

# Acceptance and Commitment Therapy delivered in the workplace – Effects of a 5-week-long intervention on company employees' psychological flexibility

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**Aim:** A growing body of research has demonstrated the positive effects of Acceptance and Commitment Therapy (ACT) delivered in the workplace on employees' well-being and psychological flexibility. Delivering ACT in the workplace aims to enhance employee performance and reduce stress levels by promoting psychological flexibility, a skill to consciously live in the present, observing thoughts and emotions, and engaging in value-driven actions. The short-term effects of a 5-week-long ACT-based psychological flexibility training program were tested. **Methods:** A total of 21 corporate employees (62 % women, Mage = 43.9 years, SD = 9.5) from a large company in the financial sector completed study measures prior to and after the training sessions. The six core processes of psychological flexibility were examined. Psychological flexibility, Valued living, Thought suppression, and five facets of Mindfulness and Cognitive fusion were assessed. **Results:** Results showed significant difference in one core process of psychological flexibility (Contact with the present moment). Moreover, Acting with awareness, Describe and Nonjudge showed significant difference before and after the training. **Conclusion:** The present research has provided further empirical evidence for the effectiveness of ACT-based psychological flexibility training with regard to three aspects of Contact with the present moment, which is a core process of psychological flexibility (Acting with awareness, Describe, and Nonjudge). The findings provide a basis for future research to investigate longer-term effects, including monitoring how participants in the research program practice the learnt techniques in their everyday lives.

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**Keywords:** Acceptance and Commitment Therapy, ACT, employee wellbeing, mindfulness, psychological flexibility

## INTRODUCTION

Work-related stress can have a number of negative impacts on employees' well-being and organizational productivity (Brunner et al., 2019). Psychological distress can contribute to absenteeism, presenteeism (Pohling et al., 2016), which can ultimately lead to an economic burden of organizations and society (Hassard et al., 2018). Addressing these challenges, Acceptance and Commitment Therapy (ACT) based interventions have been found to be a promising tool in cultivating stress-resilience among employees (see Archer et al., 2024). The present longitudinal study examines the effect of a 5-weeks long ACT intervention on the processes of psychological flexibility of company employees.

### *The organizational, economical and societal cost of occupational stress*

Occupational stress can lead to absenteeism (Brunner et al., 2019), high turnover (Bridger, Day & Morton, 2013) or even hostile communication and a toxic organizational climate (Ogori & Agolla, 2008). In addition, stress has a negative impact on employees' performance through errors and poor decisions (Houtman, 2005). Moreover, stress poses a number of somatic health risks to employees such as cancer (Huerta-Franc et al., 2013), gastrointestinal illness (Howard et al., 2017), cardiovascular illnesses (Kivimäki et al., 2015), and type two diabetes (Cosgrove, 2012). Furthermore, stress can also lead to the development of psychological disorders such as depression, anxiety and sleep disorder (see Unruh, et al., 2022), and a decrease in general well-being (Jirkovská & Janečková, 2019). Furthermore, stress compromises employees' physical and mental health, which in turn exacerbates performance issues through presenteeism (Cooper & Dewe, 2008). Over time, this may result in increased absenteeism and higher turnover rates (Johns, 2010).

According to the American Psychological Association (2015), occupational stress costs the US economy more than \$500 million annually, and those affected by stress generate 550 million days of absenteeism. In Europe, reduced productivity and absenteeism cost €136 billion annually (see Russo et al., 2021). In a large national study investigating work-related stressors, Hungarian employees report fast work pace and expectation of doing large amount of work as main stressors (2013). The need

for an efficient solution to prevent stress among employees has undoubtedly arisen. Delivering ACT in the workplace has been found to play a crucial role in stress reduction and shown to be effective in a range of employment settings (Moran, 2015), particularly among office workers (Unruh, et al., 2022).

### *ACT in the workplace*

ACT is a third-generation transdiagnostic therapeutic approach that draws heavily on contextual behavioral science, particularly the mindfulness-based approach. Its application in the workplace aims to enhance employee performance and reduce stress levels by supporting the promotion of psychological flexibility (Flaxman et al., 2013). Psychological flexibility is a promotable skill to be consciously present in the moment and observe thoughts and emotions, while remaining congruent with personal values (Hayes, 2006). The ACT-based training is based on the development of the six key interactive processes of psychological flexibility: (1) contacting the present moment, (2) acceptance, (3) cognitive defusion, (4) observing, (5) clarification of values, and (6) committed action. Higher psychological flexibility has been associated with reduced work-related stress and improved employee well-being (see Unruh et al., 2022). Contacting with the present moment refers to focusing attention non-judgmentally and deliberately on the present moment (Kabat-Zinn, 2003). Acceptance is an essential component of psychological flexibility as ACT proposes that observing and accepting inner contents, even undesired ones, is an efficient way of coping with them. Cognitive defusion can be viewed as a disassociation between inner content and reality. Observing or "self-as-a-context" refers to the perspective when individuals see themselves as an observer of the context through which they experience their life. Values are freely chosen concepts in association with patterns of action, which are related to various important areas of life, and give meaning and guidance to behavior (see Szabó et al., 2020).

Studies demonstrated the positive effects of ACT delivered in the workplace on employees' well-being and psychological flexibility (Flaxman et al., 2013; Prudenzi et al., 2021). The technical and formal features of present moment awareness strengthening exercises in ACT are well-suited to workplace implementation (Flaxman et al., 2013).

ACT highlights that it is not the content of thoughts or emotions that can be harmful to mental health, but our relationships with them. Mindful presence-based practices enable individuals to develop the ability to create psychological distance from their inner content, regardless of their emotional state, as the emphasis is not on what the inner content is but on the ability to observe the experience as it arises. This is useful for ACT-based training in the workplace because groups tend to be highly heterogeneous and group members may have different subjective experiences during the exercises (Flaxman, et al., 2013).

Finally, ACT can be effectively delivered to groups, which is a common setting for workplace skills training. In a meta-analysis, Ford (2017) demonstrated that ACT delivered in groups can significantly reduce participants' symptoms of depression and anxiety. Walser and Pistorello (2004) highlight that group members help each other to normalize negative experiences through sharing their experiences. ACT-based training can improve psychological flexibility among participants, especially among those who have experienced persistent clinical stress (Lundgren et al., 2020).

ACT is a significantly flexible method, and there is a wide range of scientific research demonstrating ACT's effectiveness with different populations, structures, and formats. Current research fills the gap by investigating a 5-week-long ACT training's effect on Hungarian office workers' psychological flexibility processes.

### ***Study aims and hypotheses***

The aim of this longitudinal study is to assess the effect of an ACT-based workplace intervention on office workers' psychological flexibility. Based on the literature, the following hypotheses were proposed:

**H1:** Psychological inflexibility will be significantly lower after training than before training.

**H2:** Cognitive fusion will be significantly lower after training than before training.

**H3:** Valued living will be significantly higher after training than before training.

**H4:** Five facets of Mindfulness (Observe, Describe, Acting with awareness, Non-judge, Non-reactivity) will be significantly higher after the training than before training.

**H5:** Thought suppression will be significantly lower after the training than before training.

## **METHODS**

### ***Participants and procedure***

Participants were company workers in the capital city who had already participated in annual soft skills training sessions organized by their employer, delivered by external partners. The participants voluntarily chose to participate in the psychological flexibility training out of a variety of training sessions. Those who participated in the training could also volunteer to participate in the present research by completing a questionnaire at the beginning of the first session and at the end of the last session of the present training. Therefore, not all training participants are also research participants. A total of N=24 employees took part in the present research, but those who did not complete both questionnaires (N=2) or did not give the same identifier code (N=1) across the two assessments (attrition rate 12.5%) were excluded from further statistical analysis. Therefore, the final sample consisted of N=21 employees (62% women;  $M_{age}=43.9$  years,  $SD=9.5$ ). Overall, 90.5% of respondents had a university degree, and 33% of participants obtained a leadership position. A total of 42.86% of participants had been working at that workplace for less than 5 years, 33% for 5-10 years, and 23.81% for more than 10 years.

Participants were divided into three groups depending on which trainer(s) led them. One group was managed by 'A' independently, while another group was co-managed by 'A' and 'C'. A third group was co-managed by 'B' and 'C'. Overall, 9.5% of the participants belonged to the group led by 'A' independently, almost half of the employees (47.6%) participated in the group led jointly by 'A' and 'C', while the remaining 42.9% were in the group led by 'B' and 'C'.

Ethical permit was issued by the Institute of Psychology of Pázmány Péter Catholic University with a file number of 2023\_42. Before completing the questionnaire, participants received full oral and written information about the research purpose, the estimated time of survey completion, and the fact that participating is voluntary, completely anonymous, could be interrupted at any time without reason, and the data would be stored confidentially. Therefore, research was conducted in accordance with the Declaration of Helsinki.

The training sessions took place in participants' workplaces on a weekly basis for 5 weeks. Study

**Table 1.** Overview of the ACT-based training program and targeted psychological flexibility processes

Exercise	Description	Targeted psychological flexibility process
Mindfulness meditation	Guided mindfulness exercise to cultivate present moment awareness	Contact with the present moment, self as context
Three pillars of psychological flexibility (openness, action and observation)	Introduction to the concept of psychological flexibility	All processes
Cognitive defusion exercise	Using language mindfully to cultivate defusion from thoughts	Cognitive defusion
Passengers on the Bus Metaphor	Introducing participants to the idea that negative internal events are not inherently a problem, but rather how they relate to them – illustrated through a metaphor	Cognitive defusion, self as context, values, acceptance
Values cards	Clarifying values and supporting value-congruent action	Values, committed action
ACT matrix	Brief presentation about toward- and away-moves	All processes

measures were administered through Qualtrics software by trainer 'C', who was also involved in the research process. Participants were given an overview of the study and were requested to give their informed consent through Qualtrics using their smartphones. Before the training exercises began, participants were asked to provide some basic demographic information, followed by a set of questionnaires assessing psychological flexibility. Training sessions lasted 90 minutes, including 10-15 minutes of sharing experiences of individual exercising between sessions, followed by a 45-minute deliberate practice and 15-25 minutes debriefing session. Participants were instructed to complete the same set of questionnaires after the 5th training session. As an incentive for the completion of the questionnaires, participants were offered to receive written feedback on their responses. In order to provide anonymity, participants were instructed to provide an identifier code, which was later used to match their responses with the feedback. The feedback was available on a webpage using their identifier code.

### *Training materials*

Table 1 summarizes the ACT-based training elements along with the targeted psychological flexibility processes. Training sessions started with a check-in round, allowing participants to share their feelings and thoughts. This was followed by psychological flexibility exercises (e.g., guided mindfulness exercise, value-

clarification, and passengers on the bus metaphor). Subsequently, the trainer(s) briefly explained the basic principles of ACT, supported by slides.

Guided mindfulness meditation exercises supported the deliberate practice of focusing the attention on the 'here and now.' After the 7-9-minute-long practice, the opportunity to share experiences was provided.

The passengers on the bus metaphor draws attention to our relationship with thoughts. During the exercise, a slide projector is used to present an illustration of a bus full of passengers. Passengers on the bus is a metaphor for a way of life, where the bus driver symbolizes the individual, and the passengers on board are thoughts, beliefs, and cognitive schemas. The message of the exercise is that at important decision points, such as a change of job or engaging in a new relationship, individuals may act guided by their automatic thoughts and patterns about themselves and the world. However, the aim of cultivating psychological flexibility is to make decisions based on personal values rather than becoming confused by negative internal experiences and acting to avoid the negative experiences. It is also pointed out that when driving the bus, the GPS symbolizes personally chosen values. Participants were introduced to the principles of values clarification and committed action by this exercise. After participants identify some of their 'passengers', they are asked to give names to the passengers. Viewing internal events as passengers with names enables the prediction of the promotion of cognitive defusion.

In the following step, participants were instructed to write down an unhelpful thought (e.g., I am not good enough) and observe the emotional intensity as part of the cognitive defusion exercise. Then, they were asked to put the sentence „I have a thought that...” before their thought. Again, they were asked to observe the emotional intensity. Finally, they were instructed to put the sentence „I noticed that...” before the sentence so that they create defusion between self and the thought making the sentence say “I noticed that I have a thought that I am not good enough”. Again, they were asked to observe the emotional intensity.

To identify values, participants were shown business-card-sized cards on a table with different values written on them such as gratitude, art, connection, health, caring, curiosity, and achievement. Subsequently, participants were asked to choose one value that they were very concerned about in their life situation at the time of the research, that was very important to them or that they felt they had to do something about. This was followed by a retrospective exercise where participants were asked to recall how the chosen value had appeared in their lives in the past week. Then, they were asked to think about their next week in terms of what opportunities they would have in which this value might appear. Finally, they were instructed trying to make one value-based decision a day during the subsequent week.

Acceptance and commitment matrix exercise supports individuals to identify towards -moves and away-moves. Away-moves refer to reactions to negative inner content (e.g., experiential avoidance, psychological inflexibility), while towards-moves are value-congruent actions.

Value card exercise did not occur in trainer A's groups, but the participants who attended trainers 'B' and 'C' groups were able to complete that exercise. However, participants in trainer A's group were also introduced to the concept of values clarification, specifically, during the Passengers on the Bus metaphor, as they were introduced a metaphor that values are the GPS on the bus in this exercise, just as the recommended use of values as a compass in their lives according to ACT.

## Measures

First, general demographic questions were administered. Second, psychological flexibility was assessed using five validated questionnaires as there are no comprehensive measures to investigate psychological flexibility to date.

To measure Acceptance and Committed Action, the Hungarian version of Acceptance and Action Questionnaire-II (AAQ-II; Bond et al., 2011; Eisenbeck and Szabó-Bartha, 2018) was used. AAQ-II is a 7-item scale questionnaire (1= Never, 7= Often) capturing experiential avoidance (or psychological inflexibility), the reverse process of psychological flexibility. A sample item states, “My painful experiences and memories make it difficult for me to live the life I want.”

To assess the reverse process of cognitive defusion, namely, cognitive fusion, the Hungarian version of Cognitive Fusion Questionnaire was employed (Gillanders et al., 2014; Szabó-Bartha et al., 2025). The questionnaire consists of 7 items rated on a scale ranging from 1 (Never true) to 8 (Always true) and contains statements that refer to the fusion of thought and reality (e.g., “I tend to get entangled in my thoughts.”)

To measure Valued living, the Hungarian version of Valued Living Questionnaire (VLQ; Szabó et al., 2020) was used. The questionnaire indicates values appearing in 10 areas of life, namely: 1. Family relationships (except spouse or children), 2. Marriage / couples / intimate relationships, 3. Caring for children, 4. Friendship / Social relationships, 5. Employment, 6. Learning / Training, 7. Entertainment 8. Spirituality, 9. Citizenship / Community Life, 10. Physical well-being. The respondents were instructed to indicate how important the given value was to them on a scale ranging from 1 (Not at all important) to 10 (Very important). Subsequently, they indicated how much their behavior was in line with the given value in the week preceding the research. To calculate the Value-Driven Life Value, the product of Importance x Consistency for each area was calculated, and these values were then averaged. This resulted in a value between 10 and 100. A higher value indicated that participants had important values in their lives and were moving towards them.

To capture Contact with the present moment, the Five Facets of Mindfulness Questionnaire (FFMQ; Baer et al., 2006; Hittner et al., 2023), was administered. The ratings of the items ranged from 1 (Never or very rarely) to 5 (Very often or always). The five facets include Observe, Describe, Acting with awareness, Nonreact and Nonjudge. The Observe factor includes items that refer to the perception of external and internal stimuli (e.g., sensations, emotions, thoughts, smells, sounds, and visual stimuli) and attention to them (e.g., “While walking, I deliberately pay attention to how it feels and how my body moves.”) The Describe

**Table 2.** Normality and reliability indices of study-variables across pre-training and post-training settings

Variables	Skewness		Kurtosis		Cronbach-alpha	
	Pre-training	Post-training	Pre-training	Post-training	Pre-training	Post-training
Experiential avoidance	0.30	0.88	-1.23	0.87	0.92	0.90
Cognitive fusion	-0.55	-1.21	0.89	0.05	0.92	0.831
Valued living	0.36	-0.13	-0.21	-0.27	0.81	0.84
Observe	0.75	-0.20	0.10	-0.85	0.77	0.85
Describe	0.45	-0.17	-0.53	-0.28	0.90	0.85
Acting with awareness	0.45	-0.64	0.43	-0.59	0.90	0.88
Nonjudge	-0.65	-0.17	-0.23	-1.22	0.73	0.83
Nonreactivity	0.64	-3.89	1.65	1.63	0.43	0.89
Thought suppression	-0.83	0.14	-0.11	-0.87	0.91	0.89

factor consists of items related to putting experiences into words (e.g., "I put my principles, opinions and expectations into words easily.") The Acting with awareness factor focuses on the ability to pay attention to actions taking place in the present. Its items are all reverse-scored items capturing the frequency of activities performed automatically without awareness (e.g., "I'm not really paying attention to what I'm doing because I'm daydreaming, worried, or distracted by something else.") Nonreact is the tendency to allow thoughts and emotions to arise and to be able to let them go without over-engagement (e.g., "I observe my feelings without letting them overwhelm me.") Nonjudge factor assesses a non-judgmental attitude towards emotions and cognitions. The factor contains only reversed items that show the frequency of judgments about one's own emotions and cognitions (e.g., "I keep telling myself that I shouldn't feel the way I feel.")

The White Bear Suppression Inventory (WBSI; Wegner and Zanakos, 1994; Szabó-Bartha et al., 2020) was used to measure thought suppression. Thought suppression refers to the process of willfully erasing a thought from consciousness, and can be interpreted as the reverse process of Observing self/ self as context, namely, Conceptualized self (e.g., "There are things I try not to think about"). The 15-item questionnaire uses a 5-point Likert-type scale. Thought-suppression tendency can be estimated in a score between 15-75 and higher score suggests frequent appearance of involuntary thoughts and a tendency of thought suppression (Szabó-Bartha et al., 2020).

### Data analysis

Data analysis was performed using JASP 0.18.3.0 (JASP Team, 2019). Data from 3 participants were omitted from the main analysis as these individuals did not fill out the second questionnaire after the training. Despite the small sample size, skewness ranged from -0.826 to 0.893, and kurtosis ranged from -1.219 to 1.650, indicating normality assumptions were met, so parametric tests were used. Paired-samples t-tests were used to test the change in participants' levels of psychological flexibility across pre-training and post-training assessments. Power analysis was conducted using G\*Power 3.1.9.7 (Faul et al., 2007). According to the a-priori power analysis, with a large effect size ( $d_z=0.8$ ), a sample size of 12 would be necessary to achieve 0.8 power.

## RESULTS

### Descriptive statistics and reliability

Table 2 presents reliability indices.

### Paired-samples t tests

Table 3 summarizes descriptive statistics and results of the paired samples t-tests assessing change in assessed variables. Results show no significant change in Psychological inflexibility, Cognitive fusion, Valued living, Observe, Nonreactivity and Thought suppression.

**Table 3.** Differences in psychological flexibility before and after the training (N=21)

Variables	Pre-training		Post-training				Cohen's d
	M	SD	M	SD	t	p	
Experiential avoidance	17.714	7.0806	17.048	6.152	0.635	0.266	0.139
Cognitive fusion	19.952	6.037	18.667	5.739	1.119	0.138	0.198
Valued living	59.714	14.981	58.452	15.652	-0.839	0.794	0.183
Observe	26.143	4.912	26.81	5.853	-0.793	0.218	0.173
Describe	28.048	4.129	29.333	4.211	-1.826	0.041	0.398
Acting with awareness	27.333	4.351	29.095	5.281	-2.621	0.008	0.572
Nonjudge	27.524	4.191	32.238	4.721	-6.861	< 0.001	1.497
Nonreactivity	20.47	2.421	20.714	5.051	-0.262	0.398	0.057
Thought suppression	47.190	10.985	45.476	10.472	1.027	0.842	0.224

There was a small-to-medium significant positive change in Describe, a medium significant change in Acting with awareness, and a large significant change in Nonjudge.

## DISCUSSION

The aim of the present research was to investigate the effect of an ACT-based workplace intervention on office workers' psychological flexibility. Results showed significant improvement of Describe, Acting with awareness, and Nonjudge. However, there is no significant change in certain aspects of psychological flexibility (i.e., Psychological inflexibility, Cognitive fusion, Valued living, Observe, Nonreact and Thought-suppression). Overall, hypotheses were partially confirmed by the results, indicating that the ACT-based training resulted in some change in one specific aspect. Therefore, more scientific evidence is needed to support its comprehensive effectiveness. Contrary to the assumption (H1) psychological inflexibility (or experiential avoidance) did not show significant improvement post-training compared to pre-training. This unexpected result suggests that the training could not improve psychological inflexibility (or experiential avoidance) in the short term, or the participants were not affected by it before the training to demonstrate substantial improvement. Another possibility is that the training focused more heavily on skill-building, rather than on participants' relation to stressful events, which interpretation aligns with recent evidence that experiential avoidance could

not be considered as a coping strategy but rather a mechanism that influences the way an individual responds to stressful events (Tindle et al., 2022).

Contrary to the prediction (H2) cognitive fusion showed no significant change after the training, which may indicate that the elements of the training aimed at reducing cognitive fusion were not effective or that changes in the affected dimension would require a longer time. Another interpretation is that the training focused more heavily on the development of processes that indirectly influence the reduction of cognitive fusion. This interpretation is confirmed by the fact that CFQ-7 measures the subjective frequency of respondents believe the statements about them are true (e.g., "I tend to entangle in my thoughts"). However, due to elevated Contact with the present moment, and particularly, Acting with awareness increase, the more often they wander off, the more often they notice and bring their attention back to the present moment. Based on this observation, it can be assumed that what they subjectively feel as frequent might has changed as a result of the training as participants perceive the decrease in cognitive fusion through their growing ability to notice instances of fusing with their internal contents. The result can also be explained by the Dunning-Kruger effect (Kruger and Dunning, 1999). The phenomenon describes a cognitive bias whereby individuals with little background knowledge of a certain phenomenon tend to overestimate their competence in it. According to the assumption, since participants in the present study had little background knowledge of the concept of entanglement in



thoughts before the training, respondents could have overestimated the frequency to which the statements were true of them. Moreover, Cognitive defusion can be also interpreted as a metacognitive process (Bernstein et al., 2015), a skill to shift from experiential perspective to an observational stance. As individuals' understanding of metacognitive processes might change under a process-based intervention, they might appraise the items differently over time (Levin-Aspenson et al., 2023).

In contrast to the assumption (H3), Valued living did not show significant improvement, either, contradicting previous studies' results (e.g., Campoli & Cummings, 2023). These findings may be partially attributed to the limitations of the applicability of the questionnaire assessing Valued living. Indeed, Szabó et al. (2020) also highlighted that since the VLQ did not fit the suggested unidimensional structure, its external validity could also be questionable. However, there was no other available measurement instrument assessing Valued living to the present authors' knowledge. In addition, there might have been differences between trainers regarding the extent to which they emphasized value-clarification exercises.

Contrast to H4a, Observe did not show significant increase. This outcome challenges previous research (Baer, 2006) that points out that Observation is the most responsive aspect of Contacting the present moment. By contrast, findings showed significant small-to-medium increase in the aspect of Describe, supporting the hypothesis (H4b). This result aligns with previous findings regarding ACT's role in enhancing Describe (Christodoulou et al., 2024).

Also supporting the hypothesis (H4c), Acting with awareness showed significant, medium increase. However, Levin-Aspenson et al. (2023) found that among the five facets of mindfulness, Acting with awareness did not demonstrate strong invariance, suggesting that participants' interpretation of the facet could change in different conditions (e.g., before and after ACT training), which might lead to the present conflicting results.

Consistent with H4d, Nonjudge showed significant, large increase. Nonjudge may be a protective factor against rejection sensitivity and associated negative affect (Peters, et al., 2015). In addition, non-judgmental acceptance of inner experiences is a significant predictor of subjective happiness (Ortet et al., 2020).

Contrast to the prior expectation (H4e), Nonreact did not show significant improvement. However,

the change in the reliability of this factor may worth mentioning. Previous research (Levin-Aspenson et al., 2023) discussed challenges measuring differences in metacognitive processes such as mindfulness since response-shift may occur after respondents' interpretation of items change during the intervention. Therefore, a deeper understanding of the underlying process during the intervention could possibly explain this inconsistency in the reliability of the Nonreact dimension across the pre-test and post-test conditions.

In contradiction of H5, Thought suppression showed no significant improvement. A possible explanation could be that both high and low scores on the WBSI can indicate a tendency to suppress thoughts, since a low score can indicate either (1) that the person is successfully suppressing unwanted thoughts, or (2) they do not have involuntary intrusive thoughts, so they do not need to use thought suppression as a strategy (Blumberg, 2000).

Overall, findings showed significant improvement in one key process of psychological flexibility, namely Contact with the present moment. This result suggests that participants became more capable of noticing and describing inner contents, more focused on work, without daydreaming, worrying or something else distracting them. Previous studies shown that present moment awareness was associated with fewer work mistakes and shown to contribute to better performance at work (e.g., Lyddy et al., 2021). In addition, the improvement of conscious presence reduced social anxiety and helped maintain a better relationship with colleagues, which lead to the improvement of work climate (Aránega et al., 2020). Moreover, it also showed a strong and consistent association with wellbeing and perceived health (Bränström & Ducan, 2011) as well as a decrease in burnout symptoms (Puolakanaho, 2018). A flexible and conscious presence-based attitude towards difficult internal experiences improved adaptation to changes as well as work efficiency (Ramaci et al., 2019).

However, ACT-based training did not demonstrate significant improvement in most examined psychological flexibility processes in the present study. These results are contrary to existing findings and can be partially attributed to the fact that participants were probably non-patient individuals, so changes in psychological flexibility were probably less extreme than in those living with mental disorders. However, the significant changes detected – particularly in relation to psychological flexibility – suggest that ACT-based training could also be effective among



healthy, working individuals. These results highlight the challenges of measuring changes of metacognitive processes such as mindfulness.

### Limitations

Some limitations should be acknowledged when interpreting the findings. First, the current research relies on a modest sample size, which is clearly underpowered to detect small changes in the measured variables. Second, non-significant findings may have been influenced by several factors not controlled in the study, such as participant motivation and engagement, which were not assessed. Third, the second data collection took place directly after the last training session, so the present investigation could not provide information on possible long-term effects. Another limitation is that the order of the training elements was not standardized among the three groups. In addition, initial data collection involved the 40-items long Burnout Assessment Tool (BAT, Schaufeli et al., 2020), which was also administered for the first group, however, due to participants' frustration in relation to the completion time, the BAT was excluded from further investigation. Finally, as the study design did not involve control groups, it is not possible to conclude that significant improvement in Contacting the present moment would be solely attributed to ACT.

### Implications

The present research has two main contributions: (1) it aligned with previous research highlighting challenges of measuring changes in metacognitive processes and (2) it provided further support that ACT-based training sessions delivered in the workplace could be effective in the short term. Further research is needed to investigate the consistency and invariance of psychological flexibility process measures due to some inconsistent reliability across the pre-test and post-test in the present study. The interpretation of results regarding Cognitive fusion offers contribution to future research, suggesting that it would be beneficial for Cognitive Fusion to be measured with a more objective questionnaire in which the assessment of frequency could not be biased by the subjective perception of the respondents (e.g., "Several times a day" instead of "Often true", or "Once a month" instead of "Rarely true").

### Conclusion

There is a growing instance of ACT-based interventions delivered at workplaces (Unruh et al., 2022). Current longitudinal study investigated the effect of a 5-weeks long intervention on company employees' psychological flexibility processes. Although the sample size was small and underpowered, findings showed significant improvement in Describe, Acting with awareness, and Nonjudge. These findings should be interpreted with caution given the challenges in measuring metacognitive processes. However, this paper provided baseline for future studies to investigate the invariance of psychological flexibility before and after an ACT-based intervention.

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### DECLARATION OF INTEREST

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# Elfogadás és Elköteleződés terápia a munkahelyen – Egy öthetes intervenció hatása vállalati dolgozók pszichológiai rugalmasságára

**Elméleti háttér:** Egyre több kutatás bizonyítja az Elfogadás és Elköteleződés Terápia (Acceptance and Commitment Therapy; ACT) pozitív hatását a munkavállalók pszichológiai rugalmasságára és általános mentális egészségére. Az ACT munkahelyi alkalmazása a dolgozók pszichológiai rugalmasságának fejlesztését célozza meg, amely egy fejleszthető képesség a jelen pillanat tudatos megélésére, a gondolatok és érzelmek tudatos megfigyelésére, valamint az érték-alapú döntések meghozatalára. Jelen kutatás 5 hetes ACT-alapú munkahelyi tréningek rövid távú hatását vizsgálta pszichológiai rugalmasságra. **Módszerek:** Jelen kutatás összesen  $N = 21$  fő pénzügyi szektorban dolgozó alkalmazott (62% nő,  $M_{kor} = 43,9$  év,  $SD = 9,5$ ) pszichológiai rugalmasságának hat alapfolyamatának különbségét vizsgálta a tréning előtt és közvetlenül utána. A pszichológiai rugalmatlanság, értékvezérelt élet, kognitív fúzió, gondolatelnyomás, valamint a tudatos jelenlét öt aspektusa önbevalláson alapuló kérdőívekkel került feltérképezésre. **Eredmények:** A tréning előtt és után szignifikáns pozitív irányú változás mutatkozott a pszichológiai rugalmasság egy fő alapfolyamatában, a jelen pillanattal való kapcsolatfelvételben. A tudatos cselekvés, leírás és ítéletmentesség képessége szignifikáns pozitív irányú változást mutatott a tréninget követően. **Következtetések:** A kutatás megerősítette, hogy a pszichológiai rugalmasságot fejlesztő tréning hatékony lehet a tudatos jelenlét három aspektusának (a tudatos cselekvés, az ítéletmentesség, valamint a leírás) fejlesztésére. Az eredmények további kutatások elvégzését alapozzák meg, amelyekkel a hosszabb távú változást érdemes vizsgálni, méghozzá annak monitorozásával együtt, hogy a kutatási program résztvevői a mindennapok során gyakorolják a tréningen tanultakat.

**Kulcsszavak:** ACT, irodai munkavállalók, pszichológiai rugalmasság, tudatos jelenlét