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Italian Validation of the Italian Multidimensional Psychological Flexibility Inventory (MPFI)

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Declaration of competing interest. The authors declare no conflict of interest.

Highlights

- The Italian MPFI reproduced the original factor structure of the MPFI.
- The Italian MPFI demonstrated excellent construct validity.
- The Italian MPFI showed measurement invariance for gender, age, and clinical status.
- The Italian MPFI is a sound tool for assessing ACT Hexaflex-processes in Italy.

Abstract

The Multidimensional Psychological Flexibility Inventory (MPFI) is a recently developed measure of psychological flexibility and inflexibility based on the psychological functioning model of behavior change that underpins Acceptance and Commitment Therapy (ACT). The present study sought to develop a validation of this measure in Italian language from its English original version and explored the factor structure and reliability as well as convergent and concurrent validity of the Italian version of the MPFI. A total of 1,542 participants (71% female, $M=38.6$ years old, $SD=15.0$ years) completed an online cross-sectional survey including the Italian MPFI, other measures of psychological flexibility, and measures of mental health (anxiety, depression, and well-being). Confirmatory factor analysis replicated the factor structure of the original MPFI. The Italian MPFI had a two second-order factor structure composed of six first-order factors of flexibility and six first-order factors of inflexibility, with good construct validity. The Italian MPFI evinced good internal consistency, and convergent and concurrent validity. It also exhibited measurement invariance for gender, age, and mental health status. The Italian MPFI is a psychometrically sound measure of psychological flexibility and inflexibility in the Italian context. The Italian MPFI offers new tools in ACT theoretical and intervention research in Italy.

Keywords: MPFI, Psychological Flexibility, Psychological Inflexibility, psychometric properties, scale validation

Validation of the Italian Multidimensional Psychological Flexibility Inventory (MPFI)

Psychological flexibility is a transdiagnostic construct that involves a range of inter- and intra-personal skills. It is closely related to resiliency and is considered the cornerstone of mental health (Kashdan & Rottenberg, 2010). According to the model that underpins Acceptance and Commitment Therapy (ACT), psychological flexibility is defined as being open to inner experiencing in the present moment and flexibly adjusting behaviors in response to changing situational demands that are also aligned with personal values (Hayes et al., 2006). As such, psychological flexibility enables an individual to shift behavioral repertoires in the pursuit of personal values, while also adapting to changing circumstances (Kashdan & Rottenberg, 2010). The ACT psychological flexibility model specifies six interrelated core processes that increase psychological flexibility: (1) acceptance – openness to inner experiencing, (2) defusion – observing feelings and thoughts without attachment, (3) present moment awareness – mindful awareness of the present, (4) self-as-context – flexible self-awareness and perspective taking, (5) values – connection to personal values, (6) committed action – values-guided effective action (Hayes et al., 2012). In contrast, Hayes et al. (2012) propose that higher psychological inflexibility is related to rigid and reactionary behavioral responses to uncomfortable and unwanted stimuli and is associated with the opposite of these six flexibility processes: (1) experiential avoidance – avoidance of unwanted inner experiencing, (2) lack of present moment awareness, (3) self-as-content – rigid attachment to concepts of self, (4) fusion – absorption in unwanted thoughts and feelings rather than simply acknowledging them as just thoughts and feelings, (5) restricted valuing repertoire, (6) inaction and impulsiveness – derailment of functional behavior in response to unwanted inner experiencing (Hayes et al., 2012). These twelve processes of psychological flexibility and inflexibility and their mutual interconnections can be graphically represented by the Hexaflex and Inflexahex facets, respectively (Hayes et al., 2012).

ACT is as an empirically supported treatment aimed at increasing psychological flexibility and reducing psychological inflexibility, for a range of mental health problems including anxiety,

depression, substance use, pain, and transdiagnostic groups (see reviews of meta-analyses, Gloster et al., 2020). Twenty meta-analyses indicate that, across 133 studies and 12,477 participants, ACT is more effective than waitlist and placebo conditions and at least as effective as the traditional cognitive behavioral therapies (Gloster et al., 2020).

The Assessment of Psychological Flexibility and Inflexibility: The Multidimensional Psychological Flexibility Inventory (MPFI)

The Multidimensional Psychological Flexibility Inventory (MPFI; Rolffs et al., 2016) is a self-report instrument that was recently developed to assess all psychological flexibility and inflexibility processes of the Hexaflex/Inflexahex Model (Hayes et al., 2012). It was developed in order to overcome the limitations of the most widely used measure of psychological flexibility in the ACT literature, the Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011). The AAQ-II only assesses the overarching dimension of psychological inflexibility and has often been used as a proxy for psychological flexibility (Doorley et al., 2020; Kashdan et al., 2020). In contrast, the MPFI was developed to measure both psychological flexibility and inflexibility and each of their respective sub-processes (Rolffs et al., 2016). The instrument was developed from a pool of 554 items including 22 of the most widely used scales from the ACT and mindfulness literature as well as 84 items developed by the authors based on conceptual definitions of the dimensions of flexibility and inflexibility within the ACT literature (Rolffs et al., 2016). Over three studies and a combined sample of 3,040 participants, exploratory and confirmatory factor analyses were used in combination with item response theory, to generate, refine and isolate the structure of the instrument. The final MPFI is composed of 60 items assessing global psychological flexibility and inflexibility, and their respective six sub-processes. Studies have revealed a second-order factor structure of the MPFI corresponding to Hexaflex/Inflexahex Model (Hayes et al., 2012) in which global psychological flexibility and inflexibility are the second-order factors and their respective sub-processes are the first-order factors (Grégoire et al., 2020; Lin et al., 2020; Rolffs et al., 2016; Seidler et al., 2020).

The convergent validity of the MPFI was evinced by strong associations between the global psychological flexibility and inflexibility scores and their respective sub-processes with existing measures of psychological inflexibility and flexibility (Rolffs et al., 2016). Discriminant validity of the instrument was demonstrated by the relatively weaker associations between the twelve psychological inflexibility and flexibility processes and conceptually distinct constructs (e.g., neuroticism, emotional intelligence, clarity of feelings, inattention, rumination, and curiosity) and with various indices of individual functioning (e.g., psychological distress, relationship satisfaction, vitality, and need satisfaction; Rolffs et al., 2016). In both convergent and discriminative validity analyses, each of the 12 sub-processes have varied with respect to the strength of their associations with the related constructs and have emerged as distinct sub-processes that can vary independently of one another (Rolffs et al., 2016; Rogge et al., 2019). Studies have also demonstrated the validity of the MPFI with regard to responsiveness to change over time (Rolffs et al., 2016), identification of individuals currently in counseling (Rogge et al., 2019), and links to psychological distress and individual wellbeing (Rolffs et al., 2016; Stabbe et al., 2019).

Aim of this study

Given that the MPFI shows considerable promise as a valid and reliable measure of psychological flexibility and inflexibility and their respective sub-processes, we developed an Italian version of the MPFI and investigated its psychometric properties (Rolffs et al., 2016). Regarding the latter, we examined its factor structure, reliability, and validity in a sample from the general population. Convergent validity of the scale was examined by analyzing patterns of correlations between the Italian MPFI and other widely used scales designed to measure psychological flexibility and inflexibility. Concurrent validity was investigated by exploring associations between the global psychological flexibility and inflexibility scores and their sub-processes and measures of mental health (e.g., anxiety, depression and well-being). Finally, measurement invariance of the Italian MPFI was analyzed with regard to gender, age and mental health status.

Method

Scale Translation

A multistep strategy was used (Wild et al., 2005) in which two independent forward translations of the original version of the MPFI were first produced (one by three authors and one by a bilingual translator whose mother tongue is Italian and who is fluent with US English). Secondly, these forward translations were reviewed by a translation panel consisting of the three authors, the translator, two ACT researchers and a lay person. After identifying ambiguities amongst these two versions, a reconciled forward version was produced. In order to examine the extent to which this preliminary Italian version of the MPFI was clear and understandable, it was administered to a group of 30 respondents from the general population. Further modifications were applied based on this pilot testing, and the preliminary version was then back-translated by a bilingual translator whose mother tongue was US English with fluency in Italian. This back-translated version was also submitted to the original MPFI author for approval (see Appendix for the final Italian version of the MPFI).

Participants, Recruitment and Procedures

Data were collected for a total of 1,587 participants. After removal of responders who finished the online survey in less than nine minutes¹ ($n = 45$), the analyses were conducted on a sample of 1,542 participants who completed the survey in Italy between May and August 2020. People ≥ 18 years of age were eligible. Exclusion criteria were < 18 years of age and not being fluent in Italian. Recruitment was conducted through social networking platforms (e.g., WhatsApp and Facebook) and a snowballing procedure, whereby participants invited friends and acquaintances to participate in the study. The recruitment materials presented the study as “The Psychological

¹ The nine-minute survey completion cut-off was based on pilot testing. Five participants were instructed to complete the online survey as quickly as possible while ensure they read and comprehended all written material. None of the five participants could complete the questionnaire in less than 9 minutes, therefore we selected this criterion as the cut-off for inclusion in the study.

Resources Project” and informed potential respondents that participation was voluntary. The survey was developed using Qualtrics software and took approximately 20-25 minutes to complete. An accurate response rate was not possible to obtain, as recruitment was primarily conducted through social networks. The study received ethical clearance by an institutional human research ethics committee.

Measures

Demographics

Participants indicated their age, gender, education, employment, number of children and nationality. To gauge socio-economic status (SES), participants were asked to indicate whether they were below, average or above the mean income of the population. Information was also acquired regarding the mental health status of each participant (i.e., currently experiencing mental problems and/or currently receiving psychological or psychopharmaceutical treatments).

Multidimensional Psychological Flexibility Inventory (MPFI)

The MPFI (Rolffs et al., 2016) is a 60-item measure of global psychological flexibility and its constituent six sub-processes (acceptance, present moment awareness, self-as-context, defusion, values, committed action) as well global psychological inflexibility and its constituent six sub-processes (experiential avoidance, lack of contact with present moment, self-as-content, fusion, lack of contact with values, inaction) with 5 items for each respective subscale. Items are rated on a 6-point Likert scale (1=*never true* to 6=*always true*). Responses were averaged and higher scores on the respective global dimensions and sub-processes indicate greater psychological flexibility or inflexibility. The MPFI has demonstrated good reliability and validity in clinical and nonclinical samples (Lin et al., 2019; Rogge et al., 2019; Seidler et al., 2020; Stabbe et al., 2019).

Inflexibility and Flexibility Measures for Convergent Validity

Acceptance and Action Questionnaire-II (AAQ-II). The Italian version (Pennato et al., 2013) of the AAQ-II (Bond et al., 2011) was used in this study. The AAQ-II is a self-report questionnaire composed of 7 items that assess psychological inflexibility (e.g., “My painful

experiences and memories make it difficult for me to live a life that I would value” or “It seems like most people are handling their lives better than I am”). Items are rated on a 7-point Likert scale (1=*not at all true* to 7=*completely true*). Item scores were summed, with higher scores indicating higher psychological inflexibility. The AAQ-II has shown good internal consistency and test-retest reliability in community samples (Bond et al., 2011). The observed Cronbach’s alpha was .91.

Comprehensive Assessment of Acceptance and Commitment Therapy (CompACT).

The CompACT (Francis et al., 2016) is composed of 23 items assessing psychological flexibility across three subscales, corresponding to the three pillars of the Hexaflex model (Hayes et al., 2012): (1) Openness to Experience (corresponding with the “open pillar” consisting of the sub-processes acceptance and defusion; e.g. “I can take thoughts and feelings as they come, without attempting to control or avoid them”), (2) Behavioral Awareness (corresponding with the “centered pillar” composed of the sub-processes present moment awareness and self-as-context; e.g. “I find it difficult to stay focused on what’s happening in the present”), and (3) Valued Action (corresponding with the “engaged pillar” consisting of the sub-processes values and committed action; e.g., “I behave in line with my personal values”). Items are rated on a 7-point Likert scale (0=*strongly disagree* to 6=*strongly agree*) with some items reverse-scored in the direction of psychological flexibility. Scores for each subscale were summed with higher scores indicating greater psychological flexibility. The Italian version of this scale was provided by an author of this study and is currently under validation by some authors of this manuscript. The CompACT exhibited convergent, discriminant, and concurrent validity (Francis et al., 2016). The observed Cronbach’s alphas for the total scale .88 and subscales (ranges .78-.86) were good.

Measures of Mental Health for Concurrent Validity

General Anxiety Disorder Scale (GAD-7). The GAD-7 questionnaire (Spitzer et al., 2006) measures anxiety symptoms over the past two weeks. Items are rated on a 4-point Likert scale (0=*not at all* to 3=*nearly every day*). Item scores were summed, with higher scores reflecting higher anxiety. We used the Italian version of the GAD-7 (Kroenke & Spitzer, 2010). The instrument has

been shown to be psychometrically sound (Löwe et al., 2008). The observed Cronbach's alpha was .88.

Patient Health Questionnaire-9 (PHQ). The Patient Health Questionnaire (PHQ-9; Spitzer et al., 1999) was used to measure depressive symptomatology over the past two weeks. Items are rated on a 4-point Likert scale (0=*not at all* to 3=*nearly every day*). All item scores were summed, with higher scores indicating higher depression. We used the Italian validated version of the PHQ-9 (Kroenke & Spitzer, 2010). The measure has demonstrated sound psychometric properties (Manea et al., 2012). The observed Cronbach's alpha was .83.

Mental Health Continuum Short Form (MHC-SF). The Italian version (Petrillo et al., 2015) of the MHC-SF (Keyes, 2009) was used to assess well-being. It consists of 14 items evaluating emotional (i.e., "How often did you feel happy?"), social (i.e., "How often did you feel that you belonged to a community?"), and psychological (i.e., "How often did you feel good at managing the responsibilities of your daily life?") well-being. Items are rated on a 6-point Likert scale (0=*never* to 6=*every day*) with the last month as the timeframe. Items were summed with higher scores indicating higher well-being. The measure has demonstrated sound psychometric properties (Lamers et al., 2011). The observed Cronbach's alpha was .91.

Data Analysis

Confirmatory factor analyses (CFAs) and structural equation modelling were conducted with Mplus 8.3 with the robust maximum likelihood estimator (Muthén & Muthén, 1998-2018) while all other analyses were performed with SPSS version 24. Only 0.82% of data were missing across all study items. The Little's (1988) Missing Completely at Random index – employed to correct for sensitivity of the χ^2 in large samples – was low indicating that data were missing at random. For this reason, we used the Full Information Maximum Likelihood estimator in *Mplus* to address missing data. Consistent with the original validation study (Rolffs et al., 2016), the factor structure of the Italian MPFI was tested by conducting a second-order CFA in which global psychological flexibility constituted a second-order latent variable (with acceptance, present

moment awareness, self-as-context, defusion, values and committed action as first-order latent variables) and global psychological inflexibility formed a second-order latent variable (with experiential avoidance, lack of contact with present moment, self-as-content, fusion, lack of contact with values and inaction as first-order latent variables). We interpreted the magnitude of correlations using Cohen's (1988) criteria: 0.10 = small, 0.30 = moderate and .50 = large. Model fit was evaluated by examining the Chi-Square, the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), the Root Mean Square Error of Approximation (RMSEA), Root Mean Square Error of Approximation Confidence Interval at 90% (RMSEA CI), and the Standardized Root Mean Square Residual (SRMR). CFI and TLI values $>.90$, RMSEA values $\leq .08$, SRMR values $\leq .09$ (Marsh et al., 2005) are indicative of good model fit.

In order to examine the *convergent validity* of the Italian MPFI, correlations were conducted between the Italian MPFI factors and the other psychological inflexibility and flexibility measures (i.e., AAQ-II, CompACT). To test the *concurrent validity* of the Italian MPFI we examined global psychological flexibility and inflexibility and their respective sub-processes as predictors of mental health in a structural equation model. Specifically, global psychological flexibility and inflexibility were inserted as the exogenous variables while anxiety, depression and well-being were the endogenous variables. The same analyses were also conducted inserting all psychological flexibility and inflexibility sub-processes as exogenous variables. Finally, we examined configural, metric and scalar invariance of the Italian MPFI with respect to gender (male vs. female), age (18-24 years vs. 25-34 years vs. 35-44 years vs. 45-83 years) and mental health status (currently experiencing mental problems and/or currently receiving psychological or psychopharmaceutical treatments vs. no self-reported mental health problems nor in treatment). Measurement invariance is a prerequisite when studying differences or changes across groups of people (Putnick & Bornstein, 2016). In fact, if scalar invariance of the Italian MPFI is demonstrated, researchers can reliably compare latent means across gender, age, and mental health status groups in the Italian population. To determine measurement invariance, we used the following three criteria being indicative of non-invariance:

$\Delta\chi^2_{SB}$ significant at $p < .05$, $\Delta CFI \geq -.010$, and $\Delta RMSEA \geq .015$ (Chen, 2007; Satorra & Bentler, 2001). Invariance is established if at least two out of three criteria for invariance are met. If full invariance is achieved, descriptive data for gender, age, and mental health status sub-groups is reported in order to offer normative data for future research using the Italian MPFI across these different groups.

Results

Sample Characteristics

Of the 1,542 participants included in the analyses, 70.6% were female. The age range was 18 to 83 ($M=38.6$, $SD=15.0$). Nearly all participants (98.4%) were of Italian nationality. Regarding highest education levels, 43.0% of the sample had a bachelor's degree, 42.2% completed high school and 8.3% postgraduate courses. Almost half (45.2%) of the sample were either married or living with a partner, 47.4% were single, while 7.4% were widowed or divorced. Most (75.0%) participants were employed, 21.3% were students, 5.2% unemployed, and 4.7% were retired. More than half of the participants (56.5%) reported having no children, while 16.0%, 21.3% and 6.2 % reported having one, two or more than two children, respectively. Regarding SES, 11.5% endorsed a mean income below average, 79.7% reported being in the middle socioeconomic class, and 8.8% wealthier than the average. Finally, 14.6% of participants reported currently suffering from mental health problems and/or currently receiving psychological or psychopharmaceutical treatments. Means, standard deviations, Cronbach's alphas and correlations among all MPFI subscales and other psychological flexibility and inflexibility subscales are reported in Table 1.

Confirmatory Factor Analysis

To verify the dimensional structure of the Italian MPFI, we ran a second-order CFA on the 60 items of the MPFI in which global psychological inflexibility constituted a second-order latent variable (with acceptance, present moment awareness, self-as-context, defusion, values and committed action as first-order latent variables) and global psychological inflexibility formed a second-order latent variable (with experiential avoidance, lack of contact with present moment,

self-as-content, fusion, lack of contact with values and inaction as first-order latent variables).

Results of this analysis indicated a two-factor second order model with good model fit: $\chi^2(1,694) = 6,014.313, p < .001$; CFI = .916; TLI = .912; RMSEA = .041; RMSEA CI = [.040, .042]; SRMR = .073. Path analyses revealed a fully saturated model with good fit. Standardized path coefficients for the second-order CFA of the MPFI are reported in Table 2. As displayed, all the items revealed strong standardized coefficients in relation to their respective first order factor of flexibility/inflexibility sub-processes and, in turn, those first-order factors yielded strong standardized coefficients in relation to their respective second-order factors. Thus, the hierarchical second-order structure of the English MPFI also emerged in the Italian MPFI version. The standardized correlation between the two second-order factors, global inflexibility and flexibility, was $-.560$, which indicates that 32% of the variance is shared between them. Overall, these results replicate those found in the original MPFI study and corroborate the construct validity of the Italian MPFI.

Internal Reliabilities and Intercorrelations among Italian MPFI Factors

As reported in Table 1, the observed Cronbach's alphas for global psychological flexibility and global psychological inflexibility were excellent ($\alpha = 0.94$ for both), as well as those for the twelve psychological flexibility and inflexibility subprocesses (observed range 0.85–0.94).

Regarding intercorrelations among the Italian MPFI factors, global psychological flexibility was positively associated with all six psychological flexibility sub-processes with correlation coefficients being of a large magnitude (range = 0.59**–0.80**). All intercorrelations among the Italian MPFI psychological flexibility sub-processes were positive and significant and most were of a moderate to large magnitude (range 0.31**–0.67**). Global psychological inflexibility was positively associated with all psychological inflexibility sub-processes with correlation coefficients being of a moderate magnitude (range = 0.34**–0.82**). All correlations among the Italian MPFI psychological inflexibility sub-processes were positive and most were significant and of a moderate to large magnitude (range 0.41**–0.74**). Experiential avoidance was weakly positively associated

with lack of contact with present moment and self-as-content ($r = 0.18^{**}$, $r = 0.17^{**}$, respectively), but was not significantly related to the other psychological inflexibility sub-processes. As for correlations between the sets of flexibility and inflexibility global and sub-process scores, most were negative, significant and of a small to moderate magnitude (range = -0.06^* – $-.49^{**}$). However, experiential avoidance was significantly inversely associated with only acceptance ($r = -0.19^{**}$), and unexpectedly displayed positive correlations with global psychological flexibility ($r = 0.08^{**}$) and four out of its six sub-processes (range = $.11^{**}$ – $.15^{**}$).

Validity Analyses

Convergent Validity

As expected, global psychological flexibility and the six psychological flexibility sub-processes were negatively related to the AAQ-II (range -0.08^{**} – -0.50^{**}) and positively correlated with the CompACT subscales (range 0.15^{**} – 0.61^{**}). Global psychological inflexibility and five of its six sub-processes were significantly and positively correlated with the AAQ-II (range 0.44^{**} – 0.75^{**}). Unexpectedly, experiential avoidance was not significantly correlated with the AAQ-II. Global psychological inflexibility and its six sub-processes were negatively correlated with the CompACT subscales (range -0.07^{**} – -0.63^{**}). Overall, these results provide support for the convergent validity of the Italian MPFI with other measures of psychological flexibility and inflexibility (see Table 1).

Concurrent Validity

Results of the concurrent validity analyses are reported on Table 3. Findings revealed that global psychological flexibility and inflexibility and their respective sub-processes explained 41% to 50% of the variance in anxiety, 43% to 47% of the variance in depression and 37% to 40% of the variance in well-being. Specifically, higher global psychological flexibility significantly predicted lower anxiety and depression (β s = -0.08^* and -0.13^{**} , respectively) and higher well-being ($\beta = 0.43^{**}$), while higher global psychological inflexibility significantly predicted higher anxiety and depression (β s = $.61^{**}$ and 0.59^{**} , respectively) and lower well-being ($\beta = -0.30^{**}$).

With regard to the concurrent analyses conducted on the psychological flexibility sub-processes, defusion was a significant predictor of lower anxiety and depression, while present moment awareness unexpectedly predicted higher depression ($\beta = 0.06^*$). Regarding the psychological inflexibility sub-processes, experiential avoidance, self-as-content, fusion, and inaction were significant predictors of higher anxiety and depression, while lack of contact with present moment significantly predicted higher depression. Four of the six psychological flexibility sub-processes (i.e., self-as-context, defusion, values, and committed action) were significant predictors of higher well-being, while three of the six psychological inflexibility sub-processes (i.e., lack of contact with present moment, self-as-content, and fusion) were significant predictors of lower well-being.

Measurement Invariance

Results of measurement invariance of the Italian MPFI are reported in Table 4. All levels of invariance for gender, age and mental health status were established. Findings, therefore, highlighted that the factor structure of the Italian MPFI equally applies to males and females, different age groups as well as people currently experiencing mental health problems and/or currently receiving psychological or psychopharmacological treatments and people with no self-reported mental health problems nor in treatment. Means, standard deviations, and Cronbach's alphas of the Italian MPFI scores for the different sub-groups are presented in Table A of Supplementary Materials.

Discussion

This study was designed to develop and validate the Italian version of the MPFI (Rolffs et al., 2016). We examined the factor structure, reliability, validity, and measurement invariance of the instrument in a sample from the general population. Confirmatory factor analysis indicated that the Italian MPFI has the same factor structure as the original instrument (Rolffs et al., 2016). In particular, the Italian MPFI evinced a two second-order factor structure composed of six first-order factors of flexibility (i.e., acceptance, present moment awareness, self-as-context, defusion, values

and committed action as first-order latent variables) and six first-order factors of inflexibility (i.e., experiential avoidance, lack of contact with present moment, self-as-content, fusion, lack of contact with values and inaction). These findings replicate those found in the study of the original MPFI and support the construct validity of the Italian MPFI.

As for other psychometric properties, all sub-scales of the Italian MPFI exhibited sound internal reliabilities with an observed range (0.85–0.94) similar to that of the original MPFI (0.87–0.97) (Rolffs et al., 2016). In addition, intercorrelations of the Italian MPFI provided support for the validity of the instrument as both psychological flexibility and inflexibility global scores and sub-processes were related but empirically distinct constructs.

Convergent validity of the Italian MPFI was demonstrated by relations between psychological flexibility and inflexibility global scores and most of their sub-processes with widely used validated measures of inflexibility (i.e., the AAQ-II) and flexibility (i.e., the CompACT). Furthermore, the Italian MPFI evinced good concurrent validity by way of the significant associations between psychological flexibility and improved mental health and the opposite pattern for psychological inflexibility. Specifically, higher global psychological flexibility predicted lower anxiety and depression and higher well-being, while higher global psychological inflexibility predicted higher anxiety and depression and lower well-being. A similar pattern of associations emerged for the corresponding psychological flexibility and inflexibility sub-processes. The sub-processes explained more of the variance in the mental health outcomes compared than their respective global dimensional scores. Overall, these results are in line with findings from the MPFI derivation study (Rolffs et al., 2016; Rogge et al., 2019).

Several unexpected results emerged from the validity analyses. First, experiential avoidance was not related to the AAQ-II. This finding also emerged in the French validation of the MPFI-24 (Grégoire et al., 2020). Second, experiential avoidance and present moment awareness evidenced unexpected associations with other sub-processes or mental health outcomes. Experiential avoidance evidenced non-significant correlations with other psychological inflexibility sub-

processes, and positive correlations with global psychological flexibility and many of its sub-processes. Present moment awareness predicted increases in depression. A possible explanation for these unexpected relations between experiential avoidance and present moment awareness and other sub-processes and mental health outcomes is the potential confound of the COVID-19 pandemic and associated lockdown. Data collection occurred during the COVID-19 pandemic and the aftermath of a strict government-imposed lockdown. The interplay between these sub-processes and the other psychological flexibility and inflexibility processes is likely to have been impacted by the pandemic and lockdown context. For example, it is possible that due to the heightened fear, uncertainty, and social isolation associated with the pandemic (Xiong et al., 2020), experiential avoidance may provide some short-term reprieve from intense discomfort, and thereby facilitate engagement in some psychological flexibility strategies, such as pursuit of values-based action. On the other hand, present moment awareness might sensitize the individual to their intense discomfort evoked by the pandemic. The potential confounding effects of the pandemic is supported by findings from similar studies on psychological flexibility in the context of COVID-19. For example, experiential avoidance and its counterpart, acceptance, have evidenced unexpected associations with other psychological flexibility and inflexibility sub-processes and mental health outcomes in the context of COVID, although in line with study predictions, global psychological inflexibility and flexibility have predicted poorer and better mental health outcomes, respectively (Landi et al, 2020; Pakenham et al, 2020). In addition, as expected, experiential avoidance was a significant predictor of increases in anxiety and depression in the present study. It is also possible that the interplay between the pandemic and cultural factors specific to Italy also contributed to the aforementioned pattern of unexpected findings.

According to the functional contextual framework underpinning the ACT psychological flexibility model (Hayes et al., 2012), no coping strategy is categorically ‘good’ or ‘bad’, its effectiveness depends on the context. This is consistent with our proposal above that experiential avoidance and present moment awareness may have had short-term benefits and costs, respectively,

in the Italian cultural and pandemic context. In contrast, the detrimental and beneficial consequences of avoidance and mindfulness strategies, respectively, are often the focus of commentary and research hypotheses. Along the same vein, another study with data collected before the COVID-19 pandemic found the MPFI subscale present moment awareness to be associated with positive individual functioning (e.g., higher satisfaction with life, satisfaction with understanding oneself, and satisfaction with expressing ones' creativity), yet it also weakly predicted higher levels of depressive symptoms (Rogge et al., 2019). Based on these findings, the authors speculated that rather than being simply considered adaptive or maladaptive, the twelve flexibility and inflexibility sub-processes might have more complex and nuanced links to specific dimensions of mental health that are influenced by changing contexts (Rogge et al., 2019). Few studies have examined the inter-relations among the individual psychological flexibility and inflexibility sub-processes, how they are impacted by changing contexts, including pandemic and cultural influences, and how they in turn shape mental health. Further research into the interplay among psychological inflexibility and flexibility sub-processes is required.

The Italian MPFI also exhibited measurement invariance with regard to gender, age and mental health status, indicating that the instrument performs similarly across sub-groups within these categories. Researchers can therefore reliably compare latent means across different gender, age, and mental health status groups in the Italian population.

Limitations of this study include the use of a convenience sample and the bias toward female participants which, despite the large size, limits the generalizability of findings. Secondly, data were collected through self-report measures in an online survey, increasing the risk of common method variance. Third, the study was cross-sectional and could not determine the test-retest reliability of the Italian MPFI global and sub-process scores and their sensitivity to detecting change over time. Future studies should collect longitudinal data from more representative samples. Although the current study included a sub-group of people currently experiencing self-reported mental health problems and/or currently receiving psychological or psychopharmaceutical

treatments, future research should validate the Italian MPFI in clinical samples who have been independently diagnosed with mental disorders to provide data for the establishment of clinical thresholds and to explore changes in psychological flexibility and inflexibility sub-process within specific diagnostic groups.

In conclusion, findings from this study show that the Italian MPFI is a psychometrically sound and theoretically valid tool for examining psychological flexibility and inflexibility and their respective sub-processes in the Italian population. It shows potential for use in investigating the theoretical model underpinning ACT and in evaluating ACT interventions in Italy.

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Table 1 Descriptive Data and Person's Correlations among the Italian Multidimensional Psychological Flexibility Inventory (MPFI) Factors and other Psychological Flexibility and Inflexibility Subscales (N = 1,542).

	M (SD)	Range	α	1	1a	1b	1c	1d	1e	1f	2	2a	2b	2c	2d	2e	2f
1. Global Psychological Flexibility	3.89 (0.69)	1.60-6	.94	-													
1a. Acceptance	3.44 (0.86)	1-6	.85	.59**	-												
1b. Present Moment Awareness	3.96 (0.99)	1-6	.89	.70**	.52**	-											
1c. Self-as-context	3.92 (0.99)	1-6	.89	.80**	.33**	.41**	-										
1d. Defusion	3.46 (0.96)	1-6	.88	.75**	.29**	.31**	.67**	-									
1e. Values	4.38 (0.93)	1.40-6	.87	.76**	.28**	.45**	.49**	.45**	-								
1f. Committed Action	4.16 (0.95)	1-6	.88	.78**	.25**	.38**	.58**	.53**	.66**	-							
2. Global Psychological Inflexibility	2.62 (0.73)	1-6	.94	-.36**	-.11**	-.09**	-.32**	-.40**	-.30**	-.36**	-						
2a. Experiential avoidance	3.41 (1.06)	1-6	.91	.08**	-.19**	-.01	.12**	.11**	.14**	.15**	.34**	-					
2b. Lack of contact with present moment	2.46 (1.00)	1-6	.91	-.31**	-.14**	-.20**	-.24**	-.21**	-.27**	-.30**	.71**	.18**	-				
2c. Self-as-content	2.64 (1.10)	1-6	.91	-.24**	-.03	-.01	-.23**	-.35**	-.18**	-.23**	.78**	.17**	.41**	-			
2d. Fusion	2.69 (1.14)	1-6	.93	-.31**	-.00	.03	-.34**	-.49**	-.23**	-.31**	.80**	.02	.43**	.62**	-		
2e. Lack of contact with values	2.32 (0.91)	1-6	.89	-.36**	-.07**	-.14**	-.26**	-.28**	-.43**	-.39**	.73**	.04	.51**	.43**	.51**	-	
2f. Inaction	2.20 (1.05)	1-6	.94	-.38**	-.04	-.06*	-.36**	-.43**	-.33**	-.43**	.82**	.01	.48**	.58**	.74**	.64**	-
AAQ-II	19.81 (8.61)	7-49	.91	-.42**	-.08**	-.09**	-.41**	-.50**	-.34**	-.44**	.74**	.04	.44**	.61**	.70**	.54**	.75**
CompACT Openness to experience	34.13 (10.56)	0-60	.78	.38**	.28**	.18**	.30**	.38**	.23**	.29**	-.60**	-.32**	-.33**	-.50**	-.48**	-.37**	-.50**
CompACT Behavioral awareness	21.60 (6.78)	0-30	.84	.41**	.15**	.22**	.32**	.33**	.36**	.41**	-.63**	-.07**	-.62**	-.42**	-.46**	-.52**	-.56**
CompACT Valued Action	37.96 (7.67)	6-48	.86	.56**	.18**	.30**	.41**	.38**	.56**	.61**	-.46**	.07**	-.38**	-.31**	-.34**	-.48**	-.51**

Note. * $p < .05$, ** $p < .01$. α = Cronbach's Alpha. AAQ-II = Acceptance and Action Questionnaire- II; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy.

Table 2 *Standardized Path Coefficients for the Second-order CFA of the Italian Multidimensional Psychological Flexibility Inventory (MPFI).*

First and Second Factors and items	Coeff	SE		Coeff	SE
<i>Global Psychological Flexibility</i>			<i>Global Psychological Inflexibility</i>		
Acceptance	.456	.039	Experiential Avoidance	.728	.046
I was receptive to observing unpleasant thoughts ... without interfering with them	.499	.033	When I had a bad memory, I tried to distract myself to make it go away	.794	.017
I tried to make peace with my negative thoughts and feelings rather than resisting them	.598	.026	I tried to distract myself when I felt unpleasant emotions	.814	.017
I made room to fully experience negative... rather than pushing them away	.732	.023	When unpleasant memories came to me, I tried to put them out of my mind	.879	.009
When I had an upsetting thought ..., I tried to give it space rather than ignoring it	.765	.019	When something upsetting came up, I tried very hard to stop thinking about it	.813	.015
I opened myself to all of my feelings, the good and the bad	.641	.023	... I would try many things to get it out of my mind	.790	.016
Present Moment Awareness	.516	.031	Lack of Contact with Present Moment	.607	.025
I was attentive and aware of my emotions	.768	.013	I did most things on "automatic" with little awareness of what I was doing.	.780	.016
I was in tune with my thoughts and feelings from moment to moment	.817	.013	I did most things mindlessly without paying much attention.	.796	.016
I paid close attention to what I was thinking and feeling	.854	.011	I went through most days on auto-pilot without paying much attention883	.014
I was in touch with the ebb and flow of my thoughts and feelings	.793	.014	I floated through most days without paying much attention.	.858	.012
I strived to remain mindful and aware of my own thoughts and emotions	.735	.016	.. I was just going through the motions without paying much attention	.802	.016
Self-as-context	.810	.018	Self-as-content	.717	.021
Even when I felt hurt or upset, I tried to maintain a broader perspective	.653	.019	I thought some of my emotions were bad ... and I shouldn't feel them	.769	.015
I carried myself through tough moments by seeing my life from a larger viewpoint	.776	.015	I criticized myself for having irrational or inappropriate emotions	.790	.016
I tried to keep perspective even when life knocked me down	.835	.012	I believed some of my thoughts are abnormal ... and I shouldn't think that way	.859	.010
When I was scared or afraid, I still tried to see the larger picture	.868	.010	I told myself that I shouldn't be feeling the way I'm feeling	.849	.012
When something painful happened, I tried to take a balanced view of the situation	.779	.014	I told myself I shouldn't be thinking the way I was thinking	.851	.013
Defusion	.771	.021	Fusion	.849	.013
I was able to let negative feelings come and go without getting caught up in them	.806	.014	Negative thoughts and feelings tended to stick with me for a long time.	.874	.009
When I was upset, I was able to let those negative feelings pass through me...	.860	.011	Distressing thoughts tended to spin around in my mind like a broken record.	.892	.009
When I was scared or afraid, I was able to gently experience those feelings,808	.013	It was very easy to get trapped into unwanted thoughts and feelings.	.897	.010
I was able to step back and notice negative ... without reacting to them	.636	.022	When I had negative thoughts or feelings it was very hard to see past them.	.849	.012
... I was able to notice my thoughts and feelings without getting overwhelmed by them	.765	.014	When something bad happened it was hard for me to stop thinking about it.	.753	.016
Values	.761	.022	Lack of Contact with Values	.726	.021
I was very in-touch with what is important to me and my life	.723	.016	My priorities and values often fell by the wayside in my day to day life	.741	.018
I stuck to my deeper priorities in life	.792	.017	When life got hectic, I often lost touch with the things I value	.777	.017
I tried to connect with what is truly important to me on a daily basis	.854	.011	The things that I value the most often fell off my priority list completely	.826	.013
... I still tried to prioritize the things that were important to me	.760	.015	I didn't usually have time to focus on the things that are really important to me	.778	.016
My deeper values consistently gave direction to my life	.681	.017	When times got tough, it was easy to forget about what I truly value	.797	.016
Committed Action	.825	.017	Inaction	.900	.011
Even when I stumbled in my efforts, I didn't quit working toward what is important	.692	.021	Negative feelings often trapped me in inaction	.890	.008
Even when times got tough, I was still able to take steps toward what I value in life	.832	.012	Negative feelings easily stalled out my plans	.916	.007
... I still worked toward things that were important to me	.795	.013	Getting upset left me stuck and inactive	.905	.008
I didn't let set-backs slow me down in taking action toward what I really want in life	.839	.011	Negative experiences derailed me from what's really important	.825	.012
I didn't let my own fears and doubts get in the way of taking action toward my goals	.748	.016	Unpleasant thoughts ... easily overwhelmed my efforts to deepen my life	.827	.013

Note. All path coefficients were significant at $p < .001$. Model $\chi^2 (1,694) = 6,014.313$, $p < .001$; Comparative Fit Index = .916; Tucker-Lewis Index = .912; Root Mean Square Error of Approximation = .041 (.040, .042); Standardized Root Mean Square Residual = .073.

Table 3 Standardized Regression Coefficients for the Italian MPFI Global Psychological Flexibility and Inflexibility and Sub-process Scales Predicting Anxiety, Depression and Well-being.

	Anxiety	Depression	Well-being
Global Psychological Flexibility and Inflexibility Scores as Predictors			
1. Global Psychological Flexibility	-.078*	-.129**	.428**
2. Global Psychological Inflexibility	.608**	.594**	-.300**
R ²	.411**	.425**	.368**
Psychological Flexibility and Inflexibility Sub-processes as Predictors			
1a. Acceptance	-.013	.001	.042
1b. Present Moment Awareness	.048	.060*	.029
1c. Self-as-context	-.010	-.010	.124**
1d. Defusion	-.179**	-.147**	.085*
1e. Values	.026	-.012	.086*
1f. Committed Action	.010	-.039	.189**
2a. Experiential avoidance	.064*	.041*	.031
2b. Lack of contact with present moment	.022	.129**	-.061*
2c. Self-as-content	.161**	.102**	-.073*
2d. Fusion	.369**	.184**	-.191**
2e. Lack of contact with values	.046	.056	-.017
2f. Inaction	.101*	.234**	-.030
R ²	.498**	.470**	.404**

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

Table 4 Italian MPFI Measurement Invariance for Gender, Age and Mental Health Status.

	Model fit				Model comparisons					
	χ^2_{SB}	<i>df</i>	CFI	RMSEA [90% CI]	Models	$\Delta\chi^2_{SB}$	Δdf	<i>p</i>	ΔCFI	$\Delta RMSEA$
Gender invariance (male, <i>n</i> =453, vs. female, <i>n</i> =1,089)										
M1 - Configural	6,611.278	3,286	.938	.036 [.035, .038]						
M2 - Metric	6,654.041	3,334	.938	.036 [.035, .037]	M2-M1	38.459	48	.836	.000	.000
M3 - Full scalar	6,760.696	3,382	.936	.036 [.035, .037]	M3-M2	108.848	48	.000	-.002	.000
Age invariance (18-24 years, <i>n</i> =368, vs. 25-34 years, <i>n</i> =417, vs. 35-44 years, <i>n</i> =212, vs. 45-83 years, <i>n</i> =545)										
M1 - Configural	11,166.037	6,572	.919	.043 [.041, .044]						
M2 - Metric	11,332.488	6,716	.919	.042 [.041, .044]	M2-M1	164.504	144	.116	.000	-.001
M3 - Full scalar	11,628.083	6,860	.916	.042 [.041, .044]	M3-M2	302.507	144	.000	-.003	.000
Clinical status (Mental health problems and/or in treatment, <i>n</i> =228 vs. No mental health problems nor in treatment, <i>n</i> =1,314)										
M1 - Configural	6,808.719	3,286	.934	.037 [.036, .039]						
M2 - Metric	6,900.475	3,334	.933	.037 [.036, .098]	M2-M1	91.008	48	.000	-.001	.000
M3 - Full scalar	7,027.122	3,382	.931	.037 [.036, .039]	M3-M2	130.796	48	.000	-.002	.000

Note. χ^2_{SB} = Satorra–Bentler scaled chi-square; *df* = degrees of freedom; CFI = comparative fit index; RMSEA [90% CI] = root mean square error of approximation and 90% confidence interval; Δ = change in the parameter.

Appendix

Italian Version of the Multidimensional Psychological Flexibility Inventory (MPFI)

Indica in che misura ciascuna affermazione corrisponde alla tua esperienza nelle ULTIME DUE SETTIMANE su una scala che va da 1 (Mai VERO), 2 (Raramente VERO), 3 (Ogni tanto VERO), 4 (Spesso VERO), 5 (Molto spesso VERO), 6 (Sempre VERO):

Accettazione

1. Sono stato disposto a osservare pensieri e sentimenti spiacevoli senza interferire con essi
2. Ho cercato di far pace con pensieri e sentimenti negativi invece di respingerli
3. Ho fatto spazio a emozioni e pensieri negativi vivendoli appieno, accogliendoli invece di respingerli
4. Quando ho avuto un pensiero o un'emozione che mi disturbava, ho cercato di dargli spazio invece di ignorarlo
5. Mi sono aperto a tutti i sentimenti, sia buoni che cattivi

Contatto con il momento presente

6. Ho prestato attenzione alle mie emozioni e ne sono stato consapevole
7. Sono stato in contatto con i miei pensieri e sentimenti momento dopo momento
8. Ho prestato molta attenzione a ciò che pensavo e provavo
9. Sono stato in contatto con l'andare e venire dei miei pensieri e sentimenti
10. Mi sono impegnato per rimanere consapevole e cosciente dei miei pensieri ed emozioni

Sé come contesto

11. Ho cercato di mantenere una prospettiva più ampia anche quando mi sono sentito ferito o turbato
12. Sono riuscito ad affrontare i momenti duri perché ho guardato la mia vita da un punto di vista più ampio
13. Anche quando la vita mi ha messo KO, ho cercato di vedere le cose in prospettiva
14. Quando ho avuto paura o timore, ho comunque cercato di mantenere un quadro più ampio
15. Quando è successo qualcosa di doloroso, ho cercato di mantenere una visione equilibrata della situazione

Defusione

16. Sono riuscito a lasciare andare e venire i pensieri negativi senza restarne intrappolato
17. Quando ero turbato, sono riuscito a lasciare fluire i sentimenti negativi senza rimanervi ancorato
18. Quando ero spaventato o intimorito, sono riuscito ad accogliere quei sentimenti in modo graduale e "delicato" e a lasciarli passare
19. Sono riuscito a fare un passo indietro e notare pensieri e sentimenti negativi senza reagirvi
20. Nelle situazioni difficili, sono stato in grado di notare i miei pensieri e sentimenti senza esserne sopraffatto

Valori

21. Sono stato spesso in contatto con ciò che è importante per me e per la mia vita
22. Nella vita sono rimasto ancorato alle mie priorità più profonde
23. Ogni giorno ho cercato di restare connesso con ciò che è realmente importante per me
24. Ho cercato di dare la priorità alle cose che erano importanti per me anche quando implicava fare delle scelte difficili
25. I miei valori più profondi hanno costantemente orientato la mia vita

Azione in direzione valoriale

26. Anche quando i miei sforzi sono stati resi vani, non ho smesso di agire in direzione di ciò che per me è importante
27. Anche nei momenti più difficili, sono comunque stato capace di fare passi avanti verso ciò che per me ha più valore nella vita
28. Anche quando la vita diventava stressante e frenetica, ho continuato a impegnarmi per le cose che sono importanti per me
29. Non ho lasciato che gli ostacoli mi frenassero nel progredire verso ciò che veramente voglio nella vita
30. Non ho lasciato che paure o dubbi si frapponessero fra me e i miei obiettivi

Evitamento esperienziale

31. Quando ho avuto un brutto ricordo, ho provato a distrarmi per farlo andare via
32. Ho cercato di distrarmi quando ho provato emozioni spiacevoli
33. Quando affioravano ricordi spiacevoli, ho cercato di scacciarli dalla mente
34. Quando mi è successo qualcosa che mi ha turbato, ho cercato intensamente di non pensarci più
35. Se c'è stato qualcosa a cui non volevo pensare, ho fatto di tutto per togliermelo dalla mente

Mancanza di contatto con il momento presente

36. Ho fatto la maggior parte delle cose "in automatico", senza rendermi ben conto di cosa stessi facendo
37. Ho fatto la maggior parte delle cose senza pensarci troppo e senza prestarvi molta attenzione
38. Ho trascorso la maggior parte delle giornate in modalità pilota automatico, senza prestare molta attenzione a ciò che stavo pensando o provando
39. Senza farci troppa attenzione, ho trascorso le giornate come galleggiando
40. Il più delle volte mi sono fatto trasportare dagli eventi senza fare troppa attenzione

Sé come contenuto

41. Ho pensato che alcune delle mie emozioni fossero sbagliate o inappropriate e che non dovessi provarle
42. Mi sono rimproverato per aver avuto emozioni irrazionali o inappropriate
43. Ho creduto che alcuni dei miei pensieri fossero anormali o sbagliati e che non dovessi pensare in quel modo
44. Mi sono detto che non avrei dovuto sentirmi come mi sentivo
45. Mi sono detto che non avrei dovuto pensare nel modo in cui stavo pensando

Fusione

46. I pensieri e i sentimenti negativi tendevano a restarmi appiccicati addosso a lungo
47. I pensieri angoscianti tendevano a girarmi in testa come un disco rotto
48. È stato molto facile restare intrappolato in pensieri e sentimenti indesiderati
49. Quando ho avuto pensieri o sentimenti negativi, è stato molto difficile riuscire a guardare oltre
50. Quando è successo qualcosa di brutto, è stato difficile smettere di pensarci

Mancanza di contatto con i propri valori

51. Spesso, nella vita di tutti i giorni, le mie priorità e i miei valori sono passati in secondo piano
52. Quando la vita si è fatta frenetica, spesso ho perso il contatto con le cose per me di valore
53. Le cose a cui dò più valore spesso sono uscite del tutto dalla lista delle mie priorità
54. In generale, non ho avuto tempo di concentrarmi sulle cose che per me sono veramente importanti
55. Nei momenti più difficili, è stato facile dimenticare ciò a cui dò veramente valore

Azione disvaloriale

56. I sentimenti negativi mi hanno spesso intrappolato impedendomi di agire
57. I sentimenti negativi hanno facilmente bloccato i miei piani
58. L'essere turbato mi ha bloccato e impedito di agire
59. Le esperienze negative mi hanno distolto da ciò che per me è veramente importante
60. I pensieri e i sentimenti spiacevoli hanno facilmente reso vani i miei sforzi per dare valore alla mia vita

Supplementary Materials – Table A Means and Standard Deviations and Internal Consistency of the Italian MPFI Global and Sub-Process

Scales Split by Gender, Age and Mental Health Status.

	Gender		Age (in years)				Mental Health Status	
	Male	Female	18-24	25-34	35-44	45-73	Mental health problems and/or in treatment	No mental health problems nor in treatment
	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>	<i>M(SD)/ α</i>
1. Global Psychological Flexibility	3.93 (0.71)/.93	3.86 (0.68)/.94	3.80 (0.63)/.92	3.81 (0.69)/.93	3.86 (0.67)/.93	4.01 (0.73)/.95	3.57 (0.66)/.93	3.94 (0.68)/.94
1a. Acceptance	3.42 (0.92)/.85	3.45 (0.84)/.86	3.47 (0.82)/.80	3.49 (0.86)/.87	3.41 (0.83)/.86	3.38 (0.91)/.87	3.38 (0.86)/.87	3.45 (0.87)/.85
1b. Present Moment Awareness	3.92 (1.03)/.89	3.98 (0.97)/.90	3.97 (0.97)/.87	3.89 (1.03)/.90	3.86 (0.90)/.89	4.04 (1.01)/.90	3.97 (0.97)/.88	3.95 (1.00)/.90
1c. Self-as-context	4.07 (0.99)/.88	3.86 (0.99)/.90	3.75 (0.97)/.87	3.85 (0.99)/.89	3.93 (0.99)/.90	4.08 (0.98)/.89	3.42 (0.94)/.88	4.01 (0.98)/.88
1d. Defusion	3.65 (0.98)/.86	3.37 (0.94)/.89	3.24 (0.87)/.84	3.35 (0.93)/.88	3.46 (0.95)/.89	3.69 (0.99)/.90	2.94 (0.88)/.89	3.54 (0.95)/.88
1e. Values	4.40 (0.95)/.86	4.38 (0.92)/.88	4.34 (0.89)/.85	4.25(0.94)/.87	4.33 (0.96)/.87	4.54 (0.92)/.89	3.99 (0.98)/.85	4.45 (0.90)/.87
1f. Committed Action	4.14 (0.98)/.89	4.16 (0.94)/.88	4.01 (0.93)/.86	4.02 (0.96)/.88	4.17 (0.97)/.89	4.34 (0.91)/.89	3.70 (0.97)/.87	4.23 (0.92)/.88
2. Global Psychological Inflexibility	2.56 (0.72)/.94	2.64 (0.73)/.94	2.87 (0.78)/.94	2.69 (0.73)/.94	2.45 (0.71)/.94	2.46 (0.63)/.93	3.10 (0.82)/.94	2.54 (0.68)/.94
2a. Experiential avoidance	3.34 (1.08)/.90	3.44 (1.06)/.91	3.53 (1.03)/.88	3.35 (1.05)/.91	3.21 (1.11)/.93	3.46 (1.07)/.91	3.28 (1.04)/.91	3.43 (1.07)/.91
2b. Lack of contact with present moment	2.53 (1.02)/.90	2.43 (0.99)/.91	2.73 (1.06)/.90	2.50 (1.00)/.90	2.38 (0.98)/.93	2.27 (0.91)/.90	2.79 (1.14)/.93	2.40 (0.96)/.90
2c. Self-as-content	2.53 (1.04)/.90	2.69 (1.13)/.92	3.03 (1.23)/.91	2.82 (1.13)/.91	2.37 (1.01)/.92	2.35 (0.90)/.89	3.28 (1.22)/.91	2.53 (1.04)/.91
2d. Fusion	2.54 (1.08)/.92	2.75 (1.15)/.93	3.02 (1.17)/.92	2.80 (1.15)/.93	2.47 (1.12)/.94	2.47 (1.05)/.93	3.52 (1.27)/.95	2.54 (1.05)/.92
2e. Lack of contact with values	2.29 (0.89)/.88	2.34 (0.91)/.89	2.44 (0.95)/.88	2.38 (0.93)/.89	2.28 (0.94)/.91	2.22 (0.83)/.87	2.76 (1.06)/.90	2.25 (0.85)/.88
2f. Inaction	2.14 (1.04)/.94	2.23 (1.06)/.94	2.51 (1.15)/.94	2.32 (1.09)/.94	2.01 (1.03)/.95	1.98 (0.89)/.94	2.98 (1.29)/.95	2.07 (0.94)/.93