Health Messaging and Social Media: An Examination of Message Fatigue, Race, and Emotional Outcomes Among Black Audiences

HOPE HICKERSON
Louisiana State University, USA

DAVID STAMPS
Bentley University, USA

Black audiences view and participate in social media at greater rates than their racial counterparts. However, amid the ongoing COVID-19 pandemic, our understanding of the relationship between Black communities' engagement with health messages about COVID-19 posted on social media and group-based emotional outcomes is limited. Using a cross-sectional Black adult sample (N = 328) and applying assumptions from the intergroup emotions theory and the literature on message fatigue, the present work examines the relationship between the consumption of health messages on social media, message fatigue, message overload, and Black audiences' emotional well-being during the COVID-19 pandemic. The results suggest that social media fatigue, particularly in response to health messages about COVID-19 and Black communities, mediates the relationship between social media consumption and a range of complex and multifaceted group-based emotions. These outcomes help assess the emotional well-being of Black communities during a pandemic that has impacted Black individuals at alarming rates; further, the results extend the conversation regarding social media as a contributor to individuals' self-perception and well-being.

Keywords: Black audiences, COVID-19, intergroup emotions, health messages, social media

For many Black individuals, appropriate and intentional health messaging can act as a catalyst to address health disparities. For example, health messaging that aims to mitigate prior neglect from the medical community may decrease skepticism among Black individuals, shift perceptions of health care, and increase trust in medical providers (Frakt, 2020; Jacobs, Rolle, Ferrans, Whitaker, & Warnecke, 2006). Examples of previous health and medical negligence include the documented deceptive experimentation on Black bodies (e.g., Henrietta Lacks, the Tuskegee experiment) and health inequalities exacerbated by racial injustice, including a lack of access to clean water and poor air quality in Black neighborhoods (Lopez, Raine, & Budiman, 2020; Shah, Sachdeva, & Dodiuk-Gad, 2020). Social media may be an important tool for

Hope Hickerson: hickerson@lsu.edu
David Stamps: Dstamps@bentley.edu

delivering health messaging and addressing health concerns as Black individuals engage with social media platforms more than other racial groups (Auxier, 2020).

Black audiences have a fascinating relationship with the media and social media specifically. Black individuals consume more media than non-Black audiences and are among the most actively engaged racial groups on social media platforms (Florini, 2019). This association between Black audiences and media use suggests that there may be a relationship between health messages delivered through certain media outlets, such as social media, and Black communities' emotional well-being, and this may depend on the content and situational context. Amid a time of health crises related to Black communities, examining the relationship between the circulation of health messages via social media and their impact on the emotional well-being of Black audiences is timely.

The present study examines a U.S. sample of Black individuals—a well-documented emotionally taxed population—and explores the relationship between social media–based health messaging and emotionally laden outcomes. However, the results may apply to Black individuals globally (Worrell, 2019). For example, research has highlighted negative emotional outcomes among Black Brazilians concerning the group's confrontation with messaging and identity-based struggles (DeSouza et al., 2019). Such research has recognized the need to understand the distinct characteristics and diversity of Black communities worldwide. As such, the results of the present investigation may be applicable beyond a particular geographical location. This work, as one such example, examines the relationships between Black audiences' consumption of health-related social media content, the groups' attitudes toward receiving COVID-19 health messaging, including message fatigue and overload, and their emotional well-being.

Black Communities and COVID-19

Research and media investigations have demonstrated the unprecedented effects of the COVID-19 pandemic on Black communities globally (Yaya, Yeboah, Charles, Otu, & Labonte, 2020). COVID-19 mortality and hospitalization rates are disproportionately high among Black communities (Shah et al., 2020), and the financial and health burdens that result from COVID-19 fall disproportionately on Black families, including a substantial decrease in Black families' savings and their ability to make monthly utility payments (Lopez et al., 2020). From a health perspective, Black populations are often victims of environmental racism and, as a result, are particularly susceptible to COVID-19 complications (Galiatsatos, 2020). Furthermore, Black individuals often reside in food and medical deserts and are more reliant on public transportation, placing them at higher risk of contracting the virus (Anderson, 2016; Mock, 2016).

Despite the reality of the disproportionate impact of COVID-19 on Black communities, countries with access to race-related disaggregated COVID-19 data have argued that distributing such data is unnecessary (Yaya et al., 2020). However, research and data that concentrate on discrepancies among groups, particularly Black populations, would aid in promoting the development of health policies and tailored health messaging that may safeguard vulnerable populations. To our knowledge, research that examines the relationship between social media health messaging that frames Black individuals as unfavorably positioned to withstand the COVID-19 crisis and group outcomes related to message consumption is lacking (cf. Stamps, Mandell, & Lucas, 2021). The present research adopts aspects of the

message fatigue literature and intergroup emotions theory (Mackie, Maitner, & Smith, 2009) to examine this relationship.

Black Communities, Social Media, and Group Outcomes

Literature suggests that Black audiences' consumption of mass media depictions of their racial group can damage or bolster well-being, self-esteem, and overall group perceptions depending on the media type and degree of exposure (Gordon, 2016; Stamps, 2020; Ward, 2004). Stamps (2020) argued that "Black viewers exposed to large amounts of media depicting negative portrayals of the group may cultivate a view of society that is increasingly discriminatory" (p. 6). Research on Black audiences' media consumption provides a preliminary understanding of the relationships between such consumption and Black individuals' perceptions about their racial group.

Research that primarily focuses on Black audiences and social media has addressed group-based discrimination in social media (Miller, Marquez-Velarde, Williams, & Keith, 2020) and Black audiences' responses to the social media content on the Black Lives Matter movement (Banks, 2018; Ince, Rojas, & Davis, 2017; Mundt, Ross, & Burnett, 2018). To our knowledge, quantitative research on social media health messaging and its potential influence on the Black community is underdeveloped. Of the studies that center on health messaging, media, and Black communities, most focus on using social media to engage Black individuals' interests in sexually transmitted disease prevention strategies and promoting sexual health (Hill, Patel, Haughton, & Blackstock, 2018). While this literature is helpful in illuminating Black audiences' social media engagement and health communication, in the context of the ongoing COVID-19, expanding the focus to include emotional well-being is appropriate.

The Centers for Disease Control and Prevention (CDC; 2021) notes that the long-standing systemic health and social inequities confronted by racial and ethnic minority groups place them at increased risk of getting sick and dying from COVID-19. As the coronavirus pandemic continues, individuals worldwide are continually exposed to mediated messaging about COVID-19 and its effects on health. However, not all messaging is created equal. Research has found that the profusion of ambiguous, demeaning, or erroneous messaging about COVID-19 can lead to information overload and increased health anxiety (Islam, Laato, Talukder, & Sutinen, 2020). Kim and So (2018) investigated how fatigued audiences reacted when exposed to unsolicited messages that were repetitive and potentially detrimental. Their work found that unfavorable outcomes, including distancing from the message content and increased exhaustion, occurred. At present, research on the relationship between Black audiences' experiences with health messages, positive or negative, through social media channels is limited. Here a discussion of message fatigue, as one example that may impact audiences, is discussed.

Message Fatigue

So, Kim, and Cohen (2017) defined message fatigue as an averse motivational state of being exhausted and jaded by overexposure to similar or redundant messages over an extended period. Message fatigue causes individuals to resist certain statements and disengage due to the repetitive and potentially harmful nature of such messages. So and Popova (2018) defined message fatigue as "a

phenomenon of being tired of repeated exposure to messages promoting the same health behavior" (p. 109). Reynolds-Tylus, Lukacena, and Truban (2020) considered message fatigue as a feeling of exhaustion or burnout from "perceived overexposure to a certain type of message" (p. 1). So and Alam (2019) extended the definitions of message fatigue and described it as "an aversive motivational state which may give rise to passive forms of resistance as well as more active types of resistance" (p. 756). This definition of message fatigue denoted how an individuals' reactions to messaging may vary and include a range of behavioral, psychological, and affective responses. So et al. (2017) outlined dimensions of message fatigue that included perceived overexposure, awareness of a barrage of messages beyond a desired frequency, and observations by individuals that messaging was viewed as tedious and tiresome.

Message fatigue has been explored in health communication contexts, including within public health and marketing. Reynolds-Tylus and colleagues (2020) examined men's resistance to bystander intervention efforts to determine whether message fatigue could help understand how bystander intervention programs fail. Seo, Primovic, and Jin (2019) discussed the growth of social media marketing over time. Their research noted that users experience message fatigue and overload, and this led to disengagement with content and decreased astuteness. Both studies illustrate the potential role of message fatigue and varied unfavorable outcomes related to diverse audiences.

Message Fatigue and Black Individuals

The communication of health messages, including repeated message exposure (i.e., quantity) and message quality, may be linked to an intended success or failure depending on the goal of the text and may influence audiences in unintended ways (Hornik, 2002). Researchers recognize that heavy exposure to or oversaturation of messaging can also be a barrier to effective health campaigns, as messages must compete for audiences' attention and, if unfavorable, may discourage morale (Wakefield, Loken, & Hornik, 2010). However, message fatigue research has yet to recognize the relationships among racialized audiences (e.g., Black individuals), message consumption, the oversaturation of messaging, and how these components may impact the group. Given that there exists a 24-hour news cycle and there is a consistent progression of social media content, both of which have increased access to health information, Black individuals may likely face fatigue from an overabundance of repetitive COVID-19 health messaging, most of which highlights the impact of the pandemic on the group's well-being.

The CDC has reported that Black individuals in their early 30s and 40s often die of varied health complications, and this phenomenon is unique to the group (CDC, 2021). In 2020, Black actor and activist Chadwick Boseman died of colon cancer at 43. However, colon cancer screening typically does not begin among most adults until the age of 45, and this practice often does not account for racial identity and lived experiences related to race. Similarly, in breast cancer screenings, Black and White women have comparable diagnoses, though Black women die from breast cancer at higher rates (CDC, 2021). The CDC also notes that Black women experience higher pregnancy-related mortality rates than non-Black women. The reality of health issues particularly related to Black individuals is staggering, and the disregard of contemplating racial identity and a range of group-based outcomes is disheartening. Considering the potential for health information overload and the documented pessimism among Black individuals regarding trust in the medical

community (Jacobs et al., 2006), could the relationship between Black audiences and repeated health messages associated with their racial group result in negative outcomes? Here, intergroup emotions theory (IET) is well suited to explore some factors among Black communities regarding their COVID-19 health message consumption.

Intergroup Emotions Theory

IET, which is grounded in social identity and self-categorization–based theorizing (Tajfel, 1978; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), recognizes the distinct nature of emotions experienced at the group level (Mackie & Smith, 2015). Although emotion-focused research often examines feeling at the individual level, Smith and Mackie (2015) note that group identities, such as race, are frequent causes of emotional reactions. These reactions may be related to group-based conflict or events related to identities such as various forms of civil unrest (Stamps & Mastro, 2020). In other words, emotions are "a shared product of group life [that] creates shared tendencies to act in common ways toward collective others" (Mackie et al., 2009, p. 285). This perspective suggests that belonging to a group or psychologically associating with a group can become a salient part of a person's social identity (Smith & Mackie, 2015). Individuals with aligned social identities (e.g., race, gender, class) often experience emotions on behalf of the group, particularly when the group's identity is threatened or disparaged (Smith & Mackie, 2010). Research has shown that group-level emotions often result from actual and perceived threats among racialized groups (Seate & Mastro, 2017), religious groups (Howard, Kennedy, & Vine, 2021), and individuals who collectively embrace ideas of social dominance (Stamps & Mastro, 2020).

IET posits that distinct emotional experiences emerge from group-based categorization and vary based on the salient group identity. It also suggests that the experience of group-level emotions depends on an individual's level of identification with the group. Here, group identity is important, as individuals think of themselves and fellow group members as a collective "we" and as interchangeable members with similar experiences and circumstances. Compared with other racial groups (e.g., White people), Black individuals typically hold their racial identity in high regard, view Blackness as an important trait, and as such, may demonstrate heightened group-level emotions (Sullivan & Platenburg, 2017).

Moreover, Black individuals may also feel emotions more intensely than other racial groups, indicating a potentially significant relationship between the consumption of media messages and the group's well-being (Stamps, 2020). Research that examined Black individuals and media viewing has shown that this group often experiences diverse outcomes, including fluctuations in self-esteem (Ward, 2004) and performance (Gordon, 2016). We expect that Black audiences' media use, specifically social media, will be related to certain group-based emotions. As Smith and Mackie (2015) noted, "Someone may be angered, disappointed, or frightened by events that influence an important ingroup—even if the event has absolutely no personal impact on the individual" (p. 350). The emotions that result from group-related events define how individuals instinctively experience that event as a whole rather than as an individual (Rydell et al., 2008).

Distinguishing group-level emotions is meaningful as research has shown that group-based evaluations may evoke distinct interpretations of the social world (Seate & Mastro, 2017). Group-level emotions can be aroused by subtle or blatant stimulation, such as an influx of health-related messages (Mackie & Smith, 2015). Moreover, the impact of the situations may be particularly salient among individuals with heightened group identification, and this impression may occur even if the activities do not directly impact all the individuals in the group (Yzerbyt, Dumont, Wigboldus, & Gordijn, 2003). Group-based emotions are independent of personal feelings, as each emotion drives evaluations related to the collective whole (Kuppens, Yzerbyt, Dandache, Fischer, & van der Schalk, 2013). From a mediated perspective, Black individuals view and engage in social media more so than other racial groups and are more likely to use social media as a tool to build counter publics that highlight racial identity (Steele, 2018). In line with existing research, it is assumed that Black individuals, comprising a salient racial identity, should enact certain group-level emotions, particularly negative ones, in response to social media–based health messaging that is perceived as biased against the group or that is framed unfavorably.

Black individuals are habitually dissatisfied with the way their group is represented and often seek to combat discrimination and racial exclusion in the media (Mastro & Stamps, 2018). Likewise, racist stereotypes and negative stories about Black communities are frequently propagated on social media (Dixon, 2019). Negative emotions can result from viewing such portrayals and from the continuation of combating discriminatory messaging. Furthermore, the damaging outcomes related to COVID-19's impact on Black communities have created tension and led to an increased sense of defensiveness among Black audiences (Stamps et al., 2021). Due to salient group identity, increased social media engagement, and the heightened relevance of COVID-19 health-related information among Black audiences, the present work concentrates on negative emotions and the relationship to audiences' consumption of COVID-19 social media health messaging. As such, the following hypotheses are proposed:

H1(a–d): Social media consumption is positively related to intergroup emotions, including (a) anger, (b) fear, (c) embarrassment, and (d) indifference.

H2:   Message fatigue (social media fatigue and social media overload) will mediate the relationship between social media consumption and intergroup emotions (i.e., anger, fear, embarrassment, and indifference).

Method

Participants

Three hundred and thirty self-identified Black individuals were recruited on a voluntary and anonymous basis through Amazon Mechanical Turk. Two participants were excluded from the study due to incomplete questionnaires or failure to correctly respond to the attention check items, leaving a final sample of 328 participants aged 19 to 72 years (M = 36, SD = 8.63). Of the participants, 48% (n = 157) identified as female, and 52% (n = 171) identified as male.

Procedures

Participants responded online to a study assessing social media consumption and emotion and electronically signed a consent form before participation. Participants were U.S. residents and were financially compensated for their time. They answered questions regarding their social media consumption, social media fatigue, overload, and various emotions related to social media content discussing Black communities and COVID-19. Demographic information was then collected. Participation in the study averaged 13 minutes.

Measures

Social Media Consumption

Adopting Stamps' (2020) media consumption measure, participants identified the number of hours per day in the morning, after work/school, after dinner, and on weekends that they watched, listened to, or read social media content on any device, including tablets, smartphones, or laptops. These items were averaged to create a measure of overall social media consumption ($a = .81$, $M = 2.46_{hours}$, SD = $1.27_{minutes}$), with higher scores indicating greater social media consumption.

Social Media Fatigue

Islam and colleagues' (2020) social media fatigue measure was used to assess participants' exhaustion in response to social media messages read and received about COVID-19 and its impact on Black communities. The five-item measure included the statements, "Due to using social media and encountering messages about the effects of COVID-19 on Black people, I feel mentally exhausted," and "I find it difficult to relax after continually using social media and encountering messages about the effects of COVID-19 on Black people." Participants rated their agreement or disagreement with statements on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*; $a = .94$, $M = 2.63$, SD = 1.26). A composite measure of items was created, with higher scores indicating greater social media fatigue.

Social Media Overload

Lee, Son, and Kim's (2016) communication overload measure was amended to assess participants' overburdening of messages related to COVID-19 and the pandemic's impact on Black people. The four-item measure included the statement, "I feel that I generally get too many notifications of postings on social media about COVID-19 and its effects on Black people." Participants rated their agreement or disagreement with statements on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*; $a = .92$, $M = 2.39$, SD = 1.27). A composite measure of items was created, with higher scores indicating greater media message overload.

Table 1. Factor Analysis of the Social Media Fatigue and Social Media Overload Measures.

	Factor Loading	
	1	2
Factor 1: Social Media Fatigue		
1. I find it difficult to relax after continually using social media and encountering messages about the effects of COVID-19 on Black people.	**.79**	.35
2. After a session of using social media and encountering messages about the effects of COVID-19 on Black people, I feel fatigued.	**.82**	.32
3. Due to using social media and encountering messages about the effects of COVID-19 on Black people, I feel mentally exhausted.	**.84**	.31
4. After using social media and encountering messages about the effects of COVID-19 on Black people, it takes a lot of effort to concentrate in my spare time.	**.75**	.43
5. During social media use and encountering messages about the effects of COVID-19 on Black people, I often feel fatigued and cannot perform other tasks.	**.78**	.30
Factor 2: Social Media Overload		
1. I receive too many social media messages from friends about COVID-19 and its effects on Black people	.31	**.76**
2. I feel that I generally get too many notifications of new postings, push notifications, and articles about COVID-19 and its effects on Black people in my social media feed.	.32	**.83**
3. I often feel overloaded with social media communication about COVID-19 and its effects on Black people.	.35	**.70**
4. On any given day, I receive more messages and news from friends on social media about COVID-19 and its effects on Black people than I can process.	.38	**.80**

Group Emotions

Consistent with Mackie and colleagues' (2009) work, group-level emotions were assessed. Participants were asked to rate the extent to which they experienced each emotion when reading, viewing, or hearing about social media content discussing the disproportionate impact of COVID-19 on Black people on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The following single-item measures were used to assess anger: "anger," "annoyed," "outraged," "disgusted," "irritated," "agitated," "heated," and "offended" (α = .94, M = 2.48, SD = 1.19); "fear," "nervous," "terrified," "sad," "stress," and "grief" were used to assess fear (α = .91, M = 2.67, SD = 1.15); "embarrassed," "ashamed," "humiliated," "apologetic," and "remorseful" were used to assess embarrassment (α = .88, M = 1.95, SD = 1.06); and "indifference," "unbothered," "unmoved," and "apathy" were used to assess indifference (α = .83, M = 2.19, SD = 1.13). A composite measure of items was created for each of the four listed emotional categories, with higher scores indicating greater levels of each emotion.

Results

Before we examined the proposed hypotheses, variance inflation factor scores were assessed and found to be within an acceptable range, which indicated limited multicollinearity among the independent variables (see Table 1). Zero-order correlations between the variables of interest were also analyzed. The results indicated an appropriate association among all variables (see Table 2).

Table 2. Zero-Order Correlations and Descriptive Statistics of Variables (N = 328).

Variables	1	2	3	4	5	6	7
1. Social media consumption	-—	.13*	.19**	.12*	.20**	.19**	.09
2. Social media fatigue		—	.73**	.54**	.52**	.55**	.28**
3. Social media overload			—	.51**	.33**	.59**	.37**
4. Anger				—	.64**	.64**	.36**
5. Fear					—	.57**	.17**
6. Embarrassment						—	.56**
7. Indifference							—

Note. **$p < .01$, *$p < .05$

The first hypothesis proposed that social media consumption would be positively related to intergroup emotions, including anger, fear, embarrassment, and indifference. A regression analysis showed that social media consumption was positively associated with greater anger ($r = .12$, $p = .036$), fear ($r = .20$, $p < .001$), and embarrassment ($r = .19$, $p < .001$) among Black participants; however, social media consumption was not significantly related to indifference ($r = .09$, $p = .105$).

The second hypothesis proposed that social media message fatigue (i.e., social media fatigue and social media overload) concerning COVID-19's impact on Black communities would mediate the relationship between social media consumption and the emotions anger, fear, embarrassment, and indifference. A mediation model, tested in Lavaan, was used, and a maximum likelihood estimator was included. The significance of the indirect effect (IE) was tested using 5,000 bootstrap resamples and a 95% bias-corrected confidence interval. Social media consumption was modeled as the independent variable. There were two simultaneous mediators: Social media fatigue and social media overload. There were four dependent variables: anger, fear, embarrassment, and indifference (see Figure 1).

Social media consumption was significantly related to greater social media fatigue ($b = .14$, $p = .011$) and greater social media overload ($b = .19$, $p < .001$). Social media fatigue was associated with anger ($b = .28$, $p < .001$), fear ($b = .57$, $p < .001$), and embarrassment ($b = .22$, $p < .001$), but was not significantly related to indifference ($b = -.02$, $p = .777$). Lastly, social media overload was associated with anger ($b = .16$, $p = .014$), embarrassment ($b = .36$, $p < .001$), and indifference ($b = .25$, $p < .001$), but was not significantly related to fear ($b = -.05$, $p = .428$).

Following this, the IEs of social media fatigue and overload on each emotion were examined. There were significant IEs of social media consumption through social media fatigue on anger (*IE* = .04, *p* = .028), fear (*IE* = .08, *p* = .015), and embarrassment (*IE* = .03, *p* = .031), such that social media consumption was associated with greater anger, fear, and embarrassment through greater social media fatigue. There was no significant IE through social media fatigue on overall indifference (*IE* = .00, *p* = .779). There were significant IEs of social media consumption through social media overload on anger (*IE* = .03, *p* = .044), embarrassment (*IE* = .07, *p* = .002), and indifference (*IE* = .05, *p* = .013), such that social media consumption was associated with greater anger, embarrassment, and indifference through greater social media overload. However, the correlation between social media consumption and indifference was nonsignificant (*r* = .09, *p* = .105); therefore, there was only partial evidence of mediation. There was no significant IE through social media overload on fear (*IE* = −.01, *p* = .439).

To further understand the mediation model, separate models were tested with social media fatigue and social media overload as independent mediators. The results were similar to those generated by the full model. When only social media fatigue was the mediator, the IE on indifference was statistically significant in the hypothesized direction (*IE* = .04, *p* = .023). The other three IEs remained significant. Similarly, when only social media overload was the mediator, the IE on fear emerged as statistically significant in the hypothesized direction (*IE* = .05, *p* = .002). The IEs also tended to be greater when only one mediator was used. These results suggest that the influence of social media fatigue and social media overload may have partially canceled each other out. This is logical because fatigue and overload were strongly correlated (*r* = .73, *p* < .001), indicating that 50% of the variance was shared between the two variables.
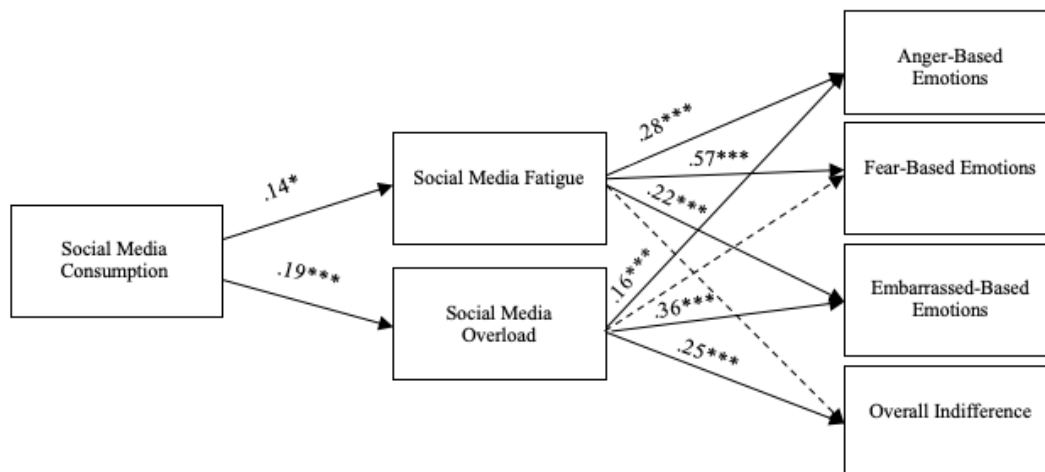

Figure 1. Mediation model for social media consumption, social media fatigue and overload, and intergroup emotions.

Note. *N* = 328. **p* < .05 ****p* < .01 ******p* < .001.
Nonsignificant paths are shown as dotted lines.

Discussion

The present research examined social media health message fatigue among Black individuals residing in the United States and applied the IET to understand the relationship between Black individuals' health messaging consumption about COVID-19 and emotion-based outcomes. The results suggest a significant relationship between Black social media users, consumption of COVID-19 health messaging, and relevant group-based emotions. The findings are worthy of further attention, particularly in the context of the COVID-19 pandemic as outcomes suggest that the greater the consumption of social media COVID-19 messaging, there is a potential for vulnerable groups to experience adverse emotional outcomes. Often, messages related to the pandemic aim to inform the public and point them toward resources. However, Black audiences often exhibit less trust in social media as a source of COVID-19 information than in other forms of media or public health professionals (Woko, Siegel, & Hornik, 2020). Unfortunately, Black individuals may disengage, avoid vital information, or experience social media fatigue and overload, and amid a pandemic, this should raise concern.

The results presented here were not surprising considering the unfavorable outcomes that Black populations have been facing since the beginning of the COVID-19 pandemic. The pandemic has highlighted disparities among Black individuals before COVID-19, and the pandemic has contributed to the detriment experienced by the group. For example, Black individuals often reside in food deserts where healthy food and grocery stores are scarce (Anderson, 2016; Mock, 2016). This reality, before the pandemic, had rendered the group at risk of obesity and other food-related deficiencies; however, these outcomes have intensified during the pandemic, and the risk of hospitalization and death due to systemic issues and the pandemic has increased at alarming rates (Townsend, Kyle, & Stanford, 2020). The role of COVID-19 social media messaging may contribute to Black individuals' message fatigue and negative emotions, which may be one of many outcomes that the group must confront.

Black Audiences, Social Media Messaging, and Anger

The present study results suggest a significant relationship between Black individuals' social media COVID-19 health messaging and anger. Existing research has indicated that racialized individuals who feel threatened show emotions as a collective group (Seate & Mastro, 2017). It could be argued that decades of systemic abuse and the documented vilification of the Black community by the medical community have left some Black individuals feeling threatened, which may lead to feelings of anger. Furthermore, frequent media coverage of the trauma inflicted on Black bodies by individuals tasked with supporting (e.g., politicians) or protecting (e.g., law enforcement) the group and the disappointing relationships between decision makers and Black communities may result in anger (Egede & Walker, 2020). The burden of being disproportionately affected by COVID-19 may seem like an additional circumstance or situation pitted against the group and may serve to heighten feelings of anger.

Black Audiences, Social Media Messaging, and Fear

The results presented here also show a significant relationship between increased fear among Black participants and their consumption of social media messages related to COVID-19. At the onset of the

pandemic, society experienced a collective feeling of uncertainty and trepidation as much about the virus was unknown. However, as the devasting impact of COVID-19 on Black communities was reported, including the group's increased rates of contracting the virus and the high rates of hospitalization and death, the narrative concerning who was most in harm's way shifted (see Johnson & Buford, 2020). Repeated messages referred to an "us versus them" scenario in which some non-Black individuals began to downplay or ignore the prevention precautions, politized the pandemic, and potentially placed Black individuals in the crosshairs of COVID-19 (Milner, Franz, & Braddock, 2020). The documented actions by individuals in the United States to disregard the pandemic or use it as a political tool may explain why some Black individuals experienced fear. An individual's knowledge that political leaders and community members may refuse to take safeguards to protect others, even with the knowledge that some groups are at higher risk of contracting the virus than others, may increase distress.

The medical community's mistreatment of Black individuals may have also contributed to fear. Black people may worry that they will not receive the same level of care as non-Black individuals diagnosed with the virus. Trawalter and Hoffman's (2015) research showed that Black people falsely believe that they feel less pain than White people due to the insurmountable hardship and the expected resilience from trauma that Black people have historically suffered. The notion of resilience is often aligned with Black individuals having to confront racial disparities, including navigating racism and discrimination, and dealing with increased social risk factors, such as food insecurity and housing instability. Issues such as discrimination have heightened during the COVID-19 pandemic (Egede & Walker, 2020). The case study of Dr. Susan Moore, a Black health-care provider who contracted COVID-19, helps illustrate the expectations of resilience and how this expectancy can be met by navigating disparagement. Dr. Moore posted to social media outlets her experience with contracting COVID-19 and how her medical team downplayed her requests and concerns as a patient. She shared that the mistreatment and dismissal of her feelings by medical professionals, to her knowledge, were related to her racial identity (ABC News, 2020). Dr. Moore was equipped with a comprehension of the virus and of the precautions that could be employed to mitigate the symptoms she was feeling; however, her medical team minimized her pleas for medical intervention (ABC News, 2020). Subsequently, Dr. Susan Moore died from complications related to COVID-19. It is unclear if her COVID-related death could have been prevented. However, the information Dr. Moore shared suggests that, as a medical professional armed with sufficient experience and knowledge to advocate for her well-being, she did not feel heard by the health professionals tasked with her care. In a similar example, a 30-year-old Black woman attempted to be tested for COVID-19 but was denied twice and subsequently died from the virus (Laurencin & Walker, 2020). Such cases exacerbate the fear that many Black people may experience when confronted with COVID-19 health messages that frame the group as victims of the virus and knowing that they may be dismissed when seeking medical attention.

Black Audiences, Social Media Messaging, and Embarrassment

Embarrassment, which encompasses self-consciousness, shame, and awkwardness, is a complex and unique emotion, particularly when experienced by an individual concerning their racial group. The CDC (2021) acknowledges that certain racial and ethnic groups are disproportionately affected by COVID-19 due to the systemic inequities in the social determinants of health, including poverty and access to health care, both of which affect underrepresented groups in a wide range of health and quality-of-life outcomes. The

generalization that many Black people are poor, lack resources, and cannot take care of themselves in the context of COVID-19 may contribute to embarrassment. Furthermore, some Black people may internalize and falsely believe that they are to blame for the circumstances they find themselves in (David, 2013). The conditions that many Black communities face may have been avoided or lessened, but instead, issues such as housing insecurity and the increased reliance on public transportation have positioned the group to be more likely to confront COVID-19 (Anderson, 2016; Mock, 2016). Such a realization could contribute to a range of emotions related to shame or awkwardness. However, the knowledge that the impact of the COVID-19 pandemic is beyond one's control does not diminish the weight of repeated health messaging on an individual's social media feed. These intricate and delicate realizations may contribute to feelings of embarrassment at the group level. However, such a generalization about the emotional makeup of Black individuals at this point is speculative but deserves continued examination.

Black Audiences, Social Media Messaging, and Indifference

The examination of indifference as an emotional outcome suggests that dissonance or distancing among Black individuals may be associated with negative feelings. The present study yielded mixed results regarding Black participants' lack of interest or concern, which points to the complex nature of navigating the pandemic and being Black. Black individuals are overrepresented in occupations identified as essential workers (e.g., grocery store clerks), caregivers, and other low-wage positions. During the COVID-19 pandemic, many Black individuals have had to disregard their concerns about contracting the virus to work, pay rent, and provide for loved ones. For example, early in the pandemic, researchers found disproportionate impacts on Black communities' employment opportunities, savings, and the ability to pay for utilities (Lopez et al., 2020). News coverage also indicated that Black individuals (and other non-White groups) have been at higher risk of utility shutoffs during the pandemic (Duster, 2020). Simply put, many Black community members have been forced to disregard the reality of COVID-19, or express indifference, to focus on earning wages and surviving.

Implications

The Black community is not a homogenous group and, as such, may be acutely aware of a COVID-19 infection, as well as the health implications, prevention strategies, and treatment options needed to protect themselves and their families. The consumption of media content concerning COVID-19 may serve as a reminder to heed public health messaging. Accordingly, the conflicting outcomes demonstrate that emotions are complex, and the relationship to indifference among Black social media users is multifaceted. Research that closely examines Black individuals shift from indifference to active engagement in the adoption of precautions that protect against the virus would contribute tremendously to this body of work.

Overall, the present research posits a unique relationship between Black communities' consumption of social media health messaging and emotional outcomes. Social media is a space for Black people to celebrate their identity, confront anti-Blackness, and build digital communities (Brock, 2012; Brown, Ray, Summers, & Fraistat, 2017; Steele, 2018). Likewise, social media's role in contributing to message fatigue and potential group-based emotions must be considered in a similar context. Social media can be a change agent for the Black community. Social movements have been conceptualized on social media platforms

(e.g., #BlackLivesMatter), and Brock (2012) notes that identity-focused conversations that promote positive group characteristics have been held on social media platforms (e.g., #BlackGirlMagic, #BlackBoyJoy, and #BlackExcellence). The need for change often arises from an event, a series of actions, or the recognition of ongoing systemic injustices against a group, and social media is one place where this may happen. The actions of advocacy and activism are often sparked by and strengthened by heightened emotion.

Conclusion

The present work examined the relationship between Black audiences' social media consumption, fatigue, and overload from social media messaging specific to COVID-19's impact on Black populations and a range of emotional outcomes. The results contribute to a timely conversation about Black individuals' well-being during a deadly pandemic that has overwhelmed the community and intensified health and economic disparities. As with all studies of this nature, limitations from this investigation exist. First, the use of cross-sectional data does not allow for conclusions to be drawn regarding causality. The relationship between social media consumption, fatigue, overload, and group-based emotions is somewhat ambiguous in the current work. Future research should consider adopting a longitudinal or experimental design to draw out causal interactions.

Second, this analysis relied on participants' self-report assessments, which could impact individuals' ability to report their current temperament. Third, the data collection took place online due to the social-distancing restrictions associated with the COVID-19 pandemic. Therefore, the degree to which participants thoroughly engaged with or avoided multitasking during participation is unclear. Research that is conducted post-COVID-19 would benefit from the adoption of a controlled setting that minimizes distractions. Fourth, the current examination included a small sample population that provided exploratory insights into the hypothesized relationships. The need for continued work, including increasing the sample size, exploring experimental investigations, and espousing additional sampling methods such as stratified sampling methods that better reflect Black populations, are necessary before broader conclusions can be made.

Negative emotions were of keen interest in the present work; however, as one example of emotion, hope can be a factor in individuals' favorable responses to negative circumstances (Nabi & Myrick, 2019). However, the relationship between hope and favorable outcomes is inconsistent, as research has yielded contradictory results (see Farías, 2020). Considering inconclusiveness and the limited research that concentrates on Black populations, the present work sought to assess Black participants' emotional responses to social media content that addressed the disproportionate impact of COVID-19 on Black individuals. Evidence of the disparities and unfavorable outcomes on Black populations amid the pandemic, a concentrated effort to understand the relationship between health messages and negative affect was the goal. Further research that examines a diverse range of communities and explores both positive and negative emotions is necessary to illuminate this phenomenon.

Lastly, research on intergroup emotions has shown that although group categorization can motivate group-level emotions, the extent of cognitive or emotional identification with group identity can moderate emotional responses (Stamps & Mastro, 2020). As such, further research would benefit from incorporating measures of group identification among the sample population. Despite these limitations, the present study offers preliminary insights into the relationship between Black audiences'

social media consumption and the potential for message overload or fatigue to impact negative emotional responses during the COVID-19 pandemic.

References

ABC News. (2020, December 31). *Hospital CEO's response to Black doctor's COVID-19 death prompts backlash*. Retrieved from https://abcnews.go.com/US/hospital-ceos-response-black-doctors-covid-19-death/story?id=74971005

Anderson, M. (2016). *Who relies on public transit in the U.S*. Pew Research Center. Retrieved from https://www.pewresearch.org/fact-tank/2016/04/07/who-relies-on-public-transit-in-the-u-s/

Auxier, B. (2020). *Activism on social media varies by race and ethnicity, age, political party*. Pew Research Center. Retrieved from https://www.pewresearch.org/fact-tank/2020/07/13/activism-on-social-media-varies-by-race-and-ethnicity-age-political-party/

Banks, C. (2018). Disciplining Black activism: Post-racial rhetoric, public memory and decorum in news media framing of the Black Lives Matter movement. *Continuum, 32*(6), 709–720. doi:10.1080/10304312.2018.1525920

Brock, A. (2012). From the Blackhand Side: Twitter as a cultural conversation. *Journal of Broadcasting & Electronic Media, 56*(4), 529–549. doi:10.1080/08838151.2012.732147

Brown, M., Ray, R., Summers, E., & Fraistat, N. (2017). #SayHerName: A case study of intersectional social media activism. *Ethnic and Racial Studies, 40*(11), 1831–1846. doi:10.1080/01419870.2017.1334934

Centers for Disease Control and Prevention. (2021, February 12). *Health equity considerations and racial ethnic minority groups*. Retrieved from https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/race-ethnicity.html

David, E. (2013). *Internalized oppression: The psychology of marginalized groups*. New York, NY: Springer Publishing Company.

DeSouza, E. R., Wesselmann, E. D., Taschetto, L. R., Rosa, G. C., Rosa, C. F., Yunes, M. A. M., . . . Fernandes, G. (2019). Investigating ostracism and racial microaggressions toward Afro-Brazilians. *Journal of Black Psychology, 45*(4), 222–268. doi:10.1177/0095798419864001

Dixon, T. L. (2019). Media stereotypes. In M. Oliver, A. Raney, & J. Bryant (Eds.), *Media effects* (pp. 243–257). New York, NY: Taylor & Francis Publishing. doi:10.4324/9780429491146-16

Duster, C. (2020). Utility shut-offs threaten a fresh crisis for low-income and Black families as Covid surges again. *CNN.com*. Retrieved from https://www.cnn.com/2020/07/12/politics/utility-shutoffs-coronavirus/index.html

Egede, L. E., & Walker, R. J. (2020). Structural racism, social risk factors, and Covid-19—A dangerous convergence for Black Americans. *New England Journal of Medicine, 383*(12), e77. doi:10.1056/NEJMp2023616

Farías, P. (2020). The use of fear versus hope in health advertisements: The moderating role of individual characteristics on subsequent health decisions in Chile. *International Journal of Environmental Research and Public Health, 17*(23), 9148–9163. doi:10.3390/ijerph17239148

Florini, S. (2019). *Beyond hashtags: Racial politics and Black digital networks*. New York: New York University Press.

Frakt, A. (2020, January 13). Bad medicine: The harm that comes from racism. *The New York Times*. Retrieved from https://www.nytimes.com/2020/01/13/upshot/bad-medicine-the-harm-that-comes-from-racism.html

Galiatsatos, P. (2020, April 13). *What coronavirus does to the lungs*. Johns Hopkins Medicine. Retrieved from https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/what-coronavirus-does-to-the-lungs

Gordon, M. K. (2016). Achievement scripts: Media influences on Black students' academic performance, self-perceptions, and career interests. *Journal of Black Psychology, 42*(3), 195–220. doi:10.1177/0095798414566510

Hill, B. S., Patel, V. V., Haughton, L. J., & Blackstock, O. J. (2018). Leveraging social media to explore black women's perspectives on HIV pre-exposure prophylaxis. *The Journal of the Association of Nurses in AIDS Care: JANAC, 29*(1), 107–114. doi:10.1016/j.jana.2017.06.010

Hornik, R. C. (2002). Exposure: Theory and evidence about all the ways it matters. *Social Marketing Quarterly, 8*(3), 31–37. doi:10.1080/15245000214135

Howard, S., Kennedy, K. C., & Vine, K. (2021). "You don't believe in god? You ain't Black": Identifying as atheist elicits identity denial from Black ingroup members. *Cultural Diversity and Ethnic Minority Psychology*. Advanced online publication. doi:10.1037/cdp0000397

Ince, J., Rojas, F., & Davis, C. A. (2017). The social media response to Black Lives Matter: How Twitter users interact with Black Lives Matter through hashtag use. *Ethnic and Racial Studies, 40*(11), 1814–1830. doi:10.1080/01419870.2017.1334931

Islam, A. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technological Forecasting and Social Change, 155,* 1–12. doi:10.1016/j.techfore.2020.120201

Jacobs, E. A., Rolle, I., Ferrans, C. E., Whitaker, E. E., & Warnecke, R. B. (2006). Understanding African Americans' views of the trustworthiness of physicians. *Journal of General Internal Medicine, 21*(6), 642–647. doi:10.1111/j.1525-1497.2006.00485.x

Johnson, A., & Buford, T. (2020). *Early data shows African Americans have contracted and died of coronavirus at an alarming rate*. ProPublica.org. Retrieved from https://www.propublica.org/article/early-data-shows-african-americans-have-contracted-and-died-of-coronavirus-at-an-alarming-rate

Kim, S., & So, J. (2018). How message fatigue toward health messages leads to ineffective persuasive outcomes: Examining the mediating roles of reactance and inattention. *Journal of Health Communication, 23*(1), 109–116. doi:10.1080/10810730.2017.1414900

Kuppens, T., Yzerbyt, V., Dandache, S., Fischer, A. H., & van der Schalk, J. (2013). Social identity salience shapes group-based emotions through group-based appraisals. *Cognition & Emotion, 27*(8), 1359–1377. doi:10.1080/02699931.2013.785387

Laurencin, C. T., & Walker, J. M. (2020). A pandemic on a pandemic: Racism and COVID-19 in Blacks. *Cell Systems, 11*(1), 9–10. doi:10.1016/j.cels.2020.07.002

Lee, A. R., Son, S., & Kim, K. K. (2016). Information and communication technology overload and social networking service fatigue: A stress perspective. *Computers in Human Behavior, 55,* 51–61. doi:10.1016/j.chb.2015.08.011

Lopez, M. H., Rainie, L., & Budiman, A. (2020). *Financial and health impacts of COVID-19 vary widely by race and ethnicity*. Pew Research Center. Retrieved from https://www.pewresearch.org/fact-tank/2020/05/05/financial-and-health-impacts-of-covid-19-vary-widely-by-race-and-ethnicity/

Mackie, D. M., Maitner, A., & Smith, E. (2009). Intergroup emotions theory. In T. Nelson (Ed.), *Handbook of prejudice, stereotyping, and discrimination* (pp. 285–307). London, UK: Psychology Press.

Mackie, D. M., & Smith, E. R. (2015). Intergroup emotions. In M. Mikulincer & P. R. Shaver (Eds.), *APA handbook of personality and social psychology: Vol. 2. Group processes* (pp. 263–293). Washington, DC: American Psychological Association. doi:10.1037/14342-010

Mastro, D., & Stamps, D. (2018). Depictions of race/ethnicity in the media and the implications of exposure on ingroup and outgroup audiences. In P. Napoli (Ed.), *Mediated communication: Handbook of communication science* (pp. 341–358). Berlin, Germany: de Gruyter Mouton Press. doi:10.1515/9783110481129-018

Miller, G. H., Marquez-Velarde, G., Williams, A. A., & Keith, V. M. (2020). Discrimination and Black social media use: Sites of oppression and expression. *Sociology of Race and Ethnicity, 7*(2), 247–263. doi:10.1177/2332649220948179

Milner, A., Franz, B., & Henry Braddock, J. (2020). We need to talk about racism—in all of its forms—to understand COVID-19 disparities. *Health Equity, 4*(1), 397–402. doi:10.1089/heq.2020.0069

Mock, B. (2016). *If you want clean water, don't be Black in America*. CityLab. Retrieved from https://www.citylab.com/equity/2016/01/if-you-want-clean-water-dont-be-black-in-america/426927/

Mundt, M., Ross, K., & Burnett, C. M. (2018). Scaling social movements through social media: The case of Black Lives Matter. *Social Media + Society, 4*(4), 1–14. doi:10.1177/2056305118807911

Nabi, R. L., & Myrick, J. G. (2019). Uplifting fear appeals: Considering the role of hope in fear-based persuasive messages. *Health Communication, 34*(4), 463–474. doi:10.1080/10410236.2017.1422847

Reynolds-Tylus, T., Lukacena, K. M., & Truban, O. (2020). Message fatigue to bystander intervention messages: Examining pathways of resistance among college men. *Health Communication, 36*(13), 1759–1769. doi:10.1080/10410236.2020.1794551

Rydell, R. J., Mackie, D. M., Maitner, A. T., Claypool, H. M., Ryan, M. J., & Smith, E. R. (2008). Arousal, processing, and risk-taking: Consequences of intergroup anger. *Personality and Social Psychology Bulletin, 34*(8), 1141–1152. doi:10.1177/0146167208319694

Seate, A. A., & Mastro, D. (2017). Exposure to immigration in the news: The impact of group-level emotions on intergroup behavior. *Communication Research, 44*(6), 817–840. doi:10.1177/0093650215570654

Seo, Y., Primovic, M. J., & Jin, Y. (2019). Overcoming stakeholder social media fatigue: A trialogue approach. *Journal of Business Strategy, 40*(6), 40–48. doi:10.1108/JBS-04-2019-0071

Shah, M., Sachdeva, M., & Dodiuk-Gad, R. P. (2020). COVID-19 and racial disparities. *Journal of the American Academy of Dermatology, 83*(1), e35. doi:10.1016/j.jaad.2020.04.046

Smith, E. R., & Mackie, D. M. (2010). Affective processes. In J. F. Dovidio, M. Hewstone, P. Glick, & V. M. Esses (Eds.), *The Sage handbook of prejudice, stereotyping and discrimination* (pp. 131–145). Thousand Oaks, CA: SAGE Publications.

Smith, E. R., & Mackie, D. M. (2015). Dynamics of group-based emotions: Insights from intergroup emotions theory. *Emotion Review, 7*(4), 349–354. doi:10.1177/1754073915590614

Stamps, D. (2020). Media literacy as liberator: Black audiences' adoption of media literacy, news media consumption, and perceptions of self and group members. *Journal of International and Intercultural Communication, 14*(3), 240–257. doi:10.1080/17513057.2020.1789692

Stamps, D., Mandell, L., & Lucas, R. (2021). Relational maintenance, collectivism, and coping strategies among Black populations during COVID-19. *Journal of Social and Personal Relationships, 38*(8), 2376–2396. doi:10.1177/211025093

Stamps, D., & Mastro, D. (2020). The problem with protests: Emotional effects of race-related news media. *Journalism & Mass Communication Quarterly, 97*(3), 617–643. doi:10.1177/1077699019891433

Steele, C. K. (2018). Black bloggers and their varied publics: The everyday politics of black discourse online. *Television & New Media, 19*(2), 112–127. doi:10.1177/1527476417709535

So, J., & Alam, N. (2019). Predictors and effects of anti-obesity message fatigue: A thought-listing analysis. *Health Communication, 34*(7), 755–763. doi:10.1080/10410236.2018.1434736

So, J., & Popova, L. (2018). A profile of individuals with anti-tobacco message fatigue. *American Journal of Health Behavior, 42*(1), 109–118. doi:10.5993/AJHB.42.1.11

So, J., Kim, S., & Cohen, H. (2017). Message fatigue: Conceptual definition, operationalization, and correlates. *Communication Monographs*, *84*(1), 5–29. doi:10.1080/03637751.2016.1250429

Sullivan, J. M., & Platenburg, G. N. (2017). From Black-ish to Blackness: An analysis of Black information sources' influence on Black identity development. *Journal of Black Studies, 48*(3), 215–234. doi:10.1177/0021934716685845

Tajfel, H. (1978). *Differentiation between social groups: Studies in the social psychology of intergroup relations*. Cambridge, MA: Academic Press.

Townsend, M. J., Kyle, T. K., & Stanford, F. C. (2020). Outcomes of COVID-19: Disparities in obesity and by ethnicity/race. *International Journal of Obesity, 44*(9)*,* 1807–1809. doi:10.1038/s41366-020-0635-2

Trawalter, S., & Hoffman, K. M. (2015). Got pain? Racial bias in perceptions of pain. *Social and Personality Psychology Compass, 9*(3), 146–157. doi:10.1111/spc3.12161

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Hoboken, NJ: Blackwell Publishing.

Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *The Lancet, 376,* 1261–1271. doi:10.1016/S0140-6736(10)60809-4

Ward, L. M. (2004). Wading through the stereotypes: Positive and negative associations between media use and black adolescents' conceptions of self. *Developmental Psychology, 40*(2), 284–294. doi:10.1037/0012-1649.40.2.284

Woko, C., Siegel, L., & Hornik, R. (2020). An investigation of low COVID-19 vaccination intentions among Black Americans: The role of behavioral beliefs and trust in COVID-19 information sources. *Journal of Health Communication, 25*(10), 819–826. doi:10.1080/10810730.2020.1864521

Worrell, F. C. (2019). Psychology in the Caribbean: Broadening our knowledge base. *Journal of Black Psychology, 45*(4), 219–221. doi:10.1177/0095798419879218

Yaya, S., Yeboah, H., Charles, C. H., Otu, A., & Labonte, R. (2020). Ethnic and racial disparities in COVID-19-related deaths: Counting the trees, hiding the forest. *BMJ Global Health, 5*(6), e002913. doi:10.1136/bmjgh-2020-002913

Yzerbyt, V., Dumont, M., Wigboldus, D., & Gordijn, E. (2003). I feel for us: The impact of categorization and identification on emotions and action tendencies. *British Journal of Social Psychology, 42*(4), 533–549. doi:10.1348/014466603322595266