

Life Orientation Test- Revised: Translation and Validation in Pakistan

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Abstract

LOT-R is a measure of optimism, measuring stable dispositions. LOT-R was translated in Urdu in Pakistan for research purposes. It is a measure to assess one-dimensional dispositional optimism which is bipolar, ranging from optimism to pessimism. However, many studies contradict the uni- dimensionality of the instrument, showing it to be a bi-dimensional instrument. Participants were 300 adults, aged between 18 to 79 years. The questionnaires of LOT-R were filled by the participants manually. CFA was done to establish the instrument's validity by testing one-dimensional model in Pakistani context. Alpha reliability was also acceptable ($\alpha = .56$). The need to study the structure of the instrument in different cultures and with different populations has been highlighted in the literature, as cultural differences are the key elements for understanding optimism. Results confirmed the factor structure as acceptable.

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Introduction

Positive psychology has introduced the concept of optimism. A person's predisposition to believe that something good will happen in the future. Scheier, Carver and Bridges (1994) considered optimism and pessimism as hope or expectations about events occurring in one's life. These expectations are stable arrangements characteristic of each person. Optimism can also be explained as a one-dimensional bipolar construct having one trait with two extremes, which can vary from high to low where low-level, refers to pessimism. According to Carver and Scheier, two elements important for these expectations included the purpose and self-confidence about the goals and values of the individual. When the chances of achievement of goals are high, when one is certain about future events, even when facing an adversity (Scheier and Carver, 1994). Persons' attributions of good things happening to them as global, permanent, and stable (internal) in their explanations of the event explains optimism whereas considering good things as temporary, specific, and external would lead to attributions as non-personal or external factors (Carver & Scheier, 1994; Peterson, 2000; Peterson & Steen, 2002). Scheier and Carver (1994) tried to measure optimism with an instrument called Life Orientation Test-Revised (LOT-R). These authors have considered LOT-R as a one-dimensional bipolar instrument to measure optimism and pessimism. Carver and Scheier highlighted the importance of studying optimism and pessimism in different cultural contexts (Carver & Scheier, 2010). The goal of this translation was to obtain LOT-R in local language (Urdu) in Pakistan.

Optimism has been defined as a widespread positive and negative expectation about future outcomes, as an inclination to expect better future outcomes (Scheier & Carver, 1985). Dember et al., (1989) explained these constructs as a positive and negative outlook on life, including the present and the future. The dimensionality of optimism and pessimism is a subject of debate for some time. Some researchers believed that optimism-pessimism is a one-dimensional construct with optimism at one pole and pessimism at the other whereas other researchers argued that optimism and pessimism are distinct constructs (Kam & Mayor, 2012). Large scale study on LOT-R indicated that this scale may be better viewed as a measure that taps bidimensional optimism and pessimism (Herzberg, Glaesmer & Hoyer, 2006). Benyamini (2005) studied older adults suffering from arthritis and showed that high optimism and pessimism could coexist and interact (Benyamini, 2005).

Modest positive correlations of optimism with extraversion, agreeableness and conscientiousness and strong negative correlation with neuroticism has been highlighted (Milligan, 2003). Recently a study having a sample of 340 students indicated significant positive correlations of optimism with internal

locus of control and pessimism with external locus of control and unknown locus of control (Aleppo, Syria, & Abdullah, 2018). A significant negative correlation between optimism and unknown locus of control was also found. Another study showed that optimism predicts wellbeing but correlations between optimism and all five

personality factors were non-significant (Ibonki & Donald, 2016). Optimism has been significantly and negatively associated with suicidal ideation, ego grasping, death obsession, anxiety, and obsessive-compulsive disorder whereas pessimism correlated positively with these scales (Abdel-Khalek & Lester, 2007).

Optimism when measured from dispositional perspective in LOT-R considered optimism and pessimism as opposite poles of the same continuum. Research showed that the two factors formulated from both types of items are constructs of optimism and pessimism in LOT-R. The authors of LOT-R have considered it as a bipolar instrument. In addition, LOT-R revealed an overlap with other constructs such as self-esteem, self-efficacy, and quality of life (Scheier et al., (1994) excluded items from the LOT which were not contributing towards optimism and prepared the version called LOT-R having 10 items, 4 out of which were distracter items and 3 items referred to optimism and 3 items to pessimism. This new version called LOT-R, resulted in a factor structure responsible for 48.1 % of the total variance, α of 5.78 and test-retest coefficients between .56 and .79 (Scheier et al., 1994). However, Scheier et al., (1994), Rocha (2002), Monteiro (2008) and Zenger, Finck, Zanon, Jimenez, Singer and Hinz (2013) considered the instrument as one-dimensional bipolar making optimism and pessimism as two opposite poles of the same construct (Scheier et al., 1994; Rocha 2002; Monteiro, 2008; Zenger, Finck, Zanon, Jimenez, Singer & Hinz, 2013) whereas other authors considered that these were two different factors. Participants obtaining a score of greater than 7 on the optimism scale were categorized as optimists while those getting less than 7 on pessimism scale were categorized as pessimists.

Vautier, Raufaste and Cariou (2003) considered that LOT-R measured two different constructs, one was the dispositional optimism and the other was the answering style revealing individual differences about self-evaluation and social desirability (showing comprehension of only the positive items). There are many studies related to the factor structure of LOT-R. One of them was done by Bandeira et al, (2002) in Brazil which highlighted the presence of one factor in optimism (6 items) explaining a total of 39.78% variance and $\alpha = .68$. Sanjuan Magallanes (2006) used LOT-R in Spanish sample of 98 college students, configuring the instrument as one-dimensional. The Portuguese adaptation of LOT-R was performed by the Laranjeira (2008) with a sample of 790 University students. Cronbach alpha was 0.71, confirming the uni-dimensionality of the instrument as that of Carver &

Scheier (1994). Monteiro study (2008) verified that LOT-R done with 487 Portuguese undergraduate students showed that the 6 items of LOT-R are organized around dispositional optimism explaining 37.6 8% of the total variance. Recently in Brazilian context, Bastian Ello, Pacico e Hutz (2014) adaptation and validation of LOT-R verified its psychometric properties. 844 students were used from a Brazilian University and the analysis revealed unidimensional structure ($\alpha = .80$; Bastian Ello, Pacico e Hutz, 2014).

Another study was done using a sample of 735 Spanish students indicating that LOT-R is bi-dimensional (Ferrando, Chico & Tous, 2002). Translations of LOT-R have been done in different cultures which have confirmed the uni-dimensional structure of the instrument according to the original one. In a study done with Chilean population, 309 undergraduate students were used as a sample. Villarroel, Rubio and Atenas (2009) indicated that LOT-R had two factors with $\alpha = .65$ and having no significant differences between genders.

Optimism and pessimism have been conceptualized as dispositional traits or cognitive styles. Optimism has been linked with many positive outcomes as a high level of achievement and mental and physical well-being whereas pessimism has been linked with less beneficial outcomes. However, people can be trained in optimism. Such concepts are used by counselors for their clinical work, but cultural factors play an important role in these interventions related to optimism and pessimism.

Carver and Scheier (1994) considered optimism and pessimism as dispositional traits, or personality traits derived from self-regulatory model based on expectancy value theory. This theory assumes that behavior is goal directed. A person attaches a value to a given goal whereas expectancy refers to the probability of attaining a given goal. According to self-regulatory model, goals give meaning to the lives of people, but goals may change with time. Based on various conditions, individuals who experience adversity while pursuing a particular goal assess the likelihood of success and this reassessment leads to the identification of additional resources or alternative approaches towards the goal. Abandoning a goal which is unattainable can be adaptive and leads to adoption of more suitable alternatives (Carver & Scheier, 2002).

Optimists are more self-assured in the face of adversity as compared to pessimists and are more determined in pursuing their goals. They are likely to take direct action when dealing with troubles and tend to be more controlled while dealing with difficulty, having a focused approach in their efforts

towards coping with their problems. They make the best of their bad situations and appear to be better able to grow or otherwise benefit from negative life experiences (Carver & Scheier, 2002).

Optimism and Pessimism as Cognitive Styles

According to Aaron Beck's cognitive theory of depression, depression results due to cognitive distortions involving a tendency to highlight negative information while ignoring positive information. Those who are free from depression focus on positive information while ignoring negative information. According to the Attribution theory, the three dimensions on which individuals try to explain their events are internal/external,

stable/temporary, and global/specific (Heider, 1958). Internal/external refers to a situation in which the event was either the result of one's own actions or some external force. The stable/temporary aspect refers to a situation where an event will remain constant across time. Transient in nature, the global/specific aspect refers to an event which will affect many areas of one's life.

Pessimistic explanatory style involves the negative attributions holding the event as internal, stable, and global i.e., attributing negative event to those elements which are permanent in nature and affecting many areas of life (Peterson & Buchanan, 1995). Optimistic explanatory style includes external, temporary, and specific causal attribution for negative events, meaning that the poor physical health or depressive symptoms are temporary and due to a particular condition, which is external to the individual (Buchanan & Seligman, 1995).

Individuals with optimistic explanatory style use problem focused strategies to cope with the problem. However, in later life they need to shift their focus on emotion-focused problem solving. Optimists have a firm belief that good rather than bad things will happen to them in future while pessimists are considered devoid of these positive beliefs. Dispositional optimism is considered a positive personality trait having important consequences on the way the individual reacts to a stressful life situation (Büyükaşık-Çolak, Gündoğdu-Aktürk, & Bozo, 2012).

Henderson, et.al., (2008) studied anxiety and breast cancer patients (having a family history of cancer) for optimism. The participants were 735 women who were seeking counseling. It was found that women having high dispositional optimism scored low on anxiety scale whereas those with low dispositional optimism were prone to disease and anxiety. Colby and Shifren, (2013) studied the relationship between emotional morbidity and optimism-pessimism in newly diagnosed breast cancer

patients and followed them for one year. Findings suggested 34% to 20% prevalence of anxiety and depression at the time of diagnosis and decline in those figures after 1 year. However, anxiety and depression were more prevalent in pessimistic women as compared to optimistic women (Colby & Shifren, 2013).

Research has also shown that patients with high optimism had low chances of depression, personality disorders and PTSD after the treatment. In addition, patients having low levels of dispositional optimism reported chronic pain. The relationship between optimism, hope, anxiety, and depression was studied in 50 patients with oral cancer. The results revealed that hope and optimism were negatively correlated with anxiety and depression. Further studies showed a negative correlation between optimism, anxiety and depression and positive relation between optimism and quality of life.

Life Orientation Test-Revised (LOT-R) as an Instrument

In the recent boom of resource-oriented variables as compared to deficit-oriented standpoint in clinical psychology, literature has highlighted optimism as one of the most important personal resources. It is defined as a relatively stable generalized tendency to expect positive vs. Negative life outcomes and is measured with LOT-R. Investigations of optimism started in clinical and non-clinical settings and researchers found an amazing association between optimism and psychological adjustment to different stressful life events. Optimism was associated with adaptive and active coping styles. In contrast, pessimism was correlated with maladaptive coping mechanisms like avoidance. Further, optimism was related to physical and mental health, health behavior and quick recovery after surgery (Carver & Scheier, 2018).

Participants responded differently to negatively framed items due to increased semantic complexity in LOT-R. The major criticism against self-report measures was a range of response sets that pose a constant threat to the construct validity of the measure and distort the interpretation and conclusions based on such data (Ahlawat, 1984). Response sets refer to a personal propensity to respond in a specific way within a test or interview situation which is independent of the content of the item presented in the situation (Smith, 1967). One response set of particular interest was the acquiescence or the degree to which the person agrees or disagrees with an item regardless of its content (Hinz, Michalski, Schwarz, & Herzberg, 2007). To deal with the problem of acquiescence, development of balance scales was done which did not eliminate acquiescence, but it does distribute it equally across scales so that the scores are relatively free of its effect (Barnette, 2000). Many psychological scales have adopted the balanced item technique including the MMPI (Hathaway and McKinley, 1940) and the R S E S (Rosenberg, 1965). Despite their extensive use, balance scales created trouble concerning the item reliability, construct validity and factorial validity of the scales. According to literature, the meaning of the reverse scored items is not actually reversed by the respondent. Sometimes negatively keyed items result in a careless response from the subject (Roszkowski & Soven, 2010). There is a tendency of respondents to approve negative items rather than rejecting a positive item. In addition, respondents may not perceive the subtle difference in the semantics of positive and negative items. This problem has been highlighted in the literature (Schriesheim & Hill, 1981; Camprostrini & McQueen, 1993). The LOT is the most widely used scale for assessing optimism in research having been used in US, (Dolbier, Soderstrom, & Steinhardt, 2001), United Kingdom (e.g., Lancaster & Boivin, 2005), Canada (e.g., Long & Schultz, 1995), the Netherlands (e.g., Tromp & Brouha, 2005), Switzerland (e.g., Irani, Mahler, Goetzmann, Russi, & Boehler, 2006), Japan (Sumi, 2004)

and China (Hamid & Chang, 1996).

Life Orientation Test-Revised (LOT-R)

The LOT-R has been developed by Scheier, Carver & Bridges in 1994 to improve the issues regarding the original LOT. Scheier and Carver tried to improve these issues by removing two items from the scale i.e., item 4 and 11. They highlighted that optimism has been associated with the positive outcomes such as increased active coping and social relationships. Issues have concerning both LOT and LOT-R were sensitively dealt with during research, but literature suggests the use of larger sample size while establishing the factorial validity of LOT. According to Nakano (2007), these two factors emerged due to measurement error because of item keying direction and not meaningful differences in item content (Nakano, 2007). Some may argue that the two-factor structure was due to measurement error due to item keying in opposite directions resulting in positively keyed optimism items loading on one factor and negatively keyed pessimism items loading on another factor (Chang & Macbride Chang, 1996). Others argued that two factors solution emerged because of measurement error. The positively keyed optimism items measured a different aspect of the construct than negatively keyed pessimism items (Ley, 1994). There is an argument that the two factors are the result of measurement error and not the result of differences in the item content. This idea comes from the studies of LOT stranded in the idea of connotatively consistent (CC) and qualitatively inconsistent items (CI). Clark and Watson (2016) said that negative items are not having the same keying direction as majority of the items on the scale. Chang argued that in relation to the LOT-R, rating of 0 for negative items would not truly be equal to a 5 if the item was diverted to be positively keyed. He suggested that the two-factor model of the LOT may be caused using items that fail to measure the same aspects of the construct. RCC items due to their inconsistent connotation, therefore, items reflecting optimism would not be equal to those disagreeing with item reflecting pessimism (Chang & Macbride Chang, 1996).

Allen and Giles (2008) addressed the issue further by investigating the factor structure of LOT in a sample of Australian prisoners to determine whether it was affected by measurement error. They added items to the participants (N = 453). The results of CFA indicated a two-factor model corresponding to item keying direction to have a better fit to the data than one factor model one. Once again demonstrating that the structure of the LOT is not in line with the one-dimensional construct. It was intended to measure when they removed participants who demonstrated a tendency to consistency at three or disagree however the fit of one factor model improved by the two-factor model fit decreased this suggested that the two-factor structure of LOT is result of measurement error due to item keying direction rather than reflecting substantial differences in the content of positivity and negatively keyed items. Cousin (2004) tested three models with CFA the bipolar model a method of artefact model and they found that the bipolar model was an acceptable fit for all three versions. They suggested that the factor structure of LOT is risen by item meaning and not measurement error due to item keying direction and that optimism as measured by LOT does not exist along a single continuum with pessimism (Chang, 1995). It is assumed that LOT and LOT-R would perform similarly under these conditions due to similarities in their factor structure. Fornell and Larcker (1981) suggested that construct reliability should exceed .50 if researchers want to estimate how reliably the model indicates the latent construct. Past results indicated that all models had moderate to acceptable construct reliability for LOT-R. Objectives

The main aim of present research was instrument adaptation from English to Urdu and to establish its linguistic reliability and psychometric equivalence with the original English version of LOT-R in Pakistan. The basic purpose of this translation was to make a research instrument available in Urdu language, easily understandable by the local population and easily used by researchers for research and clinical purposes. Demographics included participant's age, gender, education, income, living status etc.

Method and Sample

To date, LOT-R has been used with relatively young undergraduate students as samples, limiting the measures' generalizability to students' population. Studies have been done in Brazil (Bastianello, Pacico e Hutz, 2014), Spain (Ferrando, Chico & Tous, 2002), Portugal (Monteiro, 2008) and Chilly (Villarroel, Rubio and Atenas, 2009) for translation and validation of the instrument. However, as no scale of optimism was readily available in Urdu in Pakistan during 2019-2020, this study used adults living in Rawalpindi/Islamabad, Pakistan to standardize the psychometric properties of LOT-R translated in Urdu. It used self-reported paper-and-pencil questions with the participants. The translations were prepared for middle class adults. 300 adults were used as a sample for the study. Individuals including 150 males and 150 females were approached to fill the questionnaires. Participants were encouraged to participate in the study and could decline the participation anytime they want to decline.

The Urdu version of LOT-R in Pakistan was prepared from the original English LOT-R. It was developed by Scheier, Carver and Bridges (1994) consisted of 10- item measure of optimism versus pessimism. Of the 10 items, three items measure optimism, three items measure pessimism, and four items serve as fillers.

Respondents rate each item on a four-point scale where 0=strongly disagree and 4= strongly agree. LOT-R version is the revision of the original LOT (Sheier & Carver, 1992). The original LOT had 12 items, 4 worded positively, 4 worded negatively and 4 fillers. The high scores on LOT-R revealed high level of optimism in the sample. LOT-R was translated into Urdu and back translated from Urdu to English by professionals. No item was changed or modified for 10 items LOT-R for the adult population during translation. Even the sequence of the items was same as the original scale. The scale was translated from English to Urdu by four independent translators. Two of them were psychologists, third one was a bilingual and bicultural language expert, and the fourth one was a university student having a high level of command on both the languages.

Translation Procedure

The Urdu translation was done according to the criteria proposed by the World Health Organization (WHO). According to WHO (2010), following steps were taken to assure cross-cultural excellence of both the instruments i.e., original form in English and the translated version in Urdu.

Step One: Forward Translation

Forward translation was done by four independent bilingual experts. The translators included two lecturers from Psychology Department of a local University, one bi-lingual and bi-cultural expert and one University student having high command on both the languages. They translated the original English form into Urdu (Pakistani native language).

Step Two: Committee approach (Synthesis)

A committee of experts selected the final version of the translated scale by considering each item one by one. Final consensus led to final Urdu version of LOT-R.

Step Three: Back translation into the Source Language

The final Urdu version was then translated into English by two bi-cultural and bi-lingual experts. The final back translated version was prepared by the researcher selecting the finest translations in the final document.

Step Four: Expert panel (Comparison with Original Scale)

The final English back translated version of LOT-R (Urdu) was then compared for excellence by three competent bilingual experts, Faculty of a local University, with the original LOT-R. The best translation was selected by two Ph.D. Assistant Professors of Psychology and one Assistant Professor from the Department of Management Sciences. These judges and translators were all equally fluent in English and Urdu. Conceptual, content, semantic and technical equivalence of the two scales was judged by these independent experts using the three-point scale of Flaherty (Flaherty et al., 1988). These steps were used during the translation process to produce the final Urdu version of the optimism index-16.

Step Five: Cognitive Interviewing

The final Urdu version of translation was tested with 10 bilinguals through cognitive interviewing. The best items were kept in the final translation. Necessary amendments were made according to the suggestions proposed by the participants.

Step Six: Final Urdu Version

Final version of LOT-R (Urdu) was prepared. The final version of the translation in Urdu language was the result of all the activities described above. Flaherty and colleagues (1988) proposed the validation procedure for establishing the cross-cultural equivalence of scales. It includes five dimensions to be considered while establishing equivalence. These dimensions included content equivalence, semantic equivalence, technical equivalence, criteria equivalence, and conceptual equivalence. These were considered during the translation process to increase the cross-cultural validity of Urdu version of LOT-R.

Results

SPSS 23 was used for data cleaning and calculating descriptive statistics. Reliability was calculated by using Cronbach alpha and item-total correlations. Reported reliability with 10 items for LOT-R (Urdu) was .56. The reliability indices of translations of LOT-R in other languages were relatively high including Spanish version as .72 (Ferrando, Chico & Tous, 2002), Portuguese version as .71 (Monteiro, 2008), Brazilian version (Bastianello, Pacico e Hutz, 2014) having a reliability of .68 and Chilean

version (Villarroel, Rubio and Atenas, 2009) having a reliability of .65 (Deng et al., 2012). Factor analysis was done through AMOS 23. Confirmatory Factor Analysis (CFA) of the scale was conducted using AMOS23 and other calculations were done on IBM SPSS 23. CFA using maximum likelihood estimation (MLA) method and chi-square method showed a significant number of items having good factor loadings (Table 3). The model depicted by CFA was well within the acceptable range. Hence, we can say that the CFA supported the construct validity of LOT-R (Kline, 2015). Item total correlation estimates were all high and statistically significant except distracter items. The results of this study revealed that the properties of the Urdu adaptation of LOT-R are like those of the original test.

Table 1*Demographic Characteristics of the Validation study of LOT-R (N = 300)*

Sample Characteristics	Categories	f	%	M	SD	α
Gender	Male	150	50			
	Female	150	50			
Age (Years)	>25		5.3			
	25-50		63.7	44.3	1.98	
	<50	31				.56
Education	Primary		6.7			
	Matric		17.1			
	Intermediate		12.6	5.4	1.7	
	Graduation		33.3			
	Masters and above		30.3			

Note: f = Frequency, % = Percentage, M = Mean, SD = Standard Deviation

The reliability of the LOT-R was found to be .56 for normal adult population of Pakistan indicating that LOT-R is an acceptable and reliable index of optimism in Pakistan (Considine, Botti, Thomas, & Botti, 2005). Participant's ages ranged from 18 to 74 years. Equal number of males and females were selected. Means, standard deviations and alpha reliability have been reported in table 1. Mean age of participants was 44.3 years, having a special focus on middle-aged adults. As Pakistan is a Muslim state, almost 99% sample was that of Muslims. Average number of family members was 6 and the average number of kids per family was 3 in number. 100% of the sample was educated. 56% of adults belonged to nuclear families. The remaining belonged to joint families. Average income of the middle-class households was around PKR. 92,000 per month. No significant differences between the scores were found among the genders. However, the mean age was 44.3 years. Majority of the sample belonged to the group of 25 to 50 years of age. 5.3% were below 25, 63.7 were between 25 and 50 whereas 31% were above 50 years of age. With respect to education, 6.7 percent had done primary, 17.1 percent had passed matric, 12.6% were intermediate, 33.3% were graduates and 30.3 percent were postgraduates.

Table 2*Convergent Validity and Pearson's Correlation of Optimism with different variables*

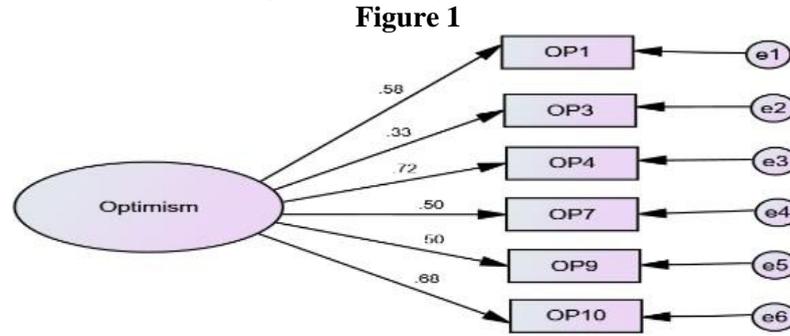
Variables	Correlation
Hope	.27***
Resilience	.30***
Self-esteem	.34***
Marital Satisfaction	.26***
Quality of Life	.34***
Love	.11***
Relationship Self-Regulation	.17***

***p < .001

Pearson product moment correlation of optimism with hope ($r = .27$, $p < .01$) is moderately positive and statistically significant. Correlation of optimism and resilience is moderately positive and statistically significant ($r = .30$, $p < .01$).

Correlation of optimism and self-esteem is also moderately positive and statistically significant ($r = .34, p < .01$). This shows that an increase in optimism would lead to an increase in hope, resilience, and self-esteem of our sample. As our sample is married, Pearson product moment correlation of optimism and marital satisfaction is moderately positive and statistically significant ($r = .26, p < .01$). Correlation of optimism and quality of life and its various aspects is moderately positive and statistically significant ($r = .34, p < .01$). This shows that an increase in optimism would lead to an increase in marital satisfaction and quality of life in our sample. Correlation of optimism and love is moderately positive and statistically significant ($r = .11, p < .01$). This shows that an increase in optimism would lead to an increase in love of our sample. Correlation of optimism and relationship self-regulation (RSR) is moderately positive and statistically significant ($r = .17, p < .01$). This shows that an increase in optimism would lead to an increase in RSR of our sample. Thus the convergent validity of LOT-R is confirmed.

Confirmatory Factor Analysis of LOT-R (Urdu)



Path diagram of the Urdu translated Life Orientation Test-Revised model with item loadings.

Table 3

Chi-Square, Degree of Freedom and Model Fit Indices of CFA for Life Orientation Test-Revised Scale (LOT-R) (N = 300)

Indexes	χ^2 (df)	χ^2 /df	CFI	NFI	RMSEA
LOT-R (10 items)	22.58 (9)	2.51	.96	.93	0.07

Note: χ^2 = Chi-Square, df=degrees of freedom, CFI=Comparative Fit index, RMSEA=Root Mean Square Error of Approximation, NFI=Normed Fit Index

Table 4

Factor Analysis of 6 items of Life Orientation Test-Revised of English and Urdu Version Life Orientation Test-Revised Scale (LOT-R) (N = 300)

No.	Items	λ	Urdu Translation
1	In uncertain times, I usually expect the best.	.58	نہیں یقیناً اچانک ہونے والی چیزوں کو اچانک ہی سمجھتا ہوں۔
3	If something can go wrong for me, it will.	.33	اگر میری زندگی میں کچھ کھٹاؤ ہوگا تو اسے ہرگز نہ ہو کر رہے گا۔ نہیں یہ سب تقسیم کے کار سے نہیں ہونے والے ہیں۔
4	I'm always optimistic about my future.	.72	وہیں۔ نہیں اسی سے ہونے والی چیزوں کا / کچھ نہیں ہے کبھی کبھی یہ سب
7	I hardly ever expect things to go my way.	.50	کے کام مقبول ہیں۔
9	I rarely count on good things happening tome.	.50	نہیں بہت کم امیدیں رکھتا ہوں / کچھ نہیں ہونے والی چیزوں سے اس وقت امید ہونے لگے۔
10	Overall, I expect more good things to happen to me	.68	مجموعی طور پر یہ سب ہونے والی چیزوں کا / کچھ نہیں ہے کبھی کبھی یہ سب سے اس وقت ہونے لگے۔

than bad.

Note: Factor Loading > 0.30, λ = Factor Loadings

CFA of LOT-R (Urdu) revealed a single latent factor of optimism. Research validating LOT-R also reported the uni-dimensionality of all factor loadings. As all factor loadings were higher than .30, uni-dimensionality was confirmed. The factor loadings of 6 items were calculated. These included item 1, 3, 4, 7, 9 and 10. Item number 1, 4, and 10 were positive and item number 3, 7, and 9 were negative thereby making LOT-R a valid measure for optimism. Item no. 2,5,6, and 8 were fillers. The chi-square value was 22.58 and CFI was .96 and NFI was .93 whereas RMSEA was .07, making it acceptable as a scale. The sequence of items was the same as the original LOT-R. Item 3 has the lowest factor loading (given as .33 in the Table 3). Items 3-10 showed high factor loadings ranging from .33 to .72. Item 4 has the highest factor loading (given as .72 in the table), showing a sense of hope for future among adults in

Pakistan. This is in line with another research already done in Pakistan with reference to Optimism. LOT-R has been translated for use with adolescents in Pakistan by Ayub (2009). It indicated that optimism and happiness is a product of hope for future in Asian countries specially Pakistan. Pakistan has a collectivistic culture. Individuals seek more happiness and are optimistic when the self is perceived as part of the whole.

Table 5

Item total Correlation of LOT-R (N=300)

Optimism		Pessimism	
Item no.	r	Item no.	r
1	.49**	3	.50**
4	.52**	7	.46**
10	.55**	9	.66**

***p<.00

Item total correlation of LOT-R shows that all the items are significantly and positively correlated to the total score. The values range from .46 to .66 at p <.001. This clearly shows that scale is internally consistent and valid.

Discussion

The main aim of this study was instrument adaptation from English to Urdu and to establish its linguistic reliability and psychometric equivalence with the original English version of LOT-R in Pakistan. The results of CFA of the LOT-R (Urdu) showed certain commonalities between the English and Urdu versions. Results showed that the scale fulfills the psychometric requirements for measurement of optimism in Pakistan. As in the original version of LOT-R, all items of the questionnaire loaded to one latent factor i.e., optimism. Hence, we can conclude that this study has introduced a precise instrument for measuring optimism in Pakistan.

The results showed that we prepared an Urdu translation of LOT-R having good semantic value. The translation procedure resulted into a psychometrically acceptable measure. Hence, we can assume that the unidimensional phenomena under study i.e., optimism when assessed from measures of different cultures or in different languages provided almost similar results. The acceptable reliability of the instrument in Pakistan showed that despite the large cultural, social, economic, and linguistic differences, the instrument can be used in Pakistan as a reliable and valid instrument for measurement of optimism. Finally, we can conclude that universality of optimism across languages and cultures can be established.

The current study provided linguistically and psychometrically acceptable LOT-R(Urdu) as a contemporary instrument for education, research, organizational and therapeutic investigation of optimism in Pakistan. Optimism has also been linked with religion, culture, and family background of the individual. As Pakistan is a collectivistic culture, more focus on optimism is required in Pakistan as the positive factors like hope, self-esteem, resilience, and mindfulness form the basis of a healthy individual as well as a family. Optimism has also been linked to high self-esteem, mindfulness, and relationship self-regulation.

Pakistani culture presents a concept of optimism which is highly related with the cultural and religious norms of the society. In Pakistan, optimism is related to achievement and self-esteem of the individuals. More focus in research is required in Pakistan on the positive factors underlying optimism like love, mindfulness, relationship self-regulation etc. Flourishing and wellbeing in individual's life relates to the quality of his/ her relationships as relationships form the

basis for contentment and happiness according to Eudemonic Theory. By producing highly accurate measures of optimism, researchers have decreased the error variance in measurement while simultaneously increasing the power of measurement without increasing the length of the questionnaire. Scheier and Carver claimed that by using LOT-R scale, researchers will differentiate among groups and these differences will be meaningful with reference to self-esteem, achievement, mindfulness, resilience, hope and other positive aspects of life under consideration. Since LOT-R is an extensively used but controversial measure of optimism, it can be used in further Psychological Capital studies in different cultures proving itself as an acceptable measure of optimism.

Conclusion

The results of this study indicated that Urdu LOT-R has appropriate psychometric properties. This instrument can be confidently used in the field of Positive Psychology in Pakistan. However, further evaluations of psychometric properties of the scale are required.

Implications for Counseling, Business and Organizations

This study measured the factor structure of Urdu LOT-R and established its construct validity for Pakistani adults. This translation may offer mental health providers a starting point for facilitating a dialogue about optimism among Pakistani clients. The clear one-dimensional structure indicates that mental health providers can calculate total score to assess overall optimism in the general population for counseling purposes. The use of Urdu LOT-R might give meaningful results with respect to improvement in relationships, indicating a parallel improvement in mental health correlates. It is, therefore, important for scholars to provide further empirical evidence for the translated instrument. It is important that clinicians and scholars use this translation for various clinical, counseling and research purposes. In addition, Urdu LOT-R can also be used in business organizations for assessment of optimism among employees.

Strengths and Limitations

This translation was an attempt to translate LOT-R into Urdu and make it readily available for researchers and clinicians in Pakistan. The main limitation of original LOT-R scale was that the original study was conducted entirely online. This limitation was covered in the current study by taking manual test with the adults. The original and the current study, both are cross sectional in nature. The current study was cross-sectional due to time constraints as it was a part of Ph.D. Thesis. Although this study provides the factor structure of LOT-R in Pakistan, replication, and further evaluation of the dimension of optimism is required in Pakistan with diverse and larger samples. In addition, this instrument can also be used in longitudinal studies which will enhance the credibility and reliability of the instrument. Future studies require longitudinal studies of different groups including young children, adolescents, and adults, spread over a longer span of time. Previous studies included only student sample whereas current study fills the gap by getting adult data to fully examine the dependency of the data. To increase the generalizability of results, sample was collected from general community in contrast to college population or easily available population.

All the variability in the total score of LOT-R can be attributed to the satisfaction and wellbeing in adult life. The scores on LOT-R seem to be primarily driven by the respondent's overall degree of optimism. Our study is one of the pioneer studies to get the instrument translated in Urdu and examine the underlying latent variables in LOT-R. Moreover, the total score on LOT-R has been associated with mental health correlates in literature. The strengths of this study included implications for counseling practice, mental health professionals, and business organizations utilizing LOT-R for the measurement of optimism in adult life. They would be facilitated by this translation as various studies in Pakistan have been done in English format which hinders understanding of general population while using the instrument. A real research gap has been filled by doing this translation. Strength of the study was that 60 percent of our sample was middle aged adults.

However, due to time constraints and Covid-19 conditions, this study has certain limitations. These limitations included time constraints. However, despite of time constraints, we used other scales to establish the convergent validity of LOT-R. Present study suggests that LOT-R is a one-dimensional measure for both men and women and demonstrates acceptable reliability in Pakistan. No significant gender differences were found on LOT-R. Our study provides a first look at the psychometric properties of LOT-R in Pakistani culture and offers an important starting point for indigenous scale development. Researchers may consider adding further items in LOT-R to measure optimism from a specific cultural standpoint. Researchers are encouraged to conduct additional psychometric evaluation of the scale to optimize score reliability, validity, and generalizability of LOT-R.

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