# Profiles of Psychological Flexibility: A Conceptual Replication of Tyndall et al. (2018)

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#### Highlights

- A Conceptual replication of Tyndall et al. (2018) was conducted with a Japanese community sample.
- Profile of psychological flexibility was investigated using latent class analysis.
- Despite the cultural differences, the results of the previous study were largely replicated.

### Background

Tyndall et al. (2018) identified three different classes of psychological flexibility using latent class analysis and examined the level of psychological distress or positive/negative emotionality difference between these classes. Moreover, they investigated associations between psychological flexibility class and sociodemographic variables (gender, relationship status, and education level).

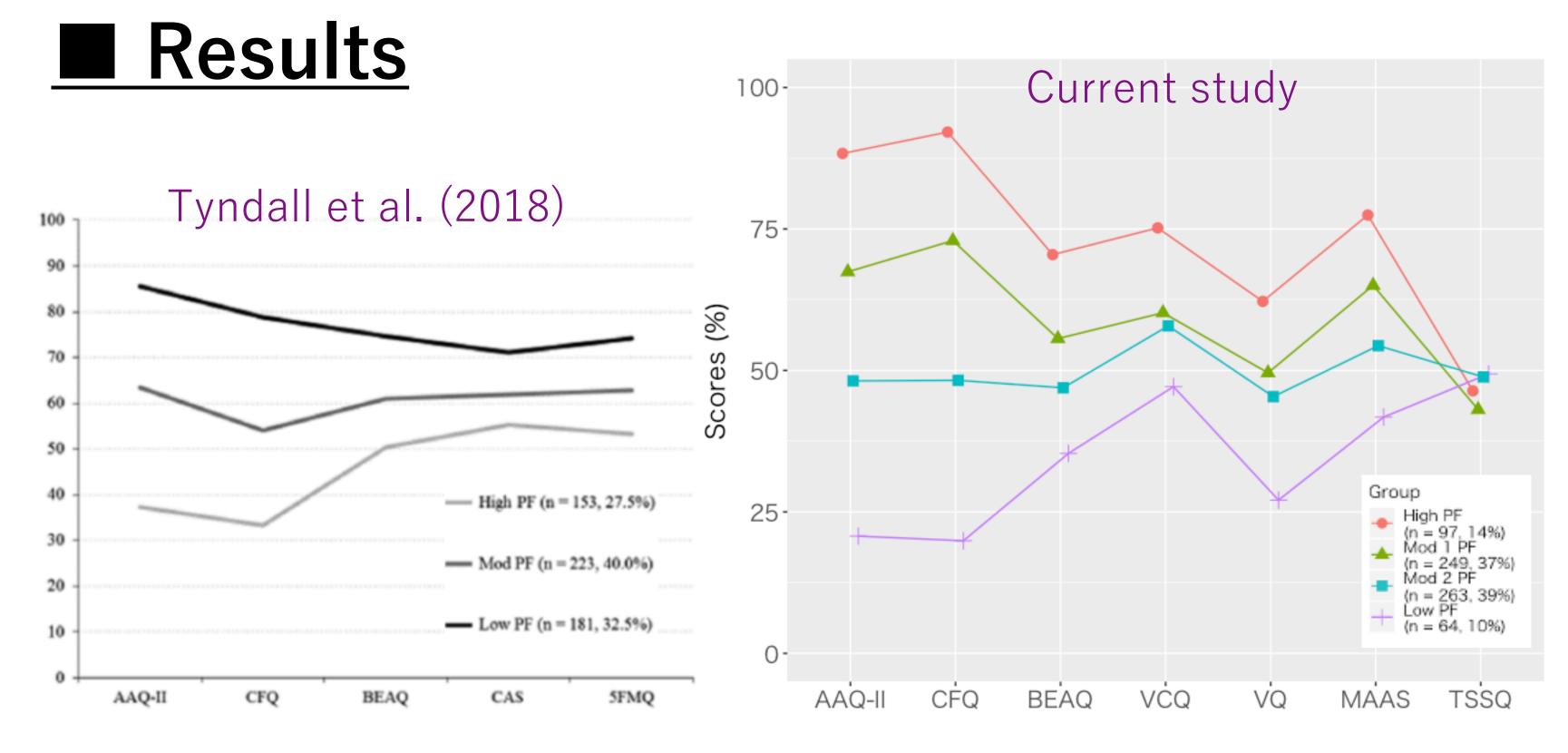
They employed measures of core ACT components but did not include all the processes. Therefore, they suggested conducting research including alternative measures. Furthermore, they suggested the replication study explore whether their findings regarding the association between psychological flexibility class and sociodemographic variables were stable.

This study conducts a conceptual replication study that measures all ACT components in a different cultural context to the original study.

#### Method

Tyndall et al. (2018)		Current study			
Participants	556 (female: 354, $M_{age} = 27 \pm 11$ )	673 (female: 347, $M_{age} = 43.42 \pm 9.96$ )			
Measures	<ol> <li>1) AAQ-II (Psychological flexibility)</li> <li>2) CFQ (Cognitive fusion)</li> <li>3) BEAQ (Experiential avoidance)</li> <li>4) CAQ-8 (Committed action)</li> <li>5) FFMQ-SF (Present-moment-awareness)</li> <li>6) PANAS-SF (Positive/negative affectivity)</li> <li>7) DASS (Psychological stress)</li> </ol>	<ol> <li>1) AAQ-II</li> <li>2) CFQ</li> <li>3) BEAQ</li> <li>4) VQ (Values clarification)</li> <li>5) Values Clarification Questionnaire (Committed action)*</li> <li>6) Three Senses of Selves Questionnaire (Perspective taking)*</li> <li>7) MAAS (Present-moment-awareness)</li> <li>8) PANAS</li> <li>9) DASS</li> <li>10) Satisfaction with Life Scale</li> </ol>			
Analysis	1) Latent class analysis (LCA): To identify psyc 2) Between-subjects ANOVAs: To detect different	hological flexibility profiles. ences in the level of psychological distress and age.			

<sup>\*</sup> Published only in Japan.



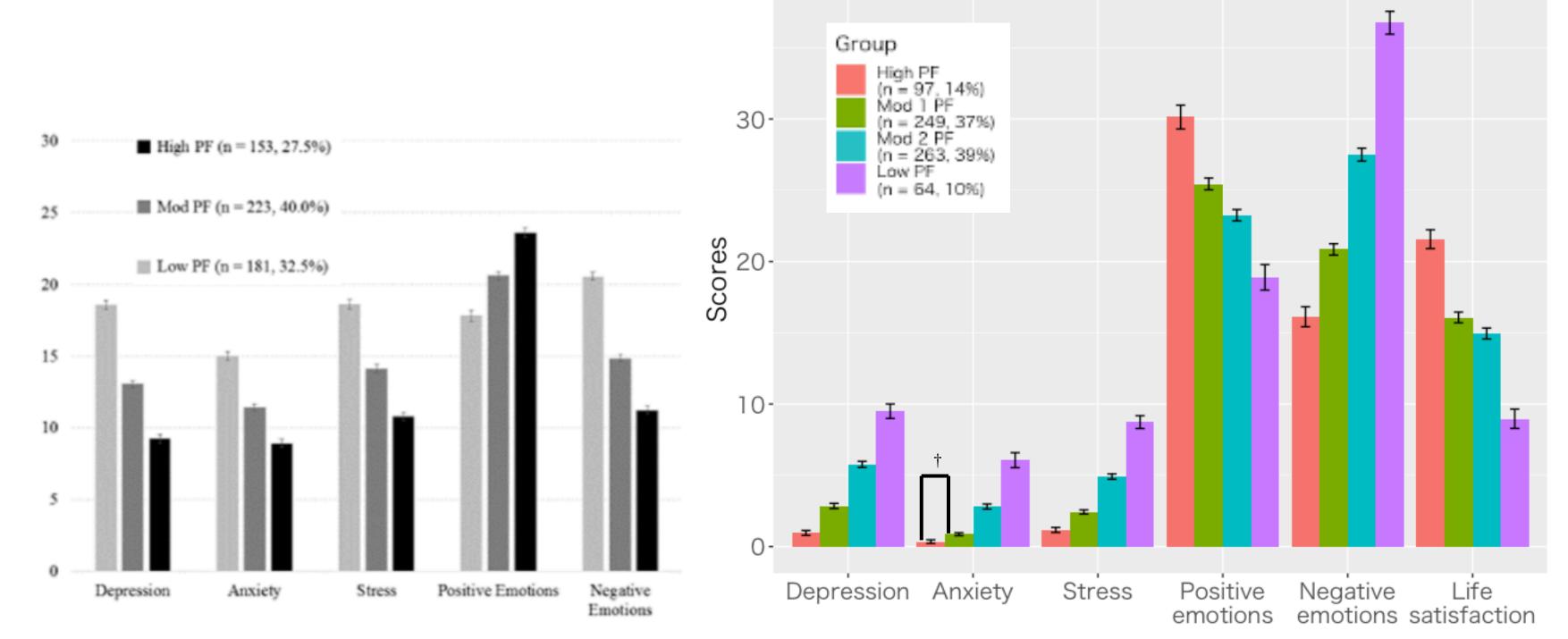
#### Mean age differences between classes Mean age p (SD)Tyndall et al. (2018) Mod High Low 19.52 2, 554 < .001 H > M = L26.20 25.39 31.88 (13.88)(9.73)(7.91)

(	Current s	tudy						
	High	Mod1	Mod2	Low				
	47.06	44.61	41.45	40.73	10.95	3, 669	.000	$H \ge M1 > M2 = L$
	(10.96)	(9.66)	(9.51)	(9.08)				

**Results of LCA.** The higher the score, the more adaptive.

#### Comparing sociodemographic variables in each class

	Tyndall et al. (2018)	Current study
Gender (males [M] vs. females [F])	Low PF: F > M	Low PF: F > M High PF: M > F
Education level (high school or lower vs. higher than high school)	No difference	No difference
Relationship (singles [S] vs. in a relationship [R])	Low PF: R > S High PF: S > R	Low PF: S > R Mod2 PF: S > R High PF: R < S



Results of ANOVAs. All the pairwise comparisons were significantly different except for one pair ( $^{\dagger}$  p < .10).

## Conclusion

Although there were some differences, generally similar trends were observed. The use of a different questionnaire than that employed in the previous study may be a factor in the differences in results. Overall, it can be said that the original study was replicated in a different cultural context.

<sup>3)</sup> Contingency tables and chi-square test: To investigate gender, education level, and relationship status.