Pakistan Journal of Clinical Psychology, 2018, 17, 2, 59-80 | PJCP

TRANSLATION AND ADAPTATION OF SATISFACTION WITH LIFE SCALE-CHILDREN, TRAIT EMOTIONAL INTELLIGENCE SCALE-CHILD SHORT FORM AND BRIEF COPE

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ABSTRACT

Objective: *The present study was designed to translate and culturally adapt psychometric instruments to foster mental health of children in Pakistan.*
Design: *Test development.*
Place and duration of study*: Karachi, Pakistan, from January to July, 2015.*
Subject and Method: *Three scales were selected for Urdu translation and adaptation; Satisfaction with Life Scale – Child (SWLS-C), Trait Emotional Intelligence Scale-Child Short Form (TEIQue-CSF) and Brief COPE. The standard back translation process was carried out to draft Urdu version of the scales. Cross language validation was conducted on a non-probabilistic sample of 80 students with age ranging from 10 to 12 years.*
Results and Conclusion: *Correlation between English and Urdu version of scale turned out to be significant for all three scales, i.e. SWLS-C, TEIQue-CSF and Brief COPE subscales (Internal consistency analyses and temporal reliability analyses were performed on 60 students and 52 students, respectively. The mean age of sample was 10.02 years. For SWLS-C, Cronbach's alpha was 0.78 and split half reliability was also 0.78. Test retest reliability was undertaken at one week interval which was reported to be 0.79. With reference to TEIQue-CSF, Cronbach's alpha and split half reliability turned out to be substantial. Value obtained for temporal reliability was 0.84 with one week interval. Internal consistency values for the subscales of Brief COPE ranged between 0.60 and 0.95. Temporal reliability of the Brief COPE subscales varied from 0.51 to 0.83. Thus, the overall results corroborate the appropriateness of the Urdu adaptation of SWLS-C, TEIQue-CSF and Brief COPE with Pakistani children.*

Keywords: *Mental Health; Life satisfaction; Trait Emotional Intelligence; Copying*

INTRODUCTION

In developing countries where people face multiple challenges pertaining to psychosocial factors, mental health is largely compromised (Jamali & Tanzil, 2016). In Pakistan, mental health is quite a neglected area, especially when it comes to mental health of children. Inadequate facilities, insufficient child mental health practitioners, under reported cases and unavailability of child mental health screening tools are some of the common challenges due to which child mental health is undermined (Afridi, 2008).

Majority of the instruments to measure mental health in children are available in English language. Use of these instruments limits the scope to children who study in English medium schools and those who are affluent in English. Therefore, psychologists and researchers need to translate and culturally adapt the instruments before using with the native population.

To promote optimal child development, constructs of positive psychology should be studied and one such construct is life satisfaction. Initially, studies on life satisfaction were predominantly aimed at adults, however, the significance of life satisfaction in children has now received recognition globally (Huebner, 2004). Life satisfaction is strongly correlated with psychological well-being and the quality of life (Veenhoven, 2012). Quality of life can be assessed from two dimensions; subjective and objective (Cummins, 2000). Objective dimension entails tangible life conditions such as financial status, educational background, availability of resources and recreational opportunities (Huebner, 2004). On the other hand, subjective dimension includes one's perception or internal assessment of life circumstances (Corrigan & Buican, 1995). Life satisfaction taps in to the subjective component of quality of life, life satisfaction is "a global assessment of a person's quality of life according to his chosen criteria" (Shin & Johnson, 1978). With respect to children, life satisfaction is positively associated with personal, psychological, behavioral and social outcomes (Proctor, Linley, & Maltby, 2009).

Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985) is among the most reliable scale to measure global life satisfaction in adults. Owing to the usefulness of this scale, Gadermann (2009) adapted SWLS for use with children. Satisfaction with Life Scale-Child can be used with children of age ranging from 9 to 14 years. Major changes in the adapted version include rephrasing of items to make it more comprehensible for children. Secondly, response format was changed by Gadermann (2009) from 7 point to 5

point rating scale to make it easier for children to respond which was anchored by disagree a lot (1) and agree a lot (5). The total number of items in SWLS-C remains the same as in the original version, i.e. 5 items.

Another positive indicator of mental health is emotional intelligence. Emotional intelligence is the ability to discern, use, comprehend and mediate emotions in a positive way not only for ourselves but for others as well (Mayer & Salovey, 1997). In his best-selling book, Goleman (1998) asserted that IQ accounts for only 20% of success and further explained how a smart individual often ends up doing irrational things because emotions overrides the thinking process. Thus, the better the person is capable of schooling his emotions, the more rational his thought and action would be. He also stated that emotional intelligence significantly affects other abilities, by either facilitating them directly or interfering with them.

Since early years in human life are crucial in determining the progress in entire life, emotional competence needs to be taught in early childhood. Like other developmental areas, emotional development such as differentiating emotions, self-awareness, empathy and achievement drive should be reflected as an imperative developmental stone. Numerous researches have established that emotional intelligence can be attributed to personal and professional success (Abbas, Akber, & Siddiqa, 2012; Deniz & Avşaroğlu, 2014; Rahman, Aftabuddin & Rahman, 2016). Preeti (2013) assessed the relationship between emotional intelligence and academic achievement and inferred that academic achievement without emotional intelligence does not warrant success. Emotional intelligence enables an individual to excel at assertive communication, problem solving, conflict resolution, prosocial behavior and maintaining healthy relationships (Goleman, 1998). Moreover, emotionally healthy individuals turn out be happier and optimistic (Kumcagiz, Celik, Yilmaz & Eren, 2011). Thus, it is plausible that emotional intelligence can predict life satisfaction to a large extent (Palmer, Donaldson & Stough, 2002). Mikolajczak, Petrides and Hurry (2009) found that emotional intelligence is positively associated with adaptive coping and corresponds inversely with non-effective coping styles.

Trait Emotional Intelligence Questionnaire (TEIQue) is a theoretically based measure that assesses global trait emotional intelligence (Petrides & Furnham, 2001). Trait emotional intelligence theory suggests that emotional intelligence can be conceptualized as a set of traits instead of viewing it as IQ type variable, i.e. emotional quotient (Petrides, 2009). Several versions of TEIQue are available for specific age groups and languages. Also, short forms

are available to ease the administration process. TEIQue – Child Form is specifically designed for children and the recommended age group is 8 to 12 years (Mavroveli, Petrides, Shove & Whitehead, 2008). Since TEIQue-CF is a long 75 items questionnaire, there is abridged version, TEIQue-CSF, also available for use with children.

Like emotional intelligence, effective coping contributes to sound mental health. Coping can be defined as individuals' attempt to defend, eradicate, minimize or withstand unfavourable life events that could be a source of stress (Lazarus & Folkman, 1984). Coping determines the outcome of the stress; adaptive coping makes the person resilient whereas maladaptive coping leads to psychological distress and can also result in other health, financial, occupational and relationship problems, if left uncontrolled (Queen & Queen, 2004). Children are not immune to stress, in fact, they face stress daily and if they do not have the potential to successfully cope with stressors, it can undermine their emotional, intellectual and physical health (Stephens, 2007).

What matters the most is the effectiveness of coping strategies. Coping strategy is said to be effective or adaptive if it facilitates progress and helps in achieving the desired goal (Wrosch, Scheier, Carver & Schulz, 2003). Likewise, maladaptive coping strategies are those that interfere with goal directed behavior and impedes performance (Monzani et al., 2015). Adaptive coping is robustly associated with greater life satisfaction, optimism and psychological well-being (Kuiper, 2010).On other hand, maladaptive coping was found to be associated with maladjustment and increased suicidal ideation among students (Yao et al., 2014).

Number of reliable scales to assess coping resources is not limited in literature however; major constraint is the length of protocol due to which their usefulness is limited (Monzani et al., 2015). Carver (1997) developed an abbreviated version of the COPE, known as Brief COPE. It is based on 14 theoretically determined coping strategies with a total of 28 items, 2 for each coping strategy.

To overcome the shortcoming of culturally adapted mental health research tools for children, this study is envisioned to translate and adapt English version of the following scales; Satisfaction with Life Scale-Child (SWLS-C), Trait Emotional Intelligence Questionnaire-Child Short Form (TEIQue-CSF) and Brief COPE. This study will provide reliable and culturally relevant scales to

monitor children's mental health and to enhance their life satisfaction by working on factors like emotional intelligence and coping.

METHOD

Participants

A sample of 80 bilingual students of age range 10 to 12 years were selected via purposive sampling method from different schools of Karachi, to establish cross language validation between English and translated Urdu versions of the scales. To determine the reliability of translated version, 60 students were selected for cronbach's alpha and split half reliability. Of the sample, 34 students were males and 26 were females. For temporal reliability, 52 students formed the sample in which 30 were male students and 22 were female students. Mean age for the sample was 10.02 (S.D. = 1.41). Sample for reliability was selected from different schools of Karachi covering various locations.

Measures

Demographic Data Sheet

It was a self-developed sheet to obtain demographic data in accordance with the requirement of present research. Students were asked to state their gender, grade, birth order, family structure, ethnicity and school name.

Satisfaction with Life Scale-Child (SWLS-C)

SWLS-C is a brief instrument for assessing children's global satisfaction with life which is the cognitive aspect of subjective well-being. It was adapted by Gadermann (2009) from SWLS which was initially developed by Diener, Emmons, Larsen, & Griffin (1985). SWLS-C consists of 5 items and is rated on a five-point Likert-type scale. Gadermann (2009) reported Cronbach's coefficient alpha to be .86 and ordinal coefficient alpha as .90. SWLS-C showed consistent performance across gender and grades.

Trait Emotional Intelligence Questionnaire- Child Short Form (TEIQue-CSF)

TEIQue – Child Short Form is a brief version of TEIQue - Child Form developed by Mavroveli, Petrides, Shove and Whitehead (2008). It is a 36 items scale with a 5 point response format. TEIQue-CSF is intended to give a single

trait emotional intelligence score. Selection of items for TEIQue-CSF was based on internal consistency considerations and intercorrelations at the facet level (Mavroveli, 2018). The recommended age group for the administration of TEIQue-CSF is 8 to 12 years (Mavroveli et al., 2008). Mavroveli (2018) reported a Cronbach alpha of 0.86 for internal consistency. Evidence of convergent validity for TEIQue-CSF derives from the positive correlation with Emotion Awareness Questionnaire and discriminant validity was evident with the negative correlation with State-Trait Anxiety Inventory for Children (Stassart, Etienne, Luminet, Kaidi & Lahaye, 2017).

Brief COPE

Brief COPE is abridged version of COPE inventory which is used to determine the extent to which various coping strategies are used in response to stressful events (Carver, 1997). It is a 28 items inventory comprising of 14 scales or coping strategies, i.e. *active coping, planning, positive reframing, acceptance, humor, religion, use of emotional support, use of instrumental support, self-distraction, denial, venting, substance use, behavioral disengagement, and self-blame*. Cronbach's alphas for the sub-scales of Brief COPE varies from 0.50 to 0.90 (Mohanraj et al., 2015). Items are scored in the range of 1-4 indicating the extent to which each coping strategy is used. Higher score on a particular scale reflects greater use of the particular coping technique (Carver, 1997).

Procedure

The present study comprises of three phases: I) Translation and Adaptation II) Cross Language Validation III) Determining psychometric properties of the scales.

Phase I: Translation and Adaptation

Initial Translation: The original English versions of the scales were initially translated into Urdu language by a panel of four experts. Criteria for setting the panel was that experts must hold PhD degree in Clinical Psychology, must have prior experience of translation and adaptation and must be well versed in both languages, i.e. English and Urdu. The translated version was analysed by three psychologists to ensure the semantic and idiomatic equivalence and grammar of items. Items that correspond well to the original English version were selected to draft Urdu version of the scales.

Back Translation: Expert panel with the same selection criteria was requested to provide English translation of the Urdu items being translated in the first step. The translated English versions of the scales were compared with the English version and the items that were close to the original instruments were selected for the final wording. The translated Urdu version was presented to three expert psychologists to check face validity of the scales. After their analyses, Urdu translation was considered to be an adequate version of the original scales.

In Brief COPE, one of the scales – substance use, was excluded on the recommendation of researchers. It was done in order to prevent introducing the idea that substance use can be a possible coping strategy. Secondly, students below the age of 12 are usually diligently supervised by parents or guardians and do not have access to any substance. No change was made for Trait Emotional Intelligence Questionnaire- CSF (TEIQue-CSF) and Satisfaction with Life Scale – Children (SWLS-C).

Phase II: Cross Language Validation

Second phase of the study revolves around establishing cross language validation by administering both English and Urdu version of the scales. To ensure that children comprehend the English version, researcher approached English medium schools only. First, consent was obtained from school authorities and then bilingual students that match the selection criteria were approached. After establishing adequate rapport and briefing about the purpose of the study to students, their consent to take part in the study was taken. They were assured about their right to withdraw and confidentiality. Students who agreed to participate voluntarily were handed over the questionnaire encompassing demographic data sheet, SWLS-C, TEIQue-CSF and Brief COPE. English version was administered first and after three days, same participants were given the Urdu version of questionnaire.

Phase III: Determining Psychometric Properties

To determine psychometric properties of the translated Urdu scales, test retest reliability, internal consistency and split half reliability were carried out. Since SWLS-C and TEIQue-CSF give a single index, Cronbach's alpha was calculated using global life satisfaction score and trait emotional intelligence index for SWLS-C and TEIQue-CSF, respectively. For Brief COPE, Cronbach's alpha was determined for each scale of the instrument. Split half reliability was assessed for SWLS-C and TEIQue-CSF only. Each scale of Brief COPE

comprises only of two items and scales are analysed independently so split half reliability could not be computed. Test retest reliability was determined for all the three scales with one week interval. Procedure to take consent and to administer the scales was same as in the second phase.

Statistical Analysis

For calculation and analyses, Statistical Package for Social Sciences (SPSS) Version. 21.0 was used, considering a significance level of $p<0.05$. Pearson product moment coefficient of correlation was applied to determine cross language validation and test retest reliability. Cronbach's alpha was computed for internal consistency and Spearman Brown coefficient for split half reliability.

RESULTS

Table 1
Cross Language Validation between Urdu and original English version of Satisfaction with Life Scale-Child (SWLS-C)

Administration	***M***	***r***	***Sig.***
English version	18.77	0.95	0.01
Urdu version	18.13		

*Note. N = 80; P<.001***

Correlation between translated and original scale is significant ($p<0.01$) which implies that the translated Urdu scale is compatible with the original English scale.

Table 2
Item by item Cross Language Validation between Urdu and original English version of Satisfaction with Life Scale-Child (SWLS-C)

Item No.	***r***
1	0.70
2	0.79
3	0.78
4	0.88
5	0.78

*Note. N = 80; p<0.01**

Item by item correlations, ranging from 0.70 to 0.88, turned out to be significant *(p<0.01*).*

Table 3
Cronbach's alpha of Urdu version of Satisfaction with Life Scale-Child (SWLS-C)

Scale	***No. of items***	***Cronbach's Alpha***
SWLS	5	0.78

Note. N = 60

Alpha coefficient indicates that the translated Urdu version of SWLS-C has adequate internal consistency.

Table 4
Split Half Reliability of Satisfaction with Life Scale-Child (SWLS-C)

Scale	***Cronbach Alpha***		***Correlation between forms***	***Spearman Coefficient***	***Brown***
	Part 1	*Part 2*			
SWLS	0.67	0.64	0.63	0.78	

Note. N = 60

Split half reliability also shows that the Urdu version of SWLS-C is a reliable measure.

Table 5
Test retests reliability of Satisfaction with Life Scale-Child (SWLS-C)

SWLS	***M***	***SD***	***N***	***R***
First Administration	17.65	4.29	52	0.79**
Second Administration	17.96	2.56	52	

***p<0.01*

Scale was administered with one week interval Significant positive correlation (0.79) was found between two administrations indicating that Urdu version of SWLS-C has good temporal reliability.

Table 6
Cross Language Validation between Urdu and original English version of Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue-CSF)

Administration	***M***	***r***	***Sig.***
English version	125.83	0.947	0.01
Urdu version	123.83		

Note. N = 80

Correlation between English and Urdu version is significant ($p<0.01$) which shows that the translated Urdu scale is compatible with the original scale.

Table 7
Item by item Cross Language Validation between Urdu and original English version of Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue-CSF)

Item No.	***R***
1	0.61
2	0.83
3	0.77
4	0.81
5	0.80
6	0.78
7	0.72
8	0.78
9	0.46
10	0.44
11	0.80
12	0.65
13	0.57
14	0.76
15	0.74
16	0.85
17	0.78

18	0.70
19	0.56
20	0.85
21	0.84
22	0.68
23	0.74
24	0.59
25	0.82
26	0.87
27	0.46
28	0.86
29	0.69
30	0.71
31	0.64
32	0.65
33	0.80
34	0.65
35	0.70
36	0.64

Note. N = 80; p<0.01

Item by item cross validation between translated and original scale indicates average to good correlations which are significant (p<0.01).

Table 8
Cronbach's alpha of Urdu version of Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue-CSF)

Scale	***No. of items***	***Cronbach's Alpha***
TEIQue-CSF	36	0.82

Note. N = 60

High alpha value reveals that the translated version of TEIQue-CSF is internally consistent.

Table 9
Split Half Reliability of Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue-CSF)

Scale	*Cronbach Alpha*		*Correlation between forms*	*Spearman Brown Coefficient*
	Part 1	*Part 2*		
TEIQue-CSF	0.68	0.65	0.79	0.88

Note. N = 60

Split half reliability of the translated version shows that it has a high consistency.

Table 10

Test retests reliability of Trait Emotional Intelligence Questionnaire – Child Short Form (TEIQue-CSF)

SWLS	*M*	*SD*	*N*	*r*
First Administration	123.25	12.98	52	0.84**
Second Administration	125.75	16.81	52	

***p<0.01*

Scale was administered with one week interval temporal reliability turns out to be high at one-week interval for the Urdu version of TEIQue-CSF.

Table 11

Cross Language Validation between Urdu and original English version of Brief COPE subscales

Subscale	*r*
Self-Distraction	0.86
Active coping	0.90
Denial	0.88
Use of Emotional Support	0.56
Use of Instrumental Support	0.81
Behavioral Disengagement	0.71
Venting	0.76
Positive Reframing	0.81
Planning	0.80
Humor	0.78
Acceptance	0.84
Religion	0.76

Self-Blame	0.79

*Note. N = 80; p<0.01***

Moderate to high correlations, ranging from 0.56 to 0.90, were found for the subscales of Brief COPE establishing the cross language validity

Table 12

Item by item Cross Language Validation between Urdu and original English version of Brief COPE

Item No.	***r***
1	0.87
2	0.89
3	0.75
4	0.49
5	0.76
6	0.73
7	0.80
8	0.87
9	0.68
10	0.71
11	0.74
12	0.67
13	0.50
14	0.68
15	0.79
16	0.75
17	0.69
18	0.86
19	0.63
20	0.71
21	0.71
22	0.82
23	0.78
24	0.68
25	0.61
26	0.53

*Note. N = 80; p<0.01***

Item by item correlations also confirms that the translated version of Brief COPE is a valid measure.

Table 13
Cronbach's alpha of Urdu version of Brief COPE subscales

Subscale	***No. of items***	***Cronbach's Alpha***
Self-Distraction	2	0.71
Active coping	2	0.75
Denial	2	0.73
Use of Emotional Support	2	0.77
Use of Instrumental Support	2	0.75
Behavioral Disengagement	2	0.64
Venting	2	0.74
Positive Reframing	2	0.66
Planning	2	0.73
Humor	2	0.95
Acceptance	2	0.60
Religion	2	0.85
Self-blame	2	0.90

Note. N = 60

Cronbach's alpha ranged from 0.60 to 0.95 which suggests that Urdu version of Brief COPE is internally consistent.

Table 14
Test retest reliability of Subscales of Brief Cope

Brief Cope		***M***	***SD***	***N***	***R***
Self-Distraction	FA	6.21	2.003	52	0.82**
	SA	6.25	1.867	52	*
Active coping	FA	5.98	1.553	52	0.81**
	SA	6.02	1.228	52	*
Denial	FA	4.40	1.973	52	0.83**
	SA	4.81	1.738	52	*
Use of Emotional Support	FA	6.25	1.780	52	0.51**

	SA	6.56	1.092	52	
Use of Instrumental Support	FA	6.54	1.540	52	0.76**
	SA	6.62	1.457	52	
Behavioral Disengagement	FA	4.38	1.694	52	0.71**
	SA	4.31	1.394	52	
Venting	FA	5.62	1.739	52	0.81**
	SA	5.61	1.402	52	
Positive Reframing	FA	5.10	1.695	52	0.74**
	SA	5.19	1.442	52	
Planning	FA	5.81	1.509	52	0.74**
	SA	5.77	1.113	52	
Humor	FA	3.12	1.789	52	0.67**
	SA	3.44	1.434	52	
Acceptance	FA	4.88	1.711	52	0.76**
	SA	4.98	1.514	52	
Religion	FA	6.57	1.433	52	0.68**
	SA	6.58	1.696	52	
Self-blame	FA	4.36	2.105	52	0.76**
	SA	4.69	1.799	52	

*Note: **p<0.01 FA=First Administration; SA=Second Administration*

Scale was administered with one week interval significant positive correlations were found between two administrations revealing that each subscale of Brief COPE has good temporal reliability.

DISCUSSION

Assessing factors that affect mental health of children is an elementary precursor to enhance quality of life of Pakistani children. In order to have reliable, valid and bias free results, it is essential that the instruments are according to the language and culture of the targeted population (Mehmood & Sultan, 2014) which necessitates the cultural adaptation of instruments. In this article, we have presented the detailed translation procedure employed to develop Urdu version of scales; Satisfaction with Life Scale (SWLS-C), Trait Emotional Intelligence Questionnaire-Child Short Form (TEIQue-CSF) and Brief COPE. These scales can be used with Pakistani children to understand and promote their

mental health. Furthermore, the present study also investigated the psychometric properties of the Urdu adaptation of SWLS-C, TEIQue-CSF and Brief COPE.

Since the target population for the use of instruments is children, translators and researchers were cautious concerning comprehensibility of items. For this purpose, only skilled professionals who were well aware of the target population and cultural sensitivity, were approached for translation. Back translation process was used to translate the above mentioned instruments. Although back translation is a time consuming process and require more resources, it ensures appropriateness of translation. It is a methodical and comprehensive approach to translation which provides an opportunity to identify problematic translation that could either be due to literal translation or simply mistranslation of items (van Widenfelt et al., 2005). In other words, the process of back translation furnishes semantic and conceptual equivalence which addresses the issue of cultural sensitivity that may otherwise compromise the reliability and validity of instruments (Fitzpatrick, Davey, Buxton & Jones, 1998). Next, to determine measurement equivalence of the translated version of SWLS-C, TEIQue-CSF and Brief COPE, psychometric properties of the same were investigated.

Satisfaction with Life Scale-Child (SWLS-C), which is intended to assess the subjective component of quality of life, was translated and the psychometric properties of Urdu version of SWLS-C were analysed. Cross language validation revealed significantly high correlation ($r = 0.95$) between Urdu and original English version of SWLS-C (Table 1). As shown in Table 2, Correlation for item by item linguistic equivalence were also found to be satisfactory, ranging from 0.70 to 0.88. In addition, psychometric properties of the translated version of SWLS-C turned out to be good. Both Cronbach's alpha ($\alpha = 0.78$) (Table 3) and Spearman Brown coefficient (0.78) (Table 4) were fairly good which suggests that the scale is homogenous. Our findings correspond to the reliability estimates of the original version of SWLS-C (Gadermann, 2009). Urdu version of SWLS-C also showed temporal stability ($r = 0.79$) for inter-test period of 1 week (Table 5) which is higher than the test retest reliability value found for the Korean version of SWLS-C (Lim, 2015). Thus, it can be established that Urdu version is a well-adapted version of SWLS-C which can be used to measure life satisfaction among Pakistani children.

The Urdu version of Trait Emotional Intelligence Questionnaire-Child Short Form (TEIQue-CSF) demonstrated high degree of concordance with the original version of the scale. Table 6 indicates that correlation between the total

scores (r = .95) obtained on both versions provides evidence of cross language validation. Moreover, item by item correlations in Table 7 also revealed significant values, rendering the Urdu translation and adaptation of TEIQue-CSF as valid. Since TEIQue-CSF is not valid for interpretation at facet level, total emotional intelligence score is taken into consideration for establishing psychometric properties. Results of our study revealed robust psychometric properties for Urdu adaptation of TEIQue-CSF. Also, Table 8 revealed that the Urdu TEIQue-CSF has a satisfactory level of internal consistency (α = 0.82) which matches the internal consistency value (α = 0.86) of the original version (Mavroveli, 2018). Split half reliability was also computed which turned out to be considerably high (0.88), yielding further evidence for internal consistency (Table 9). The result of temporal reliability analysis (r = 0.84) in Table 10 indicates that it is an absolutely reliable scale to assess trait emotional intelligence among Pakistani children.

In Table 11, the coefficient of equivalence for English and Urdu version of Brief COPE subscales ranged from 0.56 (use of emotional support) to 0.90 (active coping) which showed reasonable linguistic equivalence. Coefficient of item by item correlation furnish further evidence of the cross language equivalence of English and Urdu adaptation of the Brief COPE (Table 12).

Since the interpretation of Brief COPE is based on the subscales representing various coping strategies, it is more meaningful to evaluate internal consistency of each subscale independently. Majority of the subscales of Brief COPE showed fair internal consistencies which includes self-distraction (α = 0.71), active coping (α = 0.75), denial (α = 0.73), use of emotional support (α = 0.77), use of instrumental support (α = 0.75), venting (α = 0.74) and planning (α = 0.73) (Table 13). High Cronbach's alpha was indicated for religion (α = 0.85), self-blame (α = 0.89) and humor (α = 0.95) (Table 13). However, behavioral disengagement (α = 0.64), positive reframing (α = 0.66) and acceptance (α = 0.60) indicated relatively low internal consistencies (Table 13) which are still higher than the reliability estimates of subscales found in studies across different samples (Yusoff, Low and Yip, 2010). Mohanraj et al. (2015) conducted a validation study for Brief COPE in Southern India and found the lowest alpha, i.e. 0.44 for behavioral disengagement. Lowest internal consistency for Brief COPE reported by Yusoff, Low and Yip (2010) among Malaysian sample was 0.25 for self-blame. In the original article of Brief COPE, internal consistencies of most of the subscales were found to be lower than 0.75 which was attributed to the fact that each subscale consists of just two items (Carver, 1997). According to Raubenheimer (2004), three items are required to establish a stable factor.

Nevertheless, values for each subscale revealed in our study fall in the acceptable range as according to Hair, Black, Babin, and Anderson (2010), lower limit for alpha can be considered as 0.6. Another alternative to be considered in future studies would be computing omega coefficient instead of alpha coefficient which is not based on the assumption of tau-equivalence.

Concerning temporal stability of the Urdu version of Brief COPE, domains such as denial (r = 0.83), self-distraction (r = 0.82), active coping (r = 0.81) and venting (r = 0.81) indicated high reliability (Table 14). Use of instrumental support (r = 0.76), behavioral disengagement (r = 0.71), positive reframing (r = 0.74), planning (r = 0.74), acceptance (r = 0.76) and self-blame (r = 0.76) showed acceptable consistency overtime (Table 14). However, use of emotional support (r = 0.51) suggested marginal temporal reliability (Table 14). Variance in the test retest reliability estimates is explicable as the use of coping strategies vary across situations and over a period of time (Coyne & Gottlieb, 1996). Variance in the temporal reliability of subscales had also been revealed across different versions of Brief COPE (Yusoff etal., 2010). Therefore, scale can be considered as consistent and useful to determine coping strategies in Pakistani children.

Conclusion

It is crucial to have culturally appropriate tools for children to prevent possible language and other cultural barriers to accurate assessment. This study was designed to provide empirically precise tools for assessing mental health of Pakistani children. Owing to the significant correlation between Urdu and original version of the scales and robust psychometric properties, it is established that SWLS-C, TEIQue-CSF and Brief COPE are reliable and acceptable for the use with Pakistani children. With regard to limitations, study was conducted with non-probabilistic and limited sample, reassessment of psychometric evidences with probabilistic and diverse sample can be considered. Study does not shed light on the convergent and discriminant validity of the Urdu version of scales which is recommended for future studies. Despite these limitations, the study furnishes new dimension for the future studies aimed at exploring mental health of the children in Pakistan.

REFERENCES

Abbas, N., Akber, A., & Siddiqa, A. (2012). The impact of emotional intelligence on self-efficacy of nursing staff serving in Pakistan. *Global*

Journal of Management & Business Research, *12*(1), 75-80. Retrieved fromhttps://www.journalofbusiness.org/index.php/GJMBR/ article/ view/ 743

Afridi, M. I. (2008). Mental health: Priorities in Pakistan. *Journal of Pakistan Medical Association, 58*(5), 225-226. Retrieved from http://jpma. org.pk/full_article_text.php?article_id=1386

Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, *4*, 92-100. doi:10.1207/s15327558ijbm0401_6

Corrigan, P. W., & Buican, B. (1995). The construct validity of subjective quality of life for the severely mentally ill. *Journal of Nervous and Mental Disease*, *183*(5), 281–285. Retrieved from https://www.ncbi.nlm.nih.gov/ pubmed/7745380

Coyne, J. C., & Gottlieb, B. H. (1996). The mismeasure of coping by checklist. *Journal of Personality*, *64,* 959-991. Retrieved from https:/ /www .ncbi. nlm.nih.gov/pubmed/8956519

Cummins, R. A. (2000). Objective and subjective quality of life: An interactive model. *Social Indicators Research*, *52*(1), 55-72. Retrieved from http://www.jstor.org/stable/27522495

Deniz, M., & Avşaroğlu, S. (2014). A study on description level of university students' emotional intelligence skills on self-esteem in decision making and decision making styles. *Journal of Education Faculty*, *16*(1). doi: http://dx.doi.org/10.17556/jef.95251

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, *49*, 71-75. Retrieved from https://doi.org/10.1207/s15327752jpa4901_13

Fitzpatrick, R., Davey, C., Buxton, M. & Jones, D. (1998). Evaluating patient-based outcome measures for use in clinical trials. *Health Technology Assessment*, *2*(14),1-74.Retrieved from https://www.ncbi.nlm.nih.gov/ pubmed/9812244

Gadermann, A. M. (2009). *(The satisfaction with life scale adapted for children: Investigating the structural, external, and substantive aspects of construct validity).* The University of British Columbia. Doctoral Dissertation. Retrieved from https://open.library.ubc.ca/media/download/pdf/24/1 .0054573/1

Goleman, D. (1998). *Working with Emotional Intelligence*. New York, NY: Bantam Books.

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis*. New York: Pearson.

Huebner, E. S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, *66*, 3-33. Retrieved from https://doi.org/10.1023/B:SOCI.0000007497.57754.e3

Jamali, T., & Tanzil, S. (2016). Child mental health research in Pakistan; major challenges and pitfalls: A systematic review. *Pakistan Journal of Public Health*, *6*(3), 18-23. Retrieved from Https://Www.Researchgate.Net/Publication/313579340_Child_Mentalhealth_Research_In_Pakistan_Major_Challenges_And_Pitfalls_A_Systematic_Review

Kumcagiz, H., Celik, S. B., Yilmaz, M., & Eren, Z. (2011). The effects of emotional intelligence on optimism of university students. *Procedia - Social and Behavioral Sciences, 30,* 973-977. Retrieved from http://stat-athens.aueb.gr/~jpan/Kumcagiz-2011.pdf

Lim, Y. J. (2015). Psychometric characteristics of the Korean version of the satisfaction with life scale adapted for children. *Canadian Journal of School Psychology*, *30*(3), 246 – 251. Retrieved from https://doi.org/10.1177%2F0829573515590012

Mavroveli, S. (2018). *The factorial structure of trait emotional intelligence in middle and late childhood*. Unpublished manuscript.

Mavroveli, S., Petrides, K. V., Shove, C., & Whitehead, A. (2008). Investigation of the construct of trait emotional intelligence in children. *European Child & Adolescent Psychiatry, 17,* 516-526. doi: 10.1007/s00787-008-0696-6.

Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), *Emotional Development and Emotional Intelligence: Educational Implications* (pp. 3–34). New York, NY: Basic Books, Inc.

Mehmood, T., & Sultan, S. (2014). Translation and adaptation of revised children's anxiety and depression scale. *International Journal of Liberal Arts and Social Science*, *2*(5), 95-106. Retrieved from http://ijlass.org/data/frontImages/gallery/Vol._2_No._5/10.pdf

Mikolajczak, M., Petrides, K. V., & Hurry, J. (2009). Adolescents choosing self-harm as an emotion regulation strategy: The protective role of trait emotional intelligence. *British Journal of Clinical Psychology*, *48,* 181–193. doi:10.1348/014466508X386027.

Mohanraj, R., Jeyaseelan, V., Kumar, S., Mani, T., Rao, D., Murray, K. R., & Manhart, L. E. (2015). Cultural adaptation of the Brief COPE for Persons Living with HIV/AIDS in Southern India. *AIDS and Behavior*, *19*(2), 341–351. Retrieved from http://doi.org/10.1007/s10461-014-0872-2

Palmer, B., Donaldson, C., & Stough, C. (2002). Emotional intelligence and life satisfaction. *Personality and Individual Differences*, *33,* 1091- 1100. Retrieved from https://doi.org/10.1016/S0191-8869(01)00215-X

Petrides, K. V. (2009). Psychometric properties of the trait emotional intelligence questionnaire. In Parker, J., Saklofske, D., Stough, C.(Eds.), *Advances in the Assessment of Emotional Intelligence*. New York, NY: Springer. doi:10.1007/978-0-387-88370-0_5

Petrides, K.V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal of Personality*, *15*(6), 425-448. doi.org/10.1002/per.416

Preeti, B. (2013). Role of emotional intelligence for academic achievement for students. *Research Journal of Educational Sciences*, *1*(2), 8-12. Retrieved from https://pdfs.semanticscholar.org/deca/f265f1fb1df8 bf50f6a9d21 47c2336b3c357.pdf

Proctor, C. L., Linley, P. A., & Maltby, J. (2009). Youth life satisfaction: A review of the literature. *Journal of Happiness Studies*, *10*(5), 583-630. doi: https://doi.org/10.1007/s10902-008-9110-9

Rahman, M. S., Aftabuddin, M., & Rahman, M. (2016). Role of emotional intelligence in managerial effectiveness: An empirical study. *International Journal of Industrial Engineering Computations*, *6*(3), 237-250. doi: 10.5267/j.msl.2016.1.004

Raubenheimer, J. (2004). An item selection procedure to maximize scale reliability and validity. *South African Journal of Industrial Psychology*, *30*(4), 59–64. Retrieved from https://doi.org/10.4102/sajip.v30i4.168

Shin, D. C., & Johnson, D. M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, *5,* 475-492. Retrieved from https://doi.org/10.1007/BF00352944

Stassart, C., Etienne, A-M., Luminet, O., Kaidi, I. & Lahaye, M. (2017). The psychometric properties of the French version of the trait emotional intelligence questionnaire-child short form. *Journal of Psychoeducational Assessment*. Retrieved from https://doi.org /10.1177 %2F0734282917740499

van Widenfelt, B. M., Treffers, P. D., de Beurs, E., Siebelink, B. M. & Koudijs, E. (2005). Translation and cross-cultural adaptation of assessment instruments used in psychological research with children and families. *Clinical Child and Family psychology review*, *8*(2), 135–147. doi: 10.1007/s10567-005-4752-1

Veenhoven, R. (2012). Happiness: also known as "life-satisfaction" and "subjective well-being". In: Land K.C., Michalos, A.C., Sirgy, M.J., editors. *Handbook of Social Indicators and Quality of Life Research*. Dordrecht: Springer Publishers.

Yusoff, N., Low, W. Y., & Yip, C. H. (2010). Reliability and Validity of the Brief COPE Scale (English Version) Among Women with Breast Cancer Undergoing Treatment of Adjuvant Chemotherapy: A Malaysian Study. *Medical Journal of Malaysia*, *65*(1), 41-44. Retrieved from http://www.e-mjm.org/2010/v65n1/Brief_COPE_Scale.pdf