

Examining the Impact of Different News Formats on Self-Efficacy in Identifying When to Seek Care for Traumatic Brain Injuries

Traumatic brain injuries are referred to as a “silent epidemic” because, despite being a leading cause of death and disablement for people around the world, they receive relatively little attention when compared to other health issues [1, 2]. Little is understood about how news coverage may function as a tool for not only raising awareness of TBIs, but for educating the public about how to handle a suspected TBI. Informed by construal level theory of psychological distance and social cognitive theory, this study examines the relative effectiveness of different news formats in bringing about key outcomes related to seeking care for TBIs.

Citations:

- [1] Dewan, M. C., Rattani, A., Gupta, S., Baticulon, R. E., Hung, Y.-C., Panchak, M., Agrawal, A., Adeleye, A. O., Shrimo, M. G., Rubiano, A. M., Rosenfeld, J. V., & Park, K. B. (2019). Estimating the global incidence of traumatic brain injury. *Journal of Neurosurgery*, 130(4), 1080–1097. <https://doi.org/10.3171/2017.10.JNS17352>
- [2] Rusnak, M. (2013). Giving voice to a silent epidemic. *Nature Reviews Neurology*, 9(4), 186–187. <https://doi.org/10.1038/nrneuro.2013.38>

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Methods

Informed by construal level theory of psychological distance and social cognitive theory, I conducted an online survey experiment testing three types of news formats: narratives, non-narratives, and hybrids (news articles that combine narrative and non-narrative evidence). With a sample of 622 U.S. adults recruited through Amazon Mturk, I examined which news format, if any, is preferable in bringing about favorable outcomes in reducing participants’ psychological distance to the threat of experiencing a TBI (i.e., heightening their sense of individual risk and perceived susceptibility), increasing their self-efficacy for knowing when to seek care for a head injury, and behavioral intentions related to seeking care after experiencing a head injury. Anxiety and message engagement (i.e., transportation & identification) were examined as potential explanatory factors.

Findings

- There were no statistically significant differences between news formats for self-efficacy, psychological distance, or behavioral intentions. See table 1 for means and main effects by message format.
- Anxiety was not a significant mediator between any of the study variables. Message engagement also was not a significant mediator; however, identification alone mediated the relationship between message format and two key outcomes, in that participants experienced more identification in the narrative and hybrid conditions, which, in turn, resulted in reduced psychological distance (interaction coefficient = .06, $p=.03$) and predicted behavioral intentions (interaction coefficient = .07, $p=.01$).

Table 1. Main Effects of Message Format

	Narrative (N = 204)	Non- Narrative (N = 194)	Hybrid (N=209)	Between—participants Effects
Self-efficacy	3.94 (.04)	3.96 (.04)	3.96 (.04)	$F(2,619)=.06, p=.95$
Psychological Distance	4.07 (.04)	4.02 (.04)	4.01 (.04)	$F(2,619)=.69, p=.51$
Behavioral Intentions	4.12 (.04)	4.12 (.04)	4.08 (.04)	$F(2,619)=.40, p=.67$

Notes. The table reports means for each message format (SDs in parentheses) and main effects of message format.

Discussion

These findings shed light on the efficacy of different news formats in helping individuals take action after experiencing a head injury. News formats that include personal narratives may be preferable in bringing about key outcomes, as when participants identified with the individual in the narrative and hybrid conditions, they experienced reduced psychological distance and increased behavioral intentions. Post-hoc exploratory analyses revealed that this effect was strongest among participants of similar demographics as the individual in the narrative (older males). Beyond the news context, health communicators may consider using elements of narratives in their messages and tailoring the demographics of the individual(s) in the narrative to match that of their target audience.