

Research Paper

Examining Traumatic Experiences, Automatic Thoughts, and Interpersonal Mindfulness Post the Land Subsidence Tragedy in Joshimath, Uttarakhand, India

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ABSTRACT

This study explored the relationships between Traumatic Experiences, Automatic Thoughts, and Interpersonal Mindfulness in a sample of 200 participants in Joshimath following the land subsidence tragedy. Higher trauma experiences correlate with more frequent negative automatic thoughts ($\rho = 0.802$, $p < .001$). Interpersonal mindfulness had a negative correlation with both traumatic experiences ($\rho = -0.700$, $p < .001$) and automatic thoughts ($\rho = -0.613$, $p < .001$). The regression analysis showed that Traumatic Experiences strongly predicted Automatic Thoughts (Estimate = 0.6798, SE = 0.0561, $p < .001$), while Interpersonal Mindfulness had a negative moderating influence on this association (Estimate = -0.0795, SE = 0.0324, $p = .015$). The mediation analysis revealed that Interpersonal Mindfulness partially mediated the relationship between Traumatic Experiences and Automatic Thoughts, with considerable indirect effects. Path analysis found that trauma has a positive impact on Automatic Thoughts (path coefficient = 0.68) and a direct negative effect on Interpersonal Mindfulness (path coefficient = -0.36800) while having a positive impact on Automatic Thoughts (path coefficient = 0.68). Traumatic experiences were negatively associated with each mindfulness dimension, non-judging, non-reactivity, presence, and awareness. The findings suggest that trauma-informed mindfulness interventions could effectively reduce negative automatic thoughts and improve mindfulness in individuals exposed to traumatic experiences. This highlights the potential for incorporating mindfulness practices to mitigate interpersonal experiences that are associated with the cognitive and emotional impacts of trauma.

Keywords: *Traumatic Experiences, Automatic Thoughts, Interpersonal Mindfulness, Land Subsidence Tragedy, Joshimath*

Joshimath, a town in Uttarakhand, India, has faced serious issues with land sinking, known as land subsidence (Singh et al., 2023). It is Located in the Higher Himalayas near a major geological fault line called the Main Central Thrust, the town sits on a weak and fractured rock, making it prone to sinking and landslides (Mohan et al., 2022). The population has grown significantly in recent years, leading to unplanned construction and development, which has put enormous pressure on the town's limited resources and fragile

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Received: August 31, 2024; Revision Received: September 06, 2024; Accepted: September 10, 2024

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hillsides. Poor drainage systems and the construction of roads through unstable areas have worsened the problem, causing the land to become even more unstable (Bera et al., 2023; Sati, et., 2023).

In January 2023, cracks began to appear in the floors, ceilings, and walls of many homes throughout Joshimath, forcing residents to relocate to temporary relief camps for safety. The sinking soil has also damaged vital infrastructure, including roads and parts of the main highway, with some sections sinking or being washed away. This problem has disrupted the community and municipal services, affecting other areas (Chen et al., 2018; Reddish, et al., 2012, Singh, et al; 2023).

The situation in Joshimath highlights the dangers of overbuilding in sensitive areas. It serves as a clear example of how natural problems, combined with human activities, can worsen environmental risks (Hwang et al., 2016; Sarkar et al., 1995). This crisis emphasizes the need for proper planning to address both the immediate and long-term impacts of land sinking, including strict land-use regulations, better drainage and water management systems, and careful construction practices (Gupta et al., 2024). Land subsidence can result from various natural and human causes, such as the development of underground voids, seismic activity, excessive groundwater extraction, the weight of buildings, and underground mining and tunneling (Bera, et al., 2023; Chen, et al., 2018).

For the people of Joshimath, this crisis isn't just about environmental damage but it's about the deep fear and uncertainty of losing their homes, safety, and community (Greenberg, 1995; Sandhu & Kaur, 2013). People are seeing cracks in their houses, sinking roads, and their daily lives being disrupted. This situation shows how closely our lives are connected to the land and why it's so important to protect our homes and environment from harmful development and other human actions (Chemtob et al., 1988; Mohan et al., 2022).

Experiencing such trauma as losing your home or being forced to relocate can seriously affect people's sense of belonging. Trauma disrupts feelings of safety and trust in the world, making it hard for people to connect with others and feel accepted (Amin, 1997; Bhattarai, 2017). This can lead to feelings of isolation and disconnection, which make it even harder to feel like they belong. After traumatic events, negative automatic thoughts that are unwanted, distressing thoughts that pop into your head can make things worse (Reddish & Whittaker, 2012; Ye et al., 2024). For the residents of Joshimath, these might include constant worries about the future, fear of losing everything, or hopelessness. Processing these traumatic events early on can increase distress at first, as people try to deal with the anxiety and fear these situations create (Greenberg, 1995).

Interpersonal mindfulness is being present, kind, and open in how we interact with others is really important for healing and coping after trauma. But when interpersonal mindfulness is low, people may find it hard to connect with others, leading to strained relationships and a lack of much-needed social support (Pandwal & Bhatt, 2023). This disconnection can cause a cycle where negative thoughts take over, making people feel more alone and pushing them towards unhealthy coping methods like avoiding others. When people aren't mindful in their interactions, it can worsen the effects of trauma, as they might struggle to be present, understand, or support others (Amin & Bankher, 1997; Sandhu & Kaur, 2013). Without this mindful connection, it's harder to get or give the emotional support that's crucial for recovery, which can affect personal relationships and the community's sense of

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togetherness. To help, it's important to promote interpersonal mindfulness among those affected (Follette et al., 2006). Mindfulness-based practices can help people become more aware of their thoughts and feelings, manage negative automatic thoughts, and respond in healthier ways. By encouraging mindfulness in social interactions, people can rebuild their connections, regain a sense of belonging, and strengthen their support systems (Ye et al., 2024).

Improving interpersonal mindfulness and tackling negative automatic thoughts can lead to better coping strategies and a stronger community. By focusing on these linked aspects of trauma, we can help the residents of Joshimath not just recover from their immediate crisis but also build the emotional and social strength to handle future challenges together (Follette et al., 2006; Sati et al., 2023).

METHOD

This field-based empirical study was conducted to explore the relationships between traumatic experiences, automatic thoughts, and interpersonal mindfulness among adults aged 18 to 47 following the land subsidence tragedy in Joshimath, Uttarakhand, India. A total of 200 participants were included in the study. The participants' ages ranged from 18 to 47 years. Convenience sampling was used to recruit participants who were provided with a self-administered questionnaire to assess their traumatic experiences, automatic thoughts, and interpersonal mindfulness levels. Data Analysis was performed with JAMOVI Software.

Measures

- **The International Trauma Questionnaire (ITQ)** is an 18-item self-report measure designed to assess symptoms of PTSD and Complex PTSD (CPTSD) as defined by the ICD-11. It evaluates three core elements of PTSD: re-experiencing traumatic events in the present, avoidance of trauma-related stimuli, and a persistent sense of current threat marked by hypervigilance and heightened startle responses (Cloitre et al., 2018).
- **Automatic Thoughts Believability Questionnaire (ATQ-B)** The respondent is asked to rate how much he/she believed a given automatic negative thought when they had it on a 5-point scale (1 = Not at all, to 5 = Totally). Scores are summed across the 15 items to form an ATQ-B index ranging from 15 to 75 (Netemeyer et al., 2002).
- **Interpersonal Mindfulness Scale** is comprised of 27 items divided into four dimensions: (1) Presence, (2) Awareness of Self and Others, (3) Nonjudgmental Acceptance, and (4) Nonreactivity (Pratscher et al., 2019).

RESULTS AND DISCUSSION

Table 1: Descriptives

	Traumatic Experiences	Automatic Thoughts	Interpersonal Mindfulness
N	200	200	200
Missing	0	0	0
Mean	43.5	40.5	64.8
Median	45.0	39.0	66.0
Mode	21.0	23.0	31.0
Sum	8696	8104	12957

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	Traumatic Experiences	Automatic Thoughts	Interpersonal Mindfulness
Standard deviation	17.5	16.9	30.3
Minimum	10.0	12.0	21.0
Maximum	72.0	75.0	112
Skewness	-0.158	0.298	0.0118
Std. error skewness	0.172	0.172	0.172
Kurtosis	-1.13	-1.03	-1.50
Std. error kurtosis	0.342	0.342	0.342
Shapiro-Wilk W	0.956	0.954	0.904
Shapiro-Wilk p	< .001	< .001	< .001

The Shapiro-Wilk test was used to investigate the normality of distributions across three variables: traumatic experiences (mean = 43.5), automatic thoughts (mean = 40.5), and interpersonal mindfulness. Significant deviations from normality were seen for Traumatic Experiences ($W = 0.956$, $p < .001$), Automatic Thoughts ($W = 0.954$, $p < .001$), and Interpersonal Mindfulness ($W = 0.904$, $p < .001$) for 200 participants. Hence, the data distribution was non-normal, emphasizing the use of non-parametric tests.

Table 2: Correlation Matrix

		Traumatic Experiences	Automatic Thoughts	Interpersonal Mindfulness
Traumatic Experiences	Spearman's rho	—		
	df	—		
	p-value	—		
Automatic Thoughts	Spearman's rho	0.802***	—	
	df	198	—	
	p-value	< .001	—	
Interpersonal Mindfulness	Spearman's rho	-0.700***	-0.613***	—
	df	198	198	—
	p-value	< .001	< .001	—

Spearman's rho, a non-parametric measure of correlation, was used to investigate the correlation between variables. The study used 198 degrees of freedom (df) and found statistically significant relationships between all variables at the $p < .001$ level. First Hypothesis was formed that there would be a positive correlation between Traumatic Experiences and Automatic Thoughts. The correlation between Traumatic Experiences and Automatic Thoughts was particularly significant, with a Spearman's rho of 0.802. Thus, the Hypothesis was accepted. This positive correlation suggests that individuals who have experienced more traumatic events are more likely to engage in maladaptive automatic thinking patterns which was found to be consistent with previous research. The second hypothesis was formed that there would be a negative correlation between Traumatic experiences and Interpersonal mindfulness. These were significantly negatively associated (Spearman's rho = - 0.700). Thus, hypothesis was accepted. The results further indicate that as the experiences of trauma exposure increase, the ability to participate mindfully in interpersonal circumstances decreases. Further, automatic thoughts and interpersonal mindfulness were negatively correlated (Spearman's rho = - 0.613). This indicates that those who experienced more frequent and severe negative automatic thoughts tend to have lower

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levels of mindfulness during everyday experiences with other people as found in previous research. This research showed that people who encountered more traumatic events were more likely to have maladaptive automatic thinking patterns which impaired interpersonal mindfulness.

Regression Analysis

Table 3: Overall Model Test

Model	R	R ²	F	df1	df2	p
1	0.804	0.647	363	1	198	< .001
2	0.811	0.657	189	2	197	< .001

Table 4: Model Comparisons

Model	Model	ΔR ²	F	df1	df2	p
1	- 2	0.0105	6.03	1	197	0.015

Table 5: Model Coefficients - Automatic Thoughts

Predictor	Estimate	SE	t	p
Intercept	6.792	1.9087	3.56	< .001
Traumatic Experiences	0.776	0.0407	19.04	< .001

The overall model tests provide significant outcomes about the associations between Traumatic Experiences, Automatic Thoughts, and Interpersonal Mindfulness. Model 1's R-value of 0.804 and R² value of 0.647 show a large proportion of variation explained by the model, with a F statistic of 363 (df1 = 1, df2 = 198, p < .001). This implies that the variables in the model together account for about 64.7% of the variance in the outcome. Model 2, which incorporates more predictors or interactions, has a slightly improved R value of 0.811 and R² value of 0.657, with an F statistic of 189 (df1 = 2, df2 = 197, p < .001). The expanded model better explains the variance in the data, capturing approximately 65.7% of the variability. The Model 2 improves the explanatory power over Model 1, with a change in R² of 0.0105. The F statistic of 6.03 (df1 = 1, df2 = 197) and a p-value of 0.015 show that this change is statistically significant. The coefficient for Traumatic Experiences is 0.776 (SE = 0.0407, t = 19.04, p < .001), indicating a strong positive prediction. This significant relationship implies that every unit increase in traumatic experiences corresponds to an increase of 0.776 units in automatic thinking. The coefficient for Traumatic Experiences is 0.6798 (SE = 0.0561, t = 12.12, p < .001), showing a significant positive impact on automatic thoughts, where each unit increase in trauma corresponds to an increase of 0.6798 units in automatic thoughts. Conversely, Interpersonal Mindfulness has a coefficient of -0.0795 (SE = 0.0324, t = -2.45, p = 0.015), indicating a significant negative relationship. Both models are statistically significant and provide evidence of the association between Traumatic Experiences, Automatic Thoughts, and Interpersonal Mindfulness.

Table 6: Model Coefficients - Automatic Thoughts

Predictor	Estimate	SE	t	p
Intercept	16.1136	4.2396	3.80	< .001
Traumatic Experiences	0.6798	0.0561	12.12	< .001
Interpersonal Mindfulness	-0.0795	0.0324	-2.45	0.015

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Mediation Analysis

Table 7: Path Estimates

			Label	Estimate	SE	Z	p
Traumatic Experiences	→	Interpersonal Mindfulness	a	-1.2072	0.0817	-14.78	< .001
Interpersonal Mindfulness	→	Automatic Thoughts	b	-0.0795	0.0338	-2.35	0.019
Traumatic Experiences	→	Automatic Thoughts	c	0.6798	0.0574	11.84	< .001

The path from Traumatic Experiences to Interpersonal Mindfulness (Estimate = -1.2072, SE = 0.0817, Z = -14.78, p <.001) shows a significant negative effect, indicating that more trauma exposure leads to less mindfulness in interpersonal contexts. This association is also reflected in the path from Interpersonal Mindfulness to Automatic Thoughts (Estimate = -0.0795, SE = 0.0338, Z = -2.35, p = 0.019), which indicates that increased mindfulness corresponds with fewer automatic thoughts, albeit with a moderate effect size. The straight path from Traumatic Experiences to Automatic Thoughts (Estimate = 0.6798, SE = 0.0574, Z = 11.84, p <.001) reveals a significant positive correlation between increasing trauma and more frequent automatic thoughts. These findings suggest that Interpersonal Mindfulness partially mediates the relationship between Traumatic Experiences and Automatic Thoughts.

Moderation Analysis

Table 8: Moderation Estimates

	Estimate	SE	Z	p
Traumatic Experiences	0.69354	0.03968	17.48	< .001
Interpersonal Mindfulness	-0.07309	0.02284	-3.20	0.001
Traumatic Experiences * Interpersonal Mindfulness	-0.00307	0.00157	-1.95	0.051

The moderation analysis showed how interpersonal mindfulness affects the association between traumatic experiences and automatic thoughts. Traumatic experiences have a considerable beneficial influence on automatic thinking, with an estimate of 0.69354 (SE = 0.03968, Z = 17.48, p <.001). Interpersonal mindfulness also exhibits a significant main impact, with an estimate of -0.07309 (SE = 0.02284, Z = -3.20, p = 0.001), implying that increased mindfulness is connected with less automatic thoughts. The interaction term between Traumatic Experiences and Interpersonal Mindfulness (estimate = -0.00307, SE = 0.00157, Z = -1.95, p = 0.051) is marginally significant, indicating that the effect of trauma on automatic thoughts may be moderated by levels of interpersonal mindfulness.

Path Analysis

The estimation findings for the model measuring Automatic Thoughts in relation to various aspects of mindfulness and trauma show a thorough investigation utilizing a Maximum Likelihood (ML) estimation method with 200 observations and 27 free parameters.

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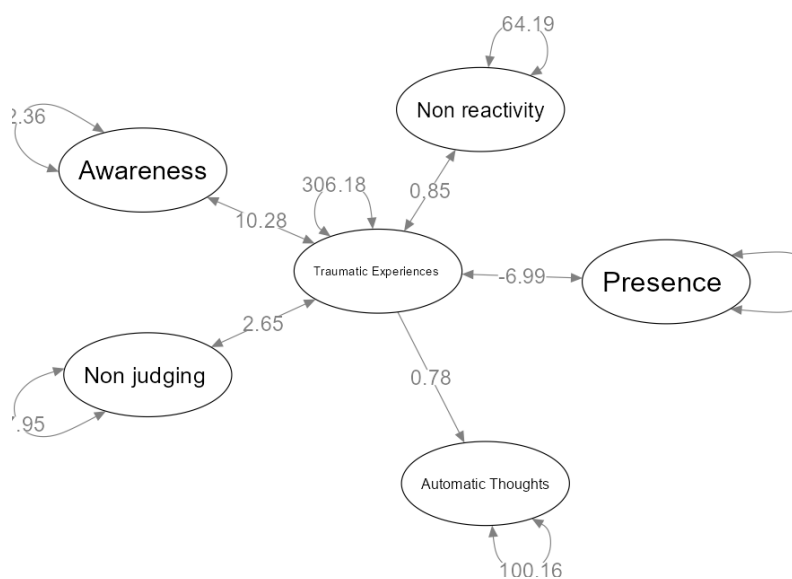
Table 9: Model Fit

Estimation Method	ML
Number of observations	200
Free parameters	27
Converged	TRUE
Loglikelihood user model	-5386.851
Loglikelihood unrestricted model	-5063.286
Model	Automatic Thoughts ~ Traumatic Experiences Presence ~ Traumatic Experiences Awareness ~ Traumatic Experiences Non judging ~ Traumatic Experiences Non reactivity ~ Traumatic Experiences Interpersonal Mindfulness ~ Traumatic Experiences ~ Automatic Thoughts

The model depicts direct paths from Automatic Thoughts to Presence, Awareness, Non-Judging, and Non-Reactivity, as well as relationships between these mindfulness components. It also takes into account the relationships between automatic thoughts and traumatic experiences, as well as the mindfulness components and trauma.

The values indicate the fit of the model, with the user model's loglikelihood of -5386.851 compared to the unrestricted model's -5063.286.

Figure:1 Model 1 path analysis



The central role of Traumatic Experiences was emphasized, as it directly influenced Presence (with a negative path coefficient of -6.99) and Automatic Thoughts (with a positive path coefficient of 0.78). These findings suggested that higher levels of traumatic experiences were linked to reduced Presence and an increase in Automatic Thoughts.

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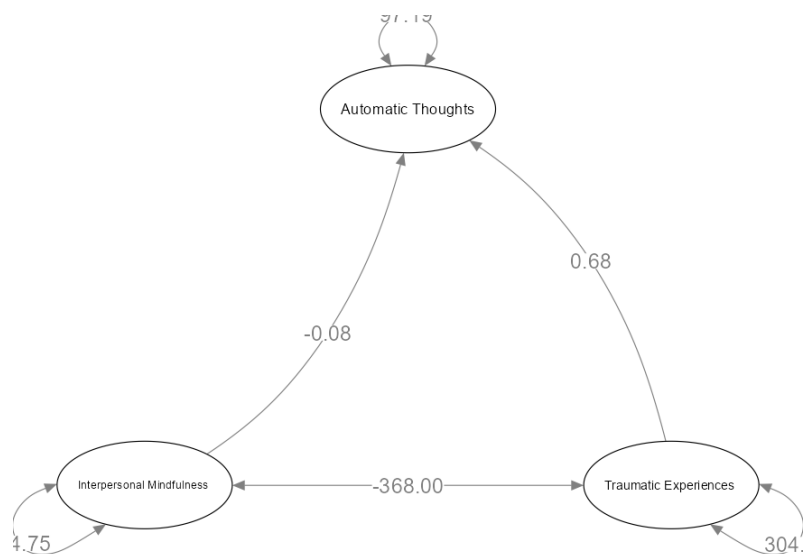
Table 11: Models Info

Label	X ²	df	p
User Model	647	8	< .001
Baseline Model	908	21	< .001

Furthermore, Traumatic Experiences were also associated with other mindfulness components: Awareness (path coefficient= 10.28), non-judging (path coefficient = 2.65), and non-reactivity (path coefficient= 0.85). The model also demonstrated interconnectedness between the mindfulness components, with correlations observed among Awareness, Non-Judging, and Non-Reactivity. These interrelations indicated that the mindfulness dimensions did not function independently but instead exerted mutual influence on one another.

Traumatic Experiences have a strong positive relationship with Automatic Thoughts (path coefficient = 0.68), suggesting that individuals who experience more trauma are likely to engage in more automatic, negative thoughts.

Figure 2 Model 2 path analysis



The relationship between Interpersonal Mindfulness and Automatic Thoughts is negative, but weak (path coefficient = -0.08).

This indicates that higher levels of interpersonal mindfulness are slightly associated with fewer automatic thoughts, but the effect is minimal.

Traumatic Experiences have a significant negative impact on Interpersonal Mindfulness (path coefficient = -368.00). This suggests that exposure to traumatic events greatly diminishes an individual's ability to engage in mindfulness in interpersonal situations.

Thus, traumatic experiences have significantly been found to be positively related to automatic thoughts and negatively to Interpersonal mindfulness.

CONCLUSION AND IMPLICATIONS

The findings show that higher trauma experiences are strongly associated with more frequent negative automatic thoughts, while interpersonal mindfulness negatively correlates with both trauma and automatic thoughts. Regression analysis indicates that traumatic experiences significantly predict automatic thoughts, with interpersonal mindfulness serving as a negative moderator of this relationship. Mediation analysis further reveals that interpersonal mindfulness partially mediates the link between trauma and automatic thoughts, highlighting its protective role.

Path analysis confirms that trauma positively impacts automatic thoughts and directly negatively affects interpersonal mindfulness. Additionally, traumatic experiences are negatively associated with key dimensions of mindfulness, including non-judging, non-reactivity, presence, and awareness. These results suggest that trauma-informed mindfulness interventions could effectively reduce negative automatic thoughts and enhance mindfulness, helping individuals better manage the cognitive and emotional impacts of trauma. Integrating mindfulness practices could therefore be beneficial in trauma recovery, improving psychological resilience and interpersonal functioning.

Ethical Considerations

All participants provided consent before taking part in the study and were informed that they could withdraw at any time without any consequences. No financial compensation was provided to the participants. The anonymity of participants' responses was ensured throughout the research process, and all data were handled with strict confidentiality. Relevant citations have been appropriately made to support the findings.

REFERENCES

- Amin, A., & Bankher, K. (1997). Causes of land subsidence in the Kingdom of Saudi Arabia. *Natural Hazards*, 16(1), 57–63.
- Bera, B., Saha, S., & Bhattacharjee, S. (2023). Sinking and sleeping of Himalayan city Joshimath. *Quaternary Science Advances*, 12, 100100.
- Bhattacharai, R., Alifu, H., Maitiniyazi, A., & Kondoh, A. (2017). Detection of land subsidence in Kathmandu Valley, Nepal, using DInSAR technique. *Land*, 6(2), 39.
- Chemtob, C., Roitblat, H. L., Hamada, R. S., Carlson, J. G., & Twentyman, C. T. (1988). A cognitive action theory of post-traumatic stress disorder. *Journal of anxiety disorders*, 2(3), 253-275.
- Chen, G., Zhang, Y., Zeng, R., Yang, Z., Chen, X., Zhao, F., & Meng, X. (2018). Detection of land subsidence associated with land creation and rapid urbanization in the Chinese loess plateau using time series insar: A case study of Lanzhou new district. *Remote Sensing*, 10(2), 270.
- Cloitre, M., Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., ... & Hyland, P. (2018). The International Trauma Questionnaire: Development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatrica Scandinavica*, 138(6), 536-546.
- Follette, V., Palm, K. M., & Pearson, A. N. (2006). Mindfulness and trauma: Implications for treatment. *Journal of rational-emotive and cognitive-behavior therapy*, 24, 45-61.
- Greenberg, M. A. (1995). Cognitive Processing of Traumas: the role of intrusive thoughts and reappraisals 1. *Journal of Applied Social Psychology*, 25(14), 1262-1296.
- Gupta, V., Syed, B., Pathania, A., Raaj, S., Nanda, A., Awasthi, S., & Shukla, D. P. (2024). Hydrometeorological analysis of July-2023 floods in Himachal Pradesh, India. *Natural Hazards*, 1-26.

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- Hwang, C., Yang, Y., Kao, R., Han, J., Shum, C. K., Galloway, D. L., Sneed, M., Hung, W. C., Cheng, Y. S., & Li, F. (2016). Time-varying land subsidence detected by radar altimetry: California, Taiwan and North China. *Scientific Reports*, 6(1), 1–12.
- Mohan, M. S., Devi, T. S., & Ramapuram Campus, C. (2022). The crevice foretold: ecofeminist ruminations and traumatic underpinnings of the Joshimath scenario.
- Netemeyer, R. G., Williamson, D. A., Burton, S., Biswas, D., Jindal, S., Landreth, S., Mills, G., & Primeaux, S. (2002). Psychometric properties of shortened versions of the automatic thoughts questionnaire. *Educational and Psychological Measurement*, 62(1), 111–129.
- Pandwal, A., & Bhatt, R. (2023). Environmental Sustainability can be Predicted by Mindfulness: Extensive Study Examining Mindfulness Traits and Pro-Environmental Behavior. *International Journal of Indian Psychology*, 11(3).
- Pratscher, S. D., Wood, P. K., King, L. A., & Bettencourt, B. A. (2019). Interpersonal mindfulness: Scale development and initial construct validation. *Mindfulness*, 10, 1044–1061.
- Reddish, D. J., & Whittaker, B. N. (2012). *Subsidence: occurrence, prediction and control*. Elsevier.
- Sandhu, D., & Kaur, S. (2013). Psychological impacts of natural disasters. *Indian Journal of Health and Wellbeing*, 4(6), 1317.
- Sarkar, S., Kanungo, D. P., & Mehrotra, G. S. (1995). Landslide hazard zonation: a case study in Garhwal Himalaya, India. *Mountain research and development*, 301–309.
- Sati, S. P., Asim, M., Sundriyal, Y. P., Rana, N., Bahuguna, V., & Sharma, S. (2023). Unstable slopes and threatened livelihoods of the historical Joshimath town, Uttarakhand Himalaya, India. *Current Science (00113891)*, 124(12).
- Singh, D., Goyal, D., Biswakarma, P., & Joshi, V. (2023). Recent events of land subsidence in Alaknanda valley: a case study of sinking holy town Joshimath, Uttarakhand, India. *Environment, Development and Sustainability*, 1–29.
- Yang, Q., Ke, Y., Zhang, D., Chen, B., Gong, H., Lv, M., Zhu, L., & Li, X. (2018). Multi-scale analysis of the relationship between land subsidence and buildings: A case study in an eastern Beijing Urban Area using the PS-InSAR technique. *Remote Sensing*, 10(7), 1006.
- Ye, H., Wang, D., Chen, X., Chen, M., Ouyang, H., Chen, C., ... & Fan, F. (2024). Mediating roles of social support and posttraumatic growth in the relation between mindfulness and quality of life in disaster-exposed survivors. *Journal of Public Health*, 32(6), 931–941.

Acknowledgment

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

How to cite this article: Pandwal, A. & Bhatt, R. (2024). Examining Traumatic Experiences, Automatic Thoughts, and Interpersonal Mindfulness Post the Land Subsidence Tragedy in Joshimath, Uttarakhand, India. *International Journal of Indian Psychology*, 12(3), 1942–1951. DIP:18.01.191.20241203, DOI:10.25215/1203.191