices	χ^2	*df*	CMID/DF	RMSEA	GFI	CFI	TLI
Short Hardiness Scale	185.68	85	2.18	.06	.90	.86	.82

Note. **p* =*REMSEA* < .01, **p*= *CMID* <3.0

Table 6
CFA Sample Maximum Likelihood Solution of the Short Hardiness Scale: Factor Correlation

Factor	1	2	3
1. Commitment	---	.76**	.22*
2. Control		---	.17*
3. Challenge			---

***p* < .01, **p*< .05

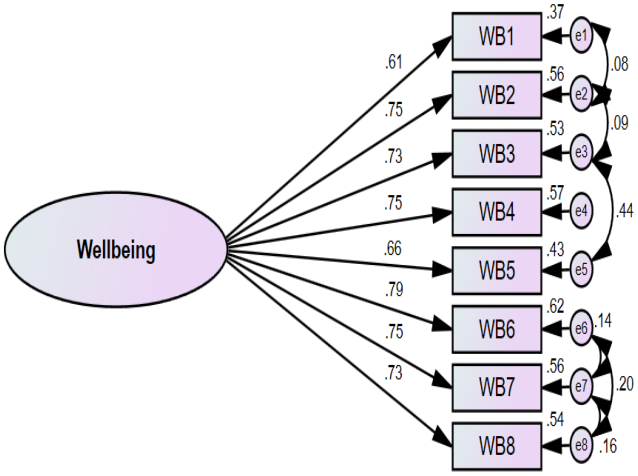

Figure 3. Uni-factor solution of the translated Psychological Wellbeing Scale.

Table 7
Model Fit indices for Psychological Wellbeing Scale (*N*=200)

Fit Indices	χ^2	*df*	CMID/DF	RMSEA	GFI	CFI	TLI
Psychological Wellbeing Scale	39.90	14	2.85	.09	.96	.97	.94

*Note. *p =REMSEA* < .01, **p= CMID* <3.0

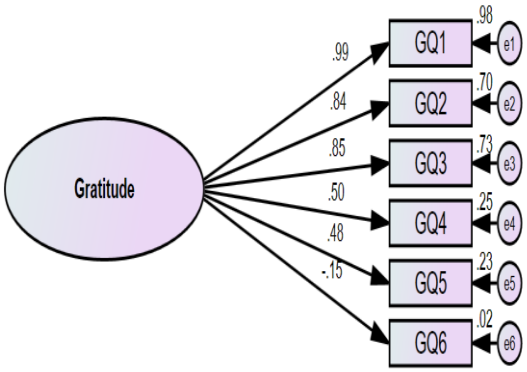

Figure 4. Uni-factor solution with 6-items of the translated the Gratitude Questionnaire.

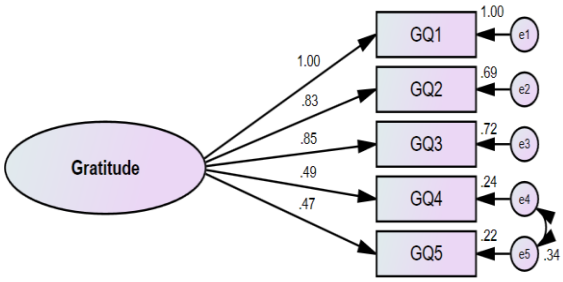

Figure 5. Uni-solution with 5-items (after deleting item no. 6) of the translated Gratitude Questionnaire.

Table 8
Model Fit indices for the Gratitude Questionnaire (*N*=200)

Fit Indices	χ^2	*df*	CMID/DF	RMSEA	GFI	CFI	TLI
The Gratitude Questionnaire	6.50	04	1.62	.05	.98	.99	.99

*Note. *p =REMSEA* < .01, **p= CMID* <3.0

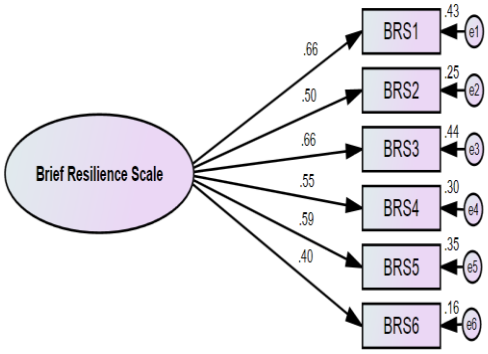

Figure 6. Uni-factor solution of the translated Brief Resilience Scale.

Table 9
Model Fit indices for Brief Resilience Scales (*N*=200)

Fit Indices	χ^2	*df*	CMID/DF	RMSEA	GFI	CFI	TLI
Brief Resilience Scale	2.798	02	1.39	.04	.99	.99	.97

*Note. *p =REMSEA* < .01, **p= CMID* <3.0

Tables of conformatory factor analyses (Table 3,5,7,8,9) show the standardized model fit indices (maximum likelihood) of Urdu translated versions of the scales i.e., Fate Control Scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire and Brief Resilience Scale on the sample of 200 individuals. The results indicate that models are reasonably fit for the parameters of χ^2/df , RMSEA, goodness of fit index, comparative fit index and Tucker-Lewis index. Furthermore, overall results demonstrate that the values of chi-square are significant because of the greater degree of freedom; therefore by dividing the chi-square with degree of freedom (χ^2/df) the obtained values of the models are acceptable for the parameters of model fit indexes i.e., Fate Control Scale 2.58, Short Hardiness Scale 2.18, Psychological Wellbeing Scale 2.85, The Gratitude Questionnaire 1.62, and Brief Resilience Scale 1.39 respectively (Bentler, Hu, & Kano, 1992).

Table 10
Standardized Factors Loadings of CFA Models for the Fate Control Scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire and Brief Resilience Scales (*N*=200)

	Factor Loadings (*N*=200)				
Items Sr.No	Fate Control	Short Hardiness Scale	Psychological Wellbeing Scale	The Gratitude Questionnaire	Brief Resilience Scale
Item No 1	.80	.60	.61	.99	.66
Item No 2	.81	.60	.74	.87	.50
Item No 3	.63	.40	.76	.85	.66
Item No 4	.64	.44	.74	.50	.55
Item No 5	.62	.30	.69	.48	.59
Item No 6	.61	.80	.81	**-.15**	.40
Item No 7	.50	.72	.77		
Item No 8	.60	.55	.75		
Item No 9	.41	.65			
Item No 10	.63	.65			
Item No 11	.46	.47			
Item No 12	.69	.57			
Item No 13	.61	.49			
Item No 14	.65	.78			
Item No 15	.62	.53			
Item No 16	.84				
Item No 17	.71				
Item No 18	.40				
Item No 19	.61				
Item No 20	.61				
K	20	15	08	06	06

*Note: *p* < .05, *k= Number of items of the Scales, Highlighted Number is showing low factors loading and removed from the model.*

Table 10 shows the standardized factor loadings, the findings are supporting the results of reliability analysis. Furthermore, factor loadings showe that all items of the Urdu translated instruments have acceptable factor loading and are internally consistent. However, item number six (highlighted item) from the gratitude scale was removed from the model because low factors loading. After this the model adequately fixed.

Table 11
Convergent and Discriminant Validity (*N* = 200)

Constructs	*AVE*	$\sqrt{AVE}$	*FCS*	*SHS*	*PWS*	*TGQ*	*BRS*
FCS	.81	.90	---				
SHS	.50	.71	.18*	---			
PWS	.60	.77	.27**	.54**	---		
TGQ	.52	.72	.25**	.27**	.51**	---	
BRS	.50	.71	.20*	.18*	.30**	.21**	---

*Note: Fate Control Scale = FCS, Short Hardiness Scale = SHS, Psychological Wellbeing Scale = PWS, The Gratitude Questionnaire = TGQ, Brief Resilience Scale = BRS. **p < .01, *p < .05*

The convergent validity is checked by the method of Average Variance Extracted (AVE) as recommended by Fornell and Larcker (1981). The AVE values range from .50 to .81. The calculated AVE value for all latent variables was equal and greater than .50 (Bagozzi & Yi, 1988). Therefore, calculated results for measuring convergent validity confirm the appropriateness of above mentioned instruments.

The Square Root of AVE is common approach to assess the discriminant validity. Table 11 also shows the discriminant validity that calculated by Average Variance Extracted (AVE) Square Root method. It is observed that present study scales and their factors share more frequent variance with their individual factor than any variance that variable links with other factors (Abbasi, Jalalani, & Khatwani, 2019; Fornell & Larcker, 1981). In addition, it is found that inter- correlation between factors is less than square of AVE in each factor of the scale.

Discussion

The objective of this study was to translate and validate the Fate Control Scale, Short Hardiness Scale, Psychological Wellbeing Scale, The Gratitude Questionnaire and Brief Resilience Scale. These scales were previously translated into several other national languages such as Chinese, Dutch, and French, and sound psychometric properties have been reported (Chan, Chan, Chow, Yu, & Zhang, 2017). English is not the national language of Pakistan, and it is relatively hard to answer questions in English than in Urdu; even for literate population, Urdu is more understandable and more convenient way of communication for Pakistani sample, hence for the ease of participants of future researchers, and to avoid any misconception these questionnaires were translated into Urdu language and the psychometric properties of the questionnaires were established. The results of correlation and reliability analyses indicated the positive significant correlation among three versions of the scales with sound psychometric properties (see Table 1). To confirm the factor structure of the Urdu translated versions of the scales, confirmatory factors analysis (CFA) was carried out on the new sample. Altogether the models were adequately fitted on model fit indices having acceptable factor loadings. Two sub-factors emerged from the Fate Control Scale i.e., Fate Determinism and Fate Alterability (see Figure.1). Both components were significantly associated with each other (see Table 4). Findings are consistent with the Fate Control Scale original model developed by Leung et al. (2012). Likewise, three sub-factors appeared of Short Hardiness Scale: Commitment, Challenge, and Control emerged (see Figure.2). These were also significantly correlated with each other (see Table 8). The findings are consolidated with the original model of the Short Hardiness Scale, developed by Bartone (2012). Furthermore, the models of Psychological Wellbeing Scale and Brief Resilience scales were also found significant (see Figure 3 & 6). Four models retained all items. However, a single item (item 6) was removed from the Gratitude Questionnaire to reach the model fit on the significant parameters (see Figures. 4 & 5). The removed item was reverse coded and most of the participants reported that they could not comprehend the statement, thus ambiguity resulted in inconsistent responses. The results of reliability analysis are in line with the results of confirmatory factor analysis, indicating that translated instruments had promising psychometric properties.

The construct validity of the scales was determined through convergent and discriminate validity method (see Table 11). To determine the convergent validity of the scales Average Variance Extracted (AVE) and discriminate validity Square Root of Average Variance Extracted (AVE) methods were used as recommended by Fornell and Larcker (1981). Reliability analyses of the Urdu translated versions of these scales showed high reliability coefficients(Abbasi, Jalalani, & Khatwani, 2019). All these analyses demonstrate that the underlying forward translated (Urdu) items are similar in meaning to that of the original one fulfilling the foremost objective in translation.

Limitations

Samples were collected only from Lahore (Punjab) that restricts its generalizability. To generalize the study findings and to develop norms of the translated Urdu versions, sample should be collected from all provinces of Pakistan. Convergent and discriminant validity of the scale could not be established by finding correlations with other scales due to time constraint, so in future, such studies should be carried out to establish convergent validity of the scales.

Implications

The study has provided Urdu translated versions of the scales that would promote future research in these areas of positive psychology and facilitate data collection from all segments of population. These scales can be used in health care settings to collect data from the patient population as well as from the normal population.

Conclusion

The study concludes that the Urdu versions of all instruments are reliable and valid to be used in Pakistan to measure the fate control, hardiness, resilience, gratitude, and psychological wellbeing. The reults also show that these scales are not cultural specific and could be relibable in all cultures.

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