If the Model Fits:
A Factor Analysis of the Five Facet Mindfulness Questionnaire

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INTRODUCTION

- The **Five Facet Mindfulness Questionnaire** (FFMQ) was developed based on a factor analysis of previously-used mindfulness measures (Baer et al., 2006)
- Some researchers believe mindfulness is made up of **more or less factors** (e.g. Kabat-Zinn, 1990; Rogge & Daks, 2019)
- Follow-up studies have examined the factor structure of the FFMQ in **different samples** (e.g. experienced meditators, clinical populations) and found **different structures fit best** (e.g. Christopher et al., 2012; Williams et al., 2014)
- Studies using community samples tend to have **low mean age** and studies with older adults are typically with **experienced meditators**

Research Objective:

- To determine the optimal factor structure of mindfulness for a **community sample** with a **wider range of ages**

METHOD

Participants:

- $N = 211$, $M_{age} = 45.29$ years ($SD = 12.99$; 22 – 85)

Figure 1. Box plot indicating four quartiles of age distribution.

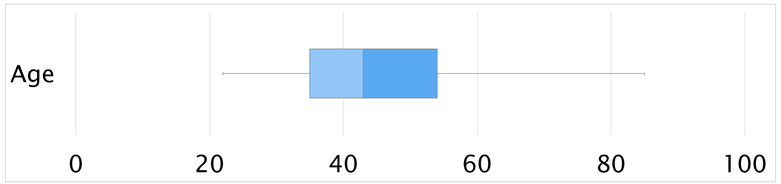


Table 1. Descriptive statistics and internal consistency of the original five facets.

Facet	Mean (SD)	Min - Max	Cronbach's α
Observe	27.94 (5.27)	12 - 40	0.909
Describe	29.56 (5.80)	11 - 40	0.798
Acting with Awareness	28.28 (5.40)	10 - 40	0.902
Nonjudgment to Inner Exp.	27.35 (5.85)	10 - 40	0.870
Nonreactivity to Inner Exp.	23.82 (4.07)	15 - 35	0.771

RESULTS

- Series of confirmatory factor analyses (CFA) completed in R using the *lavaan* package with maximum likelihood (ML) estimation
- Items treated as individual items rather than parcels (see Christopher et al., 2012)

Table 2. Measures of fit indices for each of the six models tested. Good fit (liberal) indicated by CFI and TLI > 0.9 and RMSEA and SRMR < 0.1. N = Non-Hierarchical, H = Hierarchical, 5 = Five-Factor, 4 = Four-Factor (excludes Observe), 6 = Six-Factor (splits Acting with Awareness).

Model	CFI	TLI	RMSEA	SRMR
1 (N5)	0.855	0.845	0.06	0.074
2 (N4)	0.877	0.867	0.064	0.068
3 (N6)	0.881	0.871	0.055	0.073
4 (H5)	0.85	0.84	0.061	0.084
5 (H4)	0.878	0.868	0.064	0.068
6 (H6)	0.872	0.863	0.057	0.087

Figure 2. Example of factor loadings using Model 5, showing the hierarchical model with four factors, excluding Observe. DES = Describe, AWA = Acting with Awareness, NJ = Nonjudgement to Inner Experience, NR = Nonreactivity to Inner Experience.

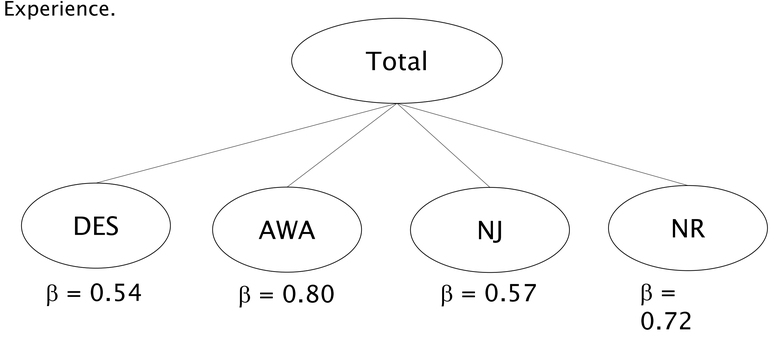
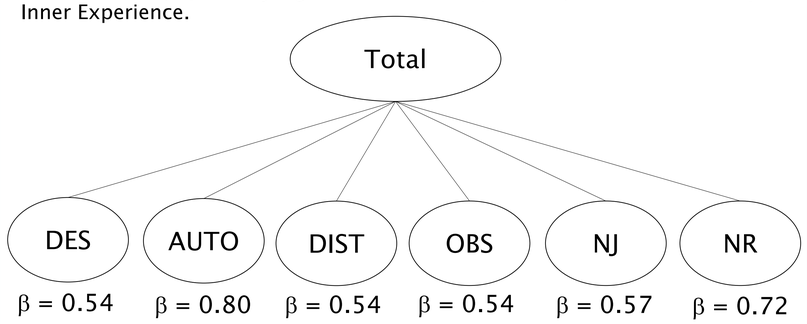


Figure 3. Example of factor loadings using Model 6, showing the hierarchical model with six factors. DES = Describe, AUTO = Autopilot, DIST = Distractibility, OBS = Observe, NJ = Nonjudgement to Inner Experience, NR = Nonreactivity to Inner Experience.



DISCUSSION

- **None** of the tested models **provided a good fit** for this data.
- Most studies with community samples found good fit for **five-factor** and/or **hierarchical five-factor models** (e.g. Baer et al., 2006; Christopher et al., 2012; de Bruin et al., 2012; Deng et al., 2011; Tran et al., 2013; Williams et al., 2014)
- These studies had a **lower mean age** across the board, ranging from 18.9 – 36.06.
- The study with the highest age also found **more borderline values** for CFI and TLI (Tran et al., 2013)
- This suggests that **age may be a factor** to consider in measuring mindfulness

Limitations:

- This sample is **relatively small** compared to others, but comparable in size to Baer et al., 2006
- **Meditation experience** and **clinical status** are unknown for these participants

Future Directions:

- Future studies should **evaluate age** to confirm if this factor has an effect on optimal factor structure of mindfulness
- Additional work should be done to **develop a measure of mindfulness** for older adults

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