Brunel Mood Scale validated for use in Singapore

INTRODUCTION

- The Brunel Mood Scale (BRUMS) is a robust measure of mood but not yet validated for use in a Singaporean context.

AIM

- To establish the psychometric integrity of the BRUMS for use in Singapore.

METHOD

- Sample (N = 1,444) reflected Singapore's ethnic distribution.
- Dataset collected using online or paper-pencil administration.
- Factorial validity assessed using confirmatory factor analysis (CFA).
- Concurrent validity, test-retest reliability, and internal consistency assessed.
- Singaporean norms developed.

RESULTS

- Good fit of the measurement model (CFI = .956, TLI = .950, RMSEA = .052).
- Measurement model invariant across gender, age and sport participation groups (Table 3).
- Concurrent measures consistent with theoretical predictions (Table 5).

CONCLUSIONS

- The BRUMS is a valid measure of mood for use in Singapore and can be used with local norms to examine antecedents, correlates and behavioural consequences of mood responses.
- Future research should investigate mood profile clusters and their potential effects.

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Table 1

Demographic Distribution of the Sample (N = 1,444)

Source	Group	n	%
Gender	Male	991	68.6%
	Female	440	30.3%
	Unspecified	13	< 1%
Ethnic Distribution	Chinese	1163	80.5%
	Malay	119	8.2%
	Indian	118	8.2%
	Other	31	2.1%
	Unspecified	13	< 1%
Age Group	≤ 25 years	763	52.8%
	26+ years	667	46.2%
	Unspecified	14	< 1%
Sport Participation	Yes	954	66.1%
	No	476	33.0%
	Unspecified	14	< 1%
Mode of Administration	Online	695	48.1%
	Paper-pencil	749	51.9%

Table 2

Descriptives, Reliabilities and Correlations amongst BRUMS Subscales (N = 1,444)

Subscale	M	SD	Range	α	2	3	4	5	6
1 Anger	1.69	2.63	0–16	0.82	0.63**	0.75**	0.46**	0.51**	-0.04
2 Confusion	2.75	3.00	0–16	0.81		0.68**	0.49**	0.68**	-0.02
3 Depression	2.10	3.07	0–16	0.89			0.52**	0.52**	-0.16**
4 Fatigue	6.47	4.21	0–16	0.89				0.37**	-0.26**
5 Tension	2.90	3.32	0–16	0.88					0.07*
6 Vigour	6.49	3.52	0–16	0.83					

Note. * p < .05, ** p < .01.

Table 3

Model Testing of the BRUMS (N = 1,444)

Group	χ^2	df	CFI	TLI	RMSEA	90% CI
Full sample	1157	235	.956	.949	.052	[.049, .055]
Multi-sample 1 (Sport Participation)	1548	494	.950	.944	.038	[.036, .041]
Multi-sample 2 (Age Group)	1806	474	.937	.926	.044	[.042, .047]
Multi-sample 3 (Gender)	1871	496	.933	.925	.044	[.042, .046]

Note. CFI = Comparative fit index, TLI = Tucker-Lewis index, RMSEA = Root mean square error of approximation, CI = Confidence interval. Full sample (N = 1,444), Multi-sample 1: Sport (n = 954) vs Non-sport (n = 476); Multi-sample 2: Age < 26 yr. (n = 763) vs Age 26+ yr. (n = 667); Multi-sample 3: Male (n = 991) vs Female (n = 440).

Table 4

Standardised Factor Loadings of the BRUMS (N = 1,444)

	Factors					
Items	Anger	Confusion	Depression	Fatigue	Tension	Vigour
Annoyed	0.77					
Bitter	0.73					
Angry	0.76					
Bad tempered	0.70					
Confused		0.69				
Mixed up		0.76				
Muddled		0.71				
Uncertain		0.74				
Depressed			0.78			
Downhearted			0.79			
Unhappy			0.88			
Miserable			0.76			
Worn out				0.86		
Exhausted				0.91		
Sleepy				0.62		
Tired				0.78		
Panicky					0.76	
Anxious					0.85	
Worried					0.82	
Nervous					0.79	
Lively						0.74
Energetic						0.89
Active						0.82
Alert						0.52

Table 5

Correlations between BRUMS, PANAS and DASS-21 Subscales (n = 243)

	PANAS-NA	PANAS-PA	DASS-Dep	DASS-Str	DASS-Anx
M	16.30	22.27	6.26	7.30	4.88
SD	7.12	8.22	5.10	4.61	3.89
α	0.91	0.92	0.90	0.85	0.79
Range	10–50	10–45	0–21	0–21	0–21
Anger	0.72**	-0.11	0.54**	0.49**	0.37**
Confusion	0.76**	-0.09	0.58**	0.61**	0.57**
Depression	0.75**	-0.22**	0.73**	0.62**	0.56**
Fatigue	0.45**	-0.17**	0.40**	0.46**	0.39**
Tension	0.79**	0.03	0.48**	0.60**	0.62**
Vigour	-0.11	0.80**	-0.26**	-0.17**	-0.12

Note. * p < .05 (two-tailed), ** p < .01 (two-tailed).

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