

Caught in a Dangerous World:

Problematic News Consumption and Its Relationship to Mental and Physical Ill-Being

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Caught in a Dangerous World:**Problematic News Consumption and Its Relationship to Mental and Physical Ill-Being****Abstract**

This study adds to the growing body of literature on problematic media behavior by introducing and explicating the concept of problematic news consumption, which we define as involving transportation, preoccupation, misregulation, underregulation, and interference. Using survey data from a national sample of U.S. adults, we examine the factor structure of a problematic news consumption measure, the existence of latent classes derived from the expected factors, and differences in mental and physical health across the emerging latent classes. Results show support for the proposed factor structure as well as the existence of four latent classes, which appear to be stratified according to severity of problematic news consumption. Results also show greater mental and physical ill-being among those with higher levels of problematic news consumption compared to those with lower levels, even after controlling for demographics, personality traits, and overall news use. Implications for designing effective media literacy campaigns to raise awareness of the potential for news consumption to develop into a problematic behavior as well as the development of intervention strategies are discussed.

Keywords

Problematic news consumption; problematic media consumption; mental health; physical health; transportation; news

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The last couple of years have brought a seemingly constant flow of disconcerting events. A pandemic. A highly contentious presidential election culminating in an attempted insurrection. Large-scale protests. Mass shootings. Devastating wildfires. Even murder hornets, for good measure. We argue that, for some Americans, witnessing these events unfold in the news might bring about a constant state of high alert, kicking their surveillance motives into overdrive as the world becomes a dark and dangerous place. We further argue that for these individuals, a vicious cycle can develop in which, rather than tuning out, they become drawn further in, obsessing over the news and checking for updates around the clock to alleviate their emotional distress. But it doesn't help, and the more they check the news, the more it begins to interfere with other aspects of their lives. What may have begun as an effort to monitor disconcerting events and remain apprised of potential threats develops overtime into a maladaptive relationship with the news.

Having a maladaptive relationship with the news differs from being a “news junkie,” which has colloquially and academically been conceptualized as being extremely interested in the news and/or consuming an excessive amount of news (e.g., Mourao et al., 2018; Prior, 2007). However, this behavior typically is not considered to be problematic. That is, we argue it is not the amount of news that one consumes that is problematic so much as the nature in which it is consumed. Although some scholars have acknowledged the potential for news consumption to become problematic (e.g., Diddi & LaRose, 2006), the existing research has not fully considered or explored the concept of problematic news consumption. With a 24-hour news cycle that provides constant access to the news, understanding problematic news consumption, including its dimensions, prevalence, and impact on well-being, is critical.

Accordingly, the purpose of this study is to explicate the concept of problematic news consumption, identify classes within problematic news consumption, and examine its relationship to health outcomes. Specifically, we draw from the extant research on problematic behaviors to identify the dimensions of problematic news consumption. Then, using survey data from a national sample of U.S. adults, we examine the factor structure of a problematic news consumption measure, the existence of latent classes derived from the expected factors, and differences in mental and physical health across the emerging classes.

Conceptualizing Problematic News Consumption

To conceptualize problematic news consumption and identify its various dimensions, we consulted the literature on media addiction, compulsive media behavior, problematic media behavior, as well as the more general literature on addiction, compulsive behavior, and self-regulatory failure.

While there exists a fair amount of research on problematic media behaviors, there also exists a fair amount of contention regarding how to appropriately classify these behaviors and situate them in relation to the broader array of existing mental disorders included in the DSM-5. Indeed, they have been referred to as forms of addiction, disordered behaviors, uncontrollable behaviors, compulsive behaviors, and more broadly as problematic behaviors. Adding to the confusion is the use of these terms quite loosely and interchangeably.

The classification of these behaviors as forms of addiction, specifically, has created the most contention among scholars. While some challenge the application of criteria that they believe are more suited to substance addiction (see Griffiths et al., 2016 for a review), others challenge more broadly the appropriateness of classifying problematic media behaviors as forms of addiction altogether (see LaRose et al., 2003 for a review).

First, regarding the application of criteria, some scholars that classify problematic media behaviors as forms of addiction—e.g., television (Horvath, 2004), Facebook (Andreassen et al., 2012), mobile phone (Bian & Leung, 2015) addiction—suggest the criteria used to diagnose substance addiction, including salience, mood modification, tolerance, withdrawal, conflict, and relapse (see Griffiths, 2005), also applies to problematic media behaviors. However, others have argued that some of these criteria, specifically tolerance and withdrawal, while essential for understanding addiction to psychotropic substances, have less relevance for problematic media consumption. They contend that the application of these criteria to the context of problematic media behaviors (e.g., Internet Gaming Disorder) and forms of behavioral addiction more broadly lacks face validity (Griffiths et al., 2016).

What may appear as evidence of these criteria is more likely rooted in other causes. For example, with regard to tolerance, they observe that increased time spent gaming may be due to the novelty of the game as opposed to increased tolerance (Griffiths et al., 2016), which refers to needing more of something to get a similar effect. Similarly, increased time spent following the news may be due to captivation with the constant stream of breaking news stories. With regard to withdrawal, negative affect following gaming may be due to frustration about the game being stopped by an external force (e.g., a parent) as opposed to withdrawal (Co et al., 2005; Pies, 2009; Petre et al., 2014, as cited in Griffiths et al., 2016), which results in negative affect experience several hours, even days after ceasing the behavior. Negative affect following news exposure, however, may be due to emotional distress brought about by disconcerting issues and events, not a dependency. Further, there is some evidence that when individuals stop consuming the news after becoming aware of the adverse effects the news has on their mental health, they

begin to feel better (Woodstock, 2014), likely due to ending exposure to negative and threatening content, not getting it “out of their system.”

Second, regarding the classification of problematic media behaviors as forms of addiction, some observe that unlike other forms of addiction, “so-called media addictions” rarely lead to severe life consequences, such as divorce, (e.g., Shaffer et al., 2000 as cited in LaRose et al., 2003) nor do they necessitate professional intervention or treatment (e.g., Hall & Parsons, 2001; Marlatt et al., 1988; Peele, 1999 as cited in LaRose et al., 2003). They instead suggest that problematic media behaviors should be classified more broadly as self-regulatory failures, as “habits that have gotten out of control (cf. Marlatt, Baer, Donovan, & Kivlahan, 1988)” (LaRose et al., 2010, p. 60). However, they do acknowledge that for a very small percentage of the population, such habits may become pathological to the point of addiction (LaRose et al., 2003).

Additionally, in the specific context of problematic news consumption, another consideration as to whether it constitutes a form of addiction is the nature of mood modification, i.e., whether news is consumed to induce a high or emotional numbness, as with addiction (Griffiths, 2005), or to bring relief from obsessive thoughts, as with compulsion (Hartney, 2011 as cited in Sussman & Sussman, 2011). Our focus on problematic news consumption as emerging from a constant state of high alert and as being indulged to alleviate emotional distress suggests the latter.

Given the discussion above, we adopt the broader label of problematic news consumption, which we conceptualize as a cycle of being absorbed in news content (i.e., issues and events), compulsively checking the news, and experiencing interference with daily life. More specifically, we adopt the following criteria: transportation and preoccupation (being

absorbed), misregulation and underregulation (compulsively checking), and interference. We discuss these criteria in greater detail below.

Transportation. As a media behavior, problematic news consumption likely involves becoming absorbed in news stories. This can take the form of transportation and/or preoccupation. With regard to transportation, media consumption can entail the experience of being fully immersed in a narrative world (Green & Brock, 2000) such that individuals' mental faculties are squarely focused on the unfolding story rather than the immediate world around them (Green et al., 2004). Moreover, they engage in less cognitive resistance, instead accepting and internalizing the attitudes, emotions, and representations provided by the narrative (Green & Brock, 2000; Slater & Rouner, 2002). As such, the stories come to feel real, as if they were personally experienced (Busselle & Bilandzic, 2008; Green et al., 2004).

Although transportation scholarship most commonly examines fictional narratives, individuals can also become transported into the news (McLaughlin, 2020; Thier et al., 2021; Wojcieszak & Kim, 2016). This is not surprising given that news stories are intentionally selected and presented in a manner that highlights the presence of conflict and drama as a means to capture and hold the audience's attention (Harcup & O'Neil, 2017; Price & Tewksbury, 1998). Like entertainment content, the news typically uses a storytelling format that features a plot revolving around heroes, victims, and villains (Johnson-Cartee, 2005), which can lead individuals to become transported into these narrative worlds (McLaughlin et al., 2019b). When people become transported, they can become overly invested in news issues and events, even for issues they would otherwise never know about (McLaughlin, et al., 2019b).

Transportation is related to similar concepts such as absorption and flow, which have been identified as precursors to problematic behaviors (e.g., Cheung & Yue, 2019; Khang et al.,

2013). However, it is also possible to see the relationship going the other direction, as those who engage in problematic behaviors are more likely to experience absorption when they indulge in said behavior (Barnes et al., 2019). For example, binge-watching a television show leads to a greater propensity to become transported into the narrative (Warren, 2020). Instead, we view transportation as a criterion of problematic news consumption that captures the ongoing experience of being deeply immersed and personally invested in the news as stories unfold, not a distinct antecedent or consequence.

Preoccupation. With regard to preoccupation, being absorbed in the narrative world may continue even after news consumption ends. Sometimes referred to as salience, preoccupation occurs when an activity dominates an individual's thoughts (Griffiths, 2005). Preoccupation has frequently been applied to the context of problematic media behavior. For example, problematic Internet use has been described as entailing constantly thinking and daydreaming about online activities, eagerly anticipating the next encounter (e.g., Andreassen et al., 2012; Tao et al., 2010).

Preoccupation should be particularly applicable to problematic news consumption (see Diddi & LaRose, 2006), as individuals tend to ruminate and continuously worry about stressful events or imagined futures (Brosschot, 2010). Preoccupation may center on disconcerting issues and events in the news and/or fears about imagined future events. Those who follow politics often visualize and mentally simulate events that they perceive might happen in the future (see McLaughlin et al., 2019a; McLaughlin et al., 2019b). These imagined events can come to seem real, perhaps even inevitable, even if they have a low likelihood of occurring (see Sanna, 1996).

Misregulation. As a compulsive behavior, problematic news consumption can be conceived as a failure of self-regulation (see LaRose et al., 2003). This can involve either misregulation or underregulation. With regard to misregulation, problematic news consumption

may occur as part of a misguided attempt to alleviate a negative arousal state. More broadly, misregulation occurs when individuals are able, even willing, to exert control over their behavior, but their efforts in doing so are misguided (Baumeister & Heatherton, 1996). In the case of compulsive behaviors, misregulation often occurs as a misguided attempt to regulate short-term affect. That is, individuals indulge in the behavior based on the belief that doing so will improve their mood (Tice et al., 2001). As such, from the perspective of the individual engaging in the behavior, the choice to indulge is both strategic and rational (Tice et al., 2001). However, it is not always effective. Moreover, even if the choice to indulge is effective in the short-term, it can still backfire, leading to even greater emotional distress and problems in the long-term (Baumeister & Heatherton, 1996; Tice & Bratslavsky, 2000). Indeed, the misregulation of short-term affect has been offered as an explanation for substance abuse, binge eating, engaging in illicit sex, gambling, and compulsive shopping (Baumeister & Heatherton, 1996; Tice & Bratslavsky, 2000; Tice et al., 2001).

The idea that media consumption may be used as a means to regulate short-term affect is not a new one. According to mood management theory (Zillmann, 1988), individuals may select media content in an attempt to alleviate negative arousal states (Knobloch-Westerwick, 2013). Although the selection of news content can be driven by a desire to alleviate boredom, as news content is stimulating, Diddi and LaRose (2006) explain that the selection of news content can also be driven by the desire to alleviate emotional distress, particularly when previous exposure to disconcerting events in the news is the source of emotional distress (see Mundorf et al., 1990). This should be particularly likely among those with high levels of problematic news consumption who are absorbed in the news, either due to transportation and/or preoccupation.

In extreme cases, the selection of news content to alleviate emotional distress may become “a conditioned response” and contribute to “a downward spiral of increasing dysphoria” (Didi & LaRose, 2006, p. 196). Moreover, the resulting constant state of emotional distress, or dysphoria, can impair individuals’ ability to self-regulate their behavior (LaRose et al., 2003), and what may have begun as misregulation for some can become a problem of underregulation (Caplan 2010; LaRose et al., 2003).

Underregulation. With regard to underregulation, problematic news consumption may occur as a compulsive behavior that cannot be controlled. More broadly, underregulation occurs when individuals lack the self-regulatory strength to monitor their behavior; that is, when they are “unable or unwilling to exert the requisite control over themselves” (Baumeister & Heatherton, 1996, p. 9). As such, under conditions of overexertion, fatigue (Baumeister & Heatherton, 1996), and emotional distress (as described above), individuals are less able to resist indulging in a compulsive behavior even though they may be aware that the behavior is problematic. Indeed, underregulation also has been offered as an explanation of the problematic behaviors mentioned above (e.g., substance abuse, binge eating, engaging in illicit sex) as well as their relapse (Sayette & Creswell, 2016).

The idea that media consumption can develop into a problematic behavior that cannot be controlled also is not a new one. The literature on problematic television (Horvath, 2004), video game (Lemmens et al., 2009), Internet (Caplan, 2010; LaRose et al., 2003), and social media use (van Den Eijnden et al., 2016) all point to self-regulation failures. For some, problematic media consumption may occur as an automatic behavior in response to stressful life events, particularly among those who are high in trait impulsivity (Riddle et al., 2018). While for others, it may begin as a problem of misregulation, as discussed above (Caplan, 2010; LaRose et al., 2003).

Interference. Finally, problematic news consumption can also entail interference. Sometimes referred to as conflict, interference occurs when a problematic behavior becomes disruptive and creates interpersonal and intrapsychic conflicts (Griffiths, 2005); that is, when it negatively impacts an individual's relations, performance at school/work, and other social activities (Griffiths, 2005). Interference has frequently been applied to the context of problematic media behavior. For example, problematic television (Horvath, 2004), social media (Andreassen et al., 2012) and video game use (Chappell et al., 2006) have all been related to the interpersonal and intrapsychic conflicts described above.

Similarly, problematic news consumption can be expected to become disruptive to an individual's life. The degree to which an individual is absorbed in the news and compulsively checking the news may disrupt time with their family and friends, make it difficult to focus on school or work, and contribute to restlessness and an inability to sleep well, as they find themselves having a difficult time "turning off" their thoughts.

Problematic News Consumption and Health

It has been well-established that problematic media behavior is negatively related to health. For example, Internet (Akin & Isekender, 2011; Younes et al., 2016), video game (Loton et al., 2016; Mentzoni et al., 2011), and smartphone addiction (Samaha & Hawi, 2016; Thomée et al., 2011) are all related to increased anxiety, stress, and depression. Similarly, we expect that problematic news consumption will be negatively related to mental and physical health.

Problematic news consumption may be particularly harmful because the news consistently focuses on negative and threatening issues and events (Patterson, 1994; Soroka, 2014). For example, the more severe a disaster is, the more news attention it receives (Yan & Bissell, 2018).

We argue that getting caught in the dangerous narrative worlds presented in the news can have deleterious consequences for an individual's health. Specifically, being absorbed (transportation, preoccupation) and trapped (misregulation, underregulation) in this dangerous world with no outlet for escape (interference) can make it difficult for an individual to cope with the disconcerting issues and events they encounter in the news. As discussed above, this constant engagement and inability to cope with such disconcerting issues and events can contribute to "a downward spiral of increasing dysphoria" (Diddi & LaRose, 2006, p. 196), which should manifest as mental and physical ill-being.

As Brosschot and colleagues explain, when stressful events continue to occupy an individual's thoughts, it can lead to prolonged negative emotional and physiological effects (Brosschot 2010; Brosschot et al., 2010). Because individuals have the mental capacity to continuously fixate on and ruminate about past events and/or worry about the future, stressful experiences can be extended indefinitely (Brosschot et al., 2005, 2006), which can lead to chronic stress and anxiety (Brosschot, 2010; Brosschot et al., 2010).

Moreover, when individuals evaluate an issue, event, or agent as threatening, their brains will activate physiological responses in the body that increase inflammation (Muscatell & Eisenberger, 2012). That is, it is not the source of the stressor that determines the extent of negative physiological responses, but an individual's evaluation of and reaction to the stressor (Monroe, 2008). Those who are more prone to fixate on and ruminate about a stressor will experience long-term physiological responses (Brosschot, 2010; Brosschot et al., 2010). Accordingly, when people experience chronic strain in response to stressful situations or events, it can have serious physical repercussions, including disease (Thoits, 2010).

This all suggests that when people fixate on and ruminate about disconcerting issues and events in the news, they should experience a greater incidence of chronic stress and anxiety as well as physical distress. Therefore, *we hypothesize that those with higher levels of problematic news consumption will experience greater mental and physical ill-being than those with lower levels of problematic news consumption.*

Method

Participants

We used data from an online survey of 1,100 U.S. adults recruited using Dynata in August 2021. Dynata uses quota sampling to recruit samples whose demographic profiles closely mirror those of the target population. Our target population was U.S. adults, but we intentionally oversampled political partisans. Our sample was 51.3% female; 83.4% white, 10.0% black, 5.2% Asian, and 8.9% Hispanic/Latino; and 45.1% Democrat and 34.3% Republican. The mean age was 40.5 ($SD = 17.88$), the median education level was college graduate, and the median household income was between \$60,000 - \$74,999.

Measures

See supplemental appendix A for complete question and item wording.

Problematic news consumption. The criteria for problematic news consumption—*transportation* (e.g., “I become so absorbed in the news that I forget the world around me”), *preoccupation* (e.g., “My mind is frequently occupied with thoughts about the news”), *misregulation* (e.g., “Reading and watching the news reduces my anxious feelings”), *underregulation* (e.g., “I find it difficult to stop reading or watching the news”), and *interference* (e.g., “I often do not pay attention at school or work because I am reading or watching the news”)—were measured using 17 items on a 7-point scale adapted from existing measures of

transportation (Green & Brock, 2000), obsessive thinking (Goodman et al., 1989), compulsion (Aiken et al., 2018), positive and negative expectancies (Spada & Caselli, 2007), and problems (Van Den Eijnden et al., 2016) ($M = 3.54$, $SD = 1.57$, $\alpha = .97$).

Ill-being. *Mental ill-being* was measured using nine items on a 4-point scale capturing generalized feelings of stress (e.g., “I was in a state of nervous tension”) and anxiety (e.g., “I felt I was close to panic”) experienced over the past month (Lovibond & Lovibond, 1993).

Exploratory factor analysis using principal axis factoring and promax rotation demonstrated that the stress and anxiety items loaded onto a single factor with an eigenvalue of 6.92. These items were combined to create a composite measure of mental ill-being ($M = 1.95$, $SD = 0.93$, $\alpha = .96$).

Physical ill-being was measured using 13 items on a 4-point scale capturing experiences of physical ill-being, such as fatigue, physical pain, concentration issues, and gastrointestinal issues (de Haes, et al., 1990). These items were combined to create a composite measure of physical ill-being ($M = 1.92$, $SD = 0.85$, $\alpha = .96$).

Control variables. Demographics, including *age*, *gender*, *race/ethnicity*, *education*, and *household income*, the big five personality traits, and news use were included as covariates. The big five personality traits were measured on a 7-point scale using the 16-item short-form Big-Five Personality Scale (Gosling et al., 2003), which measured *neuroticism* ($M = 3.23$, $SD = 1.16$, $\alpha = .64$), *extroversion* ($M = 3.32$, $SD = 1.42$, $\alpha = .83$), *openness* ($M = 4.82$, $SD = 1.23$, $\alpha = .72$), *agreeableness* ($M = 5.30$, $SD = 1.30$, $r_s = .73$), and *conscientiousness* ($M = 5.47$, $SD = 1.19$, $\alpha = .86$). *News use* was measured on an 8-point scale that captured time spent consuming various sources of news ($M = 2.39$, $SD = 1.56$, $\alpha = .97$).

Results

The Structure of Problematic News Consumption

A second-order confirmatory factor analysis using maximum likelihood with robust means and standard errors (MLR) was conducted in Mplus to examine the factor structure of the problematic news consumption measure. Specifically, problematic news consumption was specified as a second-order factor comprising five first-order factors that corresponded to transportation, preoccupation, misregulation, underregulation, and interference. Although the model achieved adequate fit according to measures of approximate (RMSEA = 0.068, 90% CI [0.064, 0.073]) and relative fit (CFI = 0.947), modification indices suggested model fit would improve significantly by allowing the error terms associated with transportation and preoccupation to correlate (MI = 116.322, SEPC = 0.969). This also makes sense conceptually given that both factors capture absorption, with transportation capturing absorption during exposure and preoccupation capturing absorption following exposure. Results of the respecified model also demonstrated adequate fit according to measures of approximate (RMSEA = 0.062, 90% CI [0.057, 0.067]) and relative fit (CFI = 0.957). Additionally, the Satorra-Bentler scaled chi-square difference test, $\Delta\chi^2(1) = 88.503, p < .05$, suggested the more complex model that allowed the error terms associated with transportation and preoccupation to correlate provided a better fit to the data. See Figure 1 for an illustration of the factor structure and factor loadings.

Latent Classes Within Problematic News Consumption

Latent class analysis was conducted in Mplus to identify the number of latent classes within problematic news consumption, the prevalence of news users in these classes, and the mean scores on each of the five problematic news consumption dimensions within these classes. A series of latent class models, ranging from a 1-class to a 6-class solution, were examined. Although the model fit statistics supported the 5-class solution, there was a plateau of the model AIC and BIC values following the drop from the 3-class to the 4-class solution. Accordingly, the

4-class solution was chosen. See supplemental appendix B for a comparison of the model fit statistics for the six latent class solutions.

The four latent classes are interpreted as follows:

1. *Non-problematic (28.7%)*—The first class captures those with non-problematic news consumption. Members of this class scored low on all five of the problematic news consumption dimensions.
2. *Minimally problematic (27.5%)*—The second class captures those with minimal levels of problematic news consumption. Members of this class scored around the midpoint on transportation and preoccupation but scored lower on the other three problematic news consumption dimensions. That is, members of this class are somewhat absorbed in the news but do not (or have not begun to) experience a failure to self-regulate their news consumption or interference with daily activities.
3. *Moderately problematic (27.3%)*—The third class captures those with moderate levels of problematic news consumption. Members of this class scored around the midpoint on all five of the problematic news consumption dimensions.
4. *Severely problematic (16.5%)*—The fourth class captures those with high levels of problematic news consumption. Members of this class scored high on all five of the problematic news consumption dimensions.

See Figure 2 for a line graph showing the mean scores on each of the problematic news consumption dimensions across these four classes.

Problematic News Consumption and Health

A multivariate analysis of covariance (MANCOVA) was conducted in SPSS to examine the differences in mental and physical ill-being across the problematic news consumption

classes. Covariates included age, gender, race, income, education, the big 5 personality traits, and news use. Results showed an overall significant difference in ill-being across the problematic news consumption classes, Wilk's $\Lambda = .80$, $F(6, 2012) = 5.39$, $p < .001$, partial $\eta^2 = .11$.

Additionally, results of the univariate tests showed significant differences in both mental, $F(3, 1007) = 22.28$, $p < .001$, partial $\eta^2 = .20$, and physical ill-being, $F(3, 1007) = 10.58$, $p < .001$, partial $\eta^2 = .09$, across the latent classes. See supplemental appendix B for the full results and supplemental appendix C for the results of additional analyses examining how each individual dimension of problematic news consumption relates to these health outcomes.

The differences in ill-being across the problematic news consumption classes were further explored using pairwise comparisons using the Sidak correction. Results for mental ill-being showed that those in the severely problematic class ($EMM = 2.69$, $SE = 0.05$) reported significantly greater mental ill-being than did those in the moderately ($EMM = 1.99$, $SE = 0.03$), $p < .001$, minimally ($EMM = 1.70$, $SE = 0.03$), $p < .001$, and non-problematic classes ($EMM = 1.67$, $SE = 0.03$), $p < .001$. Moreover, those in the moderately problematic class reported significantly greater mental ill-being than did those in the minimally, $p < .001$, and non-problematic classes, $p < .001$. However, there was no significant difference in mental ill-being between those in the minimally and non-problematic classes, $p = .978$.

Results for physical ill-being showed that those in the severely problematic class ($EMM = 2.43$, $SE = 0.06$) reported significantly greater physical ill-being than did those in the moderately ($EMM = 1.90$, $SE = 0.04$), $p < .001$, minimally ($EMM = 1.74$, $SE = 0.03$), $p < .001$, and non-problematic classes ($EMM = 1.76$, $SE = 0.04$), $p < .001$. Moreover, those in the moderately problematic class reported significantly greater physical ill-being than did those in the minimally problematic class, $p < .001$. However, there were no significant differences in physical ill-being

between those in the moderately and non-problematic classes, $p = .060$, nor between the minimally and non-problematic classes, $p = .999$.

These findings provide strong support for our hypothesis. See Figure 3 for an illustration of the results.

Discussion

In this study, we introduce the concept of problematic news consumption, which we conceptualize as a cycle of being absorbed in news content, compulsively checking the news, and experiencing interference with daily life. More specifically, we define problematic news consumption as involving transportation, preoccupation, misregulation, underregulation, and interference. Using data from a national sample of U.S. adults, we examine the factor structure of a problematic news consumption measure, the existence of latent classes derived from the expected factors, and differences in mental and physical health across the emerging classes.

First, results of the confirmatory factor analysis provide preliminary psychometric support for our measure of problematic news consumption and its theorized dimensions. While further research is needed to replicate these findings, our results suggest that problematic news consumption involves becoming immersed in the news (transportation) as well as consumed with thoughts about the news (preoccupation), attempting to alleviate feelings of threat by consuming more news (misregulation), experiencing a loss of control over consumption of the news (underregulation), and experiencing diminished time for and attention to other aspects of one's life (interference). Moreover, the improvement in model fit by allowing the error terms associated with transportation and preoccupation to correlate suggests that these dimensions may ultimately be tapping a broader construct of being absorbed in the news, whether through direct exposure or through transportation into individuals' own mental simulation of news events.

Second, results of the latent class analysis suggest the existence of four latent classes within problematic news consumption that represent those with severe, moderate, minimal, and non-problematic news consumption based on how they scored on the five dimensions. While three of the classes capture those who scored low (non-problematic), around the midpoint (moderately problematic), or high (severely problematic) on all five dimensions, the remaining class (minimally problematic) differs in that it captures those who scored around the midpoint on transportation and preoccupation but low on the other three dimensions. In other words, members of this class are somewhat absorbed (transportation, preoccupation) in a dangerous world but are not (or are not yet) at risk of becoming trapped (misregulation, underregulation) in that world with no outlet for escape (interference).

Third, results of the MANCOVA analysis demonstrate that those with higher level of problematic news consumption are significantly more likely to experience mental and physical ill-being than those with lower levels, even when controlling for demographics, personality traits, and overall news use. It is also noteworthy that those with moderately problematic news consumption levels reported greater mental ill-being than those with minimally or non-problematic news consumption and greater physical ill-being than those with minimally problematic news consumption. Those with minimally problematic news consumption, however, did not report greater mental or physical ill-being than those with non-problematic news consumption. This suggests that being somewhat absorbed in a dangerous world is not problematic for mental and physical health unless it is also accompanied by being trapped in that world with no outlet for escape.

Implications

This research has important implications for both individual and societal health. The finding that 16.5% of our sample are classified as having severely problematic news consumption is particularly alarming, especially since those with higher levels of problematic news consumption experience significantly greater mental and physical ill-being than those with lower levels of problematic news consumption. These findings indicate a need for media literacy campaigns focused on raising awareness of the potential for news consumption to develop into a problematic behavior as well as the need for the development of intervention strategies.

In most cases, treatment for addictions and compulsive behaviors centers on complete cessation of the problematic behavior, as it can be difficult to perform the behavior in moderation. In the case of problematic news consumption, research has shown that individuals may decide to stop, or at least dramatically reduce, their news consumption if they perceive it is having adverse effects on their mental health (Ravenelle et al., 2021; Woodstock, 2014). For example, individuals who became concerned about the adverse effects that their constant attention to sensationalized coverage of COVID-19 was having on their mental health reported making the conscious decision to tune out. But, as Ravenelle and colleagues (2021) warn, this solution is problematic both at the individual and societal level. Not only does tuning out come at the expense of an individual's access to important information for their health and safety, it also undermines the existence of an informed citizenry, which has implications for maintaining a healthy democracy. As such, the exploration and development of intervention strategies should instead focus more on identifying ways to develop a healthier relationship with the news.

While designing effective media literacy campaigns as well as exploring and developing effective intervention strategies should be a top priority, there also needs to be a larger discussion of the ethical concerns pertaining to the news values that fuel problematic news consumption.

Journalists in the United States have long been thought to have a responsibility to U.S. citizens (Baker, 1998). The Hutchins Commission's report outlined the important role journalists play in informing the public and helping to maintain a healthy democracy (Commission on Freedom of the Press, 1947). This report provided an important source of ideals to which the news media are expected to aspire. Yet, economic pressures, exacerbated by technological advances and the 24-hour news cycle, have further encouraged journalists to focus on selecting "newsworthy" stories that will grab news consumers' attention rather than on considerations of how to best inform them (McChesney, 2003). For certain types of people, the conflict and drama that characterize "newsworthy" stories not only grab their attention and draw them in but also can lead to a maladaptive relationship with the news. Thus, the results of our study emphasize that the commercial pressures that news media face are not just harmful to the goal of maintaining a healthy democracy, they also may be harmful to individual health.

Limitations and Future Research

The findings and implications discussed here need to be considered in light of several limitations. First, this study relied on cross-sectional data, and as such, we cannot establish a causal relationship between problematic news consumption and mental and physical ill-being.

Second, this study focused on a relatively narrow range of ill-being. Specifically, we measured generalized stress and anxiety and physical distress. As a broad concept, however, ill-being could also include additional mental health concerns, such as depression, as well as other indicators of poor quality of life, such as unhappiness.

Third, our misregulation measure gauged participants' short-term affect (e.g., "reading and watching the news reduces my anxious feelings") as opposed to the intention to regulate a

negative arousal state. Future adaptations of our scale should consider revising these questions to measure intention (e.g., “I read and watch the news in order to reduce anxious feelings”).

Fourth, this study did not take into account the types of news stories participants were caught up in, which could impact the degree to which problematic news consumption has adverse health effects. This study was fielded during a time in which the news was dominated by breaking news coverage of a global pandemic, political conflict, crime and social unrest, natural disasters, etc. We believe that these types of threatening news stories are particularly likely to foster a maladaptive relationship with the news, which can lead to deleterious consequences. It is important for future research to consider if problematic news consumption only applies to certain types of news or if it applies to a wide range of news genres. It may not just be sociopolitical news that proves problematic, but also other genres such as sports and business. For example, people who form unhealthy attachments to news coverage of the NFL or the stock market may also experience the problems detailed in this manuscript. Lifestyle and entertainment news, on the other hand, may not be as concerning, as they should be much less likely to create emotional distress. But this is an empirical question that necessitates future research.

More research is also needed to identify and better understand the risk factors associated with problematic news consumption as well as the factors that make individuals more or less resilient to the adverse effects of problematic news consumption on mental and physical health. Such research will be crucial for the exploration and development of effective intervention strategies to help those with higher levels of problematic news consumption to develop a healthier relationship with the news.

Specifically, quantitative research (i.e., longitudinal surveys) can be used to examine which aspects of the individual and their news consumption habits relate to problematic news

consumption as well as which aspects moderate the effects of their problematic news consumption on health outcomes. Regarding the potential predictors of problematic news consumption, this might include consideration of the specific gratifications sought through news consumption (e.g., surveillance, escape), more distal needs (e.g., need for cognition, certainty, conflict), and personality traits that have been shown to relate to addictions and compulsive behaviors (e.g., impulsivity, emotional reactivity, fear of missing out) as well as news diet (e.g., medium, source, genre), which could serve as an indicator of exposure to conflict and drama, as well the degree to which the content is negative and threatening. Regarding the potential moderators, this might include consideration of how individuals cope with stress. Moreover, qualitative research (e.g., longitudinal surveys) can be used to add additional understanding and nuance.

Conclusion

Much is left to learn about problematic news consumption, its individual and societal consequences, and what might be done to help mitigate these consequences. Nevertheless, this study provides an important foundation and helps raise attention to a new way of considering and examining effects of the news. There is an urgent need for the continued documentation of experiences of those with higher levels of problematic news consumption through both quantitative and qualitative methods. In short, we have introduced, explicated, and examined problematic news consumption, but further research is needed.

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Figure 1

Higher-order Confirmatory Factor Model of Problematic News Consumption

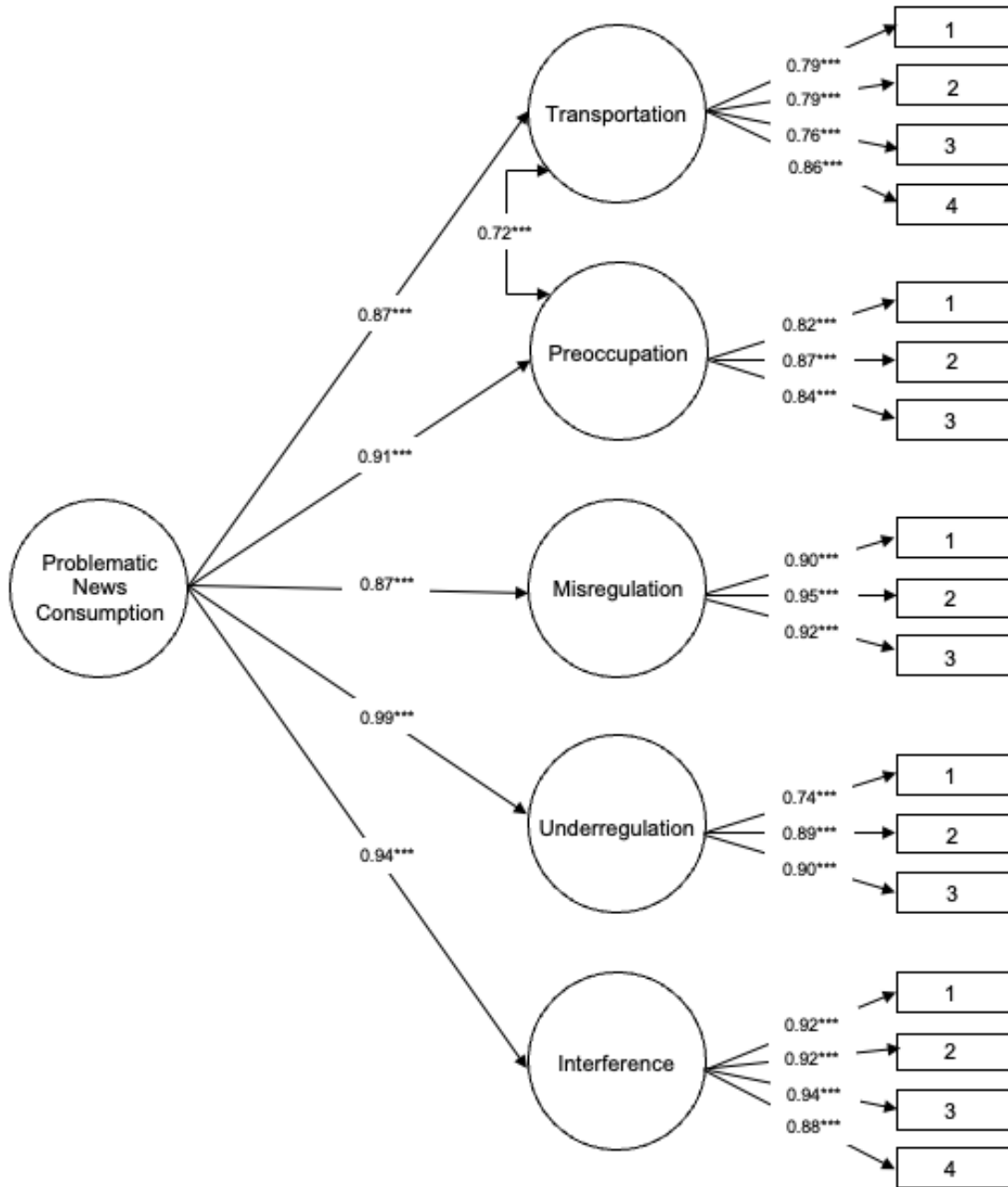


Figure 2

Mean Scores on the Five Problematic News Consumption Dimensions across the Four Problematic News Consumption Classes

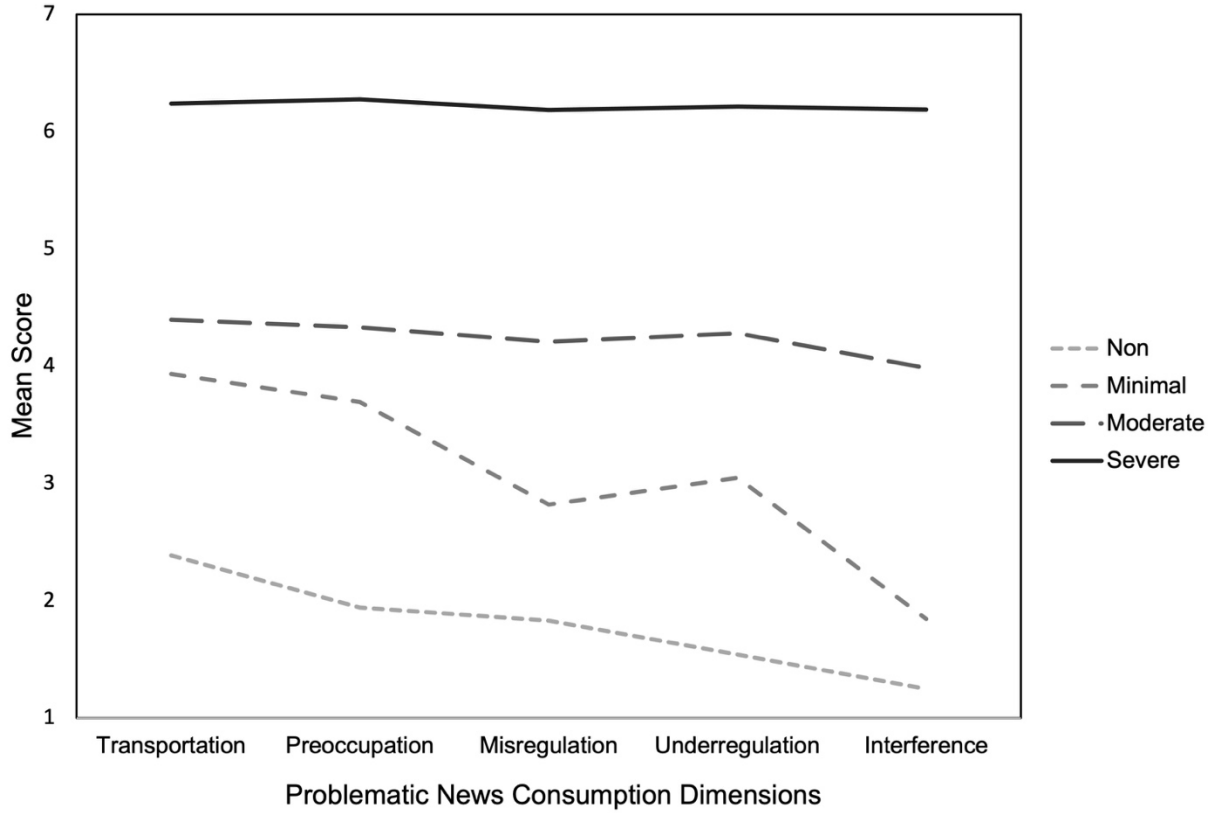
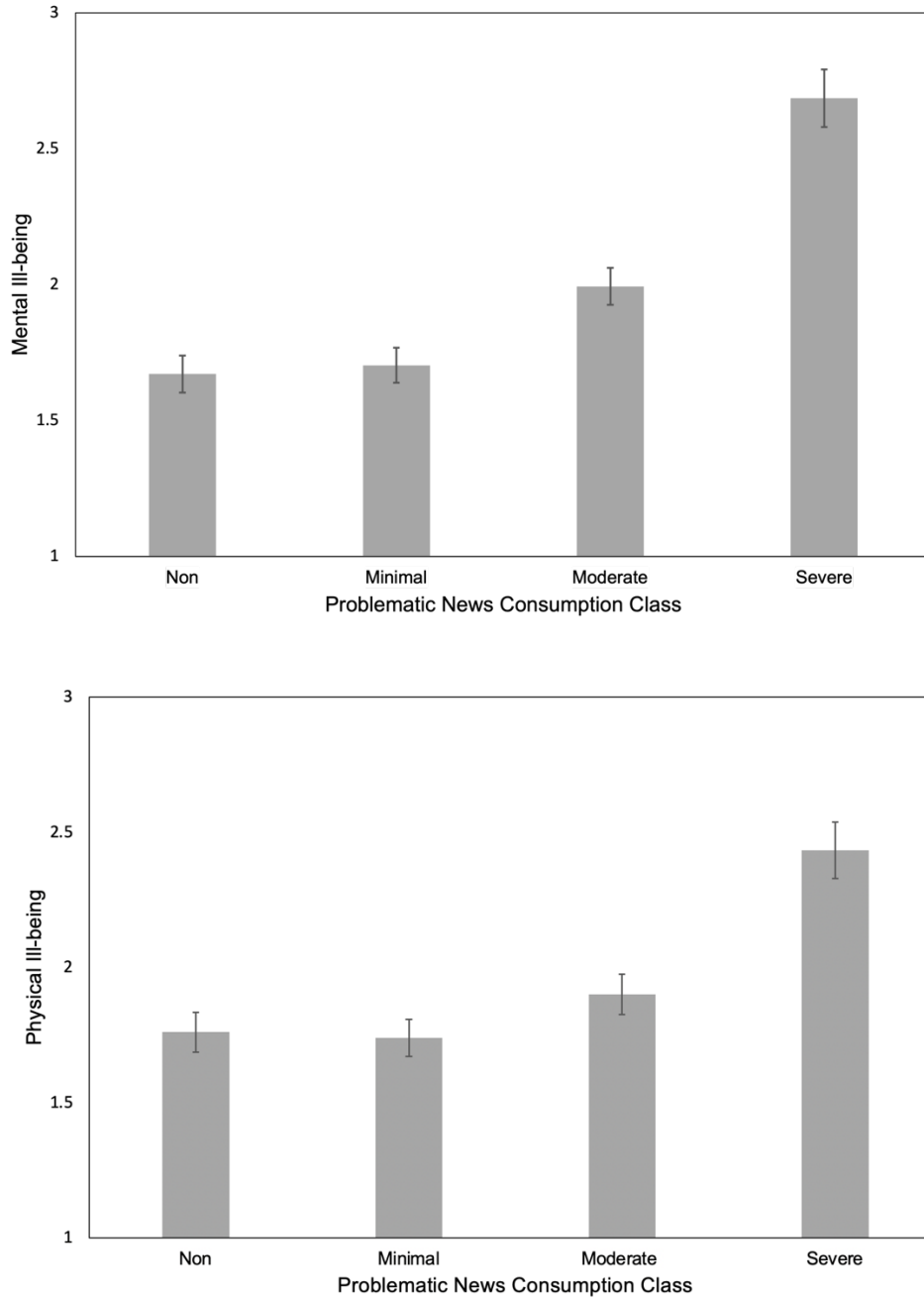


Figure 3

Estimated Marginal Means for Ill-being (Mental and Physical Ill-being) for Problematic News Consumption



Notes. Analysis controls for demographics, personality, and news use. Error bars illustrate 95% confidence intervals.

Supplemental Appendix

Variable Construction and Coding

Problematic News Consumption

Items rated 1 (strongly disagree) to 7 (strongly agree).

Different people gather news information in different ways (e.g., reading the newspaper, watching television news, listening to news podcasts, checking for updates on social media, etc.). For the purposes of this study, when we refer to 'reading and watching the news' please consider all of the ways in which you follow and check the news.

To what extent do you agree with the following statements?

Transportation.

- When I read or watch the news, I often get lost in thought thinking about what will happen next.
- When I read or watch the news, I sometimes lose track of time.
- When I read or watch the news, I get mentally involved in the news.
- When I read or watch the news, I can become so absorbed in the news that I forget the world around me.

Preoccupation.

- My mind is frequently occupied with thoughts about the news.
- Thoughts about the news often interfere with my focus on work, school, and/or social interactions.
- I have trouble dismissing thoughts about the news.

Misregulation.

- Reading and watching the news reduces my negative feelings.
- Reading and watching the news stops me from worrying.
- Reading and watching the news reduces my anxious feelings.

Underregulation.

- I continue to read or watch the news despite thinking it would be better to stop.
- I have no control over how much time I read or watch the news.
- I find it difficult to stop reading or watching the news.

Interference.

- I often do not pay attention at school or work because I am reading or watching the news.
- I often do not pay attention to people around me (e.g., family or friends) because I am reading or watching the news.
- I regularly do not get enough sleep because I was reading or watching the news late at night.
- People have told me I read or watch too much news.

Mental well-being

Items rated 1 (not at all) to 4 (very much).

To what extent have you experienced the following over the past month?

Stress.

- I found it hard to calm down after something upset me.
- I found it difficult to relax.
- I felt that I was using a lot of nervous energy.
- I was in a state of nervous tension.
- I found myself getting upset rather easily.
- I found myself getting agitated.

Anxiety.

- I felt I was close to panic.
- I felt terrified.
- I felt scared without any good reason.

Physical distress

Items rated 1 (not at all) to 4 (very much).

To what extent have you experienced the following over the past month?

- Lack of energy
- Tiredness
- Difficulty concentrating
- Headaches
- Dizziness
- Difficulty sleeping
- Sore muscles
- Back pain
- Neck pain
- Nerve pain
- Nausea
- Stomach aches
- Acid indigestion/heartburn

Big Five Personality Traits

Items rated 1 (strongly disagree) to 7 (strongly agree).

I would describe myself as...

Neurotic

- Calm*
- Emotionally stable*
- Anxious
- Someone who gets easily upset

Extrovert

- Reserved*
- Quiet*
- Introverted*

Open

- Open to new experiences
- Complex
- Creative

Agreeable

- Sympathetic
- Warm

Conscientious

- Dependable
- self-disciplined
- Organized
- Conscientious

*Items were reverse-coded.

News consumption

Items rated 1 (*0 minutes*) to 8 (5 hours or more)

On average, how much time do you spend reading or watching the news using the following sources?

- Print or online versions of national newspapers
- Print or online versions of local newspapers
- Television broadcasts of national news
- Television broadcasts of local news
- Liberal cable news
- Conservative cable news
- Liberal radio stations or podcasts
- Conservative radio stations or podcasts
- Liberal news websites
- Conservative news websites
- Social media
- News aggregator websites