

# Media Versus Meditation: A Comparison of the Stress-Relieving Benefits of Multiple Media Experiences

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Previous research on media prescriptions demonstrates that small doses of positively valenced media can support stress reduction. However, it is not yet known how such media exposures compare to traditional methods of stress reduction, such as meditation, or who such interventions most benefit. In this 4-week longitudinal experiment, 1,001 U.S. adults were randomly assigned to view one of four treatment conditions (professionally produced inspiring content, comedic content, guided meditation, or scrolling through self-selected mobile media content) or a no-media control group. Findings demonstrate a significant indirect effect of inspiring media content on stress reduction via media-induced hope. Importantly, this effect was comparable to that found in the guided meditation group. Further, moderation analyses suggested that inspiring media content reduced stress across participants with all levels of self-reported baseline stress, trait self-esteem, trait resilience, and age, though trends suggested that the intervention was especially helpful for older participants, as well as for those with higher baseline stress and self-esteem and lower resilience. Men and women experienced comparable benefits. Again, inspiring content evidenced similar patterns of effects as the meditation group. These results add to the growing body of evidence supporting the value of the media prescription paradigm generally and hope-inspiring content in particular.

## Public Policy Relevance Statement

People who watched short, inspiring media segments over the course of 5 days felt more hopeful, which reduced their stress levels up to 10 days later. This effect was the same for those who meditated for the same amount of time. Importantly, these stress-reducing benefits were found for people, regardless of initial stress levels, resilience, self-esteem, age, or gender.

**Keywords:** stress, media, hope, comedy, meditation

Stress has arguably reached epidemic levels. The most recent data from the American Psychological Association (APA) indicates that the average American adult reported experiencing moderate amounts of stress, with nearly one quarter experiencing extreme

stress (APA, 2023a). Younger adults (ages 18–34) reported the highest stress levels, with 58% indicating that their stress feels overwhelming most days, followed closely by middle-aged adults (34–55) at 46%. Given the association of stress with a range of psychological and physical health conditions (O'Connor et al., 2021), finding effective and actionable methods of regulating stress is of increasing urgency.

Although the medical and psychological communities offer a host of recommendations for stress management, such as exercise, mindful breathing, engaging in hobbies, and social engagement (e.g., APA, 2024; Mayo Clinic, 2023), there is little discussion of media consumption in this arena apart from its potential for harm. That is, when media use is mentioned, it is often presented through a problematized lens, with recommendations to limit consumption of, for example, news and social media (e.g., Centers for Disease Control, 2024). This framing of media use as primarily stress-inducing is concerning, given that media consumption is among the most popular methods of coping with stress (Nabi et al., 2017). Additionally, there is evidence that a range of media, including video games (Reinecke, 2009), television and movies (Nabi et al., 2022), and social media (Myrick et al., 2022), can generate psychological benefits. Considering the popularity of using media when stressed and evidence that such consumption can have both negative and positive psychological effects, it is

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incumbent upon media scholars to identify which types of media content may be best suited to successfully mitigate stress and for which types of media users.

Recent evidence from the media prescription paradigm (Nabi et al., 2023; Prestin & Nabi, 2020) has demonstrated that assigning short “doses” of positively valenced (i.e., hope- or amusement-evoking) media over the course of 5 days had a lingering stress-reduction effect for college students and U.S. adults. Although these findings have replicated across different age groups and though important emotional (hope, amusement) and cognitive (coping efficacy) mechanisms have been identified, there are critical gaps in this research that are essential to address. First, we do not yet know how the stress-relieving benefits of media prescriptions compare to more well-studied stress management methods, like meditation. Second, we do not yet know how the effects of carefully selected media prescriptions compare to the effects of media content that is self-selected by stressed individuals. Third, there has not yet been much consideration of whether media prescriptions offer benefits for particular subgroups of stressed individuals, such as those with higher or lower levels of baseline stress.

In this research, we report on a longitudinal experiment in which we compare the media prescription protocol, which involves randomly assigning participants to view daily inspiring or amusing short videos, with additional conditions in which participants receive daily guided audio meditations or are asked to self-select media content (via mobile device use). This expansion of the media prescription paradigm allows us to consider the relative effects of these different media types on stress mitigation. We further examine how such media exposures influence different types of media users based on their coping-related psychographics.

### Stress and Media Prescriptions

Stress is conceptualized as the mental or somatic consequences that emerge when internal or external conditions disrupt the equilibrium between the demands one experiences and one’s resources to manage those demands (Lazarus, 1966). Although stress can be beneficial for mobilizing resources and motivating preparatory behavior, excessive stress creates cognitive and physiological disruptions, which undermine both subjective and physical well-being (Carver, 2007; Cohen & Herbert, 1993; O’Connor et al., 2021). As such, the goal of stress regulation is not to eliminate stress altogether, but rather to manage it and mitigate its negative consequences. In light of the significant health and social consequences of chronic stress, stress mitigation strategies have been of tremendous interest to both scholars and practitioners (see Cooper & Quick, 2017). Featured prominently among recommended strategies are those that evoke positive emotions, which are elicited by diffuse, globally focused opportunities (Fredrickson, 1998, 2001), and unlike negative emotions, their motivational tendencies are typically vague and unspecified. Yet, there is mounting evidence that positive emotional experiences can facilitate both psychological and physical wellness (Pressman & Cohen, 2005).

Research testing the broaden-and-build theory (BBT) of positive emotions, in particular (Fredrickson, 1998, 2001), has generated evidence that positive emotions can momentarily expand one’s mindset and facilitate the development of cognitive, social, and personal resources that can, ultimately, enhance well-being, life satisfaction, and health (Fredrickson et al., 2008; see also Sin & Lyubomirsky, 2009). For instance, self-reported positive affect predicted greater

broad-minded coping over a 5-week period compared to initial negative affect (Fredrickson & Joiner, 2002). Additionally, a 3-week meditation intervention designed to evoke positive emotions demonstrated that the resulting positive affect predicted higher self-efficacy, and, in turn, better mental health, relational satisfaction, and work satisfaction (Schutte, 2014).

### Media Prescriptions

Drawing from the BBT, Prestin and Nabi (2020) introduced the notion of media prescriptions: the practice of assigning short doses of positively valenced media in order to mitigate general stress. One significant departure from the BBT, however, is the distinction made among different positive emotions. Whereas the BBT collapses positive emotions into one broad category, media prescriptions highlight the importance of distinguishing among discrete positive emotions, given they have different cognitive underpinnings and can exert different and distinct influences on stress experiences (Lazarus, 1991). For example, though hope and amusement are both considered positively experienced emotions, underdog narratives, in which a person overcomes adversity to succeed, are likely to evoke hope but not amusement (Prestin, 2013). Conversely, comedic media are likely to generate feelings of amusement, more so than hope (Nabi et al., 2023). These distinctions are important because different emotions, like hope and amusement, can generate unique downstream behaviors and outcomes.

### Hope

Hope is the feeling of “yearning for relief from a negative situation, or for the realization of a positive outcome when the odds do not greatly favor it” (Lazarus, 1991, p. 282). Although hope stems from unfavorable situations, it is associated with the expectation of a more positive future (Ellsworth & Smith, 1988). Thus, it has earned a reputation as an emotional coping mechanism that is particularly useful in threatening, stressful, or undesirable circumstances (Lazarus, 1991, 1999; Roseman et al., 1990). Indeed, hope is unique among positive emotions in that it encourages and sustains action, commitment toward goals, and coping efforts (e.g., Averill et al., 1990; Lazarus, 1991, 1999; Snyder, 2000). Importantly, both trait and state-based hope have been linked to beneficial physical and psychological health outcomes, including reduced frequency and severity of illness (Scioli et al., 1997) and increased mental wellness (Brackney & Westman, 1992). Thus, the experience of hope engendered by exposure to inspirational content may help to explain the ability of some media content to reduce stress.

### Amusement

Amusement is associated with a sense of well-being, pleasure, and security (Lazarus, 1991; Roseman et al., 1990). Amusement also promotes playfulness and creativity (Frijda, 1986) and thus provides a respite from goal-driven activity. Positive emotions, like amusement, have emerged as one of several proposed theoretical mechanisms posited to explain established links between humor and positive health outcomes (e.g., Martin, 2001). As argued by Francis et al. (1999), “if something is ridiculous, how can it be threatening?” (p. 155). Given that humorous media tend to generate amusement (see Herring et al., 2011; Martin, 2001) and alleviate anxiety (Meyer, 2000), comedic videos are frequently used in studies linking humor

to positive health outcomes (e.g., Dillon et al., 1985). Thus, amusement generated by comedic media is one route through which media prescriptions may diminish perceptions of stress.

### Media Prescription Findings

The initial media prescription study focused specifically on the effects of inspiring (i.e., hope-evoking) content depicting someone overcoming obstacles (i.e., an “underdog”) or comedic (i.e., amusement-evoking) media, compared to calming nature content and a no-media control group (Prestin & Nabi, 2020). Undergraduate students were assigned to watch one short (about 5-min) video clip (i.e., underdog narrative, comedy video, or nature video) every day for 5 days. The authors found that those who viewed the positive emotional media clips for 5 days in a row reported less stress the following week compared to participants in the no-message control group.

Nabi et al. (2023) conducted a conceptual replication of Prestin and Nabi (2020) using samples of U.S. university students and U.S. (non-student) adults during the height of the COVID-19 pandemic. Using a similar protocol but different stimuli, they found that both inspiring (i.e., underdog-themed) and comedic content had some capacity to reduce stress over the days following the interventions’ conclusions. Although no direct effects emerged, significant indirect effects via the focal emotion of each condition (sometimes combined with coping efficacy) resulted in reduced stress compared to the no-media control condition. Thus, evidence is mounting that assigned media content can have lingering benefit on perceived stress via positive emotional arousal, but that the specific target emotion generated by the specific form of media was critical to the emergence of such effects.

These findings suggest a promising route for stress reduction, especially given that short entertainment videos are, thanks to modern media platforms and mobile technology, affordable, accessible, and compatible with people’s daily routines. However, a range of unanswered questions remain, including relative effectiveness compared to other forms of media exposure and for particular groups of media users. The first step of the present work is to attempt to replicate the findings of Nabi et al. (2023), especially in a post-COVID-19 pandemic era. Consistent with past media prescription research, inspirational media is restricted to the representation of underdog storylines that evoke hope. As such, we predict:

*Hypothesis 1 (H1):* The effect of inspirational media will be mediated through felt hope, such that participants who experience greater hope will report lower subsequent perceived stress.

*Hypothesis 2 (H2):* The effect of comedic media will be mediated through felt amusement, such that participants who experience greater amusement will report lower subsequent perceived stress.

Assuming replication is achieved, we then tackle a critical question that has yet to be addressed by media effects scholars. That is, how do targeted media prescriptions compare to traditionally recommended stress mitigation strategies, like meditation?

### Meditation

Meditation is a dynamic process of purposefully working toward an enhanced mental state while trying to connect with affective, cognitive, and physical components of one’s consciousness (Nash et al.,

2013). The practice of meditation can involve a range of mental and physical exercises, including mindfulness, breathing, body scanning, visualization, and mantra use, among others. Although meditation practices can be traced to ancient spiritual and religious traditions, it has many secular proponents and has gained popularity as a health intervention. Indeed, the use of meditation techniques has been on the rise. Data indicate that, in 2022, 18.3% of U.S. adults had meditated within the past year, up from 7.8% in 2002 (Davies et al., 2024).

A wealth of empirical evidence links meditation to stress reduction. Mindfulness meditation (i.e., working to bring awareness of the present moment without judgment), in particular, has been shown to reduce stress across a range of populations, including college students (Zieff et al., 2022), clinically anxious adults (Hoge et al., 2023), and more general populations (Dutcher et al., 2022; Zhang et al., 2020). Additional research has validated the link between meditation and self-reported stress reduction using physiological markers of reduced postmeditation stress (see Heckenberg et al., 2018). In short, meditation is an empirically and socially established, as well as popular, form of stress reduction.

In the digital age, meditation apps for mobile devices have made meditation widely accessible to the general public. Survey data suggest that up to half of Americans who have ever meditated have used an app (Lam et al., 2023). And such apps have demonstrated effectiveness. A randomized controlled trial comparing participants who spent 8 weeks using the Calm app to a control group (who did not meditate) found that the Calm app users reported lower levels of stress, which persisted 4 weeks later (Huberty et al., 2019).

Consistent with its effects on stress, researchers have found that meditation can increase positive affect (Schutte, 2014), including hope (Sears & Kraus, 2009). In fact, a single 10-min mindfulness meditation was enough to increase state levels of hope and gratitude in a sample of nearly 500 adults (Strohmaier et al., 2022). The meditation literature also notes a link between increased hope and reduced stress levels (Munoz et al., 2018).

Given the nascent evidence that media prescriptions of daily, short inspiring or comedic videos can increase positive emotions and reduce stress largely mirrors the evidence associated with meditation effects, a logical next step is to compare these two types of interventions. Given the extant research, we predict the following main effect of a meditation intervention:

*Hypothesis 3a (H3a):* Those in the meditation group will report lower subsequent perceived stress compared to their baseline.

And, given that meditation has consistently been associated with lower stress levels, and that positive emotions, like hope, have played a role in this process, we predict:

*Hypothesis 3b (H3b):* The effect of meditation on stress will be mediated by hope.

Finally, we compare the effect of the three assigned intervention groups (inspiring, comedic, or meditation content) to a self-selected media comparison group. In this fourth mediated intervention group, participants were instructed to use their own mobile devices in ways they usually would if they had the opportunity to take a 5-min break. Under similar instructions, Nabi et al. (2024) found that the self-selected mobile device group felt significantly less hope than the inspiration group and significantly less amusement than the comedy

group. Further, the self-selected content did not evidence direct or indirect effects on goal motivation or goal achievement. As such, we have no particular reason to believe it would have the stress-relieving benefits of the media prescriptions. Thus, we predict:

*Hypothesis 4 (H4):* Self-selected content via mobile devices will not generate stress-relieving benefits, either directly or indirectly, via positive emotional arousal.

Importantly, we also ask how these intervention types may compare in effectiveness:

*Research Question 1 (RQ1):* How do the stress-relieving effects of inspirational and comedic media compare to the effects of (a) meditation and (b) self-selected content via mobile device use?

### Psychographic Moderators

Next, it is important to know if any particular group is more or less likely to experience the potential stress-relieving benefits of media prescriptions. As the differential susceptibility to media effects model (Valkenburg & Peter, 2013) argues, media consumers have differing cognitive, affective, and physiological responses to media based on their dispositions, developmental stages, and social contexts. As such, psychological traits, as well as baseline stress levels, may shape how media experiences affect stress levels. Perhaps media prescriptions work best for those with lower to moderate (that is, more manageable) stress levels. Or perhaps they are particularly beneficial for those with more intense stress levels. Thus, we ask:

*Research Question 2 (RQ2):* Are media prescription benefits contingent upon baseline stress levels?

In addition to baseline stress, there are psychographic individual differences that are particularly relevant to the study of stress reduction via media use: resilience and self-esteem.

### Resilience

Psychological resilience, or the ability to fare better than expected given adversity (Troy et al., 2023), has received little attention in the media effects literature. Although there is some evidence that social media use can boost community resilience, there is little literature on the media's role in boosting individuals' resilience. A notable exception is the recently proposed Recovery and Resilience in Entertaining Media Use (R<sup>2</sup>EM) model (Reinecke & Rieger, 2021). The R<sup>2</sup>EM argues that different forms of media use can aid in different components of recovery, defined as the replenishment of resources needed for well-being that can be depleted by daily hassles, which, over time, could enhance an individual's resilience. Although the R<sup>2</sup>EM-model does not discuss stress and positive emotions specifically, and it considers resilience as an outcome rather than a moderator, it does highlight the importance of investigating the relationship between media exposure and resilience.

When we consider the degree of resilience as a moderator, it is notable that highly resilient individuals are able to navigate stressful situations with a range of not only negative but also positive emotions (Tugade & Fredrickson, 2004). As such, they may not experience as large a psychological boost from positively valenced media as low-resilience individuals, who are generally in greater need of external coping resources. Given that those low in resilience are

more severely impacted by negative events and the ensuing negative emotional responses they have to them (e.g., Tugade & Fredrickson, 2004), we propose that low-resilience individuals will benefit more from media prescriptions than more highly resilient individuals.

*Hypothesis 5 (H5):* Those low in resilience are more likely to benefit from the media interventions than their higher-scoring counterparts.

### Self-Esteem

Self-esteem refers to one's view of the self, with higher levels indicating a more positive view (i.e., feeling worthy and liking oneself) and lower levels indicating a more negative view (i.e., feeling unworthy and not liking oneself; Heatherton & Wyland, 2003). Similar to resilience, self-esteem is associated with both positive self-image and greater positive affect. Further, research suggests that higher levels of self-esteem make people less reactive to stress and better at performing under pressure (J.-S. Lee et al., 2013; Rector & Roger, 1997). Self-esteem has also been identified as a moderator of well-being-related outcomes linked to media use, including video games (Cudo et al., 2019) and social media (D. S. Lee & Way, 2021).

In short, self-esteem and stress appear to have opposite relationships with other indicators of well-being in psychological research. As such, media consumers who score high in self-esteem may be less in need of a mediated intervention to help them reduce their stress levels, as self-esteem serves as a protective factor against stress. Thus, we predict:

*Hypothesis 6 (H6):* Those with lower self-esteem are more likely to benefit from the media interventions than their higher-scoring counterparts.

Finally, given that both gender and age associate with stress, with women (e.g., McLeod et al., 2016) and younger generations (e.g., Stefaniak et al., 2021) reporting higher stress, we ask:

*Research Questions 3 and 4 (RQ3 and RQ4):* Are media prescription interventions more effective for women or for those who are younger?

## Method

### Design and Participants

This study was conducted in November and December of 2023 after receiving Institutional Research Board Approval 45-23-0638. This time period spans the major U.S. holiday of Thanksgiving and other holidays during December, including Christmas, Hannukah, and Kwanza. This is a stressful time for most Americans, with half of survey respondents describing their stress levels as "moderate" during the holiday season and 41% saying this time is more stressful than the rest of the year (APA, 2023b). As such, the present study took place during a time when participants were likely to be experiencing at least some stress, though perhaps not as much as during the deadly global COVID-19 pandemic. This research employed a five-wave panel pretest-posttest experimental design with five between-subjects conditions. Two conditions reflected the prior media prescription interventions (comedy, inspiration), two were alternative media conditions (guided meditation, mobile media use), and the fifth was a

no-message control group in which participants did not view any media stimuli.

Panel participants were U.S. adults recruited through the company Qualtrics, which contracted to deliver 1,000 valid surveys from U.S. adults. The first wave of participants was recruited to match the most recent U.S. Census percentages for age, race, gender, education, and region of the country. The final sample ( $N = 1,001$ ) was 52.7% female with an average age of 43.35 years ( $SD = 14.31$ ). The majority of respondents identified as White/Caucasian (72.6%), followed by Hispanic/Latino-American (11.3%), Black/African-American (11.0%), Asian/Asian-American (3.7%), Native American (0.7%), and other (0.7%). Over half the sample was married or cohabitating with a partner (52.4%). Nearly half (45.0%) reported a household income of less than \$50,000 per year, 35.7% between \$50,000 and \$100,000, and 19.4% over \$100,000. Given that this study focused on stress reduction, only those who reported experiencing stress levels of at least a 3 on a 0 (*no stress*) to 10 (*extreme stress*) scale were eligible to participate.

In line with previous studies (e.g., Nabi et al., 2023) and to ensure that participants remained in the same condition across the experimental waves, condition assignment was based on the day of the month on which participants were born. This day was confirmed at the start of each questionnaire to ensure participants would receive the correct stimulus for the day. Randomization was successful, with no statistically significant differences across conditions with regard to age, gender, ethnicity, or baseline stress ( $ps = .42-.82$ ).

## Procedure

After completing a questionnaire in Week 1 assessing baseline perceived stress level and a variety of demographic and psychographic variables, participants were assigned to one of two media treatments (inspiration,  $n = 207$ ; comedy,  $n = 197$ ), guided meditation ( $n = 196$ ), mobile media use ( $n = 204$ ), or a no-media control condition ( $n = 197$ ). Beginning on the Monday of Week 2, each weekday for 5 consecutive days, participants were e-mailed a link to a survey containing either a video clip matched to their experimental condition (comedy, inspiration, meditation), instructions to use their smart phone or computers as they normally would to take a 5-min break, or instructions to complete the survey (control group). After each media experience, participants completed brief assessments of their emotional state, perceived stress level, and perceptions of the video clips. The no-message control group completed only the emotional state and stress items, as they did not view any media. The first post-intervention assessment took place in Week 3, 2–3 days after the intervention. To assess potential delayed effects, a second posttest was issued in Week 4, 9–10 days after the intervention. Consistent with Nabi et al. (2023), participants needed to complete at least three of the five daily surveys to be retained for the posttests. Any participant who changed responses regarding their birthday such that they were exposed to multiple conditions were also eliminated. Responses were further scrubbed for speeding, failure of attention checks, and bot responses.

## Stimuli

All media stimuli were short, 3–5-min videos, similar to content available on social media or YouTube. The comedic videos were intended to evoke amusement with the type of slapstick and

observational humor typical of popular late-night or stand-up comedy (e.g., comedians Jimmy Fallon and Kevin Hart riding a roller coaster, a segment of a comedian's stand-up routine). The inspirational videos were intended to elicit hope and featured stories of individuals overcoming adversity to achieve success (e.g., a cancer survivor who climbed Mount Everest, a teen with autism becoming the high scorer in a high school basketball game). Both sets of stimuli were previously used by Nabi et al. (2023), and additional details can be found on the Open Science Framework (OSF) as part of the additional online materials (<https://osf.io/y4tgz/>; Nabi et al., 2025).

The meditation stimuli were drawn from the highly popular Calm app (<https://www.calm.com>). Video versions of the free introductory first week of the “Daily Calm” meditations were configured so participants would see only a black screen as they listened to the audio of the meditations, which focused on mindfulness, mindful breathing, and progressive relaxation. The original meditations were 10 min long but were trimmed to be approximately 5 min each by shortening spans of silence and removing ancillary commentary (e.g., stories) which is typically included in daily calm recordings.

For those in the self-selected mobile media use group, participants were asked to use their smart phones or computers as they normally would “when you're taking a break or trying to relax.” A timer appeared on the screen to help them track their time. After 4 min, participants could progress to the survey, and after 5 min, the screen automatically advanced from the timer page to the postexposure questions. Later in the survey, participants were asked to indicate how they spent their time online by selecting from a menu of possible activities. Of the 1,708 total activities selected across the 5 days, 19.7% were scrolling social media, 13.2% were watching funny videos, 12.9% played games, 11.9% chatted or texted others, 11.7% read news, 9.4% commented or liked other people's posts, 6.8% saw inspiring videos, 3.4% posted to their own social media pages, and 11% noted other activities.

## Measures

Two sets of measures were used in this study: those in the pretest and posttest, and those in the intervention week, daily surveys. Only measures relevant to the present hypotheses and research questions are reported here. As well, timepoints are abbreviated as: (T1) pretest, (T2-I) intervention, (T3) 2–3 days after the intervention, and (T4) 9–10 days after the intervention. Each set of measures was assessed with 5-point Likert-type scales unless otherwise noted.

### Perceived Stress

The survey included multiple measures of perceived stress. First, to screen participants for inclusion, participants were asked to rate their perceived stress on a 0 (*no stress*) to 10 (*extreme stress*) scale. Only those who indicated a 3 or higher qualified for participation in the study ( $M = 6.39$ ,  $Mdn = 6$ ,  $SD = 1.85$ ).

The pretest, along with T3 and T4 surveys, also included five items from the Global Measure of Perceived Stress (GMPS) scale (Cohen et al., 1983), to accommodate the need to keep the survey of reasonable length. Sample items include “How often in the past month have you ... felt nervous or stressed?, felt difficulties were piling up so high that you could not overcome them?” ( $M = 3.02$ ,  $SD = 0.72$ ). The single item perceived stress item correlated with

this more general measure at pretest,  $r(1001) = .56, p < .001$ ), suggesting the viability of using the single item assessment. However, given scaled assessments are typically preferable, we use the GMPS at T4 as our key perceived stress indicator.<sup>1</sup>

### Resilience

Resilience was assessed with Smith et al.'s (2008) six-item Brief Resilience scale. Sample items include "I tend to bounce back quickly after hard times" and "I usually come through difficult times with little trouble" ( $\alpha = .86, M = 3.06, SD = 0.36$ ).

### Self-Esteem

Self-esteem was assessed with four items from the Rosenberg (1979) self-esteem scale. Sample items include "I have high self-esteem" and "On the whole, I am satisfied with myself" ( $\alpha = .88, M = 3.26, SD = 0.91$ ).

### Current Emotional State

Immediately after watching each video during the intervention week, participants were presented with a list of 10 emotions (adapted from the Modified Differential Emotions Scale; Fredrickson et al., 2003) and asked to rate how much of each they felt in the moment on a scale from 1 (*not at all*) to 7 (*very much*). Although our conceptual focus was on amusement and hope, additional emotion items were included (e.g., anxious, inspired, calm, irritated, sad, cheerful) to reduce the threat of demand characteristics. As we were concerned with the overall specific emotional responses to the media prescription experience, rather than the effects of any single video or more general affective reactions, responses for amusement and hope were each averaged across the five intervention days ( $M_{\text{amusement}} = 3.93, SD = 1.66; M_{\text{hope}} = 4.89, SD = 1.36$ ).<sup>2</sup>

### Message Characteristics

To test that the video stimuli were perceived as intended, participants in the media conditions were asked to rate each video they viewed from 1 (*not at all*) to 7 (*very much*) on how amusing, humorous, inspiring, uplifting, boring, offensive, enjoyable, engaging, relaxing, and calming they found each clip to be. The combined ratings across the five videos for "humorous" ( $M = 3.35, SD = 2.10$ ) and "inspiring" ( $M = 5.20, SD = 1.50$ ) were used for manipulation checks.

Demographics, including gender, age, income, state of residence, and marital status, were assessed in the Week 1 pretest.

## Results

### Manipulation Check

In assessing evaluations of the inspirational and comedic content, *t* test results indicated participants in the comedy condition rated their videos as funnier ( $M = 5.86, SD = 1.06$ ) than did those in the inspiration condition ( $M = 2.25, SD = 1.27$ ),  $t(402) = -31.56, p < .001$ . Similarly, participants in the inspiration condition rated their videos as more inspiring ( $M = 6.24, SD = 0.91$ ) than did those in the comedy condition ( $M = 4.29, SD = 1.45$ ),  $t(402) = 16.42, p < .001$ . Thus, the manipulations were successful.

### Tests of Media Prescriptions

To test H1 and H2 regarding the effects of media condition, along with felt hope and amusement, on stress, we used a parallel mediation model in PROCESS (Hayes, 2018, Model 4; 20,000 bootstrapped samples). Message condition (inspiration, comedy, meditation, and mobile device use) was entered as a multicategorical predictor with the no-message control as the reference group, the scaled perceived stress measure at the second posttest (T4) as the outcome, experienced hope and amusement as parallel mediators, and baseline scaled perceived stress as a covariate. We chose T4 as the primary outcome as effects at this timepoint were identified in previous research (Nabi et al., 2023) and represent the more challenging test.

In line with H1, exposure to inspirational content induced greater hope ( $b = 1.39, SE = 0.12, p < .001$ , 95% confidence interval [CI] [1.14, 1.63]), which, in turn, was negatively associated with experienced stress at T4 ( $b = -0.12, SE = 0.02, p < .001$ , 95% CI [-0.157, -0.090]). As predicted, there was a significant indirect effect from inspirational media to reduced stress through hope ( $b = -0.171, SE = 0.029$ , 95% CI [-0.232, -0.116]). In contrast, though exposure to comedy successfully induced amusement ( $b = 2.34, SE = 0.14, p < .001$ , 95% CI [2.06, 2.62]), the latter did not significantly influence stress at T4 ( $b = -0.002, SE = 0.015, p = .88$ , 95% CI [-0.032, 0.028]). Thus, contrary to H2, there was no significant indirect effect of comedic content on stress through amusement ( $b = 0.005, SE = 0.039$ , 95% CI [-0.082, 0.070]). Of note, no direct effects of the inspiring or comedic conditions on perceived stress were identified.

With respect to the meditation condition, consistent with H3a, there was a significant direct effect of meditation on perceived stress at T4 ( $b = -0.137, SE = 0.06, p = .028$ , 95% CI [-0.260, -0.014]). Further, in support of H3b, a significant indirect effect of meditation on reduced stress at T4 through felt hope ( $b = -0.088, SE = 0.020$ , 95% CI [-0.131, -0.051]), but not amusement ( $b = 0.000, SE = 0.003$ , 95% CI [-0.006, 0.006]), emerged. Thus, both H3a and H3b were supported.

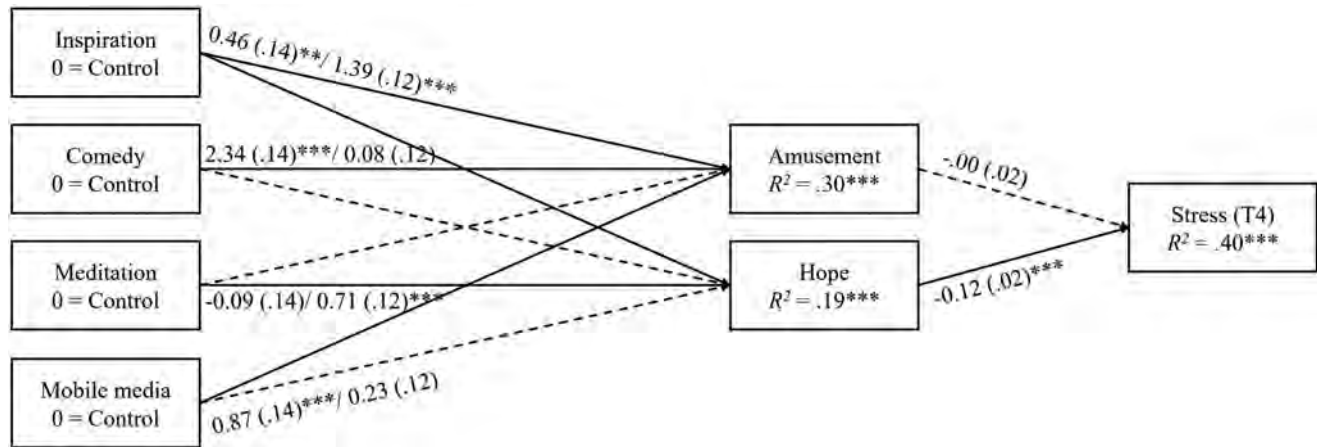
Regarding the possible direct or indirect effects of mobile device use on stress, consistent with H4, there was no direct effect of self-selected content via mobile device use on reduced stress at T4 ( $b = -0.100, SE = 0.062, p = .11$ , 95% CI [-0.221, 0.021]). Of note, the significance level was comparable to the (nonsignificant) direct effects of the inspiration and comedy groups. Considering indirect effects through emotional arousal, mobile device use evidenced a suggestive effect on felt hope ( $b = 0.235, SE = 0.123, p = .057$ , 95% CI [-0.007, 0.477]), and a significant effect on increased amusement ( $b = 0.867, SE = 0.141, p < .001$ , 95% CI [0.590, 1.143]). However, there was no significant indirect effect of mobile device use on reduced stress through either hope ( $b = -0.029, SE =$

<sup>1</sup> Post-intervention perceived stress was also assessed at T3 and T4 with single items, asking how much stress participants felt in the past week on a scale from 0 (*none at all*) to 100 (*extreme stress*). Analyses with the single-item stress measure were comparable to those with the GMPS at both T3 and T4, with only small variations. The most notable differences are noted in the discussion and on the OSF, which holds the additional online materials (Nabi et al., 2025, <https://osf.io/y4tgz/>).

<sup>2</sup> Although repeated measures analysis of variance could have been applied to the data, in this case, we were more interested in the collective impact of the intervention as a whole, for which analysis with PROCESS is better suited.

**Figure 1**

*Unstandardized Coefficients (With Standard Errors) for the Prediction of Emotional State and Stress (T4), by Experimental Condition*



*Note.* The first coefficient represents the effect of condition on felt amusement, and the second coefficient represents the effect on felt hope. A dashed line denotes a nonsignificant relationship. Amusement and hope are assessed at T2-I. Perceived stress is assessed at T4. Analyses control for baseline perceived stress. The only direct effect identified was between meditation and perceived stress ( $b = -0.137$ ,  $SE = 0.06$ ,  $p = .028$ , 95% CI  $[-0.260, -0.014]$ ). T = timepoint; CI = confidence interval; T2-I = intervention.

\*\*  $p < .01$ . \*\*\*  $p < .001$ .

0.016, 95% CI  $[-0.063, 0.002]$ ) or amusement ( $b = -0.002$ ,  $SE = 0.015$ , 95% CI  $[-0.031, 0.026]$ ). Figure 1 outlines all indirect effects (with direct effects identified in the notes).

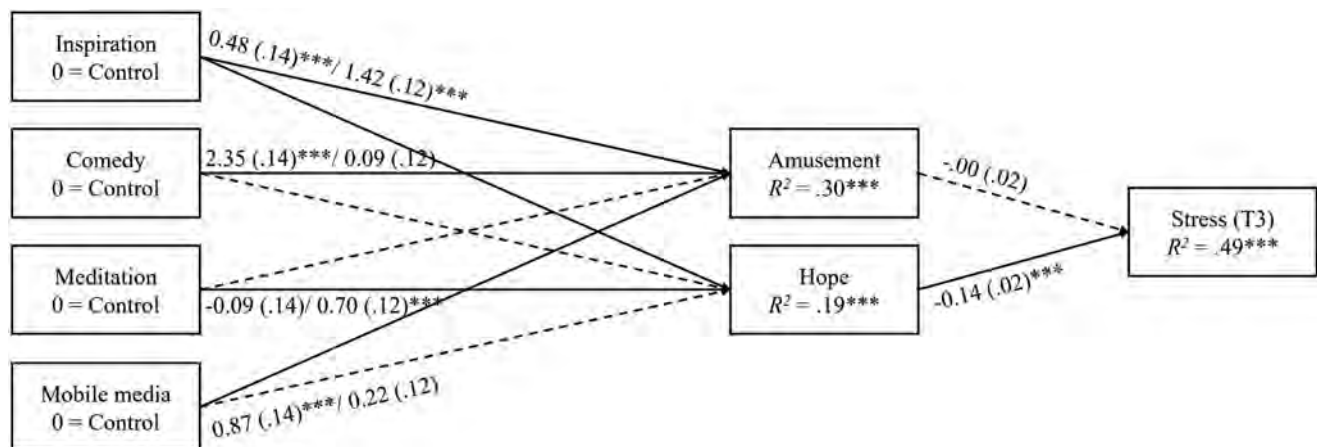
To determine if these effects at T4 were persisting from T3 or emerged over that time, we repeated the analyses with perceived stress at T3 as the dependent variable. Results largely parallel those identified at T4, suggesting that the indirect effects identified at T4 were already present at T3 (see Figure 2). The only notable difference was the evidence of a direct effect of comedy (not meditation) on

perceived stress. As such, the remaining analyses focus only on the T4 timepoint.

RQ1 asked how the stress-relieving effects of inspirational and comedic media compare to the effects of meditation and self-selected content via mobile device use. First, an analysis of covariance, controlling on baseline stress, indicated no significant differences among the four intervention conditions,  $F(4, 786) = 2.076$ ,  $p = .10$ . Comparisons among the individual conditions with Bonferroni adjustment indicated no significant differences among the groups.

**Figure 2**

*Unstandardized Coefficients (With Standard Errors) for the Prediction of Emotional State and Stress (T3) by Experimental Condition*



*Note.* The first coefficient represents the effect of condition on felt amusement, and the second coefficient represents the effect on felt hope. A dashed line denotes a nonsignificant relationship. Amusement and hope are assessed at T2-I. Perceived stress is assessed at T3. Analyses control for baseline perceived stress. The only direct effect identified was between comedy and perceived stress ( $b = -0.159$ ,  $SE = 0.066$ ,  $p = .016$ , 95% CI  $[-0.287, -0.030]$ ). T = timepoint; CI = confidence interval; T2-I = intervention.

\*\*\*  $p < .001$ .

To assess any differences based on emotional mediation, we then constructed two separate PROCESS models (Model 4), each treating either the inspirational or the comedic media conditions as the reference group with baseline stress as a covariate. This approach allows for a direct comparison of the stress-relieving effects of comedic/inspirational media with the effects of meditation and self-selected content via mobile device use (vs. comparing to the no media control group).

When compared to the inspiration condition, both meditation ( $b = -0.243$ ,  $SE = 0.065$ ,  $p < .001$ , 95% CI  $[-0.370, -0.116]$ ) and self-selected content via mobile phone use ( $b = -0.210$ ,  $SE = 0.069$ ,  $p = .003$ , 95% CI  $[-0.345, -0.074]$ ) evidenced significant direct effects indicating reduced stress at T4 compared with the inspirational media condition. However, significant indirect effects through hope suggest increased stress for both the meditation ( $b = 0.088$ ,  $SE = 0.022$ , 95% CI  $[0.048, 0.136]$ ) and phone use groups ( $b = 0.149$ ,  $SE = 0.030$ , 95% CI  $[0.094, 0.211]$ ) compared to the inspiration group. Thus, though inspirational stories may have less of a direct effect on stress mitigation compared to meditation and self-directed phone use, the hope that inspirational stories evoke elevates their stress-relieving effects relative to the other groups.

When compared with comedic media, neither meditation ( $b = 0.010$ ,  $SE = 0.083$ ,  $p = .90$ , 95% CI  $[-0.153, 0.174]$ ) nor the self-selected content via mobile device use ( $b = 0.030$ ,  $SE = 0.068$ ,  $p = .66$ , 95% CI  $[-0.103, 0.163]$ ) conditions had significantly different direct effects on T4 stress, and no significant mediation with amusement emerged.

## Moderating Influences

### Baseline Stress

The moderating role of baseline stress on the influence of the various media interventions was gauged with a moderated-mediation model in PROCESS (Model 59). Significant indirect effects of inspirational media on T4 stress through felt hope was observed in those who reported lower ( $2.30$ ,  $b = -0.109$ ,  $SE = 0.031$ , 95% CI  $[-0.176, -0.052]$ ), moderate ( $3.02$ ,  $b = -0.169$ ,  $SE = 0.029$ , 95% CI  $[-0.228, -0.115]$ ), and high baseline stress ( $3.73$ ,  $b = -0.243$ ,  $SE = 0.050$ , 95% CI  $[-0.347, -0.151]$ ). Interestingly, the magnitude of effects increased from low to moderate to high stress, suggesting not only that the intervention was impactful regardless of stress level but also that it might be more impactful on those with greater baseline stress levels.

Interestingly, an identical pattern was observed in the meditation condition with all groups evidencing significant mediation, but with increasing effects as baseline stress increased: lower ( $2.30$ ,  $b = -0.045$ ,  $SE = 0.021$ , 95% CI  $[-0.091, -0.010]$ ), moderate ( $3.02$ ,  $b = -0.087$ ,  $SE = 0.020$ , 95% CI  $[-0.129, -0.051]$ ), and high ( $3.73$ ,  $b = -0.140$ ,  $SE = 0.036$ , 95% CI  $[-0.216, -0.074]$ ).

Somewhat unexpectedly, sporadic, small, but significant, mediation through hope emerged for the humor condition, but only for those high in baseline stress ( $3.73$ ,  $b = -0.056$ ,  $SE = 0.029$ , 95% CI  $[-0.1176, -0.005]$ ), and for the mobile media use condition, but only for those at moderate stress levels ( $3.02$ ,  $b = -0.031$ ,  $SE = 0.016$ , 95% CI  $[-0.064, -0.001]$ ). No indirect effects via amusement emerged for any condition or at any level of baseline stress (see Table 1).

**Table 1**  
*Analysis of Direct and Moderated Effects of Baseline Stress, Resilience, and Self-Esteem Predicting Emotional States and Stress*

| Variable                            | Moderator 1:<br>baseline stress (RQ2) |                                |                                  | Moderator 2:<br>resilience (H5)     |                                |                                  | Moderator 3:<br>self-esteem (H6)    |                                |                                  |
|-------------------------------------|---------------------------------------|--------------------------------|----------------------------------|-------------------------------------|--------------------------------|----------------------------------|-------------------------------------|--------------------------------|----------------------------------|
|                                     | Amusement<br><i>b</i> ( <i>SE</i> )   | Hope<br><i>b</i> ( <i>SE</i> ) | Stress<br><i>b</i> ( <i>SE</i> ) | Amusement<br><i>b</i> ( <i>SE</i> ) | Hope<br><i>b</i> ( <i>SE</i> ) | Stress<br><i>b</i> ( <i>SE</i> ) | Amusement<br><i>b</i> ( <i>SE</i> ) | Hope<br><i>b</i> ( <i>SE</i> ) | Stress<br><i>b</i> ( <i>SE</i> ) |
| Constant                            | 4.70 (0.42)                           | 6.25 (0.37)                    | 1.17 (0.37)                      | 1.69 (0.84)                         | 3.78 (0.74)                    | 0.84 (0.77)                      | 2.36 (0.50)                         | 2.15 (0.41)                    | 2.08 (0.30)                      |
| Inspiration                         | -0.12 (0.61)                          | 0.02 (0.53)                    | -0.19 (0.28)                     | 1.20 (1.19)                         | 3.11 (1.06)**                  | 0.23 (0.54)                      | 0.85 (0.51)                         | 2.93 (0.43)***                 | 0.40 (0.24)                      |
| Comedy                              | 0.81 (0.61)                           | -1.23 (0.53)*                  | -0.53 (0.30)                     | 3.17 (1.16)**                       | 0.75 (1.03)                    | 0.34 (0.56)                      | 3.45 (0.54)***                      | 0.24 (0.45)                    | 0.28 (0.27)                      |
| Meditation                          | -1.05 (0.62)                          | 0.44 (0.54)                    | -0.29 (0.27)                     | -1.22 (1.15)                        | 1.97 (1.02)                    | 0.02 (0.51)                      | 0.26 (0.51)                         | 1.38 (0.23)**                  | -0.03 (0.23)                     |
| Mobile media                        | 0.65 (0.60)                           | 0.50 (0.52)                    | -0.13 (0.26)                     | 2.02 (1.19)                         | 1.25 (1.05)                    | 0.95 (0.52)                      | 0.32 (0.51)                         | -0.71 (0.42)                   | 0.05 (0.22)                      |
| Amusement                           |                                       | 0.07 (0.30)                    | -0.04 (0.07)                     |                                     |                                | 0.11 (0.13)                      |                                     |                                | -0.05 (0.05)                     |
| Initial stress                      | -0.50 (0.14)***                       | -0.62 (0.12)**                 | 0.76 (0.11)***                   | -0.31 (0.06)***                     | -0.41 (0.05)***                | 0.59 (0.03)***                   | 0.09 (0.08)                         | -0.02 (0.06)                   | 0.50 (0.03)***                   |
| Resilience                          |                                       |                                |                                  | 0.79 (0.26)**                       | -0.59 (0.23)*                  | 0.29 (0.25)                      |                                     |                                |                                  |
| Self-esteem                         |                                       |                                |                                  |                                     |                                |                                  |                                     |                                |                                  |
| × Inspiration                       | 0.19 (0.20)                           | 0.45 (0.17)**                  | 0.10 (0.09)                      | -0.23 (0.39)                        | -0.56 (0.34)                   | -0.04 (0.17)                     | 0.34 (0.11)**                       | 0.60 (0.09)***                 | -0.07 (0.08)                     |
| × Comedy                            | 0.51 (0.20)*                          | 0.44 (0.17)*                   | 0.15 (0.10)                      | -0.27 (0.37)                        | -0.22 (0.33)                   | -0.14 (0.18)                     | -0.13 (0.15)                        | -0.48 (0.13)**                 | -0.10 (0.07)                     |
| × Meditation                        | 0.32 (0.20)                           | 0.38 (0.17)*                   | 0.05 (0.09)                      | -0.27 (0.37)                        | -0.22 (0.33)                   | -0.14 (0.18)                     | -0.34 (0.16)*                       | -0.07 (0.13)                   | -0.11 (0.08)                     |
| × Mobile Media                      | 0.07 (0.19)                           | -0.08 (0.17)                   | 0.01 (0.08)                      | -0.37 (0.38)                        | -0.08 (0.33)                   | -0.05 (0.17)                     | -0.11 (0.15)                        | -0.22 (0.13)                   | -0.03 (0.07)                     |
| % variance explained (total $R^2$ ) | 0.30                                  | 0.20                           | 0.41                             | 0.32                                | 0.20                           | 0.41                             | 0.17 (0.15)                         | 0.29 (0.13)*                   | -0.05 (0.07)                     |
| <i>F</i> ( <i>df</i> )              | 47.13 (9977)                          | 27.55 (9977)                   | 51.48 (13973)                    | 46.82 (10976)                       | 24.37 (10976)                  | 49.18 (14972)                    | 45.53 (10976)                       | 39.65 (10976)                  | 51.38 (14972)                    |

*Note.* × indicates an interaction effect between a predictor and a moderator of interest. RQ = research question; H = hypothesis.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

### Resilience

Based on a moderated-mediation model in PROCESS (Model 59), the indirect effects of both inspirational media and meditation on T4 stress through felt hope were significant for all levels of resilience: low (2.70,  $b_{\text{inspirational}} = -0.219$ ,  $SE = 0.049$ , 95% CI [-0.320, -0.127];  $b_{\text{meditation}} = -0.104$ ,  $SE = 0.030$ , 95% CI [-0.168, -0.049]), moderate (3.07,  $b_{\text{inspirational}} = -0.175$ ,  $SE = 0.030$ , 95% CI [-0.234, -0.119];  $b_{\text{meditation}} = -0.091$ ,  $SE = 0.020$ , 95% CI [-0.133, -0.054]), and high (3.43,  $b_{\text{inspirational}} = -0.135$ ,  $SE = 0.038$ , 95% CI [-0.216, -0.067];  $b_{\text{meditation}} = -0.079$ ,  $SE = 0.028$ , 95% CI [-0.141, -0.031]). Somewhat consistent with H5, the effect size was largest for those lower in resilience and smallest for those high in resilience for the inspiration condition, though the effect sizes were smaller and more comparable for the meditation group.

As well, the model retrieved a small but significant indirect effect of mobile device use through felt hope for those both low (2.70,  $b_{\text{phone}} = -0.051$ ,  $SE = 0.026$ , 95% CI [-0.105, -0.005]) and moderate in resilience (3.08,  $b_{\text{phone}} = -0.032$ ,  $SE = 0.016$ , 95% CI [-0.066, -0.002]), but not for highly resilient individuals (3.43,  $b_{\text{phone}} = -0.0166$ ,  $SE = 0.022$ , 95% CI [-0.065, 0.025]). No such effects were found for the comedy condition. Further, no indirect effects via amusement emerged for any condition or at any level.

### Self-Esteem

The moderating role of self-esteem was also tested with a moderated-mediation model in PROCESS (Model 59). As with baseline stress and resilience, the indirect effects of both inspirational media and meditation on stress at T4 through felt hope were significant at all three levels of self-esteem: low (2.37,  $b_{\text{inspirational}} = -0.156$ ,  $SE = 0.050$ , 95% CI [-0.257, -0.063];  $b_{\text{meditation}} = -0.076$ ,  $SE = 0.028$ , 95% CI [-0.135, -0.028]), moderate (3.27,  $b_{\text{inspirational}} = -0.137$ ,  $SE = -0.028$ , 95% CI [-0.193, -0.085];  $b_{\text{meditation}} = -0.068$ ,  $SE = 0.017$ , 95% CI [-0.104, -0.037]), and high (4.17,  $b_{\text{inspirational}} = -0.106$ ,  $SE = 0.029$ , 95% CI [-0.168, -0.053];

$b_{\text{meditation}} = -0.055$ ,  $SE = 0.023$ , 95% CI [-0.104, -0.015]). For both conditions, the pattern of effect sizes suggested slightly stronger effects for those lower in self-esteem, more so for the inspiration condition. Further, the model retrieved a significant indirect effect of the mobile device use condition through felt hope, albeit only for those with high self-esteem (4.17,  $b_{\text{phone}} = -0.057$ ,  $SE = 0.024$ , 95% CI [-0.110, -0.016]). No effects related to amusement emerged.

### Age

As with the three previous moderators, significant indirect effects on stress at T4 were found through felt hope for both inspirational media and meditation. As well, the effects appeared to get stronger as age increased, and were overall stronger for the inspiration condition than the meditation condition: low (28.99,  $b_{\text{inspirational}} = -0.128$ ,  $SE = 0.035$ , 95% CI [-0.199, -0.062];  $b_{\text{meditation}} = -0.061$ ,  $SE = 0.028$ , 95% CI [-0.114, -0.020]), moderate (43.35,  $b_{\text{inspirational}} = -0.178$ ,  $SE = -0.030$ , 95% CI [-0.238, -0.123];  $b_{\text{meditation}} = -0.092$ ,  $SE = 0.021$ , 95% CI [-0.135, -0.055]), and high (57.71,  $b_{\text{inspirational}} = -0.236$ ,  $SE = 0.047$ , 95% CI [-0.334, -0.149];  $b_{\text{meditation}} = -0.129$ ,  $SE = 0.034$ , 95% CI [-0.202, -0.067]). No indirect effects through felt hope were found for comedy or mobile device use, and effects through amusement based on participants' age emerged (see Table 2).

### Gender

As with the other moderators, the indirect effect of inspiring content and meditation on stress through hope emerged for both males ( $b_{\text{inspirational}} = -0.128$ ,  $SE = 0.037$ , 95% CI [-0.206, -0.062];  $b_{\text{meditation}} = -0.099$ ,  $SE = 0.031$ , 95% CI [-0.166, -0.046]) and females ( $b_{\text{inspirational}} = -0.223$ ,  $SE = 0.047$ , 95% CI [-0.318, -0.136];  $b_{\text{meditation}} = -0.070$ ,  $SE = 0.028$ , 95% CI [-0.129, -0.020]). The moderated-mediation effect was not significant. The model did not point to any other significant indirect effects. Tables 1 and 2 outline all direct and moderated effects for all moderators considered.

**Table 2**

*Analysis of Direct and Moderated Effects of Age and Biological Sex Predicting Emotional States and Stress*

| Variable                            | Moderator 4: age (RQ3)              |                                |                                  | Moderator 5: biological sex (RQ4)   |                                |                                  |
|-------------------------------------|-------------------------------------|--------------------------------|----------------------------------|-------------------------------------|--------------------------------|----------------------------------|
|                                     | Amusement<br><i>b</i> ( <i>SE</i> ) | Hope<br><i>b</i> ( <i>SE</i> ) | Stress<br><i>b</i> ( <i>SE</i> ) | Amusement<br><i>b</i> ( <i>SE</i> ) | Hope<br><i>b</i> ( <i>SE</i> ) | Stress<br><i>b</i> ( <i>SE</i> ) |
| Constant                            | 5.36 (0.37)                         | 5.74 (0.33)                    | 1.22 (0.28)                      | 4.27 (0.37)                         | 5.38 (0.32)                    | 1.47 (0.28)                      |
| Inspiration                         | 0.60 (0.44)                         | 0.79 (0.39)*                   | 0.01 (0.20)                      | 0.80 (0.46)                         | 0.80 (0.40)*                   | -0.11 (0.21)                     |
| Comedy                              | 1.07 (0.44)*                        | -0.44 (0.39)                   | -0.04 (0.22)                     | 1.67 (0.46)***                      | -0.10 (0.40)                   | -0.34 (0.23)                     |
| Meditation                          | -0.73 (0.43)                        | 0.26 (0.38)                    | 0.12 (0.19)                      | 0.29 (0.47)                         | 1.36 (0.41)***                 | -0.24 (0.21)                     |
| Mobile media                        | 0.45 (0.43)                         | 0.01 (0.39)                    | -0.18 (0.19)                     | 0.91 (0.45)*                        | 0.16 (0.40)                    | -0.09 (0.20)                     |
| Amusement                           |                                     |                                | -0.01 (0.05)                     |                                     |                                | -0.02 (0.05)                     |
| Hope                                |                                     |                                | -0.07 (0.05)                     |                                     |                                | -0.07 (0.06)                     |
| Initial stress                      | -0.36 (0.06)***                     | -0.39 (0.06)**                 | 0.61 (0.03)***                   | -0.27 (0.06)***                     | -0.41 (0.05)***                | 0.59 (0.03)***                   |
| Age                                 | -0.03 (0.01)***                     | -0.00 (0.00)                   | 0.01 (0.01)                      |                                     |                                |                                  |
| Sex                                 |                                     |                                |                                  | -0.16 (0.20)                        | 0.17 (0.18)                    | 0.14 (0.16)                      |
| × Inspiration                       | -0.00 (0.01)                        | 0.01 (0.01)                    | 0.00 (0.00)                      | -0.25 (0.28)                        | 0.39 (0.25)                    | 0.14 (0.13)                      |
| × Comedy                            | 0.03 (0.01)**                       | 0.01 (0.01)                    | -0.00 (0.01)                     | 0.43 (0.28)                         | 0.11 (0.25)                    | 0.16 (0.14)                      |
| × Meditation                        | 0.02 (0.01)                         | 0.01 (0.01)                    | -0.01 (0.00)                     | -0.25 (0.29)                        | -0.43 (0.25)                   | 0.07 (0.13)                      |
| × Mobile Media                      | 0.01 (0.01)                         | 0.01 (0.01)                    | 0.00 (0.00)                      | -0.04 (0.28)                        | -0.05 (0.25)                   | -0.01 (0.13)                     |
| % variance explained (total $R^2$ ) | 0.32                                | 0.19                           | 0.41                             | 0.30                                | 0.20                           | 0.41                             |
| <i>F</i> ( <i>df</i> )              | 46.45 (10976)                       | 23.14 (10976)                  | 48.33 (14972)                    | 42.51 (10974)                       | 24.50 (10974)                  | 47.39 (14970)                    |

Note. × indicates an interaction effect between a predictor and a moderator of interest. Biological sex was coded as 1 = male and 2 = female. RQ = research question.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## Discussion

For nearly 40 years, media scholars have highlighted how self-selected media consumption can aid mood regulation and recovery from daily stresses (e.g., Janicke-Bowles et al., 2018; Rieger et al., 2014; Zillmann, 1988). However, we know relatively little about how prescribed or suggested media use may purposefully alter and improve media users' psychological well-being. The media prescription paradigm was introduced to help determine whether providing small doses of media content expected to evoke positive emotions could aid in stress reduction. With initial evidence supporting this approach (Nabi et al., 2023; Prestin & Nabi, 2020), this research sought to build on those initial studies through replication and extension. The findings reported are broadly consistent with initial evidence that positively valenced videos having an enduring benefit on perceived stress up to 10 days after exposure. However, the nature of the effects that emerged across the range of stimuli and participants was both intriguing and, in some cases, surprising.

First, only hope and not amusement served as a mediator on T4 stress, and it did so for both the inspiring media and meditation conditions. Not only does this finding replicate the Nabi et al.'s (2023) results for inspiring media with the same stimuli but the current research also found that the effect for U.S. adults lasted for a full week after what was documented in that earlier study. As noted by Nabi et al., such an enduring effect is unlikely to occur without influencing some other, more enduring psychological factor. They provide evidence that coping efficacy is enhanced by the elevation of hope, which is associated with reduced stress. In fact, further analysis of the current data similarly demonstrated that coping efficacy played a role in mediating the effects of both inspiring and amusing media content on perceived stress.<sup>3</sup> In addition to building psychological resources, it may also be that the intervention influenced the media choices participants in the Inspiration group made in the subsequent days. If the intervention motivated greater selection of inspiring content, this change in media consumption might explain the enduring effects of that condition on perceived stress. This hypothesis will be tested with other data from this project.

What is particularly notable is that the inspiration and meditation conditions were comparable in both their effect on stress mitigation and the process through which it occurred. This similarity was highlighted by the moderation analyses. The pattern of effects for these two conditions was comparable across all moderators. Although the interventions were effective at all levels of all moderators explored, the data suggest some important variations may exist. Specifically, for both the inspiration and meditation groups, effect sizes increased at higher levels of baseline stress and lower levels of resilience, and to a lesser extent, self-esteem.<sup>4</sup> Further, effect sizes were generally stronger for the inspiration group compared to the meditation group. Combined, these findings suggest that inspirational videos and meditations provide comparable benefits for the same types of people and through a similar process.<sup>5</sup> This is, to our knowledge, the first study to compare the stress-relieving benefits of media use relative to meditation, and, given how favorably they compare, there is reason to be hopeful that strategic exposures to particular types of readily accessible media can be used to enhance well-being in ways comparable to the well-established, though arguably more challenging, practice of meditation.

The mobile media use condition also evidenced some interesting and unexpected findings. Although, like the comedy condition,

mobile device use generally did not evidence effects on stress via emotional arousal, the moderation analyses revealed a significant indirect effect on stress mitigation through felt hope for those low and moderate in resilience, for those with high self-esteem, and for those at moderate stress levels. These varied findings are not particularly surprising given that people use their mobile devices in many different ways—for social media, for connecting with others, for watching videos with highly variable content, and the like. As we consider why these effects may have emerged, it is possible that those high in self-esteem and those lower in resilience are more readily inspired by the content they select (i.e., they perceive content as inspiring when others might not.) Or perhaps they are, by nature, more engaged by content that is inspiring. More broadly, perhaps the instructions to use their mobile device as they would to take a break or to relax might have directed their use in particular ways that generated the effects we found. Future research should explore these possibilities. A key takeaway from this set of findings is that using one's mobile device for a short break may actually have a small but significant salubrious effect on stress levels for some media users under specified conditions.

In terms of age and gender, again, we see the inspiration and meditation groups evidencing indirect effects on stress via hope for all age groups and for both men and women. However, as before, the effect sizes suggest that effects may be stronger for the inspiration group and that effects may be more pronounced for older compared to younger media audiences. The question of why inspiring content might resonate more with older audiences, despite their tendency to have lower stress, is an interesting question for future exploration.

Another somewhat surprising set of findings involved the dearth of evidence regarding any benefit linked to the comedy condition by the second posttest. However, we note that at the first posttest, two small effects were identified: a direct effect of comedy on stress and a serial mediation effect through amusement and coping efficacy (see Footnote 3 and Figure 2). A such, we suggest that it is premature to conclude that amusement does not reduce stress but rather, that such effects may be more immediate and ephemeral, and/or lingering effects may be more conditional on building additional resources. As such, future research exploring the conditions under which amusement may help ameliorate stress would be of value.

Clearly, there are limitations to this research. We used a very specific set of stimuli, and though we asked about media diet, we cannot know with confidence how these stimuli resonated with, or conflicted with,

<sup>3</sup> Sequential mediation (Model 80 with 20,000 bootstrapped samples) with coping efficacy replicated the findings from 2023. Specifically, the data pointed to a significant indirect effect of exposure to inspirational media on stress at T4 through felt hope and coping efficacy at T4 ( $b = -0.10$ ,  $SE = 0.02$ , 95% CIs  $[-0.14, -0.07]$ ), but not through exposure to comedy, felt amusement, and coping efficacy ( $b = -0.03$ ,  $SE = 0.02$ , 95% CIs  $[-0.07, 0.01]$ ). A similar model also retrieved significant indirect effects of exposure to inspirational media on perceived stress at T3 through felt hope and coping efficacy at T3 ( $b = -0.08$ ,  $SE = 0.01$ , 95% CIs  $[-0.11, -0.06]$ ). Notably, at T3 (but not T4), there was also a small but significant indirect effect of exposure to comedic media on perceived stress (T3) through felt amusement and coping efficacy ( $b = -0.03$ ,  $SE = 0.01$ , 95% CIs  $[-0.06, -0.00]$ ).

<sup>4</sup> Analyses with the single-item stress outcome measure revealed each of these as significant moderators (see results on the OSF, which holds the additional online materials; Nabi et al., 2025, <https://osf.io/y4tgz/>).

<sup>5</sup> Of note, we assessed trait optimism at T1, and controlling on optimism does not change the results reported, nor did controlling for age or gender.

the type of media participants were used to seeing. A person who consumes a great deal of comedic content, for example, might already be getting related benefits and thus be less likely to experience the effects of comedy-based interventions compared to inspirational ones.

Also, there is much we do not know about the process of influence. As noted earlier, it is unlikely that emotions experienced in response to 5 min of video will have long lasting effects unless (a) those media are primed and memorable enough such that they can have continuing effects, (b) they influence more stable perceptions or resources, and/or (c) they serve as a form of media literacy intervention in which audiences learn to seek out similar types of content. As noted earlier, Nabi et al. (2023) provide evidence that coping efficacy is implicated in this process. Attention to other cognitive resources would be useful, as would research on the qualities of messages that might engage viewers (e.g., identification with characters) to enhance the benefits yielded.

We also must highlight that inspiring media was operationalized in a very specific way, that is, through underdog narratives showing people overcoming adversity to achieve success (Prestin, 2013). Such stories were chosen as they are likely to evoke the emotion of hope. However, other scholars define inspiring media with a much broader lens, to include media that reflect other content and themes (e.g., nature, human connectedness) and evoke other emotions (e.g., awe, gratitude, mixed affect; Oliver et al., 2021). Future research would benefit from considering how other operationalizations of inspiring content might generate feelings of hope (or other emotions) toward what targets and to what stress-mitigating effect.

Building on this point, there may be other affective experiences that are evoked as a function of a media experience, not necessarily the content itself, that may contribute to stress reduction. For example, perhaps a little dose of media, regardless of the specific emotions it evokes, is generally enjoyable or calming and thus beneficial. Although not the focus of this particular inquiry, it is a direction worth exploring.

As we consider the practical utility of media prescriptions to help audiences deal with life stressors, we wish to highlight that unlike Nabi et al. (2023), whose data were collected during an atypical time when the United States was on the cusp of a surge of the COVID-19 pandemic and in the wake of a contentious presidential election that ultimately resulted in an insurrection, these data were collected during a more representative time—a rapidly approaching stressful holiday season. As such, the current research demonstrates the applicability of this intervention approach to the range of everyday stressors, both chronic and acute, that U.S. adults experience. Further, the consistency of the findings indicates that not only might inspiring media be comparable to meditation in benefiting audiences via hope evocation but also that such impact is likely robust across audiences varying in age, gender, baseline stress, self-esteem, and resilience. Given the accessibility and affinity people have for turning to their mobile devices for a mental break and the availability of inspiring content online, media prescriptions may ultimately prove to be a valuable tool in the effort to address the global stress epidemic.

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