

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

Gaurav Saxena^{1*}, Shraddha Banerjee²

ABSTRACT

The Multidimensional Flourishing Scale (MFS) developed by Mesurado, Crespo, Rodríguez, Debeljuh, and Carlier (2018) measures the three dimensions of psychological flourishing (Social wellbeing, Psychological wellbeing, and Emotional wellbeing) in an individual. The new comprehensive scale better accounts for the social and cultural context of India. Therefore, the present study set out to validate psychometric properties of the MFS in India and further added to the present knowledge of wellbeing by exploring the association between psychological flourishing and the Big-Five personality traits, using a sample of 174 urban middle-class English-speaking individuals. Exploratory Factor Analysis confirmed the multidimensional nature of the scale with three-factor structure representing social, psychological, and emotional wellbeing. Along with demonstrating good internal consistency reliability ($\alpha = .94$), correlational analysis with Resilience and Depression scales confirmed convergent and divergent validity of MFS, respectively. Hierarchical multiple regression analysis indicated that personality traits accounted for 77% of the variance in flourishing. Emotional stability, conscientiousness and openness to experience emerged as significant predictors which added 5.6%, 3.9% and 2.7% unique variance, respectively. The study provides initial evidence for the validity of the MFS and suggests minor modifications for its Indian adaptation. Findings also indicate that personality is an important determinant of flourishing.

Keywords: *Psychological Flourishing, Personality, Wellbeing, Validation, Eudaimonia, Hedonic Wellbeing*

Wellbeing refers to a state of mind where an individual experiences optimal psychological functioning and satisfaction (Deci & Ryan, 2008; Ryan & Deci, 2001). For a long time, research in this domain considered wellbeing as the mere absence of mental illness (Hone, Jarden, Schofield, & Duncan, 2014). Although mental difficulties impede the attainment of full psychological functioning, wellbeing does not necessarily come with the absence of psychopathology. The distinction between mental

¹School of Psychological Science, University of Bristol, United Kingdom

²Consultant Clinical Psychologist, SafeHouse Wellness Retreat Pvt. Ltd., New Delhi, India

*Corresponding Author

Received: April 05, 2021; Revision Received: May 04, 2021; Accepted: May 20, 2021

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

illness and mental health has led to the diversification of wellbeing research (Keyes, 2002) with psychologists becoming increasingly interested in understanding what constitutes wellbeing and the factors which influence an individual's appraisal of wellbeing (Silva & Caetano, 2013). Especially within positive psychology, two distinct approaches, namely, hedonic and eudaimonic, have guided the research on understanding wellbeing.

The concept of Hedonia was popularised by a Greek philosopher, Aristippus, who considered hedonic wellbeing a state of maximum pleasure and minimum pain (Disabato, Goodman, Kashdan, Short, & Jarden, 2016). Hedonic psychologists view wellbeing as the satisfaction with the good and bad elements of life (Ryan & Deci, 2001). The subjectivity in evaluating one's experience as pleasurable or not has led the idea of Subjective Wellbeing (SWB) dominate hedonic psychology research (Deci & Ryan, 2008). As a multidimensional construct, SWB comprises three elements: perceived satisfaction with life, the experience of positive mood, and absence of negative mood, together indicating the level of happiness (Diener, 2000; Ryan & Deci, 2001; Villieux, Sovet, Jung, & Guilbert, 2016). In contrast, the eudemonic view challenges this conception of wellbeing and suggests that perceived happiness does not necessarily imply psychological wellbeing. Inspired by Aristotle's idea, eudemonic wellbeing aligns with humanistic psychology and is concerned with the actualization of one's full potential (Deci & Ryan, 2008). A comprehensive review of previous operationalization by Huta and Waterman (2014) identified four prominent keywords in eudemonia's definitions: growth, authenticity, meaning, and excellence.

Despite the conceptual distinction, a growing body of consensus has now emerged among researchers that these two branches complement rather than contradict each other (Silva & Caetano, 2013). Several studies found that people who pursue both forms of wellbeing perform better emotionally and psychologically than those who thrive in either one. Keyes (2002) gave evidence that people who score high on both have better mental health than those who perform well on only one. While hedonic pursuits lead to the immediate attainment of wellbeing, eudaimonia is believed to ensure wellbeing on a long-term basis (Huta, 2015). Consequently, flourishing was developed as a new construct which blended the two notions, hegemonic and eudemonic, into a richer way of assessing people's wellbeing (Mesurado et al., 2018).

Flourishing

Huppert and So (2013) defined flourishing as "the experience of life going well" with a "combination of feeling good and functioning effectively". It is the co-existence of high emotional, psychological, and social wellbeing symptoms (Keyes, 2002). Seligman (2011) regarded flourishing as the "gold-standard for measuring wellbeing". While reviewing the dominant operational definitions of flourishing, Hone et al. (2014) found a consensus among researchers about flourishing being a multidimensional construct which measures the level SWB. Recently, a growing body of literature has recognized the importance of flourishing in promoting wellbeing correlates for the society as well as individual (Hone, Jarden, & Schofield, 2015; Mesurado et al., 2018). Therefore, a "flourishing" person has better mental and physical health, more emotional stability, live longer, and have meaningful social relationships (Hone et al., 2014). Additionally, flourishing is associated with higher productivity, less absenteeism from work, greater resilience, and less experience of helplessness (Hone et al., 2015). Furthermore, it successfully predicted overall satisfaction with life and job (Kern, Waters, Adler, & White, 2014). These desirable implications make

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

flourishing an important goal for individual and society, consequently necessitating the need for robust assessment tools (Mesurado et al., 2018).

While reviewing the literature, Hone et al. (2014) identified four major assessment tools which have dominated past research on flourishing: Keyes's (2002) Mental Health Continuum Short form, Huppert and So's (2013) European Social Survey, Diener and colleagues' (2010) Flourishing scale and Positive emotions, Engagement, Relationships, Meaning, Accomplishment (PERMA) approach of human pursuit by Seligman (2011). While all followed the conceptual model laid down by Keyes (2002), the Mental Health Continuum Short form was found to be the most comprehensive (Hone et al., 2014). Drawing from Keyes' belief that high levels of social, emotional, and psychological wellbeing is required for a flourishing life, this 14 item scale entails items measuring emotional wellbeing and psychological wellbeing. Besides involving measures of life satisfaction, the self-evaluation of the participant as a member of society makes Keyes' (2002) form the most extensive which considers aspects which were not accounted for by other assessment tools.

Inspired by Keyes' (2002) operationalization and conceptualization, Mesurado and colleagues (2018) developed a new flourishing scale. In addition to adopting Keyes' dimensions of flourishing: social, psychological, and emotional wellbeing, Mesurado and colleagues' (2018) Multidimensional Flourishing Scale (MFS) attempts to measure these dimensions objectively using a 5-point Likert scale. Furthermore, as an emotional state, emotional wellbeing (experienced in the past two weeks) was measured using "semantic differentials such as happy vs sad; negative vs positive". Amongst the other two stable dimensions, social wellbeing evaluates the perceived performance of an individual as an active member of the society, and psychological wellbeing assesses "one's perception of meaning and purpose in life, engagement with personal activities (family and work), and stability, as well as one's general perception of family and work satisfaction" (Mesurado et al., 2018).

To the best of our knowledge, only two studies (Premchandran & Priyadarshi, 2018; Singh, Junnarkar, & Jaswal, 2016) have validated scales measuring flourishing among the Indian population. While both these studies have tested the validity of Diener and colleagues' (2010) scale in India, the Flourishing Scale majorly deals with psychological wellbeing only (Mesurado et al., 2018), ignoring the other two aspects laid down by Keyes' (2002)-emotional and social wellbeing. Especially in India, there is a vital role of culture, community bond, and societal influences in shaping an individual's lived experiences. This warrants a measure which accounts for the social aspect of wellbeing as well. Therefore, Mesurado and colleagues' (2018) MFS appears to be a useful tool to captures the comprehensive conceptualization of Keyes' (2002) objectively in India's context. However, the validity of the newly developed MFS has only been tested in Luso-Hispanic population till now.

Flourishing and Personality Traits

Personality is a crucial factor which influences an individual's experience and appraisal of various life events. The association of an individual's personality with wellbeing is said to be even stronger than their life circumstances (Umucu et al., 2019). However, most of the literature evaluating this relationship has focused on SWB with a few exceptions exploring the relationship with psychological wellbeing (Villieux et al., 2016). The Big-Five

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

personality model is a widely accepted, comprehensive model of personality (Costa Jr & McCrae, 2008; Umucu et al., 2019). Steel, Schmidt, and Shultz (2008) observed the presence of vast literature examining the relationship between SWB and the five personality traits. In the meta-analysis consisting of 223 studies, Steel et al. (2008) noted that the five traits significantly accounted for 39% of the variance in SWB with neuroticism emerging as the strongest predictor for “negative affect ($\rho = .64$), happiness ($\rho = -.51$), overall affect ($\rho = -.59$), and quality of life ($\rho = -.72$)”; extraversion strongly predicting “positive affect ($\rho = .53$), happiness ($\rho = .57$), overall affect ($\rho = .44$), and quality of life ($\rho = .54$)”, and conscientiousness being a “strong predictor of quality of life ($\rho = .51$)”.

However, among the few studies which have examined the relationship of personality traits with psychological wellbeing, Kokko, Tolvanen, and Pulkkinen (2013) noted significant correlations for neuroticism, extraversion, conscientiousness, openness, and agreeableness. Likewise, Lamers, Westerhof, Kovács, and Bohlmeijer (2012) reported significant correlations between psychological wellbeing and extraversion ($r = .27$), conscientiousness ($r = .13$), agreeableness ($r = .20$), emotional stability ($r = .18$), and openness to experience ($r = .25$). They also reported significant associations between emotional wellbeing and extraversion ($r = .17$), conscientiousness ($r = .16$), agreeableness ($r = .20$), and emotional stability ($r = .32$). However, the relationship with openness to experience was not significant ($r = .09$).

The present study

The growing interest of researchers in wellbeing has led to an extensive investigation of its relationship with personality traits. However, the focus of this examination has mostly been unidimensional (either hedemonic /SWB or eudemonic wellbeing/psychological wellbeing) (Umucu et al., 2019). As a concept which integrates the two distinct wellbeing approaches into one, personality's association with flourishing is seldom studied empirically (Villieux et al., 2016) and even rarely in India (Premchandran & Priyadarshi, 2018). The new MFS by Mesurado et al. (2018) appears to be an appropriate measure of flourishing given the influence of cultural and societal conditions in shaping an individual's life experience in India. The present study was, therefore designed to test this assumption and add to the current knowledge on the relationship between an individual's psychological flourishing and personality. First, the present study aimed to validate the psychometric properties of the MFS (Mesurado et al., 2018) in the Indian population. Second, using this scale, the present study set out to examine the relationship between personality and flourishing. Therefore, we hypothesize that after verifying adequate factorial structure and reliability of MFS in our sample (H1), the five personality traits, Extraversion (H2), Agreeableness (H3), Conscientiousness (H4), openness to experience (H5) and Neuroticism (H6) will significantly predict an individual's level of psychological flourishing.

METHODOLOGY

Study design

The present study adopted a correlational design and was divided into two parts. The aim of the first part was to validate the MFS in an Indian sample, representative of the upper-middle-class population. The second part explored the relationship between personality and flourishing in an individual. Hierarchical multiple regression was performed with the five personality factors (Extraversion, Conscientiousness, Emotional Stability, Agreeableness and Openness to experience) and Demographic information as predictor variables and score on

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

the MFS as the criterion variable. All the variables were measured at the same time, using an online self-reported questionnaire. The study was approved by research ethics committee.

Participants

A total of 191 participants living in different parts of India were invited to participate in the study. Since the study questionnaire was in English language and targeted urban middle-class population, individuals above the age of 18 who understood the English language were recruited through purposive sampling method. After excluding participants who opted out before completing the entire survey ($N = 17$), our final sample size consisted of $N = 174$ participants. The demographic characteristics of our sample are presented in Table 1.

Table 1 Demographic characteristics for the sample

Gender, N (%)	
Male	77 (44.3%)
Female	97 (55.7%)
Age (Mean \pm SD)	26.39 \pm 8.84
Occupation, N (%)	
Employed	54 (31%)
Self-employed	14 (8%)
Unemployed	14 (8%)
Student	92 (53%)
Education level, N (%)	
Post-graduation (Pursuing/Completed)	84 (48.3%)
Graduation (Pursuing/Completed)	88 (50.6%)
Senior secondary school (Completed)	2 (1.1%)
Marital Status, N (%)	
Single	140 (80.5%)
Married	34 (19.5%)
Family type, N (%)	
Nuclear	143 (82.2%)
Joint	31 (17.8%)
Family Income, N (%)	
More than 12 Lakh per annum	84 (48.3%)
8-12 Lakh per annum	69 (39.7%)
4-8 Lakh per annum	18 (10.3%)
Below 4 lakh per annum	3 (1.7%)

Note. N: frequency, %: percentage, SD: standard deviation.

A sensitivity power analysis for our multiple regression was conducted using G*Power = 3*1 (Faul, Erdfelder, Buchner, & Lang, 2009). The analysis showed that in a sample consisting of 174 participants, effects larger than $f^2 = 0.08$ and $R^2 = 0.07$ would be statistically significant at Power = 0.80 and $\alpha = 0.05$. According to Cohen's (1988) conventions, an effect of $f^2 = 0.08$ is considered small to medium size.

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

Procedure

Data for the present study were collected from January 2021 to March 2020 through an online survey. The survey was created using Google forms and consisted of a participant's information sheet, consent form, demographic details and five scales in the following order-MFS, Flourishing scale, Resilience scale, Depression scale and Personality scale. Researchers sent an invitation to participate in the study to a convenience sample who qualified the eligibility criteria through email and social media platforms. The survey started with a participant's information sheet, which gave a detailed description of the purpose of the study and use of participant's data, followed by a consent page. Only participants who provided informed consent proceeded to the main survey. After completing the five scales, participants were asked to provide basic demographic details before submitting their responses in the end. Participants filled the survey anonymously and had an option of exiting the survey at any time, with their data being excluded from the analysis.

Measures

- 1. Multidimensional flourishing scale (Mesurado et al., 2018).** The MFS is a 12-item self-reported questionnaire which aims at examining an individual's perception of success in three areas of human functioning, namely, Social Wellbeing, Psychological Wellbeing and Emotional Wellbeing. The three subscales comprise of 4 items each in the form of statements and participants indicate their level of agreement with these statements on a 5-point Likert scale (1: Strongly disagree, 5: Strongly agree) for social and psychological wellbeing and 5-level semantic differential scale (1 indicating negative emotion and 5 indicating positive emotions) to assess their emotional wellbeing. Total score ranged from 12-60 (4-20 for each subscale) with a high score indicating higher level of flourishing. Sample items for the scale include "I am happy with my current lifestyle", "I am close to other members of society" and "Sad/Happy".
- 2. Flourishing scale (Diener et al., 2010).** This is an eight-item scale which assesses crucial areas of psychological functioning in an individual. All the items (in the form of statements) are worded positively. Participants are asked to score the statements on a scale of 1 to 7, with 1 indicating strong disagreement with the statement and 7 indicating strong agreement with the statement. A higher score suggests that an individual has a positive perception towards self, with a total score ranging from 8 to 56. A sample item for the scale included "I lead a purposeful and meaningful life" and "I actively contribute to the happiness and well-being of others". The scale has previously demonstrated high validity and reliability in the Indian population (Premchandran & Priyadarshi, 2018; Singh et al., 2016). For the present study, this scale had a very high Cronbach's α of .95.
- 3. The brief resilience scale (Smith et al., 2008).** The Brief Resilience Scale is a 6-item measure of a participant's ability to bounce back from stressful situations and failure. Out of 6, 3 items are negatively worded, and three are positively worded. On a 5-point scale (1: Strongly disagree, 5: Strongly agree), participants indicate the extent to which they agree with the statement. An example item is "I tend to bounce back quickly after hard times". The internal consistency reliability for this scale in the present study was excellent, Cronbach's $\alpha = .87$.
- 4. The centre for epidemiological studies depression scale (Radloff, 1977).** The 20-item scale is used to assesses the frequency of the experience of depressed mood symptoms over one week. In this short-scale used with the general population, participants rate how frequently they experience 20 depression-related symptoms on

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

a scale of 0 - 3, where 0 meant “None or almost none of the time” and 3 represents “all or almost all of the time”. Two of the items were worded positively. The total score ranged from 0 to 60, with a lower score suggesting fewer depressive symptoms. This scale had a Cronbach’s α of .83.

- 5. Ten-item personality inventory (Gosling, Rentfrow, & Swann Jr, 2003).** The brief 10-item inventory is a self-reported assessment of the Big-five personality traits- Extraversion, Conscientiousness, Emotional Stability, Agreeableness, and Openness. Items are pairs of words (E.g., “Anxious, easily upset”, “Calm, emotionally stable”, “Disorganized, careless” and respondents rate the extent to which they believe these words describe them on a 7-point Likert scale with 1 indicating strong disagreement and 7 indicating strong agreement. The Cronbach α for all the subscales ranged from .62 to .80.

Data Analysis

All the statistical analyses were performed using IBM SPSS (Version 26.0). First, data were prepared for analysis by reverse coding relevant items of all the scales and then computing scale scores. After that, it was analyzed in two steps- first, the psychometric properties of the MFS were examined. This included running exploratory factor analysis, calculating internal consistency reliability, and testing convergent and discriminant validity. Second, multiple linear regression analysis was performed to determine the predictive utility of the big-five personality factors, namely, Extraversion, Conscientiousness, Emotional stability, Agreeableness and Openness to experience to explain an individual’s level of flourishing, after keeping the demographic variables constant.

RESULTS

Exploratory Factor Analysis

Since the new MFS has not been validated in diverse populations like that of India, Exploratory factor analysis was performed to examine the underlying factor structure that emerges naturally rather than guiding our outcome with a sense of assumption about the factor structure like in Confirmatory factor analysis (Child, 1990; Hone, Jarden, & Schofield, 2014). A highly significant Bartlett’s test of sphericity, $p < .001$ and verification of Kaiser-Meyer-Olkin (KMO = 0.90) as “Marvelous” (Hutcheson & Sofroniou, 1999) confirmed that our sample was adequate for conducting a factor analysis. The determinant (> 0.00001) ruled out the possibility of multicollinearity among items.

An Exploratory Factor Analysis using Principal axis factoring method was conducted on the 12-items MFS with oblique rotation (Direct oblimin). Initial analysis suggested the existence of three factors with an eigenvalue greater than 1, in combination accounting for 73.76% of the variance. Additionally, an inspection of the scree plot revealed three factors above the point of inflexion. Following the recommendations of Cattell (1966), we decided to retain a three-factor structure for the scale in our sample. Table 2 presents the summary of the factor loading; the variance accounted for and initial eigenvalues. The factor loadings were moderate to high except for item 3. Consistent with Mesurado et al. (2018), the items clustered together in three factors representing Social wellbeing, Psychological wellbeing, and Emotional wellbeing.

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

Table 2 Results from exploratory factor analysis and internal consistency reliability for Multidimensional flourishing scale.

Item	Factor loading		
	1	2	3
Factor 1: Social wellbeing			
I feel like an important member of society.	0.79		
I feel close to other members of society.	0.76		
I am committed to addressing the problems faced by society.	0.34		
I believe that my work contributes to the well-being my society.	0.81		
Factor 2: Psychological wellbeing			
I find my life to be full of meaning. (I have a compass, a sense of mission that makes my life fulfilling and helps me to overcome the possible failures or contradictions that I experience).		0.57	
I am committed to my daily activities (e.g. work and family activities, etc.)		0.66	
I am happy with my current lifestyle.		0.68	
I am happy with my family.		0.86	
Factor 3: Emotional wellbeing			
Negative/ Positive			0.97
Disagreeable /Friendly			0.70
Sad/ Happy			0.92
Angry/Content			0.82
Eigenvalues	5.91	0.82	1.34
% of variance	49.30	6.88	11.23
α	0.86	0.86	0.93

Note. α = Cronbach's alpha.

Reliability

The internal consistency reliability of the MFS was examined by computing Cronbach's α . The Cronbach's α for the entire scale was .94, indicating excellent reliability. The Cronbach's α for the three subscales was also found to be very high and are presented in Table 2.

Convergent and Discriminant Validity Analysis

To examine the convergent and discriminant validity, we correlated the MFS with Diener and colleagues' (2010) Flourishing Scale, Brief Resilience Scale (Smith et al., 2008) and

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

Centre for Epidemiological Studies Depression Scale (Radloff, 1977). A very strong positive correlation of $r = .93$, $p < .01$ (two-tailed) between the MFS and Flourishing Scale, and a strong correlation between MFS and Resilience scale, $r = .70$, $p < .05$ (two-tailed) provided evidence for convergent validity. Conversely, a strong negative correlation of $r = -.70$, $p < .05$ (two-tailed) between MFS and Depression scale indicated discriminant validity.

Big-Five Personality Traits and Flourishing

Correlation Analysis. Table 3 presents the correlations among all the variables in the present study. As shown, among all the demographic characteristics, only age ($r = .12$) and occupation ($r = .13$) had a significant positive correlation with flourishing ($p < .05$). The results also show that flourishing had a strong significant association with all Big-Five personality traits. The positive correlations between them ranged from $r = .41$ for Agreeableness to $r = .76$ for Emotional stability. Therefore, as the psychological flourishing of an individual increased, extraversion, openness to experience, agreeableness, conscientiousness, and emotional stability also increased.

Table 3 Descriptive statistics and correlations between the predictor variable and criterion variables entered in the last step of Hierarchical Multiple Regression.

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Multidimensional Flourishing Scale	44.49	10.79	1.00												
2. Age	26.39	8.84	*0.12	1.000											
3. Gender	1.56	0.50	-0.11	*-0.17	1.00										
4. Occupation	2.83	1.35	*0.13	*-0.49	0.12	1.00									
5. Family Income	1.66	0.73	-0.06	*-0.16	0.05	-0.04	1.00								
6. Education level	1.53	0.52	-0.12	0.02	-0.07	*-0.22	0.10	1.00							
7. Marital Status	1.20	0.40	0.11	*0.70	*-0.20	*-0.54	-0.05	0.11	1.00						
8. Family type	1.18	0.38	0.09	-0.05	0.08	*-0.21	0.06	-0.04	*0.26	1.00					
9. Extraversion Score	8.79	3.29	*0.71	0.06	0.02	0.10	-0.08	-0.07	*0.13	*0.13	1.00				
10. Openness Score	10.13	2.75	*0.67	*-0.16	0.12	*0.45	0.05	*-0.26	*-0.14	-0.06	*0.68	1.00			
11. Agreeableness Score	10.07	2.17	*0.41	-0.05	0.02	*0.19	*-0.24	*-0.35	*-0.13	0.02	*0.38	*0.38	1.00		
12. Conscientiousness Score	9.56	2.65	*0.56	0.00	0.06	0.05	-0.08	*-0.20	-0.03	0.07	*0.41	*0.37	*0.49	1.00	
13. Emotional Stability Score	8.27	3.67	*0.76	*0.20	-0.07	-0.09	-0.02	-0.04	*0.21	*0.12	*0.72	*0.55	*0.28	*0.42	1.00

Note. $N = 174$, SD= standard deviation, * significant at $p < .05$.

Hierarchical Multiple Regression. To thoroughly evaluate the relationship between an individual's psychological flourishing and Big-Five personality traits, a hierarchical multiple regression with scores on the MFS as the criterion variable was conducted. In the first step, socio-demographic characteristics were entered as control predictor variables. These included participant's age, gender, occupation, family income, education level, marital status, and family type. In the second step, the big-five personality variables- extraversion, agreeableness, conscientiousness, openness to experience and emotional stability were entered to examine their contribution of unique variance to the predictor model.

After the first step, participant's demographic characteristic accounted for a significant 12% variance in flourishing, $R^2 = .119$, $F(7, 166) = 3.20$, $p < .01$. Occupation accounted for about 6.6% of unique variance in flourishing. Additionally, family type and age also significantly accounted for about 2% of the unique variance and while also a significant predictor, the unique variance of less than half a per cent was accounted for by education level.

Finally, in the second step, the Big-Five personality variables were entered into the predictor model. The five variables accounted for an additional significant variance of 75% in

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

flourishing, R^2 change = .752, $F_{change}(5, 161) = 90.59$, $p < .01$. Among the five personality traits, emotional stability, conscientiousness and openness to experience emerged as significant predictors of flourishing and accounted for a unique variance of 5.6%, 3.9% and 2.7% respectively. The entire model accounted for 77% of variance in psychological flourishing, $R^2 = .769$, $F(12,161) = 44.67$, $p < .01$.

Table 4 Unstandardized (B) and standardized (β) regression coefficients and squared semi-partial correlations (sr^2) in predicting scores on Multidimensional Flourishing Scale.

Step	Variable	95.0% CI for B			β	sr^2	p
		B	Lower Bound	Upper Bound			
1	Age	0.29	0.01	0.57	0.23	0.022	0.04
	Gender	-2.48	-5.70	0.74	-0.11	0.012	0.13
	Occupation	2.63	1.16	4.09	0.33	0.066	0.00
	Family Income	0.00	-2.18	2.18	0.00	0.000	0.99
	Education level	-1.23	-4.34	1.87	-0.06	0.003	0.43
	Marital Status	1.88	-4.49	8.25	0.07	0.002	0.56
	Family type	4.67	0.05	9.30	0.17	0.021	0.04
2	Age	0.19	0.04	0.34	0.16	0.009	0.01
	Gender	-2.97	-4.68	-1.26	-0.14	0.017	0.00
	Occupation	0.95	0.07	1.83	0.12	0.006	0.03
	Family Income	-0.08	-1.27	1.11	-0.01	0.000	0.89
	Education level	1.38	-0.37	3.13	0.07	0.003	0.12
	Marital Status	-0.88	-4.29	2.53	-0.03	0.000	0.61
	Family type	2.48	0.02	4.95	0.09	0.006	0.04
	Extraversion Score	0.31	-0.12	0.75	0.10	0.003	0.16
	Openness Score	1.18	0.64	1.71	0.30	0.027	0.00
	Agreeableness Score	0.20	-0.29	0.68	0.04	0.001	0.42
	Conscientiousness Score	0.99	0.61	1.36	0.24	0.039	0.00
Emotional Stability Score	1.13	0.77	1.49	0.38	0.056	0.00	

Note. $N = 174$, *CI: Confidence Interval*, *p significant at < 0.05*

Table 4 presents the unstandardized regression coefficient with its confidence intervals, standardized regression coefficient and squared semi-partial correlation (sr^2) for all the items in the predictor model. In total, seven variables emerged as significant predictors of psychological flourishing. Among the control variables, age, occupation, and family type had positive unstandardized regression coefficients. This implied that being older, employed and living in a joint family was associated with a higher level of psychological flourishing. However, the gender variable had negative regression coefficients which meant that being a female indicated a lower level of psychological flourishing.

Three out of the five personality traits had a significant positive regression coefficient. Therefore, having emotional stability, being conscientious and open to experience had a positive effect on psychological flourishing. Although extraversion and agreeableness had a positive B , they did not significantly predict flourishing.

The strongest predictor in the final model was emotional stability which contributed 5.6% of unique variance followed by conscientiousness accounting for 3.9% unique variance, openness to experience (2.7%), gender (1.7%), age (0.9%), and the family type and occupation (0.6%). Lastly, the scatterplot of standardized residuals was examined to confirm

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

that the assumptions of linearity and homoscedasticity were sufficiently met. In our sample, Cook's distance ranged from .00 to .04 and Tolerance statistic was between .73 to .94 suggesting that we can rule out the possibility of any significant influence of outliers or due to multicollinearity, respectively.

DISCUSSION

The growing interest of psychologists and philosophers in flourishing has escalated the need for a short and reliable scale for its evaluation. Inspired by Keyes' conceptualization, Mesurado et al. (2018) developed the MFS as a brief comprehensive measure of an individual's psychological flourishing. In India, only two studies were identified (Premchandran & Priyadarshi, 2018 and Singh et al., 2016) to have tested the psychometric properties of a flourishing scale (both Diener et al., 2010). Since we believe that the scale by Mesurado et al. (2018) better accounts for a social and cultural environment in India, the present study examined the psychometric properties and validity of the MFS in the Indian milieu. Also, this study explored the relationship between the Big-Five personality traits and flourishing to understand the personality determinants of flourishing.

Consistent with Mesurado et al. (2018), the exploratory factor analysis presented herein confirms the multidimensional structure of the MFS with its items grouping into three factors representing social wellbeing, psychological wellbeing, and emotional wellbeing. Except for one item (item 3), the factor loadings of all others were between moderate to high. This unexpected finding can be explained by examining the wording of the item- "I am committed to addressing the problems faced by society". An individual requires a certain level of wellbeing to address the various societal challenges and actively contribute to solving them (Prilleltensky, 2008). Despite "society" being the object in question, the adoption of an indirect approach to evaluate an individual's social wellbeing could have led to weak loading. Nonetheless, the current study considers the underlying intent of this statement to be relevant and recommends re-wording it rather than disregarding it altogether. A modified version can be -"I find myself mentally able enough to commit myself in addressing the problems faced by society."

Also, the presence of strong correlations between the MFS and a valid Flourishing Scale by Diener et al. (2010) in India provided suggested strong validity for MFS. As expected, flourishing was found to be positively associated with another wellbeing construct of resilience. A strong negative correlation with depression gave evidence for divergent validity. Finally, high Cronbach's α for the entire scale and each subscale suggested strong internal consistency. The internal consistency reliability reported herein was also observed to be higher than those reported by other two Indian studies ($\alpha = .80$ to $.91$ for Singh et al., 2016 and $\alpha = .85$ to $.92$ for Premchandran & Priyadarshi, 2018)). These findings offer substantial support in favour of H1 and consider (with minor modifications) MFS as a short, valid, and reliable measure of psychological flourishing in India.

The second part of our study involved the exploration of the relationship between an individual's level of flourishing with socio-demographic and personality traits. Among the socio-demographic factors, the correlation analysis indicated that flourishing was only significantly correlated with employment status and age, meaning that an increase in flourishing was associated with an increase in age or having employment. In addition, psychological flourishing was found to be significantly associated with all five-personality traits. The magnitude of this relationship was moderate-large such that an increase in scores

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

on extraversion, openness to experience, agreeableness, conscientiousness, and emotional stability indicated an increase in psychological flourishing. This finding corresponds with vast literature which has shown a strong link between personality domains and wellbeing (Anglim & Grant, 2014; DeNeve & Cooper, 1998; Diener, Oishi, & Lucas, 2003; Fetvadjev & He, 2019; Schotanus-Dijkstra et al., 2016; Umucu et al., 2019; Villieux et al., 2016). In their meta-analyses, DeNeve and Cooper (1998) and Steel et al. (2008) found personality to be strongly associated with SWB, particularly emotional stability. This outcome was in line with our study, where emotional stability was found to have the strongest correlation with flourishing.

This relationship was further explored using hierarchical multiple regression analysis. A notable finding in our study was that personality traits accounted for a large variance in psychological flourishing. Our results were mostly consistent with the few previous studies which have investigated the relationship between flourishing and personality. Like Umucu et al. (2019), emotional stability emerged as the strongest predictor of flourishing, followed by conscientiousness and openness to experience. However, conscientiousness (instead of emotional stability) was the strongest predictor of flourishing in Villieux and colleagues' (2016) study. Surprisingly, extraversion and agreeableness did not reach significance in our study, a finding which contrasted both these studies and previous literature (Butkovic, Brkovic, & Bratko, 2012; DeNeve & Cooper, 1998).

This unexpected finding can be explained by taking into consideration the cultural and social environment of the study's setting. In India, there is a strong emphasis on the creation of meaningful relationships and bonds with the community. As a result, the feelings of warmth and inter-connection is engraved as a value in an individual. Since the behaviours underlying these domains are usually expected in India, these traits failed to add any significant predictive utility in our model. Another explanation is offered by Joshanloo, Rastegar, and Bakhshi (2012) who argues that "high levels of extraversion lead to better interpersonal relationships with family members, close friends, and relatives but this does not translate into a favourable view of human nature, a belief that society has potential that is being realized through its institutions and citizens, a positive evaluation of one's worth to society, and concern for knowing about the world." (p 15)

Openness to experience enables an individual to engage in new experiences and activities of enjoyment. As a consequence of their curiosity, they may discover new sources of pleasure which further contributes to their wellbeing. Furthermore, conscientious individuals demonstrate a high level of dedication in tasks in a controlled and methodological way. This behaviour can develop a feeling of competence, which contribute to psychological flourishing (Villieux et al., 2016). Therefore, we can only reject the null hypotheses for H4, H5, and H6. Nevertheless, the model presented herein demonstrates the presence of a strong predictive association between personality traits and psychological flourishing in the Indian context.

Limitations and Future Directives

Despite encouraging results, the present study has several limitations. First, the study employed the use of self-reported online surveys to measure flourishing and personality traits. This entails the possibility of a participant's bias of responding in socially conforming ways. Therefore, future studies can use more complex ways such as a report from parents or caregivers in addition to self-report. Second, the use of a purposive sample method for the

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

online English-language survey limited the study population to educated (at least) upper-middle people. Since a large population in India also lives in a rural setting with no knowledge of English, a follow-up study can include this population by using paper-based surveys along with digital ones with regional language translations. Third, the scale used to assess personality was a very brief one (10 items). We used Gosling and colleagues' (2003) measure because an online survey can be tedious to complete, and a long scale may lead to high drop-out rates. Although previous studies have demonstrated strong psychometric validity, a better examination of the dynamic concept of personality requires a more comprehensive assessment tool. To overcome this limitation, future studies can employ other better scales and recruit participants for a more extended period to ensure a sufficient sample despite drop-outs. Fourth, the correlational nature of the study makes it hard to draw any causal inferences. Finally, the properties of the scale should be tested using a larger heterogeneous sample in India.

CONCLUSION

The present study provides initial evidence in favour of the MFS (Mesurado et al., 2018) as a brief, reliable, and valid measure of psychological flourishing in India. The scale validated herein can be used (with suggested modifications) by clinicians, practitioners, and researchers to explore the desirable state of flourishing further. Since interest in flourishing is at its early stages in India, the study contributes by validating an authentic and comprehensive tool to guide future flourishing research. In addition, the study identified personality traits as crucial flourishing determinants (specifically emotional stability, openness to experience and conscientiousness). These findings add to the present understanding of the multidimensionality of wellbeing, in turn, assisting in the development of a new practical intervention for enhancing wellbeing.

REFERENCES

- Anglim, J., & Grant, S. L. (2014). Incremental criterion prediction of personality facets over factors: Obtaining unbiased estimates and confidence intervals. *Journal of Research in Personality*, 53, 148–157. doi: <https://doi.org/10.1016/j.jrp.2014.10.005>
- Butkovic, A., Brkovic, I., & Bratko, D. (2012). Predicting well-being from personality in adolescents and older adults. *Journal of Happiness Studies*, 13(3), 455–467. doi: <https://doi.org/10.1007/s10902-011-9273-7>
- Cattell, R. B. (1966). The scree test for the number of factors. *Multivariate Behavioral Research*, 1(2), 245–276. doi: 10.1207/s15327906mbr0102_10
- Child, D. (1990). *The essentials of factor analysis*. Cassell Educational.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.
- Costa Jr, P. T., & McCrae, R. R. (2008). *The Revised NEO Personality Inventory (NEO-PI-R)*. doi: <https://doi.org/10.4135/9781849200479.n9>
- Deci, E. L., & Ryan, R. M. (2008). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology/Psychologie Canadienne*, 49(1), 14. doi: <https://doi.org/10.1037/0708-5591.49.1.14>
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, 124(2), 197.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34.

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

- 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. doi: <https://doi.org/10.1146/annurev.psych.54.101601.145056>
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, *97*(2), 143–156. doi: <https://doi.org/10.1007/s11205-009-9493-y>
- Disabato, D. J., Goodman, F. R., Kashdan, T. B., Short, J. L., & Jarden, A. (2016). Different types of well-being? A cross-cultural examination of hedonic and eudaimonic well-being. *Psychological Assessment*, *28*(5), 471. doi: 10.1037/pas0000209
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. doi: 10.3758/BRM.41.4.1149
- Fetvadjev, V. H., & He, J. (2019). The longitudinal links of personality traits, values, and well-being and self-esteem: A five-wave study of a nationally representative sample. *Journal of Personality and Social Psychology*, *117*(2), 448. doi: 10.1037/pspp0000212
- Gosling, S. D., Rentfrow, P. J., & Swann Jr, W. B. (2003). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality*, *37*(6), 504–528. doi: [https://doi.org/10.1016/S0092-6566\(03\)00046-1](https://doi.org/10.1016/S0092-6566(03)00046-1)
- 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).
- 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. doi: 10.1007/s11205-013-0501-x
- Hone, L., Jarden, A., & Schofield, G. (2015). Psychometric properties of the Flourishing Scale in a New Zealand sample. *Social Indicators Research*, *119*(2), 1031–1045. doi: 10.1007/s11205-013-0501-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. doi: 10.1007/s11205-011-9966-7
- Huta, V. (2015). The complementary roles of eudaimonia and hedonia and how they can be pursued in practice. *Positive Psychology in Practice: Promoting Human Flourishing in Work, Health, Education, and Everyday Life*, 159–182. doi: <https://doi.org/10.1002/9781118996874.ch10>
- Huta, V., & Waterman, A. S. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*, *15*(6), 1425–1456. doi: <https://doi.org/10.1007/s10902-013-9485-0>
- Hutcheson, G. D., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. Sage.
- Joshanloo, M., Rastegar, P., & Bakhshi, A. (2012). The Big Five personality domains as predictors of social wellbeing in Iranian university students. *Journal of Social and Personal Relationships*, *29*(5), 639–660. doi: <https://doi.org/10.1177/0265407512443432>
- Kern, M. L., Waters, L., Adler, A., & White, M. (2014). *Assessing employee wellbeing in schools using a multifaceted approach: Associations with physical health, life satisfaction, and professional thriving*. doi:

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

<https://doi.org/10.4236/psych.2014.56060>

- Keyes, C. L. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior*, 207–222.
- Kokko, K., Tolvanen, A., & Pulkkinen, L. (2013). Associations between personality traits and psychological well-being across time in middle adulthood. *Journal of Research in Personality*, 47(6), 748–756. doi: <https://doi.org/10.1016/j.jrp.2013.07.002>
- Lamers, S. M. A., Westerhof, G. J., Kovács, V., & Bohlmeijer, E. T. (2012). Differential relationships in the association of the Big Five personality traits with positive mental health and psychopathology. *Journal of Research in Personality*, 46(5), 517–524. doi: 10.1016/j.jrp.2012.05.012
- Mesurado, B., Crespo, R. F., Rodríguez, O., Debeljuh, P., & Carlier, S. I. (2018). The development and initial validation of a multidimensional flourishing scale. *Current Psychology*, 1–10. doi: <https://doi.org/10.1007/s12144-018-9957-9>
- Premchandran, R., & Priyadarshi, P. (2018). Validation of the Flourishing Scale for Married Employees in the Information Technology-Enabled Services Sector in India. *Journal of Well-Being Assessment*, 2(1), 75–89. doi: <https://doi.org/10.1007/s41543-018-0012-2>
- Prilleltensky, I. (2008). The role of power in wellness, oppression, and liberation: The promise of psychopolitical validity. *Journal of Community Psychology*, 36(2), 116–136. doi: <https://doi.org/10.1002/jcop.20225>
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1(3), 385–401. doi: <https://doi.org/10.1177/014662167700100306>
- 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, 141–166. doi: 10.1146/annurev.psych.52.1.141
- Schotanus-Dijkstra, M., Pieterse, M. E., Drossaert, C. H. C., Westerhof, G. J., de Graaf, R., ten Have, M., ... Bohlmeijer, E. T. (2016). What factors are associated with flourishing? Results from a large representative national sample. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 17(4), 1351–1370. doi: 10.1007/s10902-015-9647-3
- Seligman, M. (2011). Flourish: A visionary new understanding of happiness and well-being. *Policy*, 27(3), 60–61.
- 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. doi: <https://doi.org/10.1007/s11205-011-9938-y>
- Singh, K., Junnarkar, M., & Jaswal, S. (2016). Validating the flourishing scale and the scale of positive and negative experience in India. *Mental Health, Religion & Culture*, 19(8), 943–954. doi: <https://doi.org/10.1080/13674676.2016.1229289>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. doi: <https://doi.org/10.1080/10705500802222972>
- Steel, P., Schmidt, J., & Shultz, J. (2008). Refining the relationship between personality and subjective well-being. *Psychological Bulletin*, 134(1), 138. doi: <https://doi.org/10.1037/0033-2909.134.1.138>
- Umucu, E., Grenawalt, T. A., Reyes, A., Tansey, T., Brooks, J., Lee, B., ... Chan, F. (2019). Flourishing in Student Veterans With and Without Service-Connected Disability: Psychometric Validation of the Flourishing Scale and Exploration of Its

Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India

Relationships With Personality and Disability. *Rehabilitation Counseling Bulletin*, 63(1), 3–12. doi: <https://doi.org/10.1177/0034355218808061>

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, 1–5. doi: <https://doi.org/10.1016/j.paid.2015.08.027>

Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Saxena G.& Banerjee S. (2021). Validation of the Multidimensional Flourishing Scale and Exploration of its Relationship with the Big-Five Personality Traits in India. *International Journal of Indian Psychology*, 9(2), 852-867. DIP:18.01.090.20210902, DOI:10.25215/0902.090