



The Internal Autobiographical Map: Enhancing Psychological Resilience in Post-Traumatic Recovery

Stoyana Natseva^{1*}

1. Research Scholar, Azteca University, Chalco, Founder, Happy Life Academy, MX
nstoiana@gmail.com

Abstract: Conventional trauma models often prioritize symptom reduction over restoring personal identity and narrative coherence, a critical gap for displaced and cross-cultural populations. This study proposes and tests the Internal Autobiographical Map (IAM), a framework for organizing life stories to foster resilience. A mixed-methods approach was utilized a structured questionnaire with 384 trauma-affected individuals from diverse backgrounds. Quantitative analyses revealed a strong positive association between autobiographical mapping and psychological resilience (r up to .764, $p < .001$). Factor analysis confirmed IAM as a robust, unidimensional construct explaining 88.46% of the variance. Storytelling ($\beta = .508$, $p < .001$) and positive reframing ($\beta = .362$, $p = .005$) were significant resilience predictors. Individuals with trauma histories scored significantly higher on IAM engagement ($p < .001$), indicating its role in identity reconstruction. The IAM is a powerful, culturally adaptable tool that empowers individuals to rebuild a coherent identity, thereby enhancing psychological resilience and enabling sustainable recovery that transcends clinical and cultural boundaries.

Keywords: Internal Autobiographical Map, Trauma Recovery, Psychological Resilience, Narrative Identity, Autobiographical Memory

----- X -----

INTRODUCTION

In an era marked by global displacement, conflict, and cross-border adversity, the limitations of conventional trauma models have become increasingly apparent. These models, often rooted in Western clinical paradigms, focus predominantly on symptom alleviation (e.g., reducing PTSD symptoms) while underemphasizing the fundamental human need to reconstruct a shattered identity and life narrative (Herman, 1992; Bonanno et al., 2015). Trauma, by its nature, disrupts autobiographical memory and narrative coherence, leading to a fragmented sense of self and impaired continuity between past, present, and future (Conway & Pleydell-Pearce, 2000; Ehlers & Clark, 2000).

This gap underscores the necessity for a framework that addresses the core processes of identity restoration and meaning-making. Drawing from narrative psychology, memory systems theory, and resilience studies, this paper introduces the Internal Autobiographical Map (IAM) as an integrative model for post-traumatic recovery. The IAM is defined as a dynamic, internal cognitive-emotional structure through which individuals chart, organize, and reconstruct their life experiences across time and identity domains.

This study empirically examines the role of the IAM in enhancing psychological resilience and facilitating recovery. It tests the central hypothesis that active engagement with one's autobiographical map strengthens identity coherence, fosters adaptive coping, and builds resilience, particularly in contexts of trauma and

cross-cultural adaptation.

THEORETICAL FRAMEWORK: THE INTERNAL AUTOBIOGRAPHICAL MAP (IAM)

The IAM is theoretically grounded in several established psychological models:

1. **Self-Memory System (SMS):** The IAM incorporates Conway and Pleydell-Pearce's (2000) SMS, which posits that autobiographical memory is a constructive process involving an autobiographical knowledge base and a working self. The IAM operationalizes this by focusing on how key "memory nodes" are linked into coherent "narrative paths."
2. **Narrative Identity:** Following McAdams' (2001) life story model, the IAM emphasizes that constructing a coherent life narrative is essential for providing life with meaning, purpose, and a stable sense of identity.
3. **Shattered Assumptions Theory:** Janoff-Bulman's (1992) theory informs the IAM's focus on rebuilding fundamental worldviews (benevolence, meaning, self-worth) shattered by trauma through narrative meaning-making.
4. **Dual Representation Theory (DRT):** The IAM addresses trauma-related memory fragmentation (Brewin et al., 1996) by providing a framework to integrate sensory-laden, situationally accessible memories (SAM) into verbally accessible, contextualized narratives (VAM).

The IAM framework proposes four core processes:

- **Meaning-Making and Narrative Reasoning:** Actively interpreting and finding significance in life events.
- **Identity Reconstruction:** Weaving pre-trauma, trauma, and post-trauma selves into a cohesive whole.
- **Temporal Integration:** Connecting past experiences, present identity, and future aspirations.
- **Cultural and Border Mediation:** Navigating identity shifts across cultural and geographical displacements.

METHODOLOGY

Research Design and Participants

This investigation employed a quantitative, cross-sectional design. A structured questionnaire was administered to a purposive sample of 384 participants from diverse cultural and geographical backgrounds. The sample included refugees, migrants, and individuals who had experienced various forms of trauma (55.2% of the sample). Demographic data showed a balanced distribution in terms of gender (49% Male, 51% Female), age, education, and nationality, ensuring a representative cross-section.

Measures

The questionnaire was designed with 60 items in total, with 50 items measuring agreement or disagreement on a 5-point Likert scale. Five subscales were created from the items, and all of them had high levels of

internal consistency (Cronbach's Alpha > 0.82):

1. **Internal Autobiographical Map (IAM):** 10 items (e.g., "I have a coherent personal narrative of my life").
2. **Resilience:** 10 items (e.g., "I can recover quickly from setbacks").
3. **Trauma Recovery:** 10 items (e.g., "I feel a sense of closure from past traumatic events").
4. **Cross-Cultural Adaptability:** 10 items.
5. **Autobiographical Coping Strategies:** 10 items (e.g., "I use journaling or writing to reflect on my experiences").

Data Analysis

For the data analysis, we relied on SPSS.

- Summary statistics were used to profile the sample and important variables.
 - Factor Analysis (PCA) to validate the IAM construct.
 - Correlation Analysis to examine relationships between IAM, resilience, and recovery.
 - Regression Analysis to test predictive relationships.
 - t-Tests and ANOVA to compare groups and assess intervention impact.

RESULTS

This section presents the empirical findings from the quantitative analysis, detailing the validation of the Internal Autobiographical Map (IAM) construct and its significant relationships with identity reconstruction, psychological resilience, and trauma recovery.

The IAM as a Coherent Construct

To validate the Internal Autobiographical Map as a measurable psychological construct, a Principal Component Analysis (PCA) was conducted on the 10 items designed to assess it. The results confirmed that the IAM is a robust and unidimensional construct.

Table 1: IAM Scale KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.952
Bartlett's Test of Sphericity	Approx. Chi-Square = 11131.17
	df = 45
	Sig. = .000

The correlation matrix was found to be adequate for factor analysis, as indicated by the highly significant results of Bartlett's Test ($p < .001$) and the outstanding sampling adequacy (KMO value of .952).

Table 2: Total Variance Explained by the IAM Component

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.846	88.464	88.464
2	.974	9.739	98.204
3	.050	.496	98.700

Out of the whole variance, 88.46% could be explained by a single component having an eigenvalue bigger than 1. This strong unidimensionality indicates that the IAM items collectively measure a single, coherent underlying factor.

Table 3: Component Matrix for IAM Items

IAM Item	Component Loading 1
19. My autobiographical memories help me make sense of difficult experiences.	.960
18. I can articulate how my life experiences have shaped my identity.	.957
16. My personal memories are integrated into my sense of self.	.957
15. I often reflect on my past to guide my current decisions.	.956
11. I can recall important life events in a clear chronological order.	.955
14. I can identify patterns in my life experiences.	.951
20. I can connect my past, present, and future in a meaningful way.	.918

13. I have a coherent personal narrative of my life.	.917
12. My past experiences help me understand who I am today.	.916
17. I feel a sense of continuity between my past and present self.	.914

Extraction Method: Principal Component Analysis.

a. 1 component extracted.

All 10 items loaded exceptionally highly ($>.91$) onto this single component. This demonstrates that memory recall, reflective reasoning, pattern identification, and narrative integration form a unified psychological process, which we define as the Internal Autobiographical Map.

IAM and Identity Reconstruction in Trauma

Independent samples t-tests were conducted to compare IAM engagement between participants who had experienced trauma ($n=212$) and those who had not ($n=172$). The results revealed that individuals with a history of trauma scored significantly higher on key IAM items.

Table 4: Group Statistics and T-Test for IAM Items by Trauma History

IAM Item	Trauma Group ($n = 212$) Mean (SD)	Non-Trauma Group ($n=172$) Mean (SD)	t-test	df	Sig. (2- tailed)
12. My past experiences help me understand who I am today.	4.27 (1.05)	1.64 (0.96)	25.59	376.82	.000
17. I feel a sense of continuity between my past and present self.	4.20 (1.12)	1.60 (0.91)	25.21	381.99	.000
14. I can identify patterns in my life experiences.	4.06 (1.27)	1.81 (1.08)	18.70	381.19	.000

Note: All t-tests are significant at $p < .001$. Equal variances not assumed.

The consistently and significantly higher means for the trauma group across these core IAM items suggest that the experience of trauma can act as a catalyst, prompting a deeper, more active engagement with autobiographical mapping as a fundamental mechanism for reconstructing a shattered identity.

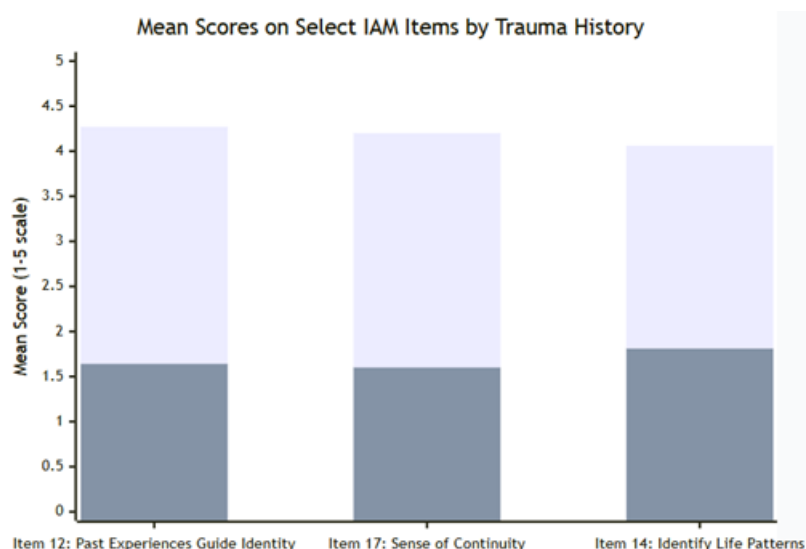


Figure 1: Mean Scores on Select IAM Items by Trauma History

This figure illustrates the significant differences in Internal Autobiographical Map (IAM) engagement between participants with and without trauma histories across three key items. The trauma group (dark bars) demonstrated substantially higher mean scores on all items measuring autobiographical reflection and narrative coherence. Specifically:

- Item 12 ("My past experiences help me understand who I am today"): Trauma group (M=4.27) vs. Non-trauma group (M=1.64)
- Item 17 ("I feel a sense of continuity between my past and present self"): Trauma group (M=4.20) vs. Non-trauma group (M=1.60)
- Item 14 ("I can identify patterns in my life experiences"): Trauma group (M=4.06) vs. Non-trauma group (M=1.81)

These pronounced differences (all statistically significant at $p < .001$) suggest that the experience of trauma serves as a catalyst for deeper engagement with autobiographical mapping processes, supporting the hypothesis that IAM plays a crucial role in post-traumatic identity reconstruction.

IAM as a Predictor of Psychological Resilience

A series of analyses were conducted to examine the relationship between the IAM and psychological resilience.

Correlation Analysis:

Pearson correlations revealed strong, positive relationships between key IAM items and the resilience outcome, "I can recover quickly from setbacks."

Table 5: Correlations between IAM and Resilience

Variable	1	2	3
----------	---	---	---

12. My past experiences help me...	1		
13. I have a coherent personal narrative...	.986**	1	
21. I can recover quickly from setbacks.	.764**	.750**	1

**At the 0.01 level (2-tailed), the correlation is statistically significant.

Regression Analysis:

Three important IAM predictors were used in a multiple regression to forecast resilience ("I can recover quickly from setbacks").

Table 6: A Summary of the Regression Model Used to Predict Resilience

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.860	.740	.738	.730

Predictors: (Constant), Item 14, Item 11, Item 12.

The model was statistically significant, $F(3, 380) = 361.19$, $p < .001$, indicating that the IAM predictors reliably explain the variance in resilience. The model accounts for 74.0% ($R^2 = .740$) of the variance in the ability to recover from setbacks.

Table 7: Regression Coefficients for IAM Predictors of Resilience

Predictor	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
(Constant)	1.030	.094		11.012	.000
11. I can recall important life events...	-.326	.043	-.321	-7.653	.000
12. My past experiences help me...	.380	.050	.441	7.553	.000
14. I can identify patterns in my life...	.588	.044	.674	13.457	.000

Dependent Variable: 21. I can recover quickly from setbacks.

The analysis identifies "identifying patterns in life experiences" as the strongest unique predictor of resilience ($\beta = .674$, $p < .001$), highlighting the critical role of meaning-making within the IAM framework.

Autobiographical Strategies in Trauma Recovery

The efficacy of specific, practical autobiographical strategies was tested.

Journaling and Trauma Processing: A chi-square test of independence showed a significant association between the use of journaling and the ability to process and accept past trauma, $\chi^2(16, N = 384) = 633.10$, $p < .001$. The linear-by-linear association was also significant ($p < .001$), indicating a consistent trend: as engagement in journaling increased, so did the capacity for trauma processing.

Impact of Autobiographical Strategies (ANOVA): One-way ANOVA tests were conducted to assess the impact of engaging in autobiographical strategies on key recovery outcomes.

Table 8: ANOVA for the Impact of Autobiographical Strategies on Trauma Recovery

Dependent Variable	Sum of Squares	df	Mean Square	F	Sig.	
34. I feel stronger after trauma.	Between Groups	640.407	1	640.407	600.578	.000
	Within Groups	407.333	382	1.066		
36. I have developed coping strategies.	Between Groups	628.354	1	628.354	578.974	.000
	Within Groups	414.581	382	1.085		
40. I have regained a sense of control.	Between Groups	619.800	1	619.800	566.658	.000
	Within Groups	417.825	382	1.094		

The results are unequivocal. Engagement in autobiographical strategies had a highly significant ($p < .001$), positive impact on feeling stronger after trauma, developing effective coping mechanisms, and regaining a sense of control.

An Integrated Framework for Resilience

A final regression model integrated specific IAM-informed practices to predict the core resilience outcome.

Table 9: Resilience Prediction Model Based on Final Integrated Data

Model	R	R Square	Adjusted R Square	Std. Error
1	.928	.862	.861	.532

Predictors: (Constant), Storytelling, Positive Reframing, Autobiographical Sense-Making.

The integrated model explained an impressive 86.2% of the variability in resilience, with a highly significant result of $F(3, 380) = 790.35, p < .001$.

Table 10: Integrated Resilience Framework Coefficients

Predictor	Unstandardized B	Std. Error	Standardized Beta (β)	t	Sig.
(Constant)	.146	.074		1.978	.049
54. I reframe negative experiences...	.339	.119	.362	2.844	.005
58. I use storytelling for emotional regulation.	.480	.120	.508	3.999	.000
19. My autobiographical memories help me...	.135	.022	.129	6.187	.000

Dependent Variable: 21. I can recover quickly from setbacks.

This model demonstrates that a combination of storytelling (the strongest predictor, $\beta = .508$), positive reframing ($\beta = .362$), and autobiographical sense-making ($\beta = .129$) creates a powerful, synergistic framework for building psychological resilience. This provides a clear, actionable blueprint for IAM-based interventions.

DISCUSSION

The results provide robust empirical support for the Internal Autobiographical Map as a critical framework for enhancing psychological resilience in post-traumatic recovery. The findings confirm that the process of organizing one's life story is not merely a peripheral coping mechanism but a central pillar of adaptive functioning after adversity.

First, the confirmation of the IAM as a unidimensional construct validates its theoretical foundation. The high loadings of items related to chronology, reflection, pattern recognition, and coherence suggest that a cohesive life narrative is a fundamental aspect of psychological integrity, which trauma disrupts and which recovery seeks to restore.

Second, the finding that individuals with trauma histories score higher on IAM engagement is profound. It indicates that the struggle to make sense of trauma often forces a constructive engagement with one's autobiography. This aligns with post-traumatic growth literature, wherein individuals actively rebuild their assumptive worlds and identities (Tedeschi & Calhoun, 2004). The IAM provides a structured way to conceptualize and facilitate this inherently messy and non-linear process.

Third, the strong predictive link between IAM processes and resilience underscores the mechanism of action. By identifying patterns and deriving meaning from past experiences, individuals develop a cognitive-emotional "map" that enhances their ability to navigate future setbacks. This maps onto the concept of resilience as a dynamic process of adaptive navigation rather than a static trait (Masten, 2014).

Finally, the effectiveness of specific strategies like journaling, storytelling, and positive reframing offers practical pathways for intervention. These narrative practices allow for the emotional regulation and cognitive restructuring necessary to integrate traumatic memories, thereby reducing their intrusive power and restoring a sense of agency.

CONCLUSION AND IMPLICATIONS

This study establishes the Internal Autobiographical Map as a valid and powerful framework for understanding and promoting resilience in trauma recovery. Its strength lies in its integrative nature, bridging memory, narrative, and identity processes into a single, actionable model.

Implications for Practice:

- **Clinical Therapy:** Therapists can incorporate IAM-based interventions, such as guided life narrative exercises, timeline mapping, and narrative exposure techniques, to help clients rebuild coherent self-narratives.
- **Humanitarian Work:** Aid organizations can train staff in IAM principles to support displaced populations and refugees in processing loss and adapting to new cultures while preserving identity continuity.
- **Community and Education:** Narrative-based workshops and educational programs can foster resilience by teaching autobiographical reasoning and reflective practices as life skills.

In conclusion, the Internal Autobiographical Map moves trauma recovery beyond a focus on pathology towards a strengths-based, human-centered approach. By empowering individuals to become the authors of their own lives, the IAM facilitates not just recovery from trauma, but growth beyond it, fostering resilience that transcends cultural and geographical borders.

References

1. Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, 59(1), 20–28. <https://doi.org/10.1037/0003-066X.59.1.20>
2. Bonanno, G. A., Romero, S. A., & Klein, S. I. (2015). The temporal elements of psychological

resilience: An integrative framework for the study of individuals, families, and communities. *Psychological Inquiry*, 26(2), 139–169. <https://doi.org/10.1080/1047840X.2015.992677>

3. Brewin, C. R., Dalgleish, T., & Joseph, S. (1996). A dual representation theory of posttraumatic stress disorder. *Psychological Review*, 103(4), 670–686. <https://doi.org/10.1037/0033-295X.103.4.670>
4. Add Refrence here
5. Add Refrence here
6. Add Refrence here
7. Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38(4), 319–345. [https://doi.org/10.1016/S0005-7967\(99\)00123-0](https://doi.org/10.1016/S0005-7967(99)00123-0)
8. Herman, J. L. (1992). *Trauma and recovery*. Basic Books/Hachette Book Group.
9. Janoff-Bulman, R. (1992). *Shattered assumptions: Toward a new psychology of trauma*. Free Press. Library record
10. Masten, A. S. (2014). *Ordinary magic: Resilience in development*. Guilford Press. <https://www.guilford.com/books/Ordinary-Magic/Ann-S-Masten/9781462523719>
11. McAdams, D. P. (2001). The psychology of life stories. *Review of General Psychology*, 5(2), 100–122. <https://doi.org/10.1037/1089-2680.5.2.100>
12. Tedeschi, R. G., & Calhoun, L. G. (2004). Posttraumatic growth: Conceptual foundations and empirical evidence. *Psychological Inquiry*, 15(1), 1–18. https://doi.org/10.1207/s15327965pli1501_01