



# Media's Role in Shaping Perceptions of Disaster Tourism: Analyzing Viewer Responses to the Wayanad and Ankola Landslides

Vishnu Achutha Menon\*, Biju Kunnumpurath<sup>†</sup> and Jisha K<sup>‡</sup>

## Abstract

On July 16, 2024, a landslide in Shirur village, Karnataka, caused eight fatalities and left three missing, with rescue efforts hampered by severe weather. Media coverage, particularly from Kerala, heightened public scrutiny and pressure on rescue operations, leading to a visit by the Chief Minister of Karnataka. On July 30, 2024, another series of landslides in Kerala resulted in over 350 deaths, with media focusing on personal stories of victims to amplify the urgency of aid. This study explores factors influencing viewer engagement, including narrative engagement, physiological responses, and empathy, across different genders, geographic locations, media formats, and channels. Using a survey with 448 participants conducted from June 6 to August 2, 2024, the study reveals significant gender differences, geographic variations, and media effects on engagement and psychological responses, highlighting the role of media in shaping public reaction and response to crises.

**Keywords:** Narrative Engagement, Physiological Responses, Behavioral Aspects, Psychological States, Empathy, Sympathy, Gender Differences, Geographic Variations, Media Formats, Media Channels.

## 1. Introduction

Disaster tourism refers to travelling to locations affected by natural or artificial disasters to observe, experience, or study the aftermath. This form

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\* Department of Communication and International Studies, Institute for Educational and Developmental Studies, Noida, Gautambuddha Nagar, Uttar Pradesh, India – 201301; [vishnu@ieds.org.in](mailto:vishnu@ieds.org.in)

<sup>†</sup> Department of Media Studies, CHRIST (Deemed to be University), Hosur Road, Bengaluru, Karnataka, India - 560029, Karnataka, India; [frbiju@christuniversity.in](mailto:frbiju@christuniversity.in)

<sup>‡</sup> Indian Institute of Mass Communication, Southern Regional Campus, 8<sup>th</sup> Mile, Velloor P O, Pampady, Kottayam, Kerala, India – 686501; [jisha.ascom@gmail.com](mailto:jisha.ascom@gmail.com)

of tourism includes a range of activities, from visiting disaster-stricken areas to learning about the impact of the event to actively participating in recovery and relief efforts. Disaster tourism raises ethical questions about the exploitation of tragedy for personal gain or entertainment and the potential impact on local communities. While some view it as a way to support and contribute to recovery efforts, others criticise it for potentially exacerbating the trauma experienced by affected individuals and communities.

The media is crucial in shaping disaster tourism by influencing public perceptions and travel behaviours. Media coverage can highlight affected areas, making them more visible to potential tourists. News stories, documentaries, and social media posts can bring attention to disaster sites and shape how the public perceives them. How the media frames a disaster—whether focusing on human suffering, recovery efforts, or the rebuilding process—can affect the type of tourism that follows. Positive portrayals might attract tourists interested in contributing to recovery, while negative portrayals might discourage visits due to concerns about safety or sensitivity. Media coverage can have ethical implications, influencing how people perceive and engage with disaster sites. Responsible reporting should balance providing information with respecting the dignity and needs of those affected.

On July 16, 2024, a devastating landslide struck Shirur village in Ankola, Uttara Kannada, Karnataka. The landslide, triggered by adverse weather conditions, resulted in the tragic loss of at least eight lives, with three individuals still reported as missing. The heavy rains and unstable terrain have severely hindered rescue operations, complicating efforts to locate and assist those affected. Among the missing was Arjun, a resident of Kerala, who disappeared along with his truck during the landslide. His disappearance drew significant attention, leading to widespread protests from various groups who criticised rescue operations' perceived delays and inefficiencies. The urgency of the situation was amplified by Kerala media, which played a crucial role in bringing the issue to the forefront of national news. The media coverage, marked by intense scrutiny and pressure, led to the incident becoming a major breaking news story across mainstream news channels. In response to the mounting media pressure and public outcry, the Chief Minister of Karnataka visited the affected area. This visit addressed the concerns raised and demonstrated a commitment to improving the rescue and relief efforts. The media's role in highlighting the crisis was pivotal in accelerating the response and ensuring that the plight of those affected was given the necessary attention and urgency.

Followed by another event on July 30, 2024, a series of devastating landslides struck the Wayanad district in Kerala, including the villages of Mundakkai, Chooralmala, and Meppadi. The landslides, triggered by

torrential rains, caused hillsides to collapse, resulting in torrents of mud, water, and boulders cascading through the area. This catastrophe led to at least 350 fatalities over 300 injuries, and making it one of the deadliest natural disasters in Kerala's history.

In their coverage, Kerala media focused significantly on the personal stories of those affected, including exclusive interviews with family members of the victims. Reports featured heartfelt accounts from relatives who described the profound impact of the disaster on their lives. Families shared their harrowing experiences, from the anguish of waiting for news of missing loved ones to the challenges of coping with the loss of family members. Media outlets highlighted the emotional stories of survivors and bereaved families, providing a human face to the tragedy. These exclusive interviews underscored the disaster's scale and amplified the situation's urgency. The media's focus on individual stories brought greater visibility to the disaster and heightened public empathy and support for the affected communities. The extensive media coverage was critical in shaping the public's response to the disaster. It drew national and international attention, increasing pressure on local and state authorities to expedite rescue and relief operations. By focusing on personal narratives, Kerala media was instrumental in conveying the human cost of the disaster, driving home the urgency of providing aid and support to the affected areas.

The study aims to comprehensively explore the factors influencing viewer engagement across various dimensions, including narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy. Specifically, the research seeks to understand the role of gender, geographic location (rural, semi-urban, urban), and media formats (television, smartphone, other media) in shaping these responses. Additionally, the study examines the impact of different media channels on these dimensions of engagement, providing insights into how diverse content and delivery methods affect audience reactions and perceptions.

## **2. Review of literature**

In examining the psychological impact of natural disaster coverage, it is evident that individuals' independent and interdependent self-construals play a significant role in shaping their psychological intrusion and concern for victims. Specifically, the relationship between interdependent self-construal and personal responses to disaster coverage is mediated by individuals' television viewing motives, encompassing instrumental and ritualised motives (Sun et al., 2013). This underscores the nuanced ways personal identity and media consumption patterns intersect to influence psychological outcomes. There exists robust evidence indicating that disaster television viewing is closely linked to psychological outcomes such as PTSD

and posttraumatic stress. However, the evidence regarding the impact of other media forms, including newspapers, radio, and the internet, remains more limited (Pfefferbaum et al., 2014). This suggests a need for further research into how different media channels contribute to psychological stress following disasters, highlighting the dominant role of television in shaping public perception and emotional responses. The concept of mediatised mobility, encompassing themes such as nationalism, gendered narratives, and inter- and intra-personal authenticity, extends to practical applications in destination choice, content tourism, placemaking, and fandom. Each scholarly contribution explores a distinct form of popular media—ranging from music, film, and television series to animation, advertising, and social media—and critiques the diverse ways these mediums are utilised in tourism, along with their theoretical, managerial, and operational implications (McWha & Beeton, 2018). This body of work emphasises the multifaceted relationship between media and tourism, revealing how media narratives and representations influence tourist behaviour and destination marketing strategies.

Mass media, particularly television, strongly influences people's perceptions of disasters, especially among those not directly affected by the events. In contrast, social media, while having a weaker overall influence than mass media, resonates more profoundly with individuals directly affected by disasters. Notably, media exposure that enhances a positive perception of strong social bonds is the most effective in increasing people's intention to engage in recovery-related activities (Cheng et al., 2016). This highlights the critical role of media in shaping communal responses and mobilising support for disaster recovery efforts, underlining the interplay between media consumption, social perception, and collective action in the context of natural disasters.

Victims and the general public express concern regarding potential hazards affecting their residential areas. For instance, residents in California are highly vigilant about potential earthquakes, while those living in the Midwest often worry about tornadoes. In areas prone to landslides, such as certain regions in India, a significant negative association exists between the sense of controllability and the perceived impact of natural disasters. This is particularly pronounced among landslide victims but not as evident among flood victims, who may perceive floods as more manageable due to early warning systems and mitigation measures. Factors such as disaster type, gender, and previous experiences with disasters strongly predict victims' attitudes toward natural disasters (Ho et al., 2008). Women and individuals who have previously experienced a major earthquake may exhibit heightened anxiety and preparedness behaviours compared to men or those with no prior disaster experience.

Community members' age and educational background significantly influence their knowledge about disasters. In Japan, a country with high disaster education and frequent earthquake drills, even young children are well-versed in what to do during an earthquake. Conversely, there may be a lack of awareness and preparedness for similar events in less-educated communities in developing countries. Access to media and the effectiveness of media communication positively impact the community's response to disaster warnings and preparedness information (Kuppuswamy, 2014). During Hurricane Katrina, for example, those with access to continuous media updates were better informed and able to make timely decisions about evacuation.

Engagement with television increases perceived stress; however, involvement with both television and the Internet predicts perceived gains in social-relational resources and social trust. Media involvement is positively correlated with individuals' willingness to assist people in affected areas, and this relationship is mediated by the perceived gain of social-relational resources and the enhancement of social trust (Seo et al., 2012). During the 2011 Tōhoku earthquake and tsunami in Japan, extensive media coverage heightened stress levels and mobilised international support and local volunteer efforts, demonstrating the dual impact of media exposure. Similarly, during the 2015 Nepal earthquake, social media platforms like Facebook and Twitter played a crucial role in disseminating information, coordinating relief efforts, and strengthening community bonds.

Virtual Reality (VR) has been shown to lead to higher levels of transportation compared to 2D video. When VR is used with highly narrative disaster news stories, it results in greater empathy, increasing issue involvement (Lee & Kang, 2024). This indicates that VR can be a powerful tool in enhancing emotional engagement and concern for disaster-related issues. VR simulations of flood scenarios can make viewers feel more connected to the victims, prompting them to take action or support relief efforts. Studies have found the interaction effects of camera perspective and viewer sex on empathy and care for a victim. Empathy plays a crucial role in inducing care for people in need, and individuals' reactions to mediated experiences can be similar to their reactions to real-life experiences (Cao, 2013). For example, a VR experience that places the viewer in the perspective of a disaster victim can evoke strong, empathetic responses, motivating viewers to contribute to disaster relief. Affect, risk perception and behavioural intention escalate as weather conditions deteriorate in simulations. Responses at previous stages of a storm predict responses at subsequent stages, with negative affect predicting higher risk perception. Exposure to media coverage of an actual tornado disaster heightens risk perception and behavioural intention. However, the display format of the warning information does not influence behavioural responses (Zhao et al., 2019). For example, residents

in tornado-prone areas may have heightened risk perception and take more precautionary measures after watching detailed news coverage of a recent tornado. The relationship between audience involvement with an adventure game show and their behavioural intentions to travel to featured destinations is mediated by cognitive and affective imagery. Cognitive imagery influences affective imagery, and both types of imagery then influence the audience's travel intentions. TV programs should focus on creating a more positive cognitive and affective image of adventure-themed destinations to lead to higher travel intentions among the audience (Irwansyah & Widyastuti, 2018). A TV show featuring the rugged beauty of Patagonia might increase viewers' cognitive and affective connections to the location, boosting their desire to visit.

The 2009 Black Saturday bushfires, which devastated large parts of Victoria, Australia, had surprisingly little impact on the tourism market's perceptions of Gippsland as a destination. Participants in a study described Gippsland as unaffected by the fires, and some were even willing to visit during or soon after the fires, supporting the idea that destinations should be actively promoted during a crisis (Walters & Clulow, 2010). This finding illustrates the resilience of specific tourism markets and suggests that proactive marketing strategies can help mitigate the negative impacts of natural disasters on tourism. Social media posts from individuals had a significantly higher impact on potential visitors' willingness to visit a destination after a natural disaster than posts from official destination accounts. The "loss perception and sense of loss" were key psychological factors affecting willingness to visit, fully mediating the relationship between individual social media posts and visit intentions (Ai et al., 2023). For example, personal stories and photos shared by individuals who have experienced or witnessed the aftermath of a natural disaster can evoke strong emotional responses and influence others' perceptions and intentions more effectively than official communications. A study surveying 500 women aged 15-60 in the Kuttanad region examined the impact of television news coverage of the Kerala floods on these women. The study found significant relationships between the women's motivations for watching the flood coverage and its impact on them (Karthika, 2019). For instance, some women watched the coverage to stay informed and take necessary precautions, while others sought emotional connection and solidarity with affected communities. This highlights the diverse motivations behind media consumption and the varied impacts of disaster coverage on different demographic groups.

These findings underscore the complexity of how natural disasters affect tourism and public perceptions. The example of Gippsland demonstrates that effective crisis communication and marketing strategies can maintain and even boost tourism in the face of natural disasters. Tourism boards can mitigate the negative impacts of crises by promoting the resilience

and ongoing attractiveness of a destination. The power of social media in shaping post-disaster perceptions and visit intentions cannot be understated. Individual social media posts, laden with personal narratives and emotional content, profoundly affect potential visitors' perceptions. This suggests that destination marketing organisations should harness user-generated content and collaborate with influencers to craft authentic, relatable stories that resonate with potential tourists. Understanding the motivations and impacts of media consumption among specific demographic groups can inform more effective communication strategies in the context of the Kerala floods. For instance, tailored messaging that addresses the specific needs and concerns of different viewer segments can enhance the effectiveness of disaster coverage, promoting both safety and solidarity.

Participants who experienced greater telepresence, defined by spatial presence and perceptual realism, while watching a news story about Hurricane Katrina reported higher judgments of hurricane severity. These participants also reported a greater likelihood of engaging in behaviours associated with hurricane preparedness and response (Westerman et al., 2009). This suggests that immersive media experiences can heighten the perceived severity of natural disasters and motivate proactive behaviours, such as preparing emergency kits or developing evacuation plans. The overall effect of a destination promotional video was substantial, regardless of whether it was viewed in a traditional or semi-immersive mode. However, psychophysiological measures, such as galvanic skin response and heart rate, and self-reported measures were not in complete agreement. Both affective (emotional) and cognitive (rational) appraisals were responsible for changes in participants' perceptions and attitudes towards the destination after viewing the promotional video (Guerrero-Rodríguez et al., 2020). Viewers of a promotional video for a tropical island might experience an emotional response to the stunning visuals and a rational evaluation of the amenities, both contributing to an increased desire to visit. Presenting disaster news through an immersive VR mode significantly increased the audience's sense of presence and cognitive empathy, although it did not notably impact their affective empathy or fear. Increased social presence in VR increased cognitive and affective empathy but did not increase fear. Conversely, increased spatial presence in the VR mode led to greater affective empathy and fear but did not impact cognitive empathy (Lee et al., 2023). Viewers of a VR wildfire simulation might feel cognitively connected to the victims, and experience heightened fear due to the realistic portrayal of the disaster's dangers. These findings highlight the profound impact of immersive media on audience perceptions and behaviours in both disaster and promotional contexts. The heightened telepresence in disaster news coverage can amplify the perceived severity of the event and encourage preparedness behaviours. This was notably seen during the extensive VR coverage of Hurricane Katrina, where

viewers reported an increased understanding of the hurricane's impact and a greater inclination to engage in safety measures.

Similarly, immersive promotional videos can significantly alter potential tourists' perceptions and attitudes towards a destination in the tourism industry. A semi-immersive video tour of a historic city might evoke emotional responses to its beauty and historical significance and rational appraisals of its attractions and amenities, collectively enhancing the desire to visit. The differential effects of VR on cognitive and affective empathy and fear underscore the need for nuanced applications of immersive technologies. While VR can enhance understanding and empathy towards disaster victims, care must be taken to balance this with emotional responses to avoid overwhelming viewers with fear. VR experiences designed to educate about climate change might focus on promoting cognitive empathy and understanding without inducing paralysing fear.

A significant proportion of diverse demographic groups in the rural community of Coimbatore District, Tamil Nadu, including homemakers, youths, farmers, and professionals, are actively engaged with television media. This engagement underscores the importance of understanding and addressing the specific needs and interests of these varied demographic groups to optimise the impact of television media. The study highlights that over 85% of respondents perceive television as applicable to some degree, with nearly half considering it very useful (Prakash & Chellappandi, 2023). This finding points to television's pivotal role in disseminating information and influencing public opinion within rural communities.

The study by Spence et al. (2009) adds further depth to our understanding of media engagement by highlighting different demographic groups' nuanced emotional and informational responses to tragic news content. Women, in particular, reported experiencing more sadness in response to a tragic news story, especially when viewing it on a smaller device like an iPod. This more minor screen experience seemed to heighten their levels of information-seeking and presence (sense of immersion). The implications of these findings are significant for crisis communication practitioners, suggesting that the device used to consume media content can influence emotional and cognitive responses in the context of a natural disaster, such as a flood in Tamil Nadu, targeted television broadcasts can address homemakers' specific needs by focusing on family safety and household preparedness. Youths might benefit from content emphasising volunteer opportunities and community support initiatives, while farmers could be



provided with information on agricultural impact and recovery measures. Professionals might seek detailed analyses and long-term recovery strategies.

As shown in Spence et al.'s study, the high engagement levels among women suggest that they might be exceptionally responsive to crisis communication delivered through personal devices, which can be leveraged to disseminate timely and relevant information. This could include apps and social media platforms that provide updates and support networks, enhancing their sense of presence and immersion in the ongoing narrative of the disaster and recovery efforts. These findings collectively underscore the importance of tailored media strategies in rural communities. By understanding different demographic groups' diverse needs and media consumption habits, television and other media can be more effectively utilised to inform, engage, and support these populations.

The main finding is that women are drawn to positively framed news stimuli, while men are more attracted to negatively framed news stimuli. Women tend to respond more positively to moderately arousing news framed positively and avoid negatively framed news. Conversely, men approach negatively framed news stimuli more than positive ones (Kamhawi & Grabe, 2008). This gender-based preference in news consumption has significant implications for media producers and communicators, suggesting that tailoring the framing of news stories to the audience's gender could enhance engagement and impact. Virtual Reality (VR) was the most engaging media format compared to photographs and 360-degree video, with interactivity being the key driver of telepresence. The higher sense of telepresence experienced with VR led to increased flow and enjoyment, positively impacting purchase intentions (Willems et al., 2019).

A VR tour of a new real estate development can create a sense of presence and interactivity, making potential buyers feel as if they are walking through the property, thereby increasing their likelihood of purchasing. The study identified three key dimensions of radiation-related concerns: health fears, fears for the future, and fears about social disruption. The use of rumours as an information source was associated with higher health fears. In comparison, the use of national newspapers was associated with lower fears for the future and the use of regional newspapers was associated with higher fears for the future. Additionally, radio news was associated with higher fears about social disruption, likely due to the importance of radios in disaster preparedness in Japan (Sugimoto et al., 2013). During the Fukushima Daiichi nuclear disaster, reliance on rumours and unofficial sources exacerbated health-related anxieties, while national newspapers provided more balanced information that helped alleviate long-term fears.

Prior involvement with a topic predicted greater engagement with the plot and stronger emotional responses (sympathy and empathy) to the characters. Engagement with the plot, also known as transportation, further predicted emotional responses. Both transportation and sympathy were significant predictors of intentions to take actions consistent with the narrative's message. Viewing the narrative film led to more excellent intentions to take actions aligned with the film's message than those who did not (Bae et al., 2014). This finding underscores the effectiveness of narrative media in shaping viewers' attitudes and behaviours by profoundly involving them in the story and eliciting emotional connections with the characters.

A film about environmental conservation that effectively transports viewers into its narrative can evoke strong emotional responses, such as sympathy for endangered species. This emotional engagement can then translate into increased intentions among viewers to support conservation efforts, such as donating to wildlife charities or adopting sustainable practices in their daily lives. Slovenian fans of the German-Austrian TV series "Der Bergdoktor" engage with the show's filming location in Tyrol by consuming and producing media content and participating in physical tourism experiences. The study demonstrates how these fans reconcile the imagined landscapes portrayed in the TV series with the actual topographical reality of Tyrol. This process allows them to develop a sense of belonging and identity grounded in and beyond the media content (Trdina & Turnšek, 2020). Fans might visit the locations featured in the series, take photographs, and share their experiences on social media, creating a shared interest and identity community. This blending of media consumption and real-world experiences enhances their connection to the show and strengthens their sense of place and cultural belonging. These findings illustrate the media's significant impact on individual behaviour and community identity. The predictive power of prior involvement and transportation in eliciting emotional responses and subsequent actions highlights the importance of creating engaging and emotionally resonant content. For instance, public health campaigns might use narrative films or TV series to effectively communicate their messages, encouraging positive health behaviours among viewers.

Similarly, the interaction between media content and real-world experiences, as seen with the fans of "Der Bergdoktor," shows the potential of media-induced tourism. By promoting destinations through engaging narratives, media producers can drive tourism, boosting local economies and fostering cultural exchange. Engagement with narrative media, whether through films or TV series, significantly influences viewers' emotional responses and intentions to act. This effect is amplified when viewers are already involved with the topic, demonstrating the capacity of media to drive social and behavioural change. The interaction between media consumption

and real-world experiences can create meaningful connections and a sense of belonging, further enhancing the impact of media on individual and community identities.

Instagram posts were most effective in altering viewers' perceptions of the "Sightseeing and Activities" aspect of the destination image, with a mean difference of 1.63 on a 7-point scale. In contrast, Instagram posts had a relatively smaller impact on perceptions of "cultural similarity" and "safety," each with a mean difference of 0.37. The least influence was observed on perceptions of "Atmosphere," "Affordability," and "Interest and Adventure," with mean differences of 0.30, 0.21, and 0.22, respectively (Shuqair, 2017). This indicates that while Instagram is effective in enhancing views of a destination's activities and sightseeing opportunities, it has a more limited effect on other aspects such as safety and cultural appeal.

The media's coverage of disasters can significantly shape public perception and response, with both positive and negative consequences. Media portrayals of disaster victims can lead to misconceptions, depicting them as either entirely helpless or engaging in criminal behaviour. The media's emphasis on gathering and reporting information might overshadow the urgent needs of disaster victims and survivors (Ma., 2022). This coverage can influence public attitudes towards disaster response and recovery, affecting both the support for victims and the overall understanding of the disaster's impact. After a major disaster, media coverage that focuses on dramatic, sensationalized aspects of the event can skew public perceptions, potentially leading to stereotypes or misconceptions about the affected communities. This can impact the type and amount of aid provided and the overall effectiveness of disaster relief efforts. Media outlets, therefore, have a crucial role in presenting accurate, balanced information and prioritizing the needs of those affected to ensure a more informed and supportive public response.

### **Research questions**

1. How do gender differences influence narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy?
2. How do narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy vary among individuals from rural, semi-urban, and urban areas?
3. How do different media formats (television sets, smartphones, and other media) impact narrative engagement, physiological responses, psychological responses, empathy, and sympathy among viewers?
4. How do different media channels influence various dimensions of viewer engagement, including narrative engagement, physiological responses, behavioural reactions, psychological impact, empathy, and sympathy?

### 3. Methodology

The survey tool used for this research was composed of three key sections: Demographics, Narrative Engagement Scale, and Binge-Watching Scale. The Demographics section gathered essential participant information such as age, gender, education, occupation, and geographic location, providing a foundation for understanding the diversity within the sample. The survey was conducted over an extended period from June 6 to August 2, 2024, ensuring ample time to collect data from a wide range of respondents throughout Kerala. A total of 448 participants were selected through purposive sampling, targeting individuals who could provide relevant insights into the study's objectives. To facilitate participation, the survey was distributed via WhatsApp and email, with some participants opting for offline forms. Informed consent was obtained from all participants to ensure they were fully aware of the study's aims, procedures, and their rights, including confidentiality and voluntary involvement. This methodical approach enabled a thorough analysis of narrative engagement and binge-watching behaviours across a diverse population, yielding valuable insights into media consumption patterns.

The study employed Group Statistics for descriptive measures, Independent sample tests to compare means between groups, and ANOVA for differences across multiple groups. Post hoc tests, including the Bonferroni correction, were used to identify specific group differences. These techniques assessed how gender, location, media format, and media channels affect narrative engagement, physiological responses, and other dimensions.

#### 3.1. Operational definitions

1. **Narrative Engagement:** This refers to the extent to which individuals are absorbed or immersed in a narrative. It involves how effectively a story captures and maintains the audience's attention and emotional involvement. High narrative engagement is characterized by the viewer's deep interest and investment in the storyline and characters (Busselle & Bilandzic, 2009).
2. **Physiological Responses:** These are the biological reactions of the body in response to stimuli, such as changes in heart rate, skin conductance, and cortisol levels. In the context of media studies, physiological responses indicate how viewers' bodies react to narrative content, providing insights into their emotional and stress responses (Thevapriyan, 2023).
3. **Behavioral Responses:** These refer to observable actions or behaviours exhibited by individuals as a result of engaging with a narrative or media content. This can include changes in behaviour, such as increased social

interactions, shifts in consumption habits, or other actions influenced by the media experience (Thevapriyan, 2023).

4. **Psychological States:** This term encompasses the mental and emotional conditions experienced by individuals as a result of engaging with media content. It includes aspects such as mood, emotional arousal, and cognitive processes, reflecting how media exposure affects viewers' mental well-being and thought processes (Thevapriyan, 2023).
5. **Empathy:** Empathy is the ability to understand and share the feelings of another person. In media studies, it refers to the extent to which viewers can emotionally connect with and feel for characters or individuals depicted in narratives, reflecting their capacity to experience others' emotions (Cohen, 2001).
6. **Sympathy:** Sympathy involves feelings of compassion or pity towards someone else's situation. Unlike empathy, which is about shared emotional experiences, sympathy is about feeling concern or sorrow for someone else's distress without necessarily sharing in their emotions. In media studies, it measure how viewers feel about the suffering or challenges faced by characters or individuals in narratives (Green & Brock, 2000).

## 4. Results

*RQ 1: How do gender differences influence narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy?*

**Table 1:** Independent Sample Test Results

Variable	Levene's F	Levene's Sig.	t-value	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% CI Lower	95% CI Upper
Narrative engagement	0.996	0.319	7.308	446	0.0	3.79365	0.51913	2.7734	4.8139
Physiological	89.835	0.0	3.907	446	0.0	1.3254	0.33921	0.65875	1.99205
Behavioural	2.748	0.098	5.5	446	0.0	1.53968	0.27992	0.98955	2.08981
Psychological	1.946	0.164	7.285	446	0.0	3.22222	0.4423	2.35296	4.09148
Empathy	21.475	0.0	6.46	446	0.0	1.36508	0.21131	0.9498	1.78036
Sympathy	19.759	0.0	3.41	446	0.001	0.51587	0.15127	0.21858	0.81317

The data analysis consists of two main parts: Group Statistics and the Independent Samples Test. The independent samples test was conducted to compare the responses of male and female participants across six variables: narrative engagement, physiological, behavioural, psychological, empathy, and sympathy. The analysis revealed significant differences in the scores between genders for all variables, with females consistently scoring higher than males (Table 1).

In terms of **narrative engagement**, females ( $M = 48.07$ ,  $SD = 5.60$ ) scored significantly higher than males ( $M = 44.28$ ,  $SD = 5.33$ ). Levene's test indicated that the variances were equal ( $F=0.996$ ,  $p=0.319$   $F = 0.996$ ,  $p = 0.319$   $F=0.996$ ,  $p=0.319$ ). A t-test confirmed a significant difference in the means ( $t(446) = 7.31, p < 0.001$   $t(446) = 7.31, p < 0.001$   $t(446) = 7.31, p < 0.001$ ), with a mean difference of 3.79 and a 95% confidence interval of [2.77, 4.81]. For the **physiological** variable, females ( $M = 36.21$ ,  $SD = 1.32$ ) also showed higher scores than males ( $M = 34.89$ ,  $SD = 4.60$ ). Levene's test suggested unequal variances ( $F=89.835$ ,  $p < 0.001$   $F = 89.835$ ,  $p < 0.001$   $F=89.835$ ,  $p < 0.001$ ), so the t-test for unequal variances was used, yielding  $t(302.72) = 4.35, p < 0.001$   $t(302.72) = 4.35, p < 0.001$   $t(302.72) = 4.35, p < 0.001$ ). The mean difference was 1.33, with a 95% confidence interval of [0.73, 1.93]. Regarding **behavioural** responses, females ( $M = 36.93$ ,  $SD = 3.23$ ) had significantly higher scores compared to males ( $M = 35.39$ ,  $SD = 2.70$ ). Levene's test indicated equal variances ( $F = 2.748$ ,  $p = 0.098$   $F = 2.748$ ,  $p = 0.098$   $F=2.748$ ,  $p=0.098$ ). The t-test result was significant ( $t(446) = 5.50, p < 0.001$   $t(446) = 5.50, p < 0.001$   $t(446) = 5.50, p < 0.001$ ), with a mean difference of 1.54 and a 95% confidence interval of [0.99, 2.09].

The analysis of **psychological** responses showed that females ( $M = 40.00$ ,  $SD = 4.81$ ) scored higher than males ( $M = 36.78$ ,  $SD = 4.51$ ). Levene's test indicated equal variances ( $F=1.946$ ,  $p=0.164$   $F = 1.946$ ,  $p = 0.164$   $F=1.946$ ,  $p=0.164$ ). The t-test confirmed a significant difference ( $t(446) = 7.29, p < 0.001$   $t(446) = 7.29, p < 0.001$   $t(446) = 7.29, p < 0.001$ ), with a mean difference of 3.22 and a 95% confidence interval of [2.35, 4.09]. In the case of **empathy**, females ( $M = 18.14$ ,  $SD = 1.65$ ) scored higher than males ( $M = 16.78$ ,  $SD = 2.58$ ). Levene's test suggested unequal variances ( $F=21.475$ ,  $p < 0.001$   $F = 21.475$ ,  $p < 0.001$   $F=21.475$ ,  $p < 0.001$ ), and the t-test for unequal variances showed a significant difference ( $t(430.73) = 6.81, p < 0.001$   $t(430.73) = 6.81, p < 0.001$   $t(430.73) = 6.81, p < 0.001$ ). The mean difference was 1.37, with a 95% confidence interval of [0.97, 1.76]. Lastly, for **sympathy**, females ( $M = 11.57$ ,  $SD = 1.18$ ) scored slightly higher than males ( $M = 11.06$ ,  $SD = 1.84$ ). Levene's test indicated unequal variances ( $F=19.759$ ,  $p < 0.001$   $F = 19.759$ ,  $p < 0.001$   $F=19.759$ ,  $p < 0.001$ ), so the t-test for unequal variances was used, resulting in  $t(431.22) = 3.59, p = 0.001$   $t(431.22) = 3.59, p = 0.001$   $t(431.22) = 3.59, p = 0.001$ ). The mean difference was 0.52, with a 95% confidence interval of [0.23, 0.80]. In conclusion, females scored significantly higher across all six variables. The largest mean difference was observed in narrative engagement, while the smallest was found in sympathy. These findings highlight notable gender differences in responses, with females showing stronger engagement, emotional responses, and empathy.

**RQ2: How do narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy vary among individuals from rural, semi-urban, and urban areas?**

**Table 2:** The ANOVA results of Localities

		Sum of Squares	df	Mean Square	F	Sig.
Narrative engagement	Between Groups	593.762	2	296.881	9.275	.000
	Within Groups	14244.488	445	32.010		
	Total	14838.250	447			
Physiological	Between Groups	227.799	2	113.900	9.013	.000
	Within Groups	5623.763	445	12.638		
	Total	5851.562	447			
Behavioural	Between Groups	30.671	2	15.336	1.671	.189
	Within Groups	4083.579	445	9.177		
	Total	4114.250	447			
Psychological	Between Groups	406.297	2	203.148	8.728	.000
	Within Groups	10357.953	445	23.276		
	Total	10764.250	447			
Empathy	Between Groups	156.415	2	78.208	15.505	.000
	Within Groups	2244.585	445	5.044		
	Total	2401.000	447			
Sympathy	Between Groups	10.083	2	5.041	1.960	.142
	Within Groups	1144.480	445	2.572		
	Total	1154.563	447			

The ANOVA results presented provide a statistical analysis of differences in several psychological and behavioural dimensions – narrative engagement, physiological responses, behavioural aspects, psychological states, empathy, and sympathy – across different groups. The key findings and interpretations are as follows:

1. Narrative Engagement: A significant difference exists between groups ( $F(2, 445) = 9.275, p = .000$ ), with post hoc tests revealing that urban participants scored significantly higher than both rural and semi-urban participants.
2. Physiological Responses: Significant differences were found between groups ( $F(2, 445) = 9.013, p = .000$ ), with rural participants showing higher scores compared to semi-urban and urban participants, indicating variations in physiological responses.
3. Behavioral Aspects: The analysis found no significant differences between groups ( $F(2, 445) = 1.671, p = .189$ ), suggesting that behavioural scores are relatively consistent across different groups.
4. Psychological States: Significant differences were observed ( $F(2, 445) = 8.728, p = .000$ ), with urban participants scoring significantly higher than both rural and semi-urban participants.

5. Empathy: There were significant differences ( $F(2, 445) = 15.505, p = .000$ ), with semi-urban participants scoring lower than rural participants but higher than urban participants.
6. Sympathy: No significant differences were found between groups ( $F(2, 445) = 1.960, p = .142$ ), indicating similar levels of sympathy across the groups.

The post hoc analysis using the Bonferroni method confirmed these findings, highlighting that urban participants have higher engagement and psychological scores, rural participants have higher physiological response scores, and semi-urban participants have varying empathy levels. However, no significant differences were observed in behavioural and sympathy dimensions. This analysis suggests that urban participants may be more engaged and psychologically distinct compared to their rural and semi-urban counterparts, with rural participants showing distinct physiological responses potentially influenced by environmental or lifestyle factors. These findings emphasize the importance of considering geographic and demographic factors in psychological and behavioural research.

**RQ3: How do different media formats (television sets, smartphones, and other media) impact narrative engagement, physiological responses, psychological responses, empathy, and sympathy among viewers?**

**Table 3: ANOVA results of various media formats**

		Sum of Squares	df	Mean Square	F	Sig.
Narrative engagement	Between Groups	328.577	2	164.288	5.039	.007
	Within Groups	14509.673	445	32.606		
	Total	14838.250	447			
Physiological	Between Groups	285.118	2	142.559	11.397	.000
	Within Groups	5566.444	445	12.509		
	Total	5851.562	447			
Behavioural	Between Groups	18.119	2	9.060	.984	.375
	Within Groups	4096.131	445	9.205		
	Total	4114.250	447			
Psychological	Between Groups	235.326	2	117.663	4.973	.007
	Within Groups	10528.924	445	23.661		
	Total	10764.250	447			
Empathy	Between Groups	79.868	2	39.934	7.656	.001
	Within Groups	2321.132	445	5.216		
	Total	2401.000	447			
Sympathy	Between Groups	27.980	2	13.990	5.526	.004
	Within Groups	1126.583	445	2.532		
	Total	1154.562	447			



The ANOVA (Table 3) and post hoc tests reveal a detailed analysis of variance for various dependent variables across three groups: television set, smartphone, and other media. The findings show that narrative engagement varies significantly among the different mediums, with a significant difference observed between groups ( $F(2, 445) = 5.039, p = .007$ ). Physiological responses also exhibit highly significant differences based on the medium ( $F(2, 445) = 11.397, p = .000$ ). In contrast, no significant differences were found in behavioural responses across the mediums ( $F(2, 445) = 0.984, p = .375$ ). Psychological responses differ significantly between mediums ( $F(2, 445) = 4.973, p = .007$ ), and empathy levels are notably different depending on the medium ( $F(2, 445) = 7.656, p = .001$ ). Similarly, sympathy levels vary significantly across the different mediums ( $F(2, 445) = 5.526, p = .004$ ). Post hoc tests using the Bonferroni correction further highlight that the 'Others' group demonstrates significantly higher narrative engagement, physiological responses, psychological responses, empathy, and sympathy than both 'Television set' and 'Smartphone.' The absence of significant differences in behavioural responses suggests that the medium may not have as strong an impact on behavioural outcomes as it does on other psychological dimensions. Overall, the 'Others' medium appears to elicit more pronounced effects in various psychological measures compared to 'Television set' and 'Smartphone.'

**RQ4:** *How do different media channels influence various dimensions of viewer engagement, including narrative engagement, physiological responses, behavioural reactions, psychological impact, empathy, and sympathy?*

**Table 4:** ANOVA results of different media channels

		Sum of Squares	df	Mean Square	F	Sig.
Narrative engagement	Between Groups	1911.556	8	238.944	8.115	.000
	Within Groups	12926.694	439	29.446		
	Total	14838.250	447			
Physiological	Between Groups	183.000	8	22.875	1.772	.081
	Within Groups	5668.562	439	12.912		
	Total	5851.563	447			
Behavioural	Between Groups	96.485	8	12.061	1.318	.232
	Within Groups	4017.765	439	9.152		
	Total	4114.250	447			
Psychological	Between Groups	1627.132	8	203.391	9.772	.000
	Within Groups	9137.118	439	20.813		
	Total	10764.250	447			

		Sum of Squares	df	Mean Square	F	Sig.
Empathy	Between Groups	296.174	8	37.022	7.722	.000
	Within Groups	2104.826	439	4.795		
	Total	2401.000	447			
Sympathy	Between Groups	42.968	8	5.371	2.121	.033
	Within Groups	1111.595	439	2.532		
	Total	1154.563	447			

The ANOVA analysis revealed (Table 4) significant differences in narrative engagement across different media channels ( $F = 8.115$ ,  $p < .001$ ). Physiological responses, however, did not show significant differences between groups ( $F = 1.772$ ,  $p = .081$ ). Similarly, no significant differences were observed in behavioural responses ( $F = 1.318$ ,  $p = .232$ ). In contrast, psychological responses demonstrated significant differences across groups ( $F = 9.772$ ,  $p < .001$ ). Empathy levels also varied significantly between groups ( $F = 7.722$ ,  $p < .001$ ), as did sympathy ( $F = 2.121$ ,  $p = .033$ ). The post hoc Bonferroni correction for narrative engagement indicated significant differences between ReporterTV and several other channels, including Asianet, Janam TV, News 18, and Manorama TV. For empathy, significant differences were found between ReporterTV and most other channels, excluding Mathrubhumi TV and Others. Regarding sympathy, significant differences were noted between ReporterTV, Asianet, and News 18, with less significant differences observed with other channels. The analysis highlights that while some media channels significantly influence narrative engagement, empathy, and sympathy, there are no significant differences in physiological or behavioural responses among viewers across these channels.

## 5. Discussion

The conduct displayed by certain Malayalam news channel reporters in their coverage of Arjun's disappearance following the Shirur landslide is a serious violation of professional standards. Instead of upholding the values of precise and responsible journalism, these reporters opted for sensationalism, transforming a crucial rescue effort into a stage for dramatic headlines. Their approach has trivialised the gravity of the situation, which encompasses the search for a missing individual and the challenging work of rescue teams. These journalists have contributed to a misleading narrative that could hinder ongoing rescue efforts by emphasising sensational elements rather than providing accurate and supportive reporting.

This trend of prioritising sensational stories over journalistic integrity is troubling, revealing a media focus on viewer engagement and ratings at the expense of responsible coverage. Such practices not only disrespect

the victims and their families but also undermine the importance of the rescue operations conducted by agencies like the Indian Military and Navy. Presenting Arjun's plight as a sensational story rather than a serious public issue demonstrates an apparent disregard for ethical reporting. This form of reporting can negatively impact rescue personnel's morale and the public's trust in the media's role during emergencies. Sensationalism often leads to misinformation, which can cause confusion and panic, complicating rescue operations and eroding confidence in media coverage.

To address these issues, journalists involved in such reporting must receive immediate and thorough training in ethical journalism practices. This training should highlight the significance of accurate reporting, the impact of coverage on affected individuals, and the broader effects on public perception and emergency response. Journalists must recognise that their role in crises is to offer clear, accurate, and empathetic coverage rather than exploiting events for profit. Media organisations must implement stricter oversight and accountability measures to prevent similar occurrences. This should involve enforcing guidelines emphasising ethical standards and ensuring that deviations are met with appropriate consequences. The media's role in emergencies should be to provide accurate information, support rescue operations, and show compassion for those affected. Sensationalism and exploitation undermine these responsibilities and damage the public's trust in the media. Journalists and media organisations must maintain the highest standards of truthfulness and empathy, especially in times of crisis.

## 6. Conclusion

The study highlights significant insights into how gender, geographic location, media formats, and media channels affect viewer engagement and psychological responses. Women show higher levels of narrative engagement, physiological responses, empathy, and sympathy than men. This indicates that females generally experience and react to media content more intensely, suggesting the need for gender-sensitive media strategies. Geographic Variations: Urban viewers demonstrate higher narrative engagement and psychological responses, while rural viewers have more pronounced physiological responses. This suggests that environmental factors influence how people interact with media, though they do not significantly affect all behavioural aspects. Different media formats impact engagement and psychological responses significantly. The 'Others' category, which includes various non-traditional media, shows higher scores across these dimensions than television and smartphones. This highlights the effectiveness of alternative media formats in creating immersive experiences. Significant differences in viewer engagement and psychological responses are observed across media channels. Channels like Reporter TV differ notably from others in influencing narrative engagement, empathy, and sympathy, underscoring the impact of media channel choice on viewer experience.

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