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ENHANCING ENTREPRENEURIAL CREATIVITY THROUGH POSITIVE EMOTION COACHING: A PRE–POST STUDY WITH BOOTSTRAPPED MEDIATION VIA POSITIVE AFFECT

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Abstract: This study examined whether participation in a six-session Positive Emotion Coaching (PEC) program was associated with increases in entrepreneurial creativity and whether positive affect statistically accounted for this association. Using a pre–post design, 80 early-stage entrepreneurs completed the PANAS Positive Affect subscale and an Entrepreneurial Creativity Scale one week before and one week after the program. The pre–post change was significant for both variables: positive affect (d = 1.04) and entrepreneurial creativity (d = 0.90). Change scores were positively correlated (r = .58). The bootstrapped mediation results (5,000 resamples) indicated a significant indirect pathway through positive affect (B = 2.52, 95% CI [1.68, 3.62]); the remaining direct effect suggests partial mediation. The findings from outcome shows that growth in positive affect may contribute to creativity improvements associated with PEC participation among early-stage entrepreneurs.
Keywords: Positive Emotion Coaching; entrepreneurial creativity; positive affect; bootstrapped mediation; pre–post intervention design

➢ INTRODUCTION

Early-stage entrepreneurs play an important role in innovation, employment creation, and local economic growth and often requires sustained decision-making under constraint, and the repeated need to adjust after setbacks can intensify cognitive load and emotional strain (Stephan, 2018; Stam, 2015). The early venture phase depends on creative exploration and reframing; however, these conditions may restrict creativity at exactly this point (Stephan, 2018; Stam, 2015).

Entrepreneurial creativity usually refers to idea production that are both novel and useful in the venture context (Amabile & Pratt, 2016; Zhou & Hoever, 2014). It supports opportunity recognition, improvisation, and timely pivots in response to changing demands, yet the same conditions that make creativity necessary uncertainty, time pressure, and risk can elicit stress and negative affect linked to narrowed attention and reduced cognitive flexibility (Stephan, 2018). Accordingly, a key question is which psychological resources support founders' creative, flexible thinking in uncertain conditions (Stephan, 2018).

Emotions are increasingly recognized as central to entrepreneurial cognition and behavior (Isen, 2008). As per broaden-and-build theory, positive emotions are expected to expand individuals' momentary thought action repertoires, promote broader attention, and facilitate more flexible thinking (Fredrickson, 2013). In entrepreneurship research, positive affect is associated with more adaptive information processing, stronger opportunity recognition, and enhanced creative problem solving (Baron et al., 2012; Hmieleski & Baron, 2009; Uy et al., 2013). For early-stage entrepreneurs, the ability to maintain positive affect may be an important resource for generating creative ideas and making adaptive decisions in uncertain conditions (Fredrickson, 2013; Baron et al., 2012).

Positive Emotion Coaching (PEC) offers a structured way to strengthen these emotional resources (Grant, 2017; Snyder et al., 2018). PEC is informed by coaching psychology and positive psychology and is designed to help individuals notice, generate, and sustain positive emotions while addressing real challenges (Grant, 2017; Snyder et al., 2018). PEC is typically implemented via brief, goal-focused coaching dialogues alongside experiential exercises such as strengths reflection, savoring, gratitude, reframing designed to increase positive affect and promote more flexible thinking (Hendriks et al., 2020; Fredrickson, 2013). Despite the increasing use of coaching in incubators, accelerators, and entrepreneurship support programs, much of this support has emphasized goal attainment, business planning, and skills acquisition. As a result, structured emotion focused interventions and whether positive affect can be intentionally cultivated as a resource that supports creative cognition have received comparatively less systematic attention (Jones et al., 2016; Theeboom et al., 2014).

The present study examined whether participation in a six-session PEC program was associated with changes in positive affect and entrepreneurial creativity among early-stage entrepreneurs. Using a pre–post design with 80 participants, the study also tested whether positive affect statistically accounted for part of the association between PEC participation and entrepreneurial creativity using bootstrapped mediation analysis. By examining an emotion-focused coaching approach in an entrepreneurial setting, this research provides empirical evidence on PEC as a structured professional intervention and evaluates positive affect as a plausible

psychological mechanism linking coaching participation to creativity outcomes (Fredrickson, 2013; Forgeard, 2013).

➢ LITERATURE REVIEW AND RESEARCH FRAMEWORK

.1 Entrepreneurial creativity in early-stage ventures

Entrepreneurial creativity supports opportunity recognition, innovation, and adaptive problem solving in early venture development (Zhou & Hoever, 2014). In the present study, entrepreneurial creativity is conceptualized as the production of venture-relevant ideas that are both novel and useful (Amabile & Pratt, 2016). In practice, it is reflected in founders' capacity to recombine resources, reframe problems, and generate workable alternatives under ambiguity (Zhou & Hoever, 2014). This capability is especially critical in early-stage ventures, where limited financial, social, and human capital makes psychological resources more consequential for sustaining experimentation and responsiveness (Cantner et al., 2021; Stam, 2015; Stephan, 2018).

At the same time, early-stage conditions can suppress creativity. Persistent uncertainty, time pressure, and frequent setbacks may increase cognitive load and emotional strain, contributing to narrowed attention and reduced cognitive flexibility processes that are closely tied to creative performance (Stephan, 2018). This tension creates an applied question relevant to founder development: how can entrepreneurs maintain flexible, idea-generating cognition under emotionally taxing venture conditions (Stephan, 2018)?

2.2 Positive affect as a psychological resource for creativity

Emotions shape how individuals process information, allocate attention, and make decisions (Isen, 2008; Snyder, Lopez, & Pedrotti, 2018). Broaden-and-build theory proposes that positive emotions expand momentary thought action repertoires, supporting broader attention and more flexible, exploratory cognition (Fredrickson, 2013). Reviews in affect and creativity similarly indicate that positive affect is associated with cognitive flexibility, associative thinking, and idea generation (Baas et al., 2008; Baas et al., 2020; Lyubomirsky et al., 2005).

In entrepreneurship research, positive affect is associated with opportunity recognition, proactive action, and creative approaches to problem solving (Baron et al., 2012; Hmieleski & Baron, 2009; Uy et al., 2013). By contrast, stress and negative affect are linked with more threat-oriented processing and greater risk avoidance, patterns that can discourage experimentation and limit creative output (Stephan, 2018). Viewed together, positive affect may be treated as a resource for founders that supports creative thinking when uncertainty is high (Fredrickson, 2013; Baas et al., 2020).

2.3 Positive Emotion Coaching as an applied developmental intervention

Coaching psychology offers evidence informed basis for interventions designed to facilitate cognitive and emotional change through structured conversation, guided reflection, and exploration that remains anchored to the client's goals (Grant, 2017; Greif, 2017; van Nieuwerburgh, 2020). Although coaching is commonly used within incubators and accelerators, entrepreneurship-oriented coaching tends to prioritize planning and execution, including goal setting, progress monitoring, and performance evaluation. As a result, affective processes often receive less consistent and less systematic emphasis within these settings (Stephan, 2018).

Positive Emotion Coaching (PEC) is an emotion focused approach informed by strengths-based coaching and the principles of positive psychology (Seligman, 2011; Snyder et al., 2018). In practice, PEC may incorporate strengths reflection, savoring, gratitude exercises, and reframing to support clients in recognizing, eliciting, and maintaining positive emotional states (Hendriks et al., 2020). The approach is conceptually consistent with broaden and build theory in that increases in positive affect are expected to widen attentional scope and support more flexible thinking, which are relevant foundations for creative cognition and idea generation (Fredrickson, 2013; Isen, 2008). At the same time, although the association between positive affect and creativity is well documented, there remains comparatively limited empirical work examining whether coaching explicitly aimed at cultivating positive emotions translates into measurable entrepreneurial outcomes (Forgeard, 2013; Baas et al., 2020).

2.4 Research model and hypotheses

Grounded in broaden and build theory and coaching psychology, this study tests a mediation framework in which participation in a six session PEC program is associated with gains in positive affect and entrepreneurial creativity. In this model, positive affect is examined as the process through which PEC participation relates to change in creativity across the intervention period (Fredrickson, 2013; Baas et al., 2020).

Accordingly, the hypotheses are:

H1: Participation in a Positive Emotion Coaching program is associated with increases in positive affect among early-stage entrepreneurs (Fredrickson, 2013; Hendriks et al., 2020).

H2: Participation in a Positive Emotion Coaching program is associated with increases in entrepreneurial creativity among early-stage entrepreneurs (Amabile & Pratt, 2016; Baas et al., 2008; Baas et al., 2020).

H3: Positive affect partially mediates the relationship between PEC participation and entrepreneurial creativity (Forgeard, 2013; Baas et al., 2020).

3. METHOD

3.1. Research design

This study employed a quantitative, single-group pre–post intervention design to examine whether participation in a six-session Positive Emotion Coaching (PEC) program was associated with changes in (a) positive affect and (b) entrepreneurial creativity (Grant, 2017; Theeboom et al., 2014). All variables were measured at two time points using the same instruments: one week prior to the start of the program (T1) and one week following completion of the final session (T2). This within-participant design enabled the assessment of change over the intervention period and supported an exploratory test of a mechanism model in which changes in positive affect were examined as a statistical pathway linking program participation to changes in entrepreneurial creativity (Fredrickson, 2013; Baas et al., 2020). Given the lack of a control condition, conclusions were framed in terms of framework-consistent associations, and causal attribution to PEC was avoided.

3.2. Participants and recruitment

The study included 80 early-stage entrepreneurs drawn from incubators, accelerator networks, and co working spaces (Stam, 2015; Stephan, 2018). Eligibility required that participants were founders or co-founders of an active venture with an operating period of roughly 1 to 3 years. This early venture window was selected because uncertainty and resource limitations are typically salient at this stage, and creative thinking is frequently needed to manage constraints and pursue emerging opportunities (Stephan, 2018; Amabile & Pratt, 2016). Participation was voluntary. Prior to completing the measures, participants were informed about the study and provided consent in accordance with standard ethical practice for minimal risk survey research.

3.3. Procedure

Data were collected at two time points using online questionnaires. At T1 (one week prior to the start of PEC), participants completed baseline measures of positive affect and entrepreneurial creativity. The identical instruments were administered again at T2, scheduled one week after completion of the final coaching session. The one-week assessment window at each time point was used to align self-reports with recent emotional experience and current venture-related cognitive functioning (Isen, 2008; Fredrickson, 2013). Data were examined for completeness and plausibility prior to hypothesis testing. When applicable, standard procedures were used to address missing responses at the item level such as excluding cases with insufficient data for scale scoring.

3.4. Intervention: Positive Emotion Coaching (PEC)

The PEC intervention was implemented across six consecutive weeks. Participants completed six individual coaching sessions, delivered weekly via video conferencing, with each session lasting approximately 60 minutes. The program followed a semi structured protocol informed by strengths based coaching and positive psychology (Grant, 2017; Snyder et al., 2018; Seligman, 2011). Across sessions, the work centered on three areas. Participants first clarified personal strengths and explored how these strengths could be brought to current venture challenges. They then engaged in appreciative, success focused reflection to extract learning from moments that had gone well. Sessions also incorporated emotion focused practices intended to support positive affect, including savoring, guided gratitude reflection, and reframing stressors in terms of manageable demands rather than threats (Hendriks et al., 2020; Fredrickson, 2013). Core session elements were applied consistently, while the discussion and prompts were adapted to the specific realities of each entrepreneur's venture.

3.5. Measures

Positive affect. Positive affect was assessed using the Positive Affect subscale of the Positive and Negative Affect Schedule (PANAS). Participants reported the extent to which they experienced positive emotional states during the preceding week using a Likert-type response format. Scale scores were computed according to standard scoring procedures, with higher scores indicating higher positive affect (Fredrickson, 2013; Isen, 2008). Internal consistency reliability was evaluated at both T1 and T2 and was high at each time point.

Entrepreneurial creativity. Entrepreneurial creativity was measured using an Entrepreneurial Creativity Scale that assesses the regularity of generating venture-relevant ideas that are simultaneously novel and useful (Amabile & Pratt, 2016; Zhou & Hoever, 2014). Items capture creativity-related behaviors such as idea generation, flexible problem solving, and innovation-oriented thinking within the venture context. Item responses were collected using a Likert-type format and aggregated into a total creativity score, with higher scores indicating greater entrepreneurial creativity; the scale demonstrated high internal consistency at T1 and T2.

3.6. Data analysis

Analyses were conducted in IBM SPSS. Descriptive statistics (means and standard deviations) were computed for each variable at T1 and T2. Paired-samples t tests were used to evaluate whether positive affect and entrepreneurial creativity changed from pre-test to post-test. Effect sizes were estimated using Cohen's d to quantify the magnitude of pre–post change.

To examine whether changes in positive affect were associated with changes in entrepreneurial creativity, pre–post change scores were computed (T2 − T1), and Pearson correlations were estimated between change scores. To test the mediation hypothesis, a regression-based mediation model was estimated using the PRO-

CESS macro (Model 4) with 5,000 bootstrap resamples. In this model, the intervention period (operationalized through pre–post change) was specified as the predictor, change in positive affect as the mediator, and change in entrepreneurial creativity as the outcome (Fredrickson, 2013; Baas et al., 2020). The indirect effect was treated as statistically significant when the 95% bootstrap confidence interval excluded zero. Total, direct, and indirect effects were evaluated to assess whether the pattern of results was more consistent with partial or full mediation, applying a two tailed significance criterion (α = .05).

4. RESULTS

4.1. Descriptive statistics

Table 1 reports T1 and T2 descriptive statistics for positive affect and entrepreneurial creativity and indicates upward shifts in mean scores at post-test for both variables. Descriptively, positive affect increased from T1 to T2 (M = 28.60, SD = 5.92 vs. M = 34.78, SD = 5.31), and entrepreneurial creativity also increased (M = 36.85, SD = 6.73 vs. M = 42.56, SD = 6.40). These descriptive results are consistent with the expected direction of change following participation in the PEC program and provide the basis for the inferential tests reported below (Fredrickson, 2013; Baas et al., 2020).[Insert Table 1 Here]

4.2. Pre–post changes following the PEC program

To test whether participants showed significant pre–post changes on the study variables, paired-samples t tests were conducted (Table 2). Positive affect increased significantly from T1 to T2, $t(79) = 9.33$, $p < .001$, with a large standardized mean difference ($d = 1.04$). Entrepreneurial creativity also increased significantly from T1 to T2, $t(79) = 8.01$, $p < .001$, with a large effect ($d = 0.90$). The pattern of means indicates higher post-test reports of positive affect and entrepreneurial creativity than were observed prior to the coaching period. These findings are consistent with H1 and H2 in terms of the expected direction of change, while remaining appropriate to the single-group pre–post design (i.e., interpreted as changes observed over the intervention period) (Theeboom et al., 2014; Jones et al., 2016).[Insert Table 2 Here]

4.3. Relationship between changes in positive affect and changes in creativity

Change scores were computed for each outcome (Δ = T2 − T1) and correlated to evaluate whether increases in positive affect aligned with increases in entrepreneurial creativity (Table 3). The correlation between change in positive affect and change in entrepreneurial creativity was positive and statistically significant, $r = .58$, $p < .01$. Accordingly, participants who reported larger gains in positive affect generally also reported larger gains in entrepreneurial creativity. This pattern provides descriptive support for the proposed mechanism, motivating the mediation analysis reported next (Fredrickson, 2013; Baas et al., 2020).

4.4. Mediation analysis

A regression-based mediation analysis (PROCESS Model 4) with 5,000 bootstrap resamples tested whether positive affect statistically accounted for part of the pre–post increase in entrepreneurial creativity. The mediation path estimates are reported in Table 4. First, the intervention period significantly predicted positive affect (path a: B = 6.18, SE = 0.66, t = 9.33, $p < .001$), indicating that positive affect was higher at T2 than T1. Second, positive affect significantly predicted entrepreneurial creativity while controlling for the intervention period (path b: B = 0.41, SE = 0.08, t = 5.12, $p < .001$), indicating that higher positive affect was associated with higher creativity in the model (Fredrickson, 2013; Baas et al., 2020).

The intervention period showed a significant total effect on entrepreneurial creativity (path c: B = 5.71, SE = 0.71, t = 8.01, $p < .001$), with a significant direct effect persisting after inclusion of positive affect (path c′: B = 3.16, SE = 0.68, t = 4.64, $p < .001$). This pattern is consistent with partial mediation: part of the pre–post increase in creativity is statistically accounted for by increases in positive affect, while a remaining direct association persists after accounting for affect (Fredrickson, 2013; Baas et al., 2020).

To comply with TPM's table limit, the bootstrapped indirect effect (previously Table 5) is included in the note of Table 4: indirect effect (a×b) B = 2.52, SE = 0.47, 95% CI [1.68, 3.62]. Because the confidence interval does not include zero, the indirect effect is statistically significant. These results are consistent with H3 (Fredrickson, 2013; Baas et al., 2020).

5. DISCUSSION

This study examined whether participation in a six-session Positive Emotion Coaching (PEC) program was associated with pre–post changes in positive affect and entrepreneurial creativity among early-stage entrepreneurs, and whether positive affect statistically accounted for part of the observed creativity change (Fredrickson, 2013; Grant, 2017; Baas et al., 2020). Overall, the findings were consistent with the proposed framework. Participants reported higher positive affect and higher entrepreneurial creativity at post-test than at baseline, with large standardized pre–post differences. Further analyses showed that increases in positive affect were positively associated with increases in creativity (Fredrickson, 2013; Baas et al., 2020). Bootstrapped mediation analyses identified a significant indirect effect through positive affect, while the direct effect remained, indicating partial mediation (Fredrickson, 2013; Baas et al., 2020). This pattern suggests that the coaching period was accompanied by higher creativity and that changes in positive affect may account for a portion of that association.

5.1. Interpretation of key findings

First, the observed increase in positive affect from pre- to post-intervention indicates that participants reported a more positive emotional state following PEC (Fredrickson, 2013; Lyubomirsky et al., 2005). This change is congruent with the intervention's core components—structured strengths reflection, savoring and gratitude exercises, and reframing practices—each designed to elicit and maintain adaptive emotions while participants engaged with ongoing venture demands (Snyder et al., 2018; Hendriks et al., 2020). Practically, the result supports an emotion-focused view of coaching in which affective processes are treated as primary levers for change, rather than incidental outcomes of performance-oriented goal work (Grant, 2017; Greif, 2017).

Second, entrepreneurial creativity also increased from baseline to post-test (Amabile & Pratt, 2016; Zhou & Hoever, 2014). In the early venture stage—where uncertainty is high and resources are limited—creativity functions less as a discretionary "extra" and more as a practical capability that enables opportunity recognition, reframing of problems, and ongoing adaptive experimentation (Amabile & Pratt, 2016; Bird & Schjoedt, 2017; Stam, 2015). The observed pre–post pattern suggests that the coaching period was associated with meaningful movement in this outcome, though causal conclusions should remain conservative given the single-group pre–post design (Greif, 2017; Theeboom et al., 2014).

Third, the size of the increase in positive affect was positively related to the size of the increase in entrepreneurial creativity: participants who reported larger gains in positive affect generally reported larger gains in creativity (Fredrickson, 2013; Baas et al., 2020). Although this evidence is correlational, it is consistent with affect–cognition accounts in which positive affect is associated with a broader attentional scope and more flexible, associative thinking that can support idea generation (Isen, 2008; Fredrickson, 2013; Nijstad et al., 2010).

Finally, the mediation findings refine the overall interpretation. Positive affect partially mediated the association between the intervention period and entrepreneurial creativity (Isen, 2008; Fredrickson, 2013; Nijstad et al., 2010). The indirect pathway suggests that part of the creativity improvement may occur through affective broadening processes, consistent with broaden-and-build logic (Fredrickson, 2013). At the same time, the remaining direct effect indicates that the coaching period likely operated through additional pathways beyond positive affect alone. For example, PEC may also support creativity through enhanced reflection, strengths utilization, cognitive reframing, perspective-taking, or other developmental processes emphasized in coaching psychology (Grant, 2017; Greif, 2017). These possibilities are theoretically plausible and motivate future work that tests multiple mechanisms in parallel (Bledow et al., 2017; Zhou & Hoever, 2014).

5.2 Theoretical implications

The findings contribute to applied psychological theory in three main ways. First, they support the relevance of affective processes in entrepreneurial creativity (Fredrickson, 2013; Baas et al., 2020). Entrepreneurship research often emphasizes cognitive or behavioral drivers of performance (e.g., planning, goal pursuit, execution), yet the present results align with the view that emotions are not merely "background states" but can be psychologically meaningful resources linked to creative functioning (Isen, 2008; Lyubomirsky et al., 2005). In this sense, the study reinforces the argument that founder creativity may be supported by interventions that directly strengthen emotional resources (Baron et al., 2012; Stephan, 2018).

Second, the findings extend broaden-and-build theory into an applied coaching context by demonstrating that an intervention designed to cultivate positive emotions can be associated with improvements in an outcome that depends on flexible cognition (Fredrickson, 2013; Grant, 2017). The pattern of results is consistent with the proposition that positive affect supports exploratory cognition and problem reframing—capacities central to creativity—particularly under demanding conditions (Isen, 2008; Nijstad et al., 2010; Baas et al., 2008).

Third, the partial mediation finding points to more than one route through which coaching may influence outcomes (Grant, 2017; Greif, 2017). In most coaching interventions, affective work, cognitive shifts, and behavioral experimentation occur together rather than as isolated "active ingredients" (Jones et al., 2016; Theeboom et al., 2014). The fact that positive affect explained only part of the creativity change therefore fits a multiple-mechanism account and underscores the value of future studies that specify and test parallel processes—for example, affective broadening operating alongside cognitive reframing or strengths-based self-regulation (Fredrickson, 2013; Snyder et al., 2018). At the same time, because the mediation test was conducted within a two-time-point pre–post design, it should be interpreted as a theory-consistent statistical pattern, not as definitive evidence of causal mediation (Greif, 2017; Theeboom et al., 2014).

5.3 Practical implications

The results have implications for entrepreneurship support settings in which founder development is delivered through coaching, training, or incubator-based programming (Stam, 2015; Stephan, 2018). First, they suggest that emotion-focused coaching may be a useful complement to skill-based supports (e.g., planning, pitching, product strategy) by targeting psychological conditions that may facilitate creative cognition (Grant, 2017; Jones et al., 2016). Programs that focus exclusively on "what to do" may benefit from also addressing "how founders feel while doing it," particularly when uncertainty, rejection, and workload are persistent (Stephan, 2018; Baron et al., 2012).

Second, the structure of PEC—individual sessions delivered via video conferencing over six weeks—suggests feasibility for distributed founder communities (Grant, 2017; van Nieuwerburgh, 2020). Incubators and accelerators could integrate a structured affect-focused module (or offer it as an elective track) to support founders' emotional resources during phases that demand high creativity (e.g., customer discovery, pivot decisions, product iteration) (Stam, 2015; Stephan, 2018). For coaches working with entrepreneurs, the findings underscore the value of explicitly attending to positive affect as part of the coaching agenda, not simply as an outcome but as a process variable that may support flexible thinking and idea generation (Fredrickson, 2013; Isen, 2008).

Finally, the partial mediation pattern is important for practice. It suggests that strengthening positive affect can be beneficial, yet it should not be treated as the only lever for improving creativity (Baas et al., 2020; Zhou & Hoever, 2014). In application, PEC is best positioned within a broader developmental approach that also builds cognitive and behavioral capabilities that underpin creative work—such as reframing routines, deliberate experimentation, and systematic reflective learning (Grant, 2017; Greif, 2017).

5.4 Limitations and directions for future research

Several limitations warrant attention. The most substantial limitation is the use of a single group measured before and after the intervention without a comparison condition, which constrains causal interpretation (Theeboom et al., 2014; Greif, 2017). Although the direction of change aligns with the intervention's objectives, other explanations remain possible, including maturation over time, expectancy or demand effects, contemporaneous venture experiences during the coaching period, and regression toward the mean. Future studies should therefore use randomized designs or carefully matched comparison groups, and include an active control condition such as business planning coaching delivered without emotion focused techniques, to estimate the incremental contribution of PEC (Jones et al., 2016; Theeboom et al., 2014).

Second, outcomes were assessed using self-report instruments, which can be shaped by participants' presentation concerns, perceived expectations, and method related covariance across measures. Stronger evidence would come from designs that combine self-report with other sources of data, such as blinded expert ratings of idea novelty and usefulness, standardized behavioral creativity tasks, and evaluations from peers, mentors, or program staff (Zhou & Hoever, 2014; Bledow et al., 2017). In addition, documenting how PEC was delivered and received would improve interpretability, including session fidelity and adherence checks as well as indicators of participant engagement, to clarify which elements of the program are most closely associated with change (Greif, 2017; Grant, 2017).

Third, the study assessed outcomes only one week after the intervention, providing a limited basis for judging whether the observed gains endure. It is not yet known whether improvements in positive affect and creativity are sustained over longer periods or whether they translate into venture level outcomes such as implemented innovations, product changes, or opportunity pursuit (Stephan, 2018; Stam, 2015). Future research should extend the follow up horizon and test whether affect related creativity gains are reflected in concrete entrepreneurial actions over time (Baron et al., 2012; Hmieleski & Baron, 2009).

Finally, the sample reflects a specific recruitment channel, focusing on early-stage entrepreneurs engaged with incubators, accelerators, and co working spaces. This limits the extent to which the findings can be generalized to founders outside these ecosystems Stam, 2015; Cantner et al., 2021). Replication across more varied founder populations and contexts is needed to strengthen generalizability and to test whether effects differ by venture stage, baseline stress, industry, or prior coaching experience (Stephan, 2018).

6. CONCLUSION

This study examined whether participation in a six-session Positive Emotion Coaching (PEC) program was associated with changes in positive affect and entrepreneurial creativity among early-stage entrepreneurs and whether positive affect statistically accounted for part of the observed creativity change (Fredrickson, 2013; Grant, 2017; Baas et al., 2020). Using a quantitative pre–post design (N = 80), participants reported significant increases in positive affect and entrepreneurial creativity from baseline to post-test, with large standardized effects (Baas et al., 2020; Theeboom et al., 2014). Change scores were positively correlated, and a bootstrapped mediation analysis indicated a significant indirect effect via positive affect alongside a remaining direct effect, consistent with partial mediation (Fredrickson, 2013; Baas et al., 2020).

The findings provide initial support for applying broaden-and-build theory in founder development contexts by suggesting that positive affect may function as a psychological resource associated with creativity gains during an emotion-focused coaching period (Fredrickson, 2013; Isen, 2008; Baron et al., 2012). Using mediation models, the study examines whether the observed changes are consistent with a theorized pathway in coaching; however, without a comparison group, any mechanism claim remains tentative (Theeboom et al., 2014; Greif, 2017).

The results indicate that incubators and accelerators could strengthen their programming by integrating structured emotion focused practices, including strengths reflection, savoring, gratitude exercises, and reframing, alongside existing skill-based supports (Grant, 2017; Snyder et al., 2018; Hendriks et al., 2020). Such practices may help foster emotional conditions that support flexible and creative thinking in early-stage founders (Fredrickson, 2013; Nijstad et al., 2010; Amabile & Pratt, 2016). Future research should test these relationships using controlled designs, employ multi method approaches to assessing creativity, and include longer

follow up periods to evaluate durability and to examine additional mechanisms beyond positive affect that may contribute to changes in creativity (Zhou & Hoever, 2014; Bledow et al., 2017; Theeboom et al., 2014; Jones et al., 2016).

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TABLES

TABLE 1 Descriptive statistics for positive affect and entrepreneurial creativity (N = 80)

Variable	Time	M	SD
Positive affect[a]	T1 (Pre)	28.60	5.92
Positive affect[a]	T2 (Post)	34.78	5.31
Entrepreneurial creativity[b]	T1 (Pre)	36.85	6.73
Entrepreneurial creativity[b]	T2 (Post)	42.56	6.40

Notes. [a] *Positive affect = PANAS Positive Affect subscale score.* [b] *Entrepreneurial creativity = Entrepreneurial Creativity Scale score.*

TABLE 2 Paired-samples t tests for positive affect and entrepreneurial creativity (N = 80)

Variable	Mean Diff [c]	t(79)	p	Cohen's d
Positive affect [a]	6.18	9.33	< .001	1.04
Entrepreneurial creativity [b]	5.71	8.01	< .001	0.90

Notes. [a] *Positive affect = PANAS Positive Affect subscale score.* [b] *Entrepreneurial creativity = Entrepreneurial Creativity Scale score.* [c] *Mean Diff = T2 − T1.*

TABLE 3 Correlation between change scores (Δ = T2 − T1) (N = 80)

Variable	Δ Positive affect [a]	Δ Entrepreneurial creativity [b]
Δ Positive affect[a]	—	.58*
Δ Entrepreneurial creativity[b]	.58*	—

Notes. * *p* < .01. [a] *Δ Positive affect = (T2 − T1) PANAS Positive Affect.* [b] *Δ Entrepreneurial creativity = (T2 − T1) Entrepreneurial Creativity.*

TABLE 4 Regression coefficients for mediation model predicting entrepreneurial creativity (PROCESS Model 4; 5,000 bootstrap resamples)

Path	B	SE	*t*	*p*
a (Intervention period → Positive affect)	6.18	0.66	9.33	< .001
b (Positive affect → Creativity, controlling for intervention period)	0.41	0.08	5.12	< .001
c (Total effect on creativity)	5.71	0.71	8.01	< .001
c′ (Direct effect on creativity, controlling for positive affect)	3.16	0.68	4.64	< .001

Notes. *Positive affect = PANAS Positive Affect. Creativity = Entrepreneurial Creativity. Indirect effect (a×b, bootstrapped, 5,000 resamples): B = 2.52, SE = 0.47, 95% CI [1.68, 3.62].*