Translation and Validation of Urdu Flourishing Scale

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Abstract

The current study translated and validated the *Flourishing Scale* (FS) in Urdu, by a standardized forward and the backward method. We used 235 male and 339 female undergraduate students (N = 574) from BS (Honours) courses, and used Confirmatory Factor Analysis (CFA) to confirm its factor structure. A unidimensional structure with excellent model fit indices was revealed. To assess convergent and discriminatory valudies we used Core Self-Evaluation (CSE) scale, which has two subscales namely, Positive Core Self-Evaluation (PCSE) and a Negative Core Self-Evaluation (NCSE). A significant positive correlation (r = .29, p < .001) with PCSE and a significant negative correlation (r = -.18, p < .001) with NCSE were revealed expressing adequate convergent and discriminant validities. In addition, cross-language validation was performed on a separate (N = 60) sample of undergraduate students, which revealed high positive correlation a cross language orders (r > .90) with a high test-retest reliability of a week that revealed excellent temporal stability (r = .90). Urdu translated FS is psychometrically strong and can measure flourishing in Pakistani undergraduate students and adults.
Keywords: Flourishing Scale (FS), Positive Core Self-Evaluation (PCSE), Negative Core-Self-Evaluation (NCSE), convergent validity, discriminant validity, success, well-being

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Translation and Validation of Urdu Flourishing Scale

Experiences of life, going well is defined as flourishing with a mixture of functions and feelings. Flourishing is considered a sign of a high level of mental wellbeing (Huppert, 2009). Various theories of wellbeing entrenched in the humanistic perspective, propose all human beings have some universal psychological needs when fulfilled lead to higher psychological wellbeing (Ryff, 1989; Ryan & Deci, 2000), which include eudaimonia and hedonia (Keyes, 2002). Eudaimonia refers to the personal experience of self-realization, personal growth, and meaning in life (Ryan & Deci 2001), and hedonia a subjective experience of seeking pleasure and avoiding pain (Diener et al., 2003; Maltby, et al., 2005). The term flourishing was quickly assimilated in positive psychology, to define healthful and positive improvements in physiological, psychological and social aspects in people. This includes positive emotions for life such as excitement, ecstasy, pleasure, and coziness among others; and those that grasp flourishing live a passionate life (Paludo & Koller, 2007).

Psychological wellbeing based on the eudaimonia and hedonia (Woyciekoski et al., 2012) characterize self-reporting psychological instruments (Albuquerque & Trócolli, 2004) that assess happiness (Diener et al., 2003). Ryff and Keyes (1995) developed scale of psychological wellbeing on eudaimonia which comprised of six dimensions that included personal growth, autonomy, meaning of life, constructive relations with others, mastery and acceptance of self. Waterman et al. (2010) similarly developed a subjective wellbeing instrument that measured dimensions of perceived potential, self-discovery, sense of purpose and meaning, passionate involvement in events, investment of substantial effort, and enjoyment of activities as individually expressive. On the other hand, instruments based on the hedonic core focused on three dimensions of hedonic wellbeing that included life satisfaction, negative, and positive affect. For instance, *Life Satisfaction Scale* (Diener et al., 1985) measures cognitive features, and *Positive and Negative Affect Schedule* (Watson et al., 1988) affective features of wellbeing. A scale that uses both features is the *Subjective Well-Being Scale* (Lawrence & Liang, 1988), which measures affect balance and life satisfaction. Lyubomirsky and Lepper (1999) criticized these instruments by suggesting that they only assess wellbeing over a specific time. To rectify this issue they developed a 4-item instrument, *Subjective Happiness Scale* capable of measuring happiness that was not time bound.

The construct of *flourishing* include hedonic and eudaimonic dimensions and can be conceptualized as the modern conception of wellbeing which may be globally acceptable. This construct defines wellbeing, as life satisfaction and includes personal growth, sense of purpose, self-acceptance, self-esteem, and competence (Keyes, 2006). Built on this notion, Diener et al. (2009, 2010) developed the *Flourishing Scale* (FS) that includes meaning, happiness, engagement, mastery, purpose in life, and personal growth,

as well as positive social relations that engage others with feelings. This scale measures psychological wellbeing as accomplishment of competence needs, affiliation, and self-acceptance; and ownership of psychological wealth such as engagement and flow. It also encodes social-psychological aspects such as social relationships, having a meaningful and purposeful life, and being involved in one's doing, tapping optimism and self-respect, feeling proficient and capable (Diener et al., 2010; Huppert & So, 2013). This scale measures human interest, engagement, and optimism, hardly assessed by other instruments of wellbeing (Diener et al., 2009, 2010). Ryan and Deci (2000) suggest items in FS represent important components of wellbeing that stem from contemporary humanistic theories describing human needs and positive relationships that is why the scale does not measure single dimension of wellbeing but board domains that include human competences, functioning, meaning and purpose, social support and relationship, and self-acceptance. Diener et al. (2009) claims items on FS are essential facets of sociopsychological functioning *self* addressed in this brief scale of eight items. Diener et al. (2010) established psychometric properties of FS on a sample of 600 university students with high internally consistency ($\alpha = .87$), adequate test-retest reliability over a month ($r = .71$); and adequate convergent validity ($r = 0.62$) with Life Satisfaction Scale (Diener et al., 1985).

The convergent and discriminant validities of the Urdu translated FS was established by using Core Self-Evaluation (CSE) Scale, which measures the CSE construct as overall perception of capability and worth as a human being (Judge et al., 1998) and comprises of four traits including *self-esteem* defined as overall evaluation of own worth (Rosenberg, 1965), *emotional stability*, ability to think him/her composed and protected (Eysenck, 1990) *generalized self-efficacy*, assessment of one's ability to effectively accomplish a variety of tasks (Bandura, 1977), and *locus of control*, faith that events in the life of an individual comes as a result of their own actions instead of powerful others or fate (Rotter, 1966). These four traits unite as overall judgment of the worth for a person (Judge et al., 1998). The CSE scale is divided into two subscales Positive Core Self-Evaluation (PCSE), which measures a protective factor positively related to psychological wellbeing; a latent trait with four sub-traits of optimistimism, establishment, efficiency, self-assurance, rendering trusts in work for those who score high on these four traits. It is a wide core that is then displayed in high ranks of emotional stability, general self-efficacy and self-esteem, and an internal locus of control. In a short way, these central traits are the result of broad, overall, positive self-respect (Judge & Bono, 2001). People evaluations about their 'self' determine what they can do and what they can become and deliver for better physical and psychological health. It promotes healthy functioning such as increasing coping ability, success and life satisfaction (Mann et al., 2004). The PCSE subscale measures a defensive factor for physical and mental health promotion (Mann et al., 2004). Judge his colleagues

suggested that a high level of psychological wellbeing is an outcome of PCSE such people experience positive emotions because of their different and positive evaluations about self and others. The other subscale is called Negative Core Self-Evaluation (NCSE) measures the opposite on these four triats, i.e, poor self-esteem, unstable self-concept, are emotionally unstable and have an external locus of control which can depict an array of mental and social problems including personal suffering and poor psychological health.

The research on positive psychology specifically well-being is flourishing rapidly however well planned and grounded readings are comparatively less. An aspect that may be taking back the studies of wellbeing in Pakistani culture is lack of a brief, comprehensive, measure of wellbeing in Urdu. Urdu is a language use for Pakistanis therefore; scales in Urdu are easy to understand and can lead to better operationalization of their corresponding constructs. In addition, FS is a brief instrument with eight items that ensures efficiency; and is used as standard in numerous countries to measure wellbeing (Diener et al, 2010; Hone et al., 2014). This scale has already been translated by Choudhry et al. (2018) but on very small sample (n= 130) which was not normally distributed.In their study the CFA revealed good-fit model for seven items and they have discarded item number 8 due to its poor loading. In the study of Choudhry et al. (2018) the cross validation have not been performed therefore, the current research provided details of the Urdu translation of the FS and established the evidence for its factor structure, temporal stability, internal consistency, and construct validity in more detail. This study intended to adapt the FS into the Pakistani framework and assembling the evidence of its internal consistency and factorial validity. Moreover, it also investigated the construct validity of the FS by examining its relationship with positive and negative core self-evaluations. In an earlier study on the factor structure of the Urdu translation of thr FS, Choudhry et al. (2018) reported that their Urdu translated version of the FS demonstrated internally consistent unidimensional factorial structure in exploratory and confirmatory factor analysis that was consistent with the original theory of the scale. However, this study has few limitations. Firstly, the sample size of the study was comparatively small (N = 130). Secondly, the study did not establish any evidence for the cross-language validation of the Urdu version of the FS. Thirdly, both exploratory and confirmatory factor analyses were run on the same set of data, which makes little sense. Fourthly, one of the items (item 8) was dropped owing to its poor factor loadings. Finally, this study did not establish any evidence for the construct validity of the Urdu translated version of the FS. These limiations warratns the need of new Urdu translation of the FS that could be subjected to rigorous psychometric analysis on a large sample that might establish the evidence for its sound factorial structure and construct validity.

Method

Sample

In the present study, the sample was selected through purposive sampling. From 36 departments of Sargodha University the sample of 235 male and 339 female students ($N = 574$) from BS (Honours) courses was selected. The age range was from 18 to 25 ($M = 21.45$ & $SD = 1.80$) years for CFA and reliability analysis. To assess test-retest reliability 30 male and 30 female undergraduate students with an age range of 20-35 ($M = 25.30$, $SD = 5.30$) years were approached through purposive sampling technique. These 60 participants were equally divided into four groups with equal number of males and females and test them with English-Urdu versions of FS (see Design for details).

Instruments

Flourishing Scale (FS). Diener and Diener (2008) and then Diener et al. (2009) established FS to measure self-reported success. Diener et al. (2009) in their introduction to the scale say, "The Flourishing Scale is a short 8-item measure of the respondent's self-perceived success in central areas such as self-esteem, relationships, optimism and purpose. The scale gives a single score of psychological well-being. Each item is scored on a 7-point Likert scale ranging from 1(strongly agree) to 7 (strongly disagree). Diener and Diener (2008) reported high reliabilities ($\alpha = .87$, test-retest of a week, $r = .76$) and convergent validity ($r = .78$ and $r = .73$) similar scales.

Translation of FS in Urdu. This scale is free for educational use, however formal permission was sought from the authors for Urdu translation. Translation of FS in Urdu was carried out by parallel back translation (Brislin, 1986). Three English-Urdu bilingual experts (two assistant professors and one lecturer from the Department of Psychology, Sargodha University) separately translated the instrument from English (original language) to Urdu (target language) who were familiar with the American and Pakistani cultures. The three translations were then handed to one associate and two assistant professors (Psychology) as a committee who went over each item of translated FS and converged the three translations into one, keeping in mind grammar, context, phrasing, and meaning of the items. The scale was then backward translated into English by three bilingual experts (assistant professors from the English Department) unaware of the original scale through group consensus.

Two assistant professors and one lecturer (Psychology) assessed back translated English items critically by going over discrepancies etc. These judges were then given the original English version of FS for comparison and were asked to judge the similarity between the two sclaes. The judges felt that two versions were very similar to each other (See Table 1).

Table 1 Forward and Backward Translation

Steps	Procedure
Forward translation	In this step through parallel back-translation procedure the scales were translated from English to Urdu (Brislin, 1976).
Reconciliation of items	In this step three independent forward versions were reunited. These versions were compared to measure the theoretical consistency of items by using the committee approach.
Back translation	The backward translation is arranged to evaluate the theoretical uniformity of the resigned forward translation and the original version.
Review of forward and backward translation	The committee approach was again used to review the forward and back translations.In this step inconsistencies conversed and back translations were observed by the members of committee to judge whether they complemented the original English version of both scales or not.

Core Self-Evaluation (CSE) scale. A self-repoted scale developed by Judge and his associates in 2003, measures the feeling of competence, worth, and ability in the respondent. It comprises of 12 items, where each item is rated on 5-point Likert scale with responses from 1 (strongly disagree) to (strongly agree). Items 1, 3, 5, 7, 9, and 11 belong to PCSE subscale and items 2, 4, 6, 8, 10, and 12 make the NCSE subscale. The internal consistency of the scale was satisfactory ($\alpha = .84$, Judge et al., 2003).

Design
This study uses two cross-sectional designs on the two samples it used. For each sample the design were similar in extent. Participants were personally approached in their classrooms and were well-versed about the purpose of the study and were briefed about the relevant response format when using FS. All participants were requested to respond to each statement honestly and were guaranteed that their personal information and data would be kept private. For completing FS no time limit was specified. We gave 600 participants FS and CSE scales in packets; however six packets were incomplete leaving data for 574 participants for data analysis.

For the second sample ($N = 60$) of university students Urdu-English FS were used to assess cross-language and test-retest (over a week) reliabilities. To do this four groups (15 in each group) of participants were randomly assigned to FS twice over a week, such that first group got English-English order at the beginning and ending of a week, second group English-Urdu; third group Urdu-Urdu, and finally the fourth group Urdu-English orders. All participants from both samples were thanked participation in the study.

Results
Confirmatory Factor Analysis

To determine factor structure of Urdu translated FS, CFA was run on collected data after examining stepwise model fit indices for two models (Table 1). Indicies were compared to standards (Gaskin, 2012); Goodness of Fit Index (GFI > .90), Normed Fit Index (NFI > .90), Comparative Fit Index (CFI > .90), and Root Mean square Error of Approximation (RMSEA ≤ 0.05).

Table 2 *Good Model Fit for CFA on FS*

| Model | χ^2 | Fit Indices | | | | | | | | |
		df	GFI	AGFI	CFI	NFI	RMSEA	SRMR	$\Delta\chi^2$	Δdf
Model I (8 items, independent error variances)										
	158	20	.93	.87	.88	.86	.11	.05	-	-
Model II (8 items, covariance between error terms allowed)										
	33	14	.98	.96	.98	.97	.04	.02	125*	4

*p < .001

Table 2 represents the stepwise model fit indices for the CFA of FS. Model I, revealed inadequate Chi-square to *df* ratio (7.90), which indicated a discrepancy between the hypothesized measurement of the model and the sample data. While GFI value met the criteria, CFI, NFI and RMSEA did not meet standard criteria, in addition Standardized Root Mean Square Residual (SRMR) revealed poor fit. When the error variances were allowed to covary, the model was again considered. . Error variances of some of the indicators, which were conceptually similar, were allowed to covary in the light of modification indices in Model II, which demonstrated acceptable Chi square to *df* ratio (2.36). The values of GFI, CFI, AGFI, and NFI were all above .90. The value for *RMSEA* was .04, below the criterion with 90% CI (LL = .02, UL = .07), and the value of SRMR *.02,* was also below the criterion of .05. The significant chi square difference test ($\Delta\chi^2 = 125$, $\Delta df = 4$, $p < .05$) proposed that Model II had a better fit to the data.
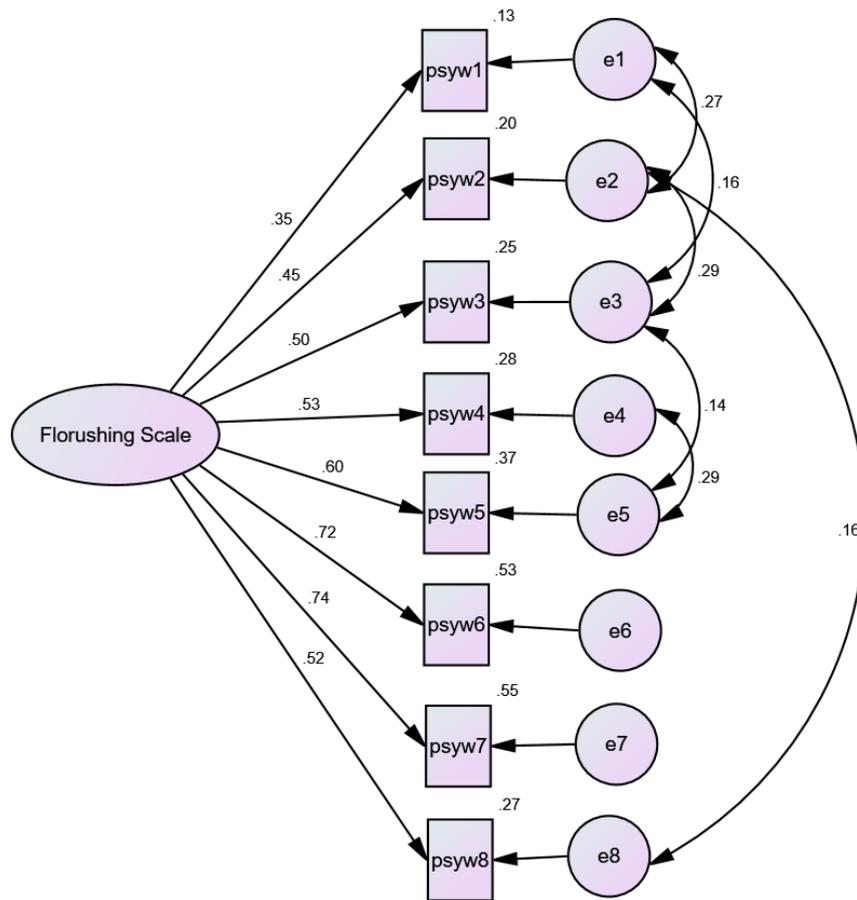
Figure 1. Standardized factor loadings of Urdu translated FS

Figure 1 shows that all indicators loaded on the latent construct of flourishing ($\lambda \geq .35$), which revealed that all items of FS had a unique contribution in the operationalization of this construct.

Table 3

Descriptive Statistics, Reliability, Correlation and Skewness for FS and CSE Subscales

Scale/Subscale	*M*	*SD*	*α*	PCSE	NCSE	Range Actual	Potential	*Sk[a]*
FS	46	6.60	.80	.39*	-.18*	14-56	8-56	-.05
PCSE	22	3.50	.83	-	-.28*	9-30	6-30	-.06
NCSE	18	3.50	.79	-	-	8-30	6-30	-.03

Note. FS = Flourishing Scale; PCSE= Positive Core Self-Evaluation; NCSE = Negative

Core Self-Evaluation, which are subscales of Core Self-Evaluation (CSE) Scale
[a]Standard Error of Skewness = .10
*p < .001

Table 3 shows the means, standard deviations, and good to high reliabilities of FS and CSE subscales. This analysis depicted that scales used in the study are highly reliable scales. There is no sign of the constrained range in the scores. The ratio between values of skewness and its standard error is less than 2 which advises that the variables were symmetrical in their distribution. Table 3 confirms the convergent validity, significant positive correlation between FS and PCSE; and a significant negative correlation of FS with NCSE for discriminant validity.

Table 4
Cross-Language and Test-Retest Reliabilities of FS

Scale Order	Cross-Language	Test-Retest
Urdu-Urdu	.93*	
Urdu-English	.95*	
English-English	.94*	.90*
English-Urdu	.97*	

*p < .001

Table 4 shows the cross-language correlations between Urdu-English order of presentation of FS, which are all high (over .90); and when averaged for all orders test-retest reliability of FS over a week was (*r* = .90) high as well.

Discussion

The purpose of this study was to translate the FS into Urdu langagugae so that it can be validated in a large sample of Pakistani university students. We established unifactor structure of FS with a reasonable level of internal consistency, temporal stability, convergent, and discriminant validities. These indices of the psychometric soundness of the Urdu FS are comparable to those reported in the original scale.

The factor structure of the Urdu FS was empirically confirmed that coordinated the factor structure (Diener et al., 2009, 2010). In fact, the FS has been translated in 27 languages (https://eddiener.com/scales/9) noteably in Arabic (Salama-Younes, 2017), German (Esch et al., 2013), French (Villieux et al., 2016), Japanese (Sumi, 2014), Potuguese (Fonseca et al., 2015), Turkish (Telef, 2001), Portuguese (Silva & Caetano, 2013) and Urdu (Choudhry et al., 2018) are the same. These studies have found that FS has the same single factor structure as established in the original English scale.

Although Choudhry et al. (2018) have already translated the FS into Urdu language and examined the factorial structure of the Urdu FS; however, they could not retain all items of the FS in their factor analyses as one of the item had very poor loadings. Choudhry et al. did not offer any explanation for the poor loading of this item. Moreover, their sample size was relatively small and they did not use conduct confirmatory factor analysis on an independent sample for the cross validation of their findings of the exploratory factor analysis. It is also worth mentioning that Choudhry et al. (2018) did not establish any empirical evidence for the equivalence of the Urdu and the English version of the FS and they did not inspect the construct validity of the Urdu FS. The present study has addressed all of these limitations as it was conducted on a large sample, it established the equivalence of Urdu version of FS with the original English version, it offered a better factor solution that retained all items with high factor loadings, and it yielded evidence for the construct validity of the Urdu FS.

In the context of its construct validity, the Urdu FS revealed low to moderate levels of positive correlation with PCSE and negative correlation with NCSE subscales. The positive relationship of the FS with the positive core self-evaluations was stronger than its negative correlation with the negative core self-evaluations albeit the statistical significance of both correlations, which establishes evidence for the construct validity of the Urdu FS. These results are in line with the research of Valkenburg et al. (2006) who proposed that evaluations regarding self, such as about self-esteem and self-efficacy affect one's wellbeing. Bornstein and his associates (2003) defined psychological wellbeing as the successful state of performance throughout life, which can lead toward integration of cognitive, physical and socio-emotional functions that results in productive activities. There are many sources of psychological wellbeing among which PCSE is an important factor involving self-efficacy, self-esteem, emotional stability and internal locus of control (Diener & Suh, 2000). Diener and Suh (2000) claimed that these sources can be individual's perceptions about his/her own self, appraisals of one's own happiness, life happiness, emotional state, personal worthiness, personal value, positive evaluation of own success and happiness. These psychological factors have a positive impact on the psychological wellbeing of individuals and they are founded to be the strongest predictor of psychological wellbeing (Baumeister et al., 2003).

Self-efficacy is a belief in self and capabilities and it is a complicated process of self-persuasion (Kelly, 2017). Once an individual has formed their self-efficacy beliefs those beliefs become a major contributor to many forms of human functioning and then he/she can perform more fruitful activities such as affective, cognitive, motivational and decisional, (Kelly, 2017). Bandura (2012) claimed that self-efficacy beliefs have a greater influence on people motivation level, perseverance level, outcome expectations and on their emotional states. Positive wellbeing requires all this which is considered as a positive sense of personal efficacy, strong self-esteem and emotional stability

associated with better health outcomes and low self-esteem is strongly associated with poor health outcomes (Kelly, 2017). Low self-esteem is unfavorable self-evaluation, and it can be well-created understanding of the distorted sense of inferiority and personal downfalls (Baumeister et al., 2003). Literature has proven a positive relationship between PCSE and the negative relationship of NCSE with psychological wellbeing and the findings of the current study also added to this literature.

Conclusion

Overall, our results on Urdu FS demonstrated that the Urdu FS is a psychometrically sound measure that can be reliably used to assess well-being. It has demonstrated a good degree of temporal stability and internal consistency. Furthermore, its single-factor structure was comparable to that of the original English version, and the corss language validation empirically establishes its equivalence with the original scale. The factor structure of FS in the present study is more appealing than the factor structure achevied by Choudhry et al. (2018) as it retained all the items with higher factor loading in a considerably larger sample. It also demonstrated the construct validity of the Urdu FS since it correlated positively with PCSE and negatively with NCSE.

Limitations and Suggestions for Future Research

Although the main objectives of this research have been attained, some limitations of this study need to be specified. The sample of the present study comprised of students of the University of Sargodha, which, rationally enough, does not represent the general population. Forthcoming research with longitudinal design and the larger, more diverse sample will be more valuable. The cross-cultural studies are essential to well understand the structure and the nature of this construct. This will lead to the growth of knowledge and warrant the generalizability of the FS as well as its applicability in different educational and cultural contexts. Lastly, we highpoint the likelihood of using the FS with other interrelated measures such as negative and positive affect and life satisfaction in order to differentiate flourishing from the set of constructs that often describe subjective well-being. This would help accumulate the evidence for the uniqueness or the discriminant validity of flourishing from the other related conceptualizations of psychological wellbieng.

Implications

The Urdu translation and validation of the FS in the indigenous population will boost research in numerous fields of psychology with reference to psychological wellbeing among Pakistanis. Moreover, being a brief measure, it will help in measuring wellbeing of those people who do not answer to long instruments. Translation of this scale is a constructive addition to the social science discipline as psychological wellbeing can

effortlessly and rapidly be measured by this scale and this will lead towards the exploration of new perspectives regarding mental health. The brevity of this measure makes it suitable to be included in studies that have long test batteries as their measurement protocols. In sum, the FS could be especially beneficial in large survey studies, where time is typically very restricted. Its use can also play an important role in the literature and on its correlates.

The Urdu FS has its potential applications in clinical practice. Being a psyhometricall sound and theoretically contemporary opertaionlizion of the well-being, the Urdu FS can be used as a quick screening device for determining the levels of psychological well-being in clinets seeking counsling and clinincal services. This may help the therapistss or the counsellor to tailer their interventions for targeting the specific areas of well-being that need to be nourished.

References

Albuquerque, A. S. & Tróccoli, B. T. (2004). Desenvolvimento de uma escala de bem-estar subjetivo. Psicologia: *Teoria e Pesquisa*, 20(*2*), 153-164.

Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(*2*), 191-198.

Bandura, A. (2012). On the functional properties of perceived self-efficacy revisited. *Journal of Management, 38*(1), 9-44.

Baumeister, R. F., & Vohs, K. D. (2003). Self-regulation and the executive function of the self. In M. R. Leary & J.P. Tangeny *(Eds.), Handbook of self and identity*. NY: The Guilford Press.

Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness-of-fit in the analysis of covariance structures. *Psychological Bulletin*, 88(*1*), 588-600.

Bornstein, M. H., Davidson, L., Keyes, C. L., & Moore, K. A. (Eds.). (2003). *Well-being: Positive development across the life course*. Psychology Press

Brislin, R. W. (1986). The wording and translation of research instruments.

Brown, C. A. H. H. N. (1998). Underutilization of mental health services by Asian Americans residing in the United States. *Issues in Mental Health Nursing*, 19(*3*), 225-240. doi. https://doi.org/10.1080/016128498249042

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models.* London: Sage.

Choudhry, F. R., Al-Worafi, Y. m., Bushra, A., Ahmed, M. A., Anwar ul Haq,M., Khan, T. M., Rehman I. U., et al. (2018). Factor structure of Urdu version of the Flourishing Scale. *Frontiers in Psychology 9,* 1513. https://doi.org/10.3389/fpsyg.2018.01513

Diener, E., & Biswas-Diener, R. (2008). *Happiness: Unlocking the mysteries of psychological wealth*. Malden, MA: Blackwell Publishing.

Diener, E., & Suh, E. M. (2000). Measuring subjective well-being to compare the quality of life of cultures. In E. Diener & E.M. Suh (Eds.), *Culture and subjective well-being*. London: The MIT Press.

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49*(1)*, 71–75. https://doi:10.1207/s15327752jpa4901_13.

Diener, E., Oishi, S., & Lucas, R. E. (2003). Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life. *Annual Review of Psychology*, 54(*1*), 403-425. https://doi: 10.1146/annurev.psych.54.101601.145056

Diener, E., Wirtz, D., Biswas-Diener, R., Tov, W., Kim-Prieto, C., Choi, D., et al. (2009). New measures of well-being. In E. Diener (Ed.), *Assessing well-being*: The collected works of Ed Diener (pp. 247–266). New York: Russell Sage Foundation. https:// doi.org/10.1007/978-90-481-2354-4 12

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., et al. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(*2*), 143–156. https:// doi.org/10.1007/s11205-009-9493-y

Dos Santos Paludo, S., & Koller, S. H. (2007). Psicologia Positiva: uma nova abordagem para antigas questões. *Paidéia*, 17(*36*)9-20.

Esch T, Jose G, Gimpel C, Scheidt CV, & Michalsen A. (2013). Die Flourishing Scale (FS) von Diener et al. liegt jetzt in einer autorisierten deutschen Fassung (FS-D)

vor: Einsatz bei einer mind-body-medizinischen Fragestellung. *Forsch Komplementmed*, in press. https://doi:10.1159/000354414

Eysenck, H. J. (1990). *Biological dimensions of personality*. In L. A. Pervin (Ed.), Handbook of personality: Theory and research (pp. 244-276). New York, NY, US: Guilford Press.

Fonseca, P. N., da Silva Nascimento, B., Barbosa, L. H. G. M., Vione, K. C., & Gouveia, V. V. (2015). Flourishing Scale: Evidence of Its Suitability to the Brazilian Context. *Social Inquiry into Well-Being*, 1(*2*), 33-40. https://doi.org/10.13165/SIIW-15-1-2-07

Gaskin, J. (2012). Confirmatory factor analysis. *Gaskination's StatWiki*.

Hone, L. C., Jarden, A., Schofield, G. M., & Duncan, S. (2014). Measuring flourishing: The impact of operational definitions on the prevalence of high levels of wellbeing. International Journal of Wellbeing, 4(*1*)20-28.

Hone, L., Jarden, A., & Schofield, G. (2014). Psychometric properties of the Flourishing Scale in a New Zealand sample. *Social Indicators Research*, 119(*2*), 1031-1045.

Huppert, F. A. (2009). Psychological well-being: Evidence regarding its causes and consequences. *Applied Psychology: Health and Well-Being*, 1(2), 137-164. https://doi.org/10.1111/j.1758-0854.2009.01008.x

Huppert, F. A., & So, T. T. (2013). Flourishing across Europe: Application of a new conceptual framework for defining well-being. *Social indicators research*, 110(*3*), 837-861. http://dx.doi.org/10.1007/s11205-012-0030-z.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific Software International.

Judge TA, Erez, A., Bono JE, Thoresen CJ. (2003). The core self-evaluation scale: Development of a measure. *Personnel Psychology*, 56(*2*), 303–331. https://doi;10.1111/j.1744-6570.2003.tb00152.x

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(*1*), 80-92.

Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83(*1*), 17-34.

Kelly, S. (2017). *The effects of gender role orientation, self-esteem, and self-efficacy on help seeking behaviors and wellbeing* (Unpublished higher diploma final year project), Dublin Business School, Dublin.

Keyes, C. L. M. (2006). Subjective well-being in mental health and human development research worldwide: An introduction. *Social Indicators Research*, *77*(*1*), 1–10. https:// doi.org/10.1007/s11205-005-5550-3

Lee, S. Y., Poon, W. Y., & Bentler, P. M. (1990). A three-stage estimation procedure for structural equation models with polychotomous variables. *Psychometrika*, 55(*1*), 45-51.

Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46(*2*), 137-155. doi: 10.1023/A:1006824100041

Maltby, J., Day, L., & Barber, L. (2005). Forgiveness and happiness. The differing contexts of forgiveness using the distinction between hedonic and eudaimonic happiness. *Journal of Happiness Studies*, *6*(1), 1–13. https:// doi.org/10.1007/s10902-004-0924-9

Mann, M. M., Hosman, C. M., Schaalma, H. P., & De Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health education research*, 19(*4*), 357-372. https:// doi.org/10.1093/her/cyg041.

Roddenberry, A., & Renk, K. (2010). Locus of control and self-efficacy: potential mediators of stress, illness, and utilization of health services in college students. *Child Psychiatry & Human Development*, *41*(*4*), 353-370.

Rosenberg, M. J. (1965). When dissonance fails: On eliminating evaluation apprehension from attitude measurement. *Journal of Personality and Social Psychology*, 1(*1*), 28-42. https:// doi.org/10.1037/h0021647

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied,* 80(*1*), 1-28. http://dx.doi.org/10.1037/h0092976

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(*1*), 68–78. http://dx.doi.org/10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(*1*), 68-78. https:// doi.org/10.1037110003-066X.55.1.68.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(*1*), 141-166. https:// doi.org/10.1146/annurev.psych.52.1.141

Ryff, C. D. (1989). Beyond Ponce de Leon and life satisfaction: New directions in quest of successful aging. *International Journal of Behavioral Development*, 12(*1*), 35–55.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(*4*), 719-727. http://dx.doi.org/10.1037/0022-3514.69.4.719

Salama-Younes, M. (2017). Psychometric properties of the Psychological Flourishing Scale in an Egyptian setting (الخصائص النفسيه لمقياس التفتح/الازدهار النفسي بالمجال المصرى). *Journal of Psychology In Africa, 27*(4), 310-315.

Silva, A. J., & Caetano, A. (2013). Validation of the flourishing scale and scale of positive and negative experience in Portugal. *Social Indicators Research*, 110(*2*), 469-478.

Sumi, K. (2014). Reliability and validity of Japanese versions of the flourishing scale and the scale of positive and negative experience. *Social Indicators Research*, 118(*2*), 601-615.

Telef, B. B. (2001). The validity and reliability of the turkish version of the psychological well-being. Paper presented at the 11th National Congress of Counseling and Guidance, October, 3-5, Selçukİzmir, Turkey.

Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents' well-being and social self-esteem. *Cyber Psychology & Behavior*, 9(*5*), 584-590.

Villieux, A., Sovet, L., Jung, S.-C., & Guilbert, L. (2016). Psychological flourishing: Validation of the French version of the Flourishing Scale and exploration of its relationships with personality traits. *Personality and Individual Differences, 88*(1), 1-5. doi:10.1016/j.paid.2015.08.027

Waterman, A. S., Schwartz, S. J., Zamboanga, B. L., Ravert, R. D., Williams, M. K., Bede Agocha, V., & Brent Donnellan, M. (2010). The Questionnaire for Eudaimonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity. *The Journal of Positive Psychology*, 5(*1*), 41-61. https:// doi.org/10.1080/17439760903435208

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(*6*), 1063–1070. https:// doi.org/10.1037/0022-3514.54.6.1063.

Woyciekoski, C., Stenert, F., & Hutz, C. S. (2012). Determinantes do bem-estar subjetivo. *Psico*, *43*(*3*), 280-288.

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(*1*), 82-91. https:// doi.org/10.1006/ceps.1999.1016