



Emotional Response and Behavioral Coping Associated with Experienced and Media Discrimination Among Asians and Asian Americans in the United States

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Abstract

This paper examined how sources (experienced and media) and forms (overt and subtle) of discrimination were associated with emotional response and behavioral coping among Asians and Asian Americans during the COVID-19 pandemic. Data were collected in June 2020 from 249 Asian and Asian American adults living in 20 U.S. states. We used hierarchical regression for data analysis, controlling for age, gender, and the length of residence in the U.S. Results showed that experienced discrimination, especially in the overt form, was associated with both emotional responses (i.e., emotional distress and vigilance) and behavioral coping (i.e., using avoidant behavior to protect oneself). Media discrimination was associated only with emotional response. The relationship between experienced discrimination and emotional response was less pronounced among those who frequently observed discrimination in the media. Notably, subtle discrimination through personal experience or media exposure was positively associated with behavioral coping. The results suggest the need to address the rising anti-Asian acts with more initiatives in policy and practice, with special attention paid to the parallel influences from personal experience and media exposure to violence.

Keywords Racial discrimination · Anti-Asian racism · Coping behaviors · Media discrimination

Introduction

COVID-19 is more than an infectious disease that jeopardizes public health. The toll of the novel virus on the U.S. society has extended to the social, economic, political, educational, and psychological aspects of life (Ryan, 2021). While most of the public is primarily concerned about contracting COVID-19, Asians and Asian Americans have been simultaneously worried about personal safety due to an increase in anti-Asian discrimination (Wang et al., 2021). Discriminatory acts experienced by Asians and Asian Americans range from the overt (e.g., being threatened or

harassed) to the subtle (e.g., people act as if they are afraid of Asians; Yu et al., 2020). In addition to personal experience of discrimination, Asians and Asian Americans have also experienced racism through mediated sources: they have been exposed to a large volume of anti-Asian crimes on news coverage and to racial slurs in social media (Tahmasbi et al., 2020; Tessler et al., 2020). While the harm of direct experience of physical, emotional, and verbal assault is well-documented in psychological literature (DeSouza et al., 2021; Wu et al., 2020), studies focusing on personal experience with racial discrimination and health implications among Asian participants represent less than 1% of the literature produced before the global pandemic (Carter et al., 2019). Moreover, research on the impact of the increasingly common modality of mediated discrimination among affected minority groups is scarce.

The current study aims to unpack the distinctions between personally experienced discrimination and media discrimination. To present the nuanced impact of discrimination, we also consider both the overt and subtle forms of discrimination that can be experienced personally and through media. To address the pressing need to understand the health

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implications of discrimination, we explore how both personally experienced and media discrimination are associated with emotional responses and behavioral coping among Asians and Asian Americans.

Anti-Asian Discrimination During COVID-19

In 2020, anti-Asian hate crimes in large metropolitan areas increased by 149% (California State University at San Bernadino, 2021). The STOP AAPI Hate reporting center received more than 3,700 incidents between March 2020 and February 2021 (Jeung et al., 2021). These incident reports included personal attacks, bullying, and threats in various venues (e.g., schools, workplace, public transportation, restaurants) as well as vandalism of Asian businesses and damage of personal property (Chiang, 2021; Ha et al., 2021). Asians and Asian Americans who experienced discrimination were more worried about future discrimination and thus reported lower subjective well-being (Yang et al., 2020).

Beyond personal experience of discrimination, during the lockdown period, anti-Asian threats of violence, slurs, and discrimination also rapidly grew in social media and news coverage (Tahmasbi et al., 2020; Tessler et al., 2020). Early media reports often portrayed stereotypes of Asians being associated with contagious diseases, and conservative media coverage amplified political rhetoric that blamed China for spreading the virus (Gollust et al., 2020; Li & Nicholson, 2021). Political leaders' use of stigmatizing language (e.g., Chinese virus or Wuhan virus) resulted in an 800% increase of such stigmatized terms on March 9, 2020 in one day in U.S. online news articles (Darling-Hammond et al., 2020). Following the onset of the coronavirus outbreak, the emergence of Sinophobic terms and hashtags on social networking sites reflected an increase in anti-Asian sentiments (Chou & Gaysynsky, 2021; Hsuen et al., 2021). Since February 2020, a series of violent attacks of people of Asian descent has led to multiple news headlines, including those at the *BBC*, *CBS*, and the *Los Angeles Times* (Capatides, 2020; Chen, 2020; Human Rights Watch, 2020).

Exposure to xenophobic language, discriminatory acts, and vivid portrayals of hate crimes via news coverage and social networking sites is one type of mediated, vicarious victimization (Paterson et al., 2019; Tyler & Cook, 1984). Although such discrimination is not as direct as personal experiences of discrimination, from the perspective of cultivation theory (Gerbner et al., 1980, 1982), it can still influence the victimized group's emotional and behavioral responses. Drawing on the definitions of media exposure (De Vreese & Neijens, 2016; Niederdeppe, 2014) and mediated experience (Custers & Van den Bulck, 2011), we conceptualize media discrimination in this study as encountering and recognizing emotionally charged language and hate crimes against Asians and Asian Americans through various

mediated sources. Media discrimination involves written descriptions and/or visual representations of property damage and verbal and physical assaults. Such conceptualization allows us to move beyond traditional cultivation studies that measure the self-reported frequency and hours of TV consumption in order to delineate a direct relationship between media representations of specific discriminatory events and the audience's resultant emotions and behavior.

Experienced and Media Discrimination in Relation to Emotional Response

Extant studies have consistently found a correlation between direct experience of racial discrimination and deteriorating mental health (Carter et al., 2019; DeSouza et al., 2021; Wu et al., 2020), such as depression (Crouter et al., 2006), anxiety, decreased self-esteem (Gee et al., 2009), and stress (Harrell, 2000). During the COVID-19 pandemic, in particular, there has been a surge of negative emotions and poor well-being related to discrimination among Asian Americans in the United States (Ha et al., 2021; Wu et al., 2020; Yang et al., 2020). Specifically, worry is a negative emotion that is commonly felt by minorities after direct experiences of racial discrimination (Fix et al., 2021).

Albeit a less direct form of discrimination, the potential impact of media exposure to discrimination should not be disregarded, especially from the perspective of cultivation theory (Gerbner et al., 1980). Indeed, decades of cultivation studies have shown that everyday exposure to media violence, especially on TV, directs viewers to develop emotional states, perceptions, and beliefs about social reality that are consistent with media portrayals (Chiricos et al., 1997; Jamieson & Romer, 2014; Morgan & Shanahan, 1997). Relatedly, Hermann et al.'s (2021) recent meta-analysis of cultivation research from the 1970s to the present suggests stable effects of TV viewing on audiences' perceptions of social reality. During the pandemic, Asians and Asian Americans who relied on social media for daily news reported higher levels of worry about future discrimination (Yu et al., 2020), likely because of the widespread anti-Asian sentiment on these platforms. Likewise, Asian young adults in the U.S. reported common negative feelings of fear and distress when viewing frequent media reports of physical and verbal attacks against Asians (Hahm et al., 2021). Consumption of these salient, stereotypical, and negative portrayals on news and social media sites are traumatizing for Asians and Asian Americans, resulting in detrimental impacts on their identity development, self-esteem, and sense of belonging in the U.S. (e.g., Besana et al., 2019; Oh, 2013; Wong et al., 2011). The quantity and intensity of media discrimination reported by news outlets and subsequently amplified on social media could lead to emotional responses, such as worry and anxiety, among Asians and Asian Americans.

Although media discrimination may be associated with Asians and Asian Americans' emotional response, the relationship is likely more complex than a simple direct association. Currently, there is little research on the moderation effects between personal experience (e.g., personally experienced discrimination) and media effects (e.g., media discrimination), and the few available studies provide almost opposite suggestions regarding how media discrimination might shape the emotional impact of personally experienced discrimination. For example, Shrum and Bischak (2001) found that TV viewing increased crime risk estimates only among those with elevated direct experience of crime ($\Delta R^2 = 0.024$ to 0.031). From this perspective, greater media discrimination should contribute to stronger emotional distress for those who have personally experienced discrimination. In contrast, however, Weaver and Wakshlag (1986) noted that, for people who had been victims of violent crimes, crime-related TV viewing was related to lower personal anxiety ($r = -0.57$, $p < 0.05$), likely because repeated exposure to criminal acts in media trivializes those acts and thus alleviates viewers' concern. These studies (Shrum & Bischak, 2001; Weaver & Wakshlag, 1986) suggest the existence of a "personal experience by media" moderation effect, but their suggestions are inconsistent, and the results have not been updated with more recent data from Asians and Asian Americans. Our study clarifies this moderation effect among Asians and Asian Americans in the context of COVID-19.

Overt and Subtle Discrimination in Relation to Emotional Response

Overt discrimination includes acts that are explicitly and intentionally harmful and easy to detect, such as verbal slurs, physical attacks, and vandalism; they are more likely to be reported and banned in laws (Jones et al., 2016; Noh et al., 2007). By contrast, subtle discriminatory acts are often ambiguous, unconscious, and hard to detect, and they are often overlooked by laws and news coverage (Cortina, 2008; Jones et al., 2016; Ozier et al., 2019). Microaggression is a typical type of subtle discrimination that includes intentional and unintentional manifestation of hostility, disrespect, insults, and racial slights (Harrell, 2000; Jones et al., 2016; Sue et al., 2007). Examples of subtle discrimination include following someone in a store, providing poor service (Ozier et al., 2019), denying service (Noh et al., 2007), treating a particular social group with less courtesy, or reacting as if a person is dangerous or intimidating (Jones et al., 2016).

To date, much of the literature on racial discrimination either combines the two forms of discrimination into one single scale (Fix et al., 2021; Wu et al., 2020) or measures only one form (Greenwood et al., 2017; Ozier et al., 2019). Existing studies that examine the differential effects of these

two forms of discrimination do not present consistent conclusions regarding which form is more harmful (Jones et al., 2016; Salvatore & Shelton, 2007; Singletary, 2009). Additionally, only a few studies have focused on the experiences of Asians and Asian Americans (Chan, 2020; Noh et al., 2007) or on overt and subtle discrimination in media reports and on social networking sites (Hahm et al., 2021; Ma & Miller, 2020). The lack of research on Asians'/Asian Americans' experience obscures the challenges they face, and the lack of attention paid to the differing implications of overt and subtle discrimination hinders effective prevention and intervention. These are the gaps our study intends to bridge.

Limited Scholarly Attention to Behavioral Coping

In addition to emotional response, discrimination can also induce behavioral response. Scholars often study behavioral response to discrimination from the perspective of coping, which is defined as adjustments to one's own behavior in order to address or alter imposed demands (Brondolo et al., 2009; Mellor, 2004). The literature of personally experienced discrimination has identified coping strategies such as making an effort to prevent or avoid personal injury (e.g., seeking social support, strengthening racial/ethnic identity) and seeking to punish, remediate, or address racism (Brondolo et al., 2009; Mellor, 2004). Literature on the behavioral responses to media discrimination among minority groups is virtually non-existent and deserving of empirical investigation, especially given that many have increasingly relied on TV and social media for news during the COVID-19 pandemic (Van Aelst et al., 2021). While Paterson et al. (2019) revealed that more media discrimination led to more avoidant behaviors among LGBTQ participants residing in United Kingdom (e.g., going out less often, avoiding certain places and people), it remains unknown whether Asians and Asian Americans who consume the elevated numbers of news reports on hate crimes would have similar behavioral reactions.

To the best of our knowledge, there is little empirical evidence showing how the two sources of disease-linked discrimination (experienced and media) might influence Asians' and Asian Americans' emotional and behavioral responses during the pandemic. Furthermore, few studies have distinguished between the overt and subtle forms of discrimination that arise from these two sources. To narrow these gaps, we examine the emotional responses and behavioral coping caused by racial discrimination experienced personally and via media, and we propose the following three research questions.

RQ1: How is the amount of experienced and media discrimination associated with emotional response and behavioral coping?

Table 1 Reports of discriminatory acts

Discrimination encountered	Experienced discrimination	Media discrimination
Verbal harassment/assault	95 (38.15%)	193 (77.51%)
Physical harassment/assault	16 (6.43%)	155 (62.25%)
Online message abuse on social media (e.g., Facebook, Twitter, etc.)	27 (10.84%)	99 (39.76%)
Harm or damage to personal items or property (e.g., arson, graffiti, spitting, etc.)	8 (3.21%)	103 (41.37%)
Hoax calls, text messages or emails*	4 (1.61%)	32 (12.85%)
Rejection from the admission to (e.g., public transportation, services, hotels, restaurants, parks, etc.)	4 (1.61%)	54 (21.69%)
Rejection from providing services to clients, customers, etc	12 (4.82%)	55 (22.09%)

*Removed from further analyses due to the cross-loading issue

RQ2: How does the amount of media discrimination moderate the relationship between experienced discrimination and emotional response as well as behavioral coping?

RQ3: How are the forms (overt or subtle) of experienced and media discrimination associated with emotional response and behavioral coping?

Method

Participants and Procedure

Participants were recruited from about ten Facebook groups of which the members were primarily Asians and Asian Americans residing in the United States. Research information was additionally delivered to the first author's social network through emails and text messages. Eligible participants were at least 18 years old, of Asian descent, and residing in the United States during the pandemic (from December 2019 to the time of data collection in June 2020). The final sample of this study included 249 participants ($M_{\text{age}} = 39.16$, $SD = 9.71$; 69.5% female). The majority of the participants self-identified as Taiwanese (77.9%), followed by Chinese (15.3%), other (3.6%), Korean (1.6%), Filipino (1.2%), and Japanese (0.4%). Only 5.6% of the participants were born in the U.S.; the remaining had lived in the U.S. for less than 5 years (16.5%), 5 to 10 years (18.9%), 10 to 20 years (29.3%), or more than 20 years (28.9%). Participants provided consent prior to completing the online English survey. No incentive was provided. Although the ethnic background of most participants was East Asian, a small portion was not or was unspecified. To ensure the use of inclusive language, we referred to our participants as Asians and Asian Americans but cautioned readers about the generalizability of the findings. The study was approved by the first author's Institutional Review Board.

Measures

Experienced Discrimination

We provided a list of seven discriminatory behaviors: verbal harassment/assault; physical harassment/assault; hoax calls, text messages, or emails; abuse on social media; harm or damage to personal items or property; rejection of entry (to public transportation, hotels, restaurants, etc.); and rejection of services (Table 1). The items were designed based on the incidents repeatedly reported in news media between December 2019 and June 2020 and on the national report by the Stop AAPI Hate reporting center (Jeung et al., 2021). Participants were asked to check all the anti-Asian discriminatory behaviors that had happened to them or their families, friends, or colleagues in the United States since December 2019, and a sum score ranging from 0 to 7 was calculated ($M = 0.67$, $SD = 0.89$).

Media Discrimination

Using the same list of the seven discriminatory behaviors described above, we instructed participants to check all the discriminatory behaviors against Asians and Asian Americans they had learned about from news and social media in the U.S. since December 2019 ($M = 2.78$, $SD = 2.02$; Table 1). The design is guided by literature on media effects, cultivation theory, and relevant studies (Custers & Van den Bulck, 2011; Paterson et al., 2019; Tyler & Cook, 1984). While it is plausible that distinct information sources (e.g., social media, TV, newspapers) may have differential impacts on individuals' emotions and behaviors, we chose an undifferentiated approach (i.e., we did not ask participants to differentiate between discrimination observed on different media outlets) due to the likely difficulty of recalling media sources of information. According to the Pew Research Center (Shearer & Mitchell, 2021), more than half of U.S. adults received their daily news from social media sites in 2020. It is possible that

Table 2 Exploratory factor analysis of emotional response and behavioral coping scale

	Factor loading	α	Scale mean (SD)
Emotional response		.84	2.40 (0.90)
1. I have become anxious, stressed or worried because of the concern for racist climate/acts	.82		
2. I have become vigilant when going out because of the concern for racist climate/acts	.72		
3. I worried about the safety of my family members because of their Asian traits	.76		
Behavioral coping		.80	1.61 (0.78)
1. I ordered groceries online to avoid going out because of the concern for racist climate/acts	.80		
2. When it was not a requirement yet to wear a mask in my state, I tried to cover my face (e.g., wearing a mask or sunglasses) so that people cannot easily recognize my Asian traits	.67		
3. I tried not to go out alone but with other people (e.g., family, friends, neighbors, etc.) because of the concern for racist climate/acts	.66		
4. I thought about moving (relocating) to my country of origin or to another country because of the concern for racist climate/acts	.63		

This is a 4-point Likert scale. A lower mean score reflected less impact from discrimination, and a higher mean score suggested greater impact from discrimination

participants saw episodic coverage of anti-Asian discrimination on mainstream news (e.g., Capatides, 2020; Chen, 2020) and later encountered similar news reports or personal stories on social media. Therefore, it is generally difficult for participants to pinpoint their exact source of information. The undifferentiated approach has also been used by other scholars, including in Paterson et al.'s (2019) research on the mediated experience of anti-LGBT hate crimes, and it appears to be a valid way of studying the association between media discrimination against minority groups and emotional reactions.

Emotional Response and Behavioral Coping

We presented 11 descriptions of how one may respond to experienced or observed discrimination at the emotional and behavioral levels. Four items focused on emotional responses, and the other seven focused on behavioral coping. The items were designed based on the incidents reported in news media between December 2019 and June 2020, which reflected immediate, short-term responses to pandemic-related discrimination. Participants were asked to rate how accurately each description applied to them (1 = a lot; 4 = not at all). To facilitate score interpretation, we reverse coded all the items. For all the scores presented hereafter, a lower mean score reflects a lower level of emotional response or behavioral coping (see Table 2).

Results

Emotional Response to and Behavioral Coping with the Amount of Discrimination

Exploratory factor analysis (EFA; with ML as the estimator and geomin as the rotation method) of the Emotional and Behavioral Responses to Discrimination Scale showed that the three-factor solution had the best fit: $\chi^2(25) = 58.71$, $p = 0.000$; RMSEA = 0.074, 90% CI (0.049–0.098); CFI = 0.975; TLI = 0.945. However, Factor 3 only included two items, and both cross-loaded on the other factors (with a loading difference smaller than 0.20). After removing these two items, only two factors were retained. Three items of *emotional response* loaded on Factor 1, featuring feelings of anxiety, stress, worry, and vigilance ($\alpha = 0.84$). Four items of *behavioral coping* loaded on Factor 2, featuring avoidant behaviors such as avoiding going out and avoiding being recognized as Asian ($\alpha = 0.80$; see Table 2).

To answer RQ1 and RQ2, we regressed responses to discrimination on the amount of experienced discrimination and media discrimination, respectively, and the moderation term of the two, controlling for age, gender, and length of residence in the U.S. Amounts of discrimination were centered, and the moderation term was created using

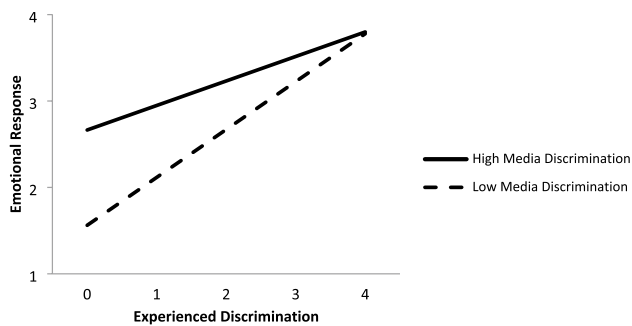


Fig. 1 Media discrimination moderated the relationship between experienced discrimination and emotional response

Table 3 Regression analysis: the amount of discrimination as independent variables

	Emotional response		Behavioral coping	
	Step 1	Step 2	Step 1	Step 2
Age	.01	.12	.02	.08
Female	.04	.05	.05	.07
Length of residence in the U.S.: Less Than 5 Years	– .16	– .02	– .05	– .01
Length of residence in the U.S.: 5 to 10 Years	– .09	– .04	.02	.03
Length of residence in the U.S.: 10 to 20 Years	– .06	.01	– .01	.00
Length of residence in the U.S.: more than 20 Years	– .15	– .06	– .06	– .04
Experienced discrimination		.42***		.46***
Media discrimination		.27***		.07
Experienced discrimination * media discrimination		– .16*		– .03
R^2 change	.02	.26***	.01	.22***
F	.64	9.98***	.27	7.64***

* $p < .05$, *** $p < .001$. The reference group for length of residence is “born in the U.S.” The regression coefficients are standardized coefficients

Table 4 Exploratory factor analysis of overt and subtle discrimination in the media

	Factor loading	α	Scale mean (SD)
Overt discrimination		.71	(1.38)
1. Verbal harassment/assault	.93		
2. Physical harassment/assault	.66		
3. Online message abuse on social media (e.g., Facebook, Twitter, etc.)	.56		
4. Harm or damage to personal items or property (e.g., arson, graffiti, spitting, etc.)	.58		
Subtle discrimination		.76	(0.74)
1. Rejection from the admission to (e.g., public transportation, services, hotels, restaurants, parks, etc.)	.92		
2. Rejection from providing services to clients, customers, etc	.87		

the centered variables. In the regression model in which emotional response served as the dependent variable, both experienced discrimination ($\beta = 0.42$, $p < 0.001$) and media discrimination ($\beta = 0.27$, $p < 0.001$) were associated with greater emotional response. Further, the moderation effect was significant ($\beta = -0.16$, $p = 0.015$); the relationship between experienced discrimination and emotional

response was less pronounced among those who observed a greater number of instances of discrimination in the media (Fig. 1). No control variable was significant. In the regression model in which behavioral coping served as the dependent variable, only experienced discrimination ($\beta = 0.46$, $p < 0.001$) was associated with greater behavioral coping. No other controlled, direct, or moderated associations were significant (see Table 3).

Emotional Response to and Behavioral Coping with Overt and Subtle Discrimination

EFA (with WLSMV as the estimator and geomin as the

rotation method) of the Media Discrimination Scale showed that the two-factor solution had the best fit: $\chi^2(8) = 6.42$, $p = 0.600$; RMSEA = 0.000, 90% CI (0.000–0.064); CFI = 1.000; TLI = 1.004. One cross-loaded item was removed. Four items of overt media discrimination loaded on Factor 1 ($\alpha = 0.71$). All these behaviors involved explicit

Table 5 Regression analysis: overt and subtle discrimination as independent variables

	Emotional response		Behavioral coping	
	Step 1	Step 2	Step 1	Step 2
Age	.01	.10	.02	.03
Female	.04	.06	.05	.08
Length of residence in the U.S.: less than 5 years	– .16	– .05	– .05	– .02
Length of residence in the U.S.: 5 to 10 years	– .09	– .05	.02	.03
Length of residence in the U.S.: 10 to 20 years	– .06	.01	– .01	– .00
Length of residence in the U.S.: more than 20 years	– .15	– .07	– .06	– .04
Experienced overt discrimination		.32***		.38***
Experienced subtle discrimination		.10		.20**
Media overt discrimination		.18**		– .06
Media subtle discrimination		.14		.14*
R^2 change	.02	.25***	.01	.24***
F	.64	8.36***	.27	7.66***

The reference group for length of residence is “born in the U.S.” The regression coefficients are standardized coefficients

* $p < .05$,

** $p < .01$,

*** $p < .001$.

aggression or violence toward a victim. On average, out of the four overtly discriminatory behaviors, participants observed slightly more than two in media ($M = 2.21$, $SD = 1.38$). Two items of subtle media discrimination loaded on Factor 2 ($\alpha = 0.76$). On average, out of the two subtle discriminatory acts, participants observed less than one in media ($M = 0.44$, $SD = 0.74$; see Table 4).

Initially, we also planned to perform EFA with the items of the Experienced Discrimination Scale. However, only 115 of the 249 participants checked at least one of the seven items, and the majority ($N = 76$) reported experiencing only one discriminatory behavior. In other words, it was unlikely that multiple items would load on the same factor. Therefore, instead of performing an EFA for these items, we used the EFA results of the media discrimination items to guide the categorization of the experienced discrimination items. On average, out of the four overtly discriminatory behaviors, participants or their networks experienced less than one ($M = 0.59$, $SD = 0.77$). On average, out of the two subtle discriminatory acts, participants or their networks experienced less than one ($M = 0.06$, $SD = 0.26$).¹

To answer RQ3, responses to discrimination were regressed on these four variables, also controlling for age, gender, and length of residence in the U.S. In the regression model in which emotional response served as the dependent variable, overt experienced discrimination ($\beta = 0.32$, $p < 0.001$) and overt media discrimination ($\beta = 0.18$,

$p = 0.009$) were both associated with greater emotional response. No control variable was significant. In the regression model in which behavioral coping served as the dependent variable, overt experienced discrimination ($\beta = 0.38$, $p < 0.001$), subtle experienced discrimination ($\beta = 0.20$, $p = 0.001$), and subtle media discrimination ($\beta = 0.14$, $p = 0.043$) were all associated with greater behavioral coping. No control variable was significant. Based on the standardized coefficients, overt discrimination (both experienced and media) had a stronger relationship with emotional response, whereas experienced discrimination (both overt and subtle) had a stronger relationship with behavioral coping (see Table 5).

Discussion

Our study provides preliminary evidence that illuminates the parallel emotional and behavioral implications of experienced and media discrimination against Asians and Asian Americans during a prolonged public health crisis. First, the findings suggest that the amount of personally experienced discrimination was associated with both emotional response and behavioral coping, whereas the amount of discrimination observed on media was only associated with emotional response. The standardized regression coefficients associated with experienced discrimination were consistently greater than those associated with media discrimination. In line with existing literature (Hahm et al., 2021; Yu et al., 2020), our survey participants who were exposed to a higher amount of media discrimination indeed reported greater

¹ Cronbach's α is not reported because it is not, given the nature of the data, an appropriate index (see Wu et al., 2020).

anxiety, vigilance, and worry. However, their behaviors did not differ from those who were less exposed to media discrimination. Compared to emotional reactions, behavioral reactions (e.g., adjusting the ways of grocery shopping) are more intentional and planned. Our findings suggested that observation of discrimination through media was not a strong motivator for behavioral reactions. In contrast, experiencing discrimination on a personal level is more traumatizing and intense than recalling news reports of discrimination. The impacts of experienced discrimination are not limited to emotional distress but also include avoidant behavioral responses intended to protect people from harm. Results corroborate the approach of distinguishing between the two sources of discrimination by revealing their differential impacts on emotions and behaviors (Custers & Van den Bulck, 2011; Tyler, 1980; Weaver & Wakshlag, 1986).

Second, the moderating role of media discrimination in the relationship between experienced discrimination and emotional response is noteworthy. The relationship between experienced discrimination and emotional response was less pronounced among those who observed a greater amount of discrimination in media, lending support to the suggestions supplied by Weaver and Wakshlag (1986). Intriguingly, although being personally victimized threatens one's well-being, witnessing other people being victimized is a buffer against the negative emotional impacts of victimization (Nishina & Juvonen, 2005). Individuals are more likely to blame themselves for unpleasant incidents that happen to them if the incidents are uncommon; knowing that they are not alone in being targeted protects their psychological well-being (Bourguignon et al., 2006). When hate incidents targeting people of Asian descent remained salient in mediated discourse, participants who were personally discriminated against may have experienced a lower level of personal responsibility, which protected them from emotional distress. Furthermore, it is possible that frequently encountering discrimination in the news and on social media increased the accessibility of crime and violence towards Asian people, leading to a high perceived victimization risk (Custers et al., 2017; Shi, 2021; Shrum et al., 2012). With heightened risk perception, minority groups might become prone to scanning the environment for risks and to preparing for possible physical attacks or verbal insults when entering public places (Yam, 2020). Increased awareness accompanied by a sense of consciousness or preparedness might direct their attention away from anxious feelings (Clark et al., 2006).

Third, the forms of discrimination (overt and subtle) revealed further nuanced effect. Overt discrimination, when experienced personally, was associated with both emotional response and behavioral coping. In contrast, overt media discrimination was associated with emotional distress only, and the effect size was smaller. These findings resonated with what we found regarding the amount of discrimination—the

discrimination experienced on a personal level appeared to have greater and a wider range of impacts. Prior research has already provided evidence of the detrimental emotional impact of overt discrimination (Crouter et al., 2006). Our study further sheds light on how this form of discrimination might influence one's behavior. Given the magnitude and scope of overt discrimination (Jones et al., 2016; Noh et al., 2007), especially if experienced personally, special attention should be paid to those who experience it. As overt discrimination might persist during and beyond the COVID-19 pandemic, social support from families and friends (Brondolo et al., 2009; Lee & Waters, 2020; Ma & Miller, 2020) as well as health professionals would be helpful in reducing negative emotions that act as buffers against racism. It is especially important to be aware of the possible long-term impacts of trauma triggered by overt discrimination against Asian Americans (Lee, 2021; Litam, 2020). In addition to individual-level support, community solidarity from within and beyond the AAPI communities is also crucial (Ho, 2021). Community support in any form (e.g., rallies, bystander intervention programs, community patrols, alliances, etc.) helps combat racism, stop violence, and create a safer environment for all individuals (Chiang, 2021).

Interestingly, both sources of subtle discrimination (experienced and media) were positively associated with behavioral coping. Our study extends the literature by revealing that subtle discrimination has behavioral implications, even when indirectly observed in the media. Although subtle discrimination might not trigger immediate anxiety or worry, as reflected by the null results in the regression models, it appears to induce avoidance and withdrawal behaviors (e.g., subjects may consider relocating or may avoid grocery shopping and use online shopping instead). While these behavioral changes may protect from injury, they may also generate a sense of disempowerment over time and lead to disengagement from the community, which will further the marginalization of Asians and Asian Americans in U.S. society (Storer et al., 2020).

Limitations

There are several notable limitations of this study. First, given that most participants' ethnic background was from East Asia, the results may be most applicable to East Asians rather than to the general Asian population in the U.S. Second, due to the cross-sectional nature of the data, directionality between the variables cannot be ascertained. Longitudinal research is needed to clarify whether discrimination leads to behavioral and emotional reactions or whether people who are preoccupied with emotional distress and behavioral disengagement are more able to detect discrimination. Third, because our goal was to differentiate media discrimination from non-media discrimination, for the experienced

discrimination scale, we did not distinguish direct discrimination (i.e., discrimination experienced by oneself) from indirect discrimination (i.e., discrimination experienced by family, friends, and colleagues).

Direct and indirect experiences of discrimination are similar in the sense that they take place on a more personal level and they symbolize the proximity of harm—people in one's social network (rather than strangers in media) have been hurt, and one can see the outcome of such discrimination (e.g., injury, harm, property damage) *in-person*. In contrast, media discrimination is not as personal but is often characterized by disturbing visuals. The similarity between directly and indirectly experienced discrimination as well as their difference from media discrimination justify the current design. However, the two types of experienced discrimination may induce varying behavioral and emotional responses, and thus future scholars are encouraged to explore their unique impact on victims' behaviors and emotions. Finally, although our measure of media discrimination is valid (e.g., Paterson et al., 2019), this measurement may mask variation in representations of discriminatory content in different channels. There may be some information channels in which content is more visually appealing and more likely to trigger emotional and behavioral reactions. Furthermore, the current measure does not allow us to determine whether different themes in news coverage and on social media impact people's emotional and behavioral responses. For instance, a news report that focuses on describing the damage done to the victims might conceivably have a different effect than one that describes the support received by the victim and the penalty paid by the perpetrator. Survey research extending our framework to analyze the possible differential impacts of each information source and of the various themes of media coverage will provide useful information about operationalizing media discrimination in a granular way.

Future Directions

Based on our findings, we suggest several directions for future research. Regarding the survey design, a bilingual approach is highly recommended. Newly arrived immigrants and older immigrants generally do not have the English proficiency to share their experiences (Chin, 2021). A design incorporating participants' native language should gain richer and more accurate responses.

Individuals may respond to racial and hate crimes with both approach-oriented and avoidance-oriented behaviors (Paterson et al., 2019; Sanders Thompson, 2006; Scott & House, 2005). Although our initial behavioral coping items included both types, only the avoidance-oriented behaviors were retained in the final scale because the approach-oriented items exhibited the cross-loading issue. Our data were

collected during the early stage of the pandemic in the U.S. in June 2020, when the Asian communities may have been in the infancy of developing approach-oriented strategies, leading to a less stable response pattern. As vaccines and treatment options were unavailable, participants may have been especially reluctant to adopt some approach-oriented strategies (e.g., joining in-person rallies) due to fear of contracting COVID-19. As time progressed, there appeared to be growing momentum for more proactive approaches and actions of solidarity, such as organizing or attending rallies in support of Asian communities, workshops debunking stereotypes associated with Asians and Asian Americans, and trainings that address anti-Asian harassment and xenophobia (Gibson, 2021). Future research should explore approach-oriented behavioral responses (e.g., confrontation, advocacy, mobilization, and community organizing) to better understand how Asian individuals and communities have evolved in their reactions to the rising anti-Asian sentiment post pandemic (Li & Qi, 2021).

Finally, we have identified several mediators and moderators that may lead to fruitful results. For example, useful information can be generated if scholars consider perceived victimization risk and preparedness (Custers et al., 2017) as mediators or moderators in the associations between direct experience of discrimination, media viewing, and emotional reactions. Furthermore, more moderation effects should be explored in the context of both experienced and media discrimination. It is possible that people with varying psychological (e.g., self-esteem), social (e.g., social support), and cultural (e.g., cultural identity) resources would respond differently to both experienced and media discrimination. Most of the potential moderators related to audiences' social and psychological characteristics remain understudied (especially in the context of media discrimination and cultivation research) and merit more future studies to investigate.

Implications

Our empirical inquiry offers timely implications for addressing racial discrimination against Asians and Asian Americans. The study is among the first few to examine the parallel health implications of personally experienced discrimination and media discrimination, both in the overt and subtle forms. Our nuanced findings revealed how discrimination was associated with Asians' and Asian Americans' emotional and behavioral responses. Personally experienced discrimination, especially in the overt form, was especially deleterious to both one's emotions and behaviors. Therefore, legislators and authorities should enact and enforce anti-racism laws and policies as well as promote prevention and intervention programs (e.g., reporting systems) to promote a sense of community inclusion of Asians and Asian Americans. With the fastest growth of Asian Americans in the U.S.

demographic change (Chiang & Lin, 2022), an important step that has long been overlooked is the incorporation of representations of the Asian American history and experience into official school curriculum of U.S. history (An, 2020), including contributions made by Asians and Asian Americans to all aspects of society, as well as the challenges and oppression that Asians and Asian Americans have faced, such as the implicit biases and stereotypes of model minority and perpetual foreigners (Joubin, 2020).

Media discrimination was associated with either negative emotions or avoidant behaviors, suggesting that the media should share the responsibility of creating a friendly environment for marginalized minorities. As research has shown that negative media portrayals and hateful comments spread through social media lead to prejudicial attitudes toward Asians (Cho et al., 2021; Crouter et al., 2006; Tsai et al., 2020), media reports are advised to move beyond reinforcing the politicized narratives and stereotypes of Asians as silent and invisible victims of hate crimes and toward emphasizing positive images of Asian Americans. Notably, subtle discrimination was consistently related in our study to avoidant behaviors, and yet this form of discrimination remains understudied because of the underreporting of these incidents and the difficulty associated with detecting it. It is essential for scholars and practitioners to unpack the multifaceted impacts of racial discrimination and to develop prevention, intervention, and advocacy programs that prepare individuals and communities to call out, intervene, and end anti-Asian racism.

Declarations

Conflict of interest Pamela P. Chiang, Chia-Chen Yang, Jiun-Yi Tsai declares that they have no conflict of interest.

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