

Section A: Procedure of the Study and Measurements

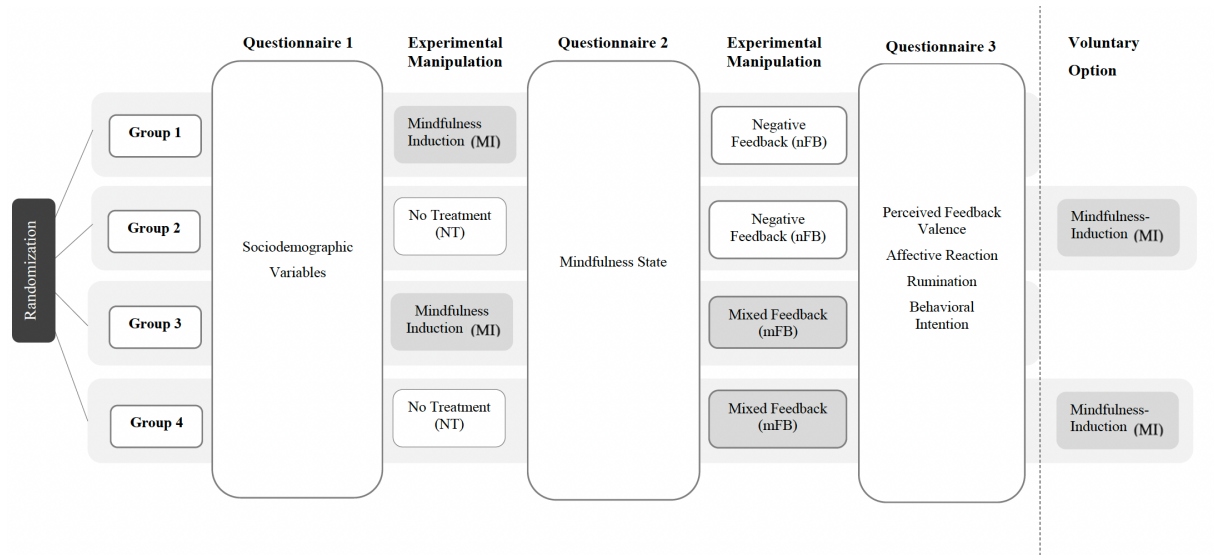


Figure A.1. Procedure of the Study Including Questionnaires and Experimental Manipulations Relevant for the Study. The study consisted of three questionnaires (i.e., prior, between, and following the experimental manipulations) and two experimental manipulations. MI = mindfulness induction; NT = no treatment; nFB = negative feedback vignette; mFB = positive-negative-mixed feedback vignette.

Table A.1*Questionnaire 1: Investigated Constructs and Used Instruments/Scales*

Construct	Subconstructs	Instrument/scale
Selection	Paid working experiences	Self-constructed scale
Demographics	Gender, age, educational and occupational background	Self-constructed scale
Feedback experience	Receipt of formal and 360-degree feedback at work, valence of last feedback	Self-constructed scale
Self-esteem	Global self-esteem	German Single-Item Self-Esteem Scale (G-SISE) [1,2]
Mindfulness trait	Attention, present-focus, acceptance, awareness (CAMS-R); nonjudge (FFMQ)	Cognitive and Affective Mindfulness Scale-Revised (CAMS-R) [3] Five Facets Mindfulness Questionnaire (FFMQ) [4,5]; brief version [6]; German version [7]

Table A.2*Questionnaire 2: Investigated Constructs and Used Instruments/Scales*

Construct	Subconstructs	Instrument/ scale
Manipulation check Mindfulness induction ^a	Execution of instructions, attention level	Self-adjusted scale, oriented at [8]
Mindfulness state	Mindfulness state of mind (SMS), Nonjudgmental acceptance (MSMQ)	State Mindfulness Scale (SMS) [9], German version [10] Multidimensional State Mindfulness Questionnaire (MSMQ) [11]

^a Manipulation check only applied for the participants who received the mindfulness induction (MI-condition).

Table A.3*Questionnaire 3: Investigated Constructs and Used Instruments/Scales*

Construct	Subconstructs	Instrument/ scale
Manipulation check feedback vignette 1	Valence of feedback-vignette, control item	Self-constructed scale
Decentering	Decentering	Experience Questionnaire (EQ) [12,13], German version [14]
Cognitive self- regulation	Distraction, reappraisal, acceptance	State Emotion Regulation Inventory (SERI) [15]
Emotional self- regulation	Concealing, adjusting, tolerating	Affective Style Questionnaire (ASQ) [16], German version [17]
Affective Reaction	Positive activation, negative activation, valence	Positive Activation Negative Activation Valence (PANAVA-KS) [18]
Cognitive Engagement	Rumination Insight	Brief State Rumination Inventory (BRSI) [19] Insight 10.09.26 13:22:00[20]
Motivational Engagement	Motivation to adapt behavior	[20]
Manipulation check Feedback vignette 2	Identification with role as feedback recipient in vignette	Self-constructed scale
Mindfulness experience	Mindfulness meditation experience, meditation experience	Self-adjusted scale; oriented at [21]
COVID-19	Personal strain through COVID-19	Self-constructed scale

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Section B: Feedback Vignette

In general, the vignettes covered: the preliminaries (i.e., collection of personalized information and instructions), the initiation (i.e., description of the feedback context), and the actual feedback report (i.e., the 360-degree feedback in the narrower sense).

First, participants were encouraged to think about a current or past project which they feel they had high personal involvement in and commitment to. In this context, the participants' information (i.e., job position and project objective) was collected for personalizing the feedback vignette afterwards:

Personal Information about your Professional Activity

Please think of one of your current or past professional activities in which you are/were involved in a project together with a team. Please complete the following sentences accordingly.

“I work as/I have worked as ...”

(Free text field for entering job position (e.g., project manager, intern))

Please think of a project on which you worked very intensively during this activity. Please select a project for whose implementation you took (as much) responsibility as possible and the success of which was/is very important to you personally. Such a project could be, for example, the introduction of new software or a research project.

“My project is/was about ...”

(Free text field for entering the goal of the project)

Participants then were informed about the hypothetical feedback which they received later on and were instructed to imagine the subsequent feedback situation by taking on the role of the feedback recipient. In the following, we explain the vignette by using as examples: “project manager” as job position and “to develop new software” as project objective. Accordingly, this hypothetical participant would have been given the following instructions prior to the vignette:

Your Feedback as Project Manager

Below you will find a hypothetical feedback scenario relating to your performance as a project manager. The feedback relates to your involvement in the project, which involved developing new software.

Please recall your current/previous work on this project. Imagine that you would have received the following 360° feedback after completing your project (360° feedback is explained below). Regardless of your actual experience with this project, it is necessary for this study that you try to put yourself in the scenario presented.

Please pay particular attention to the following:

- *How would you feel if you had received the following feedback?*
- *What would you think if you had received the following feedback?*
- *How would you react if you had received the following feedback?*

Please think back to your project activities as a project manager and put yourself in the following situation on the next page.

As a next step, the feedback vignette was begun by personally addressing the participants in order to strengthen their involvement with and commitment to the vignette as well as the person- role fit. Participants were thus encouraged to take on the role of the feedback recipient and to remember the commitment they have worked on the project:

Your Activity as Project Manager

Please imagine that you have successfully completed the project. You are convinced that your employer can benefit greatly from your project.

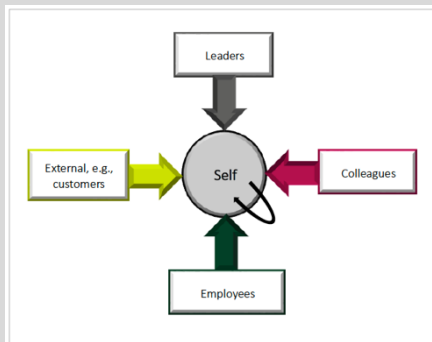
Think back to how much work you invested in the project and how important the success of the project was to you. You worked intensively on it with your team and put in a lot of overtime throughout the project. As a result, you are particularly proud of your contribution to the project's success and expect a lot of recognition for your performance. You therefore hope to take this opportunity to advance professionally and are now committed to your career development. To support you in your personal development, your employer has offered you 360° feedback. You were very pleased with this offer and gratefully accepted it.

Please go to the next page to find out more about your 360° feedback.

Then, the vignette included the general conditions of the feedback as well as an explanation of the 360-degree feedback approach to enable a common understanding, as described previously.

Your Activity as Project Manager

To inform you in advance, your employer will send you a brief explanation of what 360° feedback is and how the feedback process works.



What is 360° feedback?

360° feedback refers to a feedback process that takes several perspectives into account. This means that the feedback recipient is evaluated by different groups of people from their direct professional environment. The feedback recipient also assesses themselves. Based on the comparison of self-assessment and external assessment, comprehensive written feedback can be provided.

How does 360° feedback work?

You are assessed by various people from your professional environment - by superiors, project team members and (external) cooperation partners with whom you have worked. Your employer will select three people from each group in consultation with you. This ensures that the people can assess your performance well and that anonymity and therefore honest feedback is guaranteed. In addition to the external assessment, a self-assessment is also undertaken. The self-assessment and external assessment are based on clear criteria and include four relevant areas of competence for the success of the project: results orientation, project management, communication, and behavior in the project team.

You have carefully read the information provided by your employer and submitted your self-assessment of your own performance. Inspired by the successful completion of the project and your important contribution as project manager, you are now eagerly awaiting the feedback.

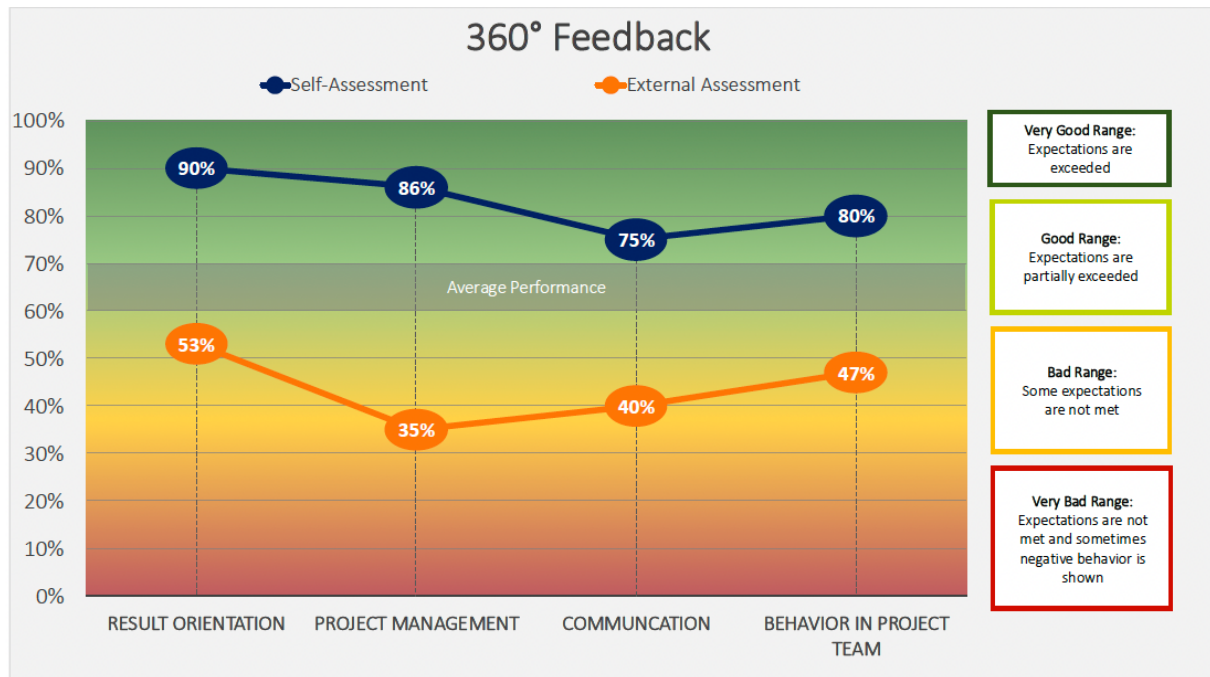
Full of anticipation, you received your feedback results by post today. The results are available in the form of a feedback report in which the feedback is summarized anonymously. Your employer has written to you offering to discuss the feedback with an external coach afterwards if you wish.

To read the summary of your report, please go to the next page.

Lastly, the participants received the actual feedback report which contrasted the self- and external assessment via graphical representations and written feedback.

Summary of Your 360° Feedback

Overall assessment: Your feedback is negative overall. All competencies were rated significantly lower by your feedback providers than by yourself. Overall, you are below the average rating at your employer compared to the other people who work as project managers. On average, people working as project managers achieve a rating of around 60-70% in the four areas of competence.



It is striking that your external assessment in all four areas of competence is both below the expected average assessment for a project manager and differs negatively from your self-assessment. The following points were noted by your professional environment:

(1) **Result orientation:** Your project was about developing new software. The end result is therefore of great importance. Unfortunately, your contribution to the project result is below expectations and your goal and result orientation as a project manager are rated as poor. The project could have been implemented much more efficiently and quickly if you had prioritized more clearly.

(2) **Project management:** Your project management skills are in the lower poor range. Those in your professional environment criticize your poor time management (e.g., missing an important deadline and working too much overtime).

(3) **Communication** and (4) **Behavior in the project team:** There were misunderstandings in the collaboration with your project team due to imprecise communication on your part, which delayed project implementation. This has led to low motivation and a high level of stress in your project team. You also attracted negative attention due to your sometimes unfriendly behavior in stressful situations.

Recommendations from your employer for your personal development: Participation in basic seminars on project management (including prioritization and time management) and on promoting clear communication within the team and dealing with stress.

Section C: Mindfulness Induction

The mindfulness induction consisted of guiding instructions and two mindfulness inductions parts: an educational and practical part. Both parts are oriented at Erisman and Roemer (2010) and Segal et al. (2002) including modifications by the authors [92,93].

Educational Part

First, the educational part was aimed to define mindfulness and consisted of an educational video with an audio track and visual elements to underline the spoken content. The video had a duration of 4:30 minutes and follow the following script:

Over the next few minutes, I will ask you to focus on a particular form of consciousness, mindfulness, and then try it out for yourself in a subsequent exercise. The term “mindfulness” comes from the spiritual and religious traditions of the East. In psychology, however, mindfulness is viewed independently of the spiritual and religious context and is seen as helpful in many ways.

Mindfulness means focusing attention purposefully and consciously on the present moment, with openness and curiosity, instead of evaluating and judging it. Mindfulness therefore contains three core elements: Firstly, mindfulness is a purposeful and conscious process. Secondly, it is concerned with directing attention to the present moment. Thirdly, mindfulness is characterized by openness, curiosity, compassion and acceptance. This means that we perceive ourselves, our thoughts, feelings, our actions and our surroundings with openness and curiosity, without directly evaluating and judging what we perceive.

Mindfulness as a purposeful and conscious process. People pursue very different goals with this way of directing their attention. Some want to train their attention and learn to control it better, others want to learn something about themselves or free themselves from judgment. However, it is important that we are compassionate, open and accepting towards ourselves and others.

Mindfulness as directing our attention to the here and now. We often focus on things other than what is happening right now. We worry about the future, think about the past and focus on what comes next instead of concentrating on what is right in front of us.

Mindfulness as a form of awareness with openness, curiosity, compassion and acceptance. Sometimes we pay very close attention to what we think and feel. Then we become very critical of our own thoughts and feelings. We either try to change them or distract ourselves, because critical examination of ourselves can be painful.

For example, in a conversation with a stranger, we notice that our voice is shaking or that we are not expressing ourselves clearly. Then we think: "I'm such an idiot! What's wrong with me? If I don't calm down, this person will never like me!".

If, on the other hand, we are mindful, we notice the same changes in our voice in the same situation, but we take a moment to reflect on ourselves: "I notice the feeling of anger about my trembling voice. I also see the self-reproach and my negative thoughts. That's okay. I notice my thoughts and my feelings. I accept them without judging them or blaming myself even more for them. At the same time, I know that my fear that the person won't like me is just my thought and not the reality." And then we gently bring our attention back to the person and the conversation.

This part of mindfulness can be particularly difficult when we are trying to detach from our judgment and not change our thoughts and feelings, but simply accept them. In fact, mindfulness means practicing not judging ourselves, even if we tend to be judgmental. Instead, we can notice what we feel in our body, what thoughts we have and simply let this experience happen without being trapped in it. Our feelings change on their own when we allow them, instead of seeing them as good or bad or as something that needs to be changed.

Mindfulness is a process. We cannot achieve a final or complete state of mindfulness. It means that we focus our attention purposefully and consciously on the present moment.

We notice all our thoughts, our feelings and everything around us - with openness, compassion and acceptance, without judging or evaluating.

The best way to understand mindfulness is to practice it and try it out for yourself. That is why I will do a mindfulness exercise with you in the second step.

Second, the practical mindfulness exercise covered a guided mindfulness meditation with a duration of 5:50 minutes via an audio with the following script:

First, gently close your eyes or lower your gaze and direct it in a relaxed manner to a point on the floor in front of you... (3 seconds).

Bring yourself into an upright sitting position ... (3 seconds)

Begin to notice how you are sitting on the chair or cushion ... bring your attention to the level of your body. Notice where your body comes into contact with the chair or cushion, what touches or pressure you perceive. Take a moment to concentrate on these sensory impressions. (5 seconds)

Now gently bring your attention to your breath ... Breathe in deeply (5 seconds) ... and out (5 seconds) ... try to feel where your breath is coming from - without wanting to change it (5 seconds) ... notice where you feel your breath when you breathe in (5 seconds) ... and how it moves through your body before you breathe out (5 seconds) ... notice how your abdominal wall rises with each inhalation and falls with each exhalation (10 seconds) ... Notice how your body moves - with each inhalation (4 seconds) and each exhalation (4 seconds) ... Now breathe in and out deeply and mindfully a few times ... (15 seconds).

Sooner or later your thoughts will detach themselves from your breath. That is all right. It's just something the mind does. There is nothing wrong with that. When you notice that your awareness is no longer focused on your breath, notice what your awareness is focused on and gently bring your attention back to your breath... (15 seconds)

Allow any thoughts and feelings that arise to emerge and disappear naturally without trying to hold on to them or get rid of them (5 seconds) ... It can help to imagine that you are sitting in a movie theater in front of a large screen... As thoughts, memories and mental images come into your mind, imagine them as images on the screen and observe each thought as long as it is on the screen... Simply observe what is happening without intervening... (20 seconds)

Now direct your attention to your perceptions in this moment (5 seconds) ... and continue to notice your breath (15 seconds) ... while you let everything that comes come, let everything that goes, go and let everything that stays, stay (25 seconds) ...

Now bring your awareness back into this space, back to the way you were sitting on the chair or cushion (10 seconds) ... take another deep breath (5 seconds) ... and gradually open your eyes when you are ready.

Section E: Evaluation of the Measurement Model

The measurement model of affective reaction via SEM ($N = 421$) demonstrated mixed results: Some model fit indices were overall sufficient (CFI = .970; TLI = .958; SRMR = .03, RMSEA = .084) with AIC = 13175.672 and BIC = 13268.652, only the chi-square test was significant ($\chi^2 = 104.834$, $df = 32$, $p < .001$). However, the correlation of the factors was extremely high with modification indices > 10 , indicating high cross correlations between factors. Accordingly, the number of three factors may be too large. In contrast to the three proposed factors (i.e., positive and negative activation, valence), parallel analysis found only two factors. Results for an EFA with two factors disclosed the factor of negative (NEG) and positive arousal (POS; Table E.1). Both factors represent high levels of arousal: For example, stressed and angry for NEG; full of energy and enthusiastic for POS.

Table E.1.

EFA Results for Affective Reaction ($N = 421$)

Item	Text	NEG	POS
PANAVA_3_NA_R_inv	1 = relaxed 7 = stressed	.825	
PANAVA_5_NA	1 = peacefull 7 = angry	.877	
PANAVA_8_NA	1 = calm 7 = nervous	.848	
PANAVA_10_NA_R_inv	1 = carefree 7 = worried	.717	-.104
PANAVA_2_PA_R_inv	1 = without energy 7 = full of energy		.789
PANAVA_4_PA	1 = tired 7 = wide awake		.620
PANAVA_7_PA	1 = listless 7 = highly motivated	-.253	.611
PANAVA_9_PA_R_inv	1 = bored 7 = enthusiastic		.448
PANAVA_1_VA_R_inv	1 = dissatisfied 7 = satisfied	-.837	
PANVA_6_VA	1 = unhappy 7 = happy	-.737	0.179

Note. EFA = exploratory factor analysis with goemin oblique rotation and maximum-likelihood; NEG = negative arousal; POS = positive arousal.

This exploratory factor structure of affective reaction achieved sufficient model fit: CFI = .977; TLI = .961; RMSEA = .071; SRMR = .023; AIC = 13164.739; BIC = 13281.975, so that the significant chi-square test ($\chi^2 = 81.901$, $df = 26$, $p < .0001$) can be omitted.

For task-focused rumination, the measurement model via SEM ($N = 420$) displayed an insufficient model fit ($\chi^2 = 189.741$, $df = 20$, $p < .001$; CFI = .880; TLI = .821; RMSEA = .142; SRMR = .065; AIC = 12167.854; BIC = 12232.498). EFA revealed two factors: Reflection (REF) mainly focuses on neutrally reflecting about mood, reactions, and emotions. Rumination (RUM) consists of a negative focus on mistakes and shortcomings (Table E.2).

Table E.2

EFA Results for Rumination ($N = 420$)

Item	Text	REF	RUM
BRSI_1	At the moment, I'm thinking about my mood.	.453	.169
BRSI_2	Right now I'm asking myself why I react to the feedback the way I do.	.782	
BRSI_3	Right now I'm asking myself why I feel the way I do	.869	
BRSI_4	Right now I'm thinking: "Why do I have problems that other people don't have?"	.163	.585
BRSI_5	In the moment, I remind myself of the things I have said or done wrong.	-.133	.761
BRSI_6	Right now I'm thinking: "Why can't I do the tasks in my work better that I was criticized for in the feedback?"		.705
BRSI_7	At the moment, I'm finding it difficult to switch off negative thoughts about myself.	.102	.736
BRSI_8	At the moment I'm asking myself why I can't respond better to the feedback.	.462	.382

Note. EFA = exploratory factor analysis with goemin oblique rotation and maximum-likelihood; REF = neutral reflection; RUM = rumination.

The 2-factor EFA model had good model fit: CFI = .982; TLI = .963; RMSEA = .066; SRMR = .023; AIC = 12029.222; BIC = 12122.148, but significant chi-square test ($\chi^2 = 37.109$, $df = 13$, $p < .001$).

In a combined measurement model, the EFA factors for affective and cognitive reaction and the confirmatory factor behavior intention achieved good model fit (i.e., CFI = .945; TLI = .929; RMSEA = .062; SRMR = .055; $\chi^2 = 477.668$, $df = 181$, $p < .001$) and the assessment of the complete measurement model as successful.

Section F: Indicators of Model fit for all ESEMs

Table F.1

Results of Indices for Model fit for the Structural Model via ESEMs (N = 420)

Model	Sub-models	Model-Fit			
		Chi-Square/df	CFI/TLI	RMSEA	SRMR
Model 1: Full-Sample Group	1	$\chi^2 = 784.144$ df = 450 $p < .001$	.933/.931	.062	.071
Model 2: First-Stage Moderation	2	$\chi^2 = 780.660$ df = 448 $p < .001$	.933/.931	.062	.071
	3	$\chi^2 = 777.350$ df = 446 $p < .001$	.933/.931	.062	.073
Model 3: Second-Stage Moderation	2	$\chi^2 = 778.917$ df = 447 $p < .001$	.933/.931	.062	.071
	3	$\chi^2 = 773.605$ df = 441 $p < .001$	.933/.930	.062	.067
Model 4: First- and Second-Stage Moderation	2	$\chi^2 = 775.432$ df = 445 $p < .001$	.933/.931	.062	.071
	3	$\chi^2 = 766.461$ df = 437 $p < .001$	.933/.929	.063	.067
Model 5: Moderation of Direct Effect	2	$\chi^2 = 778.917$ df = 447 $p < .001$	.933/.931	.062	.071
	3	$\chi^2 = 772.208$ df = 444 $p < .001$	.934/.931	.062	.068

Note. The whole sample ($N = 420$) is grouped by the mindfulness experimental condition: the no-treatment group with $N_{NT} = 207$; mindfulness induction group with $N_{MI} = 213$. Each multi-group model is subdivided into three levels of variation: 1 = baseline group model that is constrained, 2 = simple-effect model that allows varying intercepts, 3 = moderated-effect model that allows varying intercepts and path coefficients. ESEM = exploratory structural equation model; CFI = comparative fit index, TLI = Tucker-Lewis Index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residuals; df = degrees of freedom.