Newly Developed Scales by Singh et al. 2016

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Name of the Scale	Version	Psychometric Properties
Spirituality Scale (Singh, Junnarkar & Kaur, 2016)	**English Version**	Participants : 100 (pilot study), 734 (245 participants for EFA, and 489 for CFA), 498 (Sample for assessing concurrent validity) EFA: The newly developed 29 item Spirituality Scale conceptualized spirituality as a multidimensional construct, consisting of 4 factors explaining 62.41% of variance. A 6, 5, 4 and 3 factor solution were evaluated. The 4 factor solution was retained for being theoretically sound. The factor loadings ranged from 0.51 to 0.75 and the Eigen value was above 1.19. The four factors were 1. Connection with Transcendence (α=.95), 2. Meaningful Life (α =.89), Faith (α =.87) & Practicing Spirituality (α =.87). Total cronbach's alpha was 0.96. The reliability of the scale was .98. CFA: GFI = .85, AGFI = .82, CFI = .98, RMSEA = 0.07. It was a moderate fit model. Concurrent Validity : The scale had a significant positive correlation with *Sattva* (r = .46, $p < 0.01$) and *Rajas* (r = 0.10, $p < 0.05$) of the Vedic Personality Inventory. All the 4 factors as well as the overall spirituality scale showed a significant positive correlation with the Flourishing Scale (r = .45, $p < 0.01$).
	Hindi Translation	Participants : 548 EFA: 4 factor solution: 1. Connection with Transcendence (α = .91), 2. Meaningful Life (α =.63), Faith (α =.64) & Practicing Spirituality (α =. 80). Total cronbach's alpha was 0.94. CFA: GFI = 0.83, AGFI = 0.80, CFI = 0.97, RMSEA = 0.08. It was a moderate fit model Reliability = .93 Concurrent Validity: The Hindi translation yielded a significant positive correlation with the Flourishing Scale (0.38, $p < 0.01$) and the Mental Health Continuum – Short form (0.47, $p < 0.01$).

	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3
Resilience Scale (Singh, Junnarkar & Kaur, 2016)	**English Version**	Participants : 100 (pilot study), 634 (211 participants for EFA, and 423 for CFA), 634 (Sample for assessing concurrent validity)
		EFA: A 4 factor solution was deemed fit for this 31 item Resilience Scale, for being theoretically sound. A 5 and 6 factor solution had also been run. The 4 factor solution explained 54.24% of variance and consisted of these four factors: 1. Sense of self-efficacy (α =. 92) 2. Emotional Regulation (α =. 81) 3. Resourcefulness (α=.81) 4. Future planning/Goal orientation (α =. 81).
		Reliability = .95
		CFA: GFI = .85, AGFI = .83, CFI = .97, RMSEA = 0.06. It was a moderate fit model.
		Concurrent Validity : The newly developed Resilience Scale positively correlated with the Flow Scale, the Mental Health Continuum-Short Form and the SPANE – P, and negatively correlated with the SPANE – N. The correlations were all significant and ranged from – 0. 26 to 0.63.
	Hindi Translation	Participants : 548
		EFA: 4 factor solution: 1. Sense of self-efficacy (α =.88) 2. Emotional Regulation (α =.75) 3. Resourcefulness (α =.70) 4. Future planning/Goal orientation (α = .78).
		Total cronbach's alpha was 0.93.
		CFA: GFI = 0.84, AGFI = 0.82, CFI = 0.96, RMSEA = 0.07. It was a fair fit model
		Reliability = .93
		Concurrent Validity: The Hindi translation yielded a significant positive correlation with the Flourishing Scale and the Mental Health Continuum – Short form.
	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3
		Participants : 100 (pilot study), 742 (250 participants for EFA, and 492 for CFA), 498 (Sample for assessing concurrent validity)

Mindfulness Scale (Singh, Junnarkar & Kaur, 2016)	**English Version**	EFA: After evaluating different factor solutions, a 5 factor solution was chosen for the newly developed Mindfulness Scale consisting of 28 items. It explained 53.13 % of variance and the factor loadings ranged from 0.41 to 0.86. The 5 factors were 1. Observe (α =. 85) 2. Conscious Effort (α =. 80) 3.Awareness (α=.78) 4. Attention (α =. 76) 5.Describe (α =. 76). Reliability = .87 CFA: GFI = .89, AGFI = .87, CFI = .95, RMSEA = 0.06. It was a fair fit model. Concurrent Validity : It correlated with the Mental Health Continuum –Short Form. It was a significant positive correlation ranging from 0.10 to 0.46.
	Hindi Translation	Participants : 548 EFA: 5 factor solution - 1. Observe (α =. 67) 2. Conscious Effort (α =. 59) 3.Awareness (α=.68) 4. Attention (α =. 54) 5.Describe (α =. 53). Reliability = .78 CFA: GFI = .87, AGFI = .84, CFI = .93, RMSEA = 0.07. It was a fair fit model. Concurrent Validity : It had a significant positive correlation with the Mental Health Continuum – Short Form with correlations ranging from 0.18 to 0.38.
	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3
Well-being Scale (Singh, Junnarkar & Kaur, 2016)	**English Version**	Participants : 100 (pilot study), 593 (197 participants for EFA, and 396 for CFA), 548 (Sample for assessing concurrent validity) EFA: A 4 factor solution was deemed fit for being theoretically relevant. It explained 53.55 % of variance and the factor loadings ranged from 0.44 to 0.79. The 4 factors of the 28 item Well-being Scale were 1. Psychological Well-being (α =. 88) 2. Positive perception about self and life (α =. 84) 3. Goal setting and time management (α=.80) and 4.Positive Relationships (α =. 83). Reliability = .93 CFA: GFI = .85, AGFI = .83, CFI = .97, RMSEA = 0.07. It was a good fit model.

		Concurrent Validity : It correlated with the Mental Health Continuum –Short Form. It was a significant positive correlation ranging from 0.26 to 0.61.
	Hindi Translation	Participants : 548 EFA: 4 factor solution - 1. Psychological Well-being (α =. 84) 2. Positive perception about self and life (α=.78) 3. Goal setting and time management (α=.69) and 4.Positive Relationships (α =. 60). Reliability = .82 CFA: GFI = .88, AGFI = .86, CFI = .97, RMSEA = 0.06. It was an acceptable model. Concurrent Validity : It had a significant positive correlation with the Mental Health Continuum – Short Form with correlations ranging from 0.11 to 0.92.
	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3
Interpersonal & Intrapersonal Strength Measures (Singh, Junnarkar & Kaur, 2016)	**English Version**	Scale 1: Interpersonal Scale Participants : 100 (pilot study), 580 (191 participants for EFA, and 359 for CFA) EFA: A 4 factor solution explaining 59.62 % of variance was deemed fit for the 24 item Interpersonal Scale, for being theoretically relevant. The factor loadings ranged from 0.44 to 0.75. The 4 factors are 1.Sensitivity to people & environment (α =. 87) 2. Gratitude (α =. 86) 3.Social Intelligence (α=.84) and 4.Connectedness (α =. 74). CFA: GFI = .87, AGFI = .85, CFI = .97, RMSEA = 0.071. It was a fair fit model. Reliability = 0.87 Scale 2: Intrapersonal Scale Participants : 100 (pilot study), 582 (223 participants for EFA, and 359 for CFA) EFA: A 3 factor solution explaining 51.35 % of variance was chosen for the 21 item Intrapersonal Scale. The factor loadings ranged from 0.42 to 0.78. The 3 factors are 1. Creativity & desire to learn (α =. 80) 2. Organized and self-discipline (α =. 78) and 3.Self-Regulation (α=.82). CFA: GFI = .79, AGFI = .76, CFI = .96, RMSEA = 0.06. It was a moderate fit model.

		Reliability = 0.89
		Concurrent Validity : N=482. There was a significant positive correlation with the Flow Scale, Mental Health Continuum-Short Form and the SPANE – P , and negative correlation with SPANE-N.
	Hindi Translation	Participants : 548
		Interpersonal Scale – 42 items, EFA: 4 factor solution - 1.Sensitivity to people & environment (α =.78) 2. Gratitude (α =. 78) 3.Social Intelligence (α =.69) and 4.Connectedness (α =. 58).
		CFA: GFI = .89, AGFI = .87, CFI = .96, RMSEA = 0.063. It was a fair fit model.
		Intrapersonal Scale – 21 items, EFA: 3 factor solution - 1. Creativity & desire to learn (α =.76 2. Organized and self-discipline (α =. 79) and 3.Self-Regulation (α =.70).
		CFA: GFI = .87, AGFI = .84, CFI = .95, RMSEA = 0.082. It was a fair fit model.
		Combined Model of Inter-Intrapersonal Scale:
		CFA: GFI = .85, AGFI = .82, CFI = .96, RMSEA = 0.06. It was a fair fit model.
		Concurrent Validity : There was a significant positive correlation with the Flow Scale, Mental Health Continuum-Short Form and the SPANE-P, and negative correlation with the SPANE-N.
	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3
Flow Scale (Singh, Junnarkar & Kaur, 2016)	**English Version**	Participants = 100 (pilot study), 626 (209 participants for EFA, 417 participants for CFA), 480 (for assessing concurrent validity)
		EFA: A 3 factor solution explaining 58.69% of variance was chosen for the 24 item Flow Scale. The 3 factors were 1. Concentration and sense of control during activity (α =. 92), 2. Experiential flow during activity (α = .90) and 3. Transformation of time (α =. 75). The factor loadings ranged from 0.40 to 0.79.
		Reliability = .95
		CFA: GFI = .83, AGFI = .80, CFI = .96, RMSEA = 0.08. It was a moderate fit model.

		An alternative 1 factor solution was also employed which shared a variance of 45.88%. The factor loadings ranged from 0.50 to 0.78.
		CFA of the 1 factor model: GFI = .79, AGFI = .75, CFI = .95, RMSEA = 0.10. It was a fair fit model.
		Concurrent Validity : The newly developed scale correlated positively with Flow Scale and SPANE-P and negatively with SPANE-N (p<0.01).
	Hindi Translation	N = 548
		EFA: 1. Concentration and sense of control during activity (α =. 84), 2. Experiential flow during activity (α=.83) and 3. Transformation of time (α =.58).
		CFA: GFI = .85, AGFI = .82, CFI = .95, RMSEA = 0.086. It was a fair fit model.
		Alternative 1 factor solution: CFA: GFI = .84, AGFI = .81, CFI = .95, RMSEA = 0.086. It was a fair fit model.
		Reliability = 0.92
		Concurrent Validity: It correlated positively with Flow Scale and SPANE-P with correlations ranging from 0.19 to 0.48. However no correlation was found between the Hindi version of the newly developed Flow Scale and SPANE-N.
	Citation	Singh, K., Junnarkar, M., & Kaur, J. (2016). *Measures of Positive Psychology : Development and Validation*.New Delhi: Springer Nature. DOI 10.1007/978-81-322-3631-3

Name of the Scale	Version	Psychometric Properties

BenCor Scale	**English Version** (Ruch, 2012) For details contact: w.ruch@psychologie.uzh.ch	The BenCor Scale consists of 12 statements which evaluate two forms of virtue-related humor – benevolent and corrective humor (having 6 items each). The 12 items are answered on a 7 point Likert Scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). While benevolent humor considers human shortcomings and wrongdoings benevolently, corrective humor aims at covering and bettering them. Ruch (2012) studied the items of the BenCor Scale in relation to a 4 factor model of humor consisting of socially warm humor, mean-spirited/earthy humor, inept humor, and reflective humor. Both benevolent (N = 706) and corrective humor (N = 225) correlated positively with the socially warm humor style, which confirmed that both are interactional. A negative correlation was found between benevolent humor and inept humor. Corrective humor had a high correlation with mean-spirited humor. Thus, benevolent humor seems to be more than affiliative/socially warm humor; there are also reflecive and competent elements. Likewise, a corrective humor is more than mean-spirited/earthy, it has a socially warm and a reflective element.
	Hindi Translation (Singh, 2018) For details contact: w.ruch@psychologie.uzh.ch or singhk.iitd@gmail.com	The Hindi translation of the BenCor Scale was conducted as part of a study which investigated responses to the BenCor Scale from 25 samples in 22 countries (overall N = 7226). This study supported for the first time the suitability of the 12 marker items of benevolent and corrective humor in different countries, enabling a cumulative cross-cultural research and eventually applications of humor aiming at the good. The Indian sample consisted of 198 participants. EFA: A 2 factor structure was found where the cronbach's alpha of benevolent humor was 0.51, while that of corrective humor was 0.70. CFA: Benevolent Humor : $\chi^2 = 12.48$, $\chi^2/d.f = 1.39$, CFI= 0.93, RMSEA= 0.04, SRMR= 0.05 CFA: Correactive Humor : $\chi^2 = 20.98$, $\chi^2/d.f = 2.33$, CFI= 0.92, RMSEA= 0.08, SRMR= 0.05 The reliability of the total scale was 0.81.

	Citation	Heintz Sonja, Ruch Willibald, Platt Tracey, Pang Dandan, Doingi Alberto Carretero-Dios Hugo, Gutierrez Arguello Catalina, Brdar Ingrid, Brzozowska Dorota, Chen Hsueh-Chih, Chlopicki Wladyslaw, Collins Matthew, Durka Robert, Jahfoufi El Y. Najma, Quiroga-Garza Angelica, Isler B. Robert, Mendiburo-Seguel Andres, Ramis TamilSelvan, Sagram Betul, Shcherbakova V.Ogla, **Singh Kamlesh**, Stokenberga Ieva, Wong.O.S.Peter & Torres-Marin Jorge (2018). Psychometric Comparisons of Benevolent and Corrective Humor across 22 countries: The Virtue Gap in Humor Goes International, *Frontiers in Psychology,* 9, 92.