

PSYCHOMETRIC PROPERTIES OF A SHORT FORM OF THE FIVE FACETS MINDFULNESS QUESTIONNAIRE AMONG A SAMPLE OF FRENCH-CANADIAN ADOLESCENTS



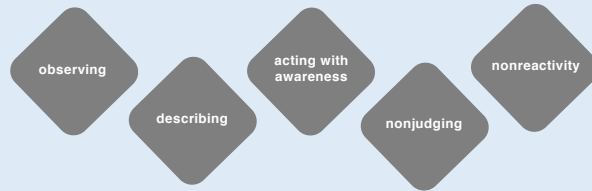
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INTRODUCTION

Mindfulness is commonly defined to include bringing one's complete attention to present moment experience in a particular nonjudgmental, kind and/or accepting manner^{1,2}.

The **Five Facets Mindfulness Questionnaire (FFMQ)**³ measures trait mindfulness as a multidimensional construct composed of 5 stances towards experience:



Moreover, short forms² and cultural adaptations in different languages have also been validated among adults⁴ and adolescents^{5,6}.

Nonetheless, its study among **young adolescents** has been neglected, since most of the research and applications have been developed with adult samples⁷. Moreover, no study has yet examined the psychometric properties of a **French version of the FFMQ-SF among adolescents**.

Psychological inflexibility processes (experiential avoidance and cognitive fusion) and **anxiety symptoms** have been found to be negatively associated to mindfulness in the youth⁸.

OBJECTIVES

Evaluate the psychometric properties of a French version of the FFMQ-SF among a non-clinical sample of French-Canadian adolescents :

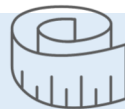
- 1 Explore its factorial structure.
- 2 Assess its reliability.
- 3 Examine mindfulness facets relationship to psychological inflexibility and anxiety symptoms.

METHOD



Participants

152 French-Canadian adolescents (12 to 17 years old; M=13,74; SD=1,45; 57,8% men) from the Province of Quebec were tested using the FFMQ-SF French adaptation in a high-school setting.



Measures

Five Facets Mindfulness Short Form (FFMQ-SF)³ – 24 items

• Items of the French adaptation of the FFMQ4 were used : observing (6, 10, 15, 20), describing (1, 2, 5, 11, 16), acting with awareness (8, 12, 17, 22, 23), nonjudging (4, 7, 14, 19, 24) and nonreactivity (3, 9, 13, 18, 21).

• Scores range from 5 to 25 and from 4 to 20 (only for the "Describe" scale).

• A higher score means a greater level of each mindfulness facet.

Avoidance and Fusion Questionnaire - Youth (AFQ-Y)⁹ – 17 items

• Scores range from 0 to 68 and a higher score shows a greater level of psychological inflexibility.

State and Trait Anxiety Inventory – Children (STAI-C)¹⁰ – 20 items

• Scores range from 0 to 80. Higher scores represent stronger levers of anxiety.



Analytic strategy

An **EFA** was conducted to determine factor structure using SPSS, version 24.0.

Factors were extracted using the Maximum Likelihood method (ML) and rotated using and orthogonal rotation method (Varimax).

RESULTS

Table 1. Descriptives by gender, Reliability and Pearson Intercorrelations between the scales of the French version of the FFMQ-SF (N=152).

Facets	No. of items	Boys		Girls		α	(after item removal)	1	2	3	4	5
		M	SD	M	SD							
1. Observe	4	8.80	.37	10.93	.53	.78	–	–	-.15	-.42**	-.45**	.23**
2. Describe	5 (3)	15.30	.44	15.95	.52	.67	.79	–	–	-.15	.04	.29**
3. Actaware	5	19.60	.41	17.56	.58	.82	–	–	–	–	.51**	-.09
4. Nonjudge	5 (3)	18.30	.41	16.57	.52	.69	.66	–	–	–	–	-.21*
5. Nonreact	5 (4)	13.06	.50	13.04	.43	.74	–	–	–	–	–	–

Note: FFMQ-SF=Five Facet Mindfulness Questionnaire – French Short Form; Actaware=acting with awareness; Nonjudge=nonjudging of inner experience; Nonreact=nonreactivity to inner experience. Numbers in parenthesis refer to number of items retained for the subscale after removal. ** p<0.01; *p<0.05.

Table 2. Factor loadings for the 24 items of the FFMQ-SF following EFA with Maximum Likelihood extraction and Varimax rotation.

Item No	Pre-Rotation Factor Load Value	Orthogonal Rotated Factor Load Values					Cronbach's α coefficient upon item removal
		Factor 1 (Actaware)	Factor 2 (Observing)	Factor 3 (Nonreact)	Factor 4 (Nonjudge)	Factor 5 (Describing)	
FFMQ22*	.58	.84	-.13	-.04	-.09	-.02	.60
FFMQ23*	.54	.71	-.20	-.01	.07	.01	.60
FFMQ12*	.49	.64	-.13	-.03	.27	-.03	.59
FFMQ8*	.43	.53	-.21	.09	.35	-.17	.59
FFMQ17*	.42	.51	-.30	-.07	.18	-.05	.61
FFMQ10	.42	-.29	.80	.08	-.07	-.03	.64
FFMQ20	.39	-.15	.64	.07	-.08	.00	.63
FFMQ15	.54	-.09	.62	.11	-.10	.14	.62
FFMQ6	.41	-.14	.55	.04	-.13	.16	.63
FFMQ24*	.58	.26	-.28	-.18	(.23)	-.02	.62
FFMQ18	.41	-.16	.07	.80	-.08	.07	.58
FFMQ21	.50	-.12	-.09	.65	-.02	-.01	.61
FFMQ3	.31	0.01	.16	.59	.09	.30	.58
FFMQ9	.43	-.09	.22	.52	-.18	.11	.61
FFMQ13	.47	-.03	.08	.45	-.04	.15	.60
FFMQ14*	.51	.04	-.10	.01	.71	-.19	.61
FFMQ19*	.43	.17	-.09	-.10	.58	.07	.60
FFMQ5*	.54	0.07	-.02	-.16	(.54)	.34	.59
FFMQ11*	.43	.26	-.06	-.04	(.50)	.15	.59
FFMQ4*	.47	.25	-.31	.06	.50	-.16	.60
FFMQ7*	.42	.15	-.36	-.08	(.37)	-.17	.63
FFMQ1	.60	-.03	.09	.19	.06	.77	.59
FFMQ2	.54	-.06	.15	.26	-.06	.75	.59
FFMQ16	.33	-.09	.11	.24	-.03	.66	.59
Eigenvalues		5,674	3,076	1,972	1,542	1,519	–
Proportion of explained variance		(23,64)	(12,82)	(8,22)	(6,42)	(6,33)	–

Note: The symbol * indicates reverse items. Factor loadings in parenthesis are either misplaced or insufficient.

Table 3. Pearson correlations between the French version of the FFMQ-SF and other constructs (n=152)

	Observing	Describing	Actaware	Nonjudge	Nonreact
AFQ-Y	.26**	-.24**	-.54**	-.58**	.02
STAI-C	.15	-.20*	-.42**	-.47**	-.14

Note: FFMQ-SF=Five Facet Mindfulness Questionnaire – French Short Form; Actaware=acting with awareness; Nonjudge=nonjudging of inner experience; Nonreact=nonreactivity to inner experience. *PSWQ, WAIQ, STAI-C-AFQ-Y. ** p<0.01 *p<0.05.

DISCUSSION & CONCLUSIONS

The French version of the FFMQ-SF is a **valid and reliable** self-report instrument for the measurement of the multifaceted construct of mindfulness among adolescents.

Item wording of the "describing" (5: It's hard for me to find the words to describe what I'm thinking; 11: When I feel something in my body, it's hard for me to find the right words to describe it) and "nonjudging" subscales (24: I disapprove of myself when I have illogical ideas; 7: I make judgments about whether my thoughts are good or bad) might represent increased complexity for young adolescents. That is, the **words employed** (e.g. disapprove, illogical) could create confusion about the item's purpose, and **item's formulation** (e.g. "it is hard for me...") could evoke a more severe evaluation of their behavior and abilities.

Understanding of mindfulness items has been observed to differ between individuals with and without meditation experience and could vary according to developmental stage⁷. Indeed, **independent-samples t tests** between younger (1st and 2nd grade) and older (3rd to 5th grade) adolescents in this data set show significant mean differences in 3 / 5 items from the "describing" subscale (not reported in this poster). Also, unexpected non-significant and/or positive weak to moderate associations between the "observing" subscale and other psychological constructs among non-meditating adults seem to support this hypothesis^{2,11}.

Cultural and short appropriate adaptations of measures facilitate research among understudied populations² by **reducing administrative burden**, an important limit to consider when conducting research with this young people.

Limitations. The size of our sample did not allowed for sufficient statistical power to perform confirmatory analyses, so as to corroborate the structure of the original instrument. Also, participants amount of mindfulness experience was not controlled.

Future studies could address young people understanding of items as well as test its temporal stability and its efficacy with clinical samples.

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Further information

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