Received 12/16/20
Revised 04/07/21
Accepted 04/28/21
DOI: 10.1002/adsp.12111

RESEARCH

Effects of COVID-19-Related Racial Discrimination on Depression and Life Satisfaction Among Young, Middle, and Older Chinese Americans

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This study examined the relationship between age and gender on Chinese American adults' (N = 184) experiences of COVID-19-related racial discrimination, depression, and life satisfaction. Results indicated that COVID-19-related racial discrimination explained 47.9% of the variance in depression, and COVID-19-related racial discrimination and depression explained 42.3% of the variance in life satisfaction.

Keywords: COVID-19, racial discrimination, Chinese Americans, depression, life satisfaction

The COVID-19 pandemic has led to a substantial rise in anti-Asian discrimination and hate incidents characterized by verbal and physical attacks, anti-Asian rhetoric, and discrimination against Asian-owned businesses (Jeung & Nham, 2020; S. Lee & Waters, 2021). Compared with other Asian American and Pacific Islander (AAPI) ethnic subgroups, individuals of Chinese descent disproportionately experience higher rates of racial discrimination and physical assaults (Ha et al., 2020; Stop AAPI Hate, 2021). Although researchers have begun to examine the deleterious effects of COVID-19-related racial discrimination on the mental health and wellness of disaggregated AAPI groups (Litam & Oh, 2020; S. Lee & Waters, 2021), the ways that pandemic-related racism affects Chinese and Chinese Americans across age and gender remain unknown.

IMPACT OF RACIAL DISCRIMINATION ON MENTAL HEALTH AND WELLNESS

The extant body of research has established the harmful effects of racial discrimination on mental and physical health (Paradies et al., 2015). In a systematic

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review, Gee et al. (2009) found a strong association between discrimination against Asian Americans and mental health problems in 37 of 40 studies. Similarly, Paradies et al. (2015) examined 293 studies and concluded that racism was significantly related to poor health among Asian Americans and Latino Americans. Indeed, experiences of racial discrimination are strongly associated with anxiety, depression (Chau et al., 2018; Hwang & Goto, 2009; Nadal et al., 2015), and sleep disturbances (Ong et al., 2017) in ways that result in poorer life satisfaction. Although the detrimental effects of racism are undisputable, the effects of COVID-19-related racism on disaggregated AAPI groups are just now forthcoming. In one study of Chinese migrants and Chinese Americans (N = 187), higher levels of COVID-19-related racial discrimination significantly predicted higher levels of depression and lower levels of life satisfaction (Litam & Oh, 2020).

DEPRESSION, LIFE SATISFACTION, GENDER, AND AGE

Among Asian Americans, depression tends to endure in ways that negatively affect life satisfaction (Kalibatseva & Leong, 2011; S. Y. Lee et al., 2014). Obtaining a deeper understanding of the ways in which intersectional identities (i.e., gender and age) affect depression and life satisfaction among Chinese Americans is important because older minority adults face the double jeopardy (Dowd & Bengston, 1978) of growing old and holding membership in a minority group. Given the double jeopardy hypothesis, special attention must also be paid to older Asian women (Jang et al., 2011), who may be more likely to exhibit symptoms of depression (Jang et al., 2011; Sato et al., 2020). According to Cole (2009), endorsing an intersectional lens in research requires "analytic approaches that simultaneously consider the meaning and consequences of multiple categories of identity, difference and disadvantage" (p. 170). Researchers are called to consider the intersectional influences of gender and age in depression and life satisfaction among Asian Americans because these factors may influence manifestation, diagnosis, and treatment (Kalibatseva & Leong, 2011).

Studies that have examined the role of gender and age in depression and life satisfaction among Asian Americans have yielded mixed results. Across a nationally representative sample (N = 1,280), no gender differences on depression were found, although older Chinese adults were most at risk for depression at around age 60 (S. Lee et al., 2013). A meta-analysis of 58 studies (N = 21,731) that examined the effects of gender and age on depression among Chinese, Korean, and Filipino Americans found no gender or age differences on the prevalence of depression (Kim et al., 2015). Although some studies have reported higher depressive symptoms among Asian women compared with Asian men (Hahm et al., 2010; Jang et al., 2011; Sato et al., 2020), other studies have failed to find significant gender differences in depression among Asian Americans (Kim et al., 2015; S. Lee et al., 2013; Yu & Chang, 2020).

RACIAL DISCRIMINATION AND AGE

A 26-year content analysis of counseling publications on aging noted that only 5.9% (n = 11) of articles focused on cultural diversity (Fullen et al., 2019). The findings from Fullen et al. (2019) established a clear call for researchers to examine the effects of racial discrimination across the life span. A study of Asian immigrants and U.S.-born Asian adults (N = 2,047) found that age was a significant predictor of whether ethnic identity exacerbated or mitigated the effects of discrimination on mental health (Yip et al., 2008). Specifically, ethnic identity was a protective factor for discrimination and mental health among U.S.-born Asian individuals ages 41 to 50 but not those ages 31 to 40 and ages 51 to 75 (Yip et al., 2008). According to a national report (N = 5,542), the majority of AAPI respondents who reported experiences of hate incidents following the COVID-19 pandemic were between ages 26 to 35 (30.3%), followed by respondents ages 36 to 45 (20.6%) and those ages 18 to 25 (17.3%; Stop AAPI Hate, 2021). In addition, AAPI respondents ages 46 to 60 and 61 to 75 who reported experiences of pandemic-related discrimination comprised 14.3% and 5.6% of responses, respectively. Understanding how COVID-19 impacts racial and ethnic groups across the life span is of paramount importance because older adults from communities of color have faced long-standing structural racism and ageism in ways that have important implications for their health and well-being (Rhee et al., 2019).

RACIAL DISCRIMINATION AND GENDER

There has been a dearth of studies examining the moderating impact of gender in racial discrimination research with Asian American groups despite evidence of its importance. According to Hahm et al. (2010), Asian women experienced more negative mental and physical health outcomes than did Asian men when faced with lower thresholds of discrimination. Following instances of racial discrimination, gender may also influence coping responses among Asian American groups (Liang et al., 2007). The results from these studies emphasize the importance of considering gender when conducting research on racial discrimination among Asian American populations (Hahm et al., 2010; Liang et al., 2007). Understanding the effects of racial discrimination on Asian men is additionally important because they occupy dual positions of privileged and marginalized identities (T. Liu & Wong, 2016). Indeed, the call to endorse intersectional perspectives to better understand the experiences of racial discrimination among Asian men has been established (Iwamoto & Liu, 2009; Lewis & Grzanka, 2016; Liang et al., 2010).

THE CURRENT STUDY

The counseling profession's emphasis on development across the life span (Kaplan et al., 2014) and the dearth of gerontology counseling research focusing on cultural diversity (Fullen et al., 2019) illuminate the importance of understanding the effects

of COVID-19-related racial discrimination among Chinese American adults from different age groups (i.e., young, middle, and older) to design culturally competent counseling interventions. The importance of understanding the role of gender and age on experiences of racial discrimination and related well-being constructs (i.e., depression and life satisfaction) has additionally been recognized (Hahm et al., 2010; Lewis & Grzanka, 2016; Liang et al., 2007; Yip et al., 2008). Therefore, this study addresses the gap in literature by examining the relationship between gender and age in experiences of COVID-19-related racial discrimination, depression, and life satisfaction among Chinese American adults from different age groups.

METHOD

Inclusion/Exclusion Criteria

To participate in the study, prospective participants were required to meet the following inclusion criteria: (a) self-identify as Chinese American or Chinese with multiracial background, (b) have either experienced or witnessed COVID-19-related racism, and (c) reside in the United States.

Participants

Initially, 257 adult Chinese Americans consented to participate and complete the study (i.e., AAPI communities, n = 180; Amazon MTurk, n = 77). Of the initial data set, we excluded 73 participants from the analysis for not meeting the inclusion criteria, responding to less than 70% of the entire survey items, showing random or identifiable patterns of responses, or not providing the essential demographic information (e.g., age or gender) for the study. This resulted in a final sample of 184 Chinese American participants (71.6% usable response rate). Approximately 55% of participants identified as female (n =102) and 82 participants (45%) identified as male. The mean age overall was 31.26 years (SD = 9.6, range = 16–63 years). For meaningful analysis and interpretation, participants were divided into three age groups: (a) young age group (16–34 years; n = 142), (b) middle age group (35–54 years; n = 34), and (c) older age group (55 years or older; n = 8). Within our sample, more than half of participants reported both experiencing and witnessing instances of COVID-19-related racism (59.2%, n = 109), followed by participants who reported only witnessing (36.4%, n = 67) and only experiencing (4.4%, n = 8) instances of COVID-19-related racism.

Sampling Procedure

We obtained approval from the university institutional review board prior to the collection of data. Participants were recruited from AAPI community email lists, social media sites (i.e., LinkedIn), and Amazon MTurk. Qualtrics (http://www.qualtrics.com) was used to create an electronic assessment packet that consisted of a demographic form and three instruments. Consenting participants were informed they could end the survey at any time, completing the survey was optional, and the results would not directly benefit them. Participants from MTurk

received a $0.50 as compensation to complete the online survey. Three screening questions were included on the Amazon MTurk survey to monitor data quality and required participants to select a certain response option. Twenty-four participants (31.2%) were screened out of the sample for selecting incorrect responses.

Measures

Demographics and background form. A demographic and background form was created to gather participant information. Participants responded to questions related to their age, gender, highest level of education, and race/ethnicity. Two additional items assessed the occurrence and frequency of COVID-19-related racial discrimination.

Discrimination experience. The Everyday Discrimination Scale (EDS; Williams et al., 2008) was adapted with COVID-19-related specifiers to measure participants' experiences of pandemic-related discrimination. The prompt (i.e., "Since the COVID-19 outbreak") was added before each item to specifically measure experiences of everyday discrimination within the context of the COVID-19 pandemic. Participants rated their responses to items on a 5-point Likert-type scale ranging from *never* (0%) to *always* (100%). Sample items included "Since the COVID-19 outbreak, I have been treated with less respect than other people" and "Since the COVID-19 outbreak, I was threatened or harassed." The reliability of scores on the EDS was .90 (Bernstein et al., 2011). In the current study, reliability for the EDS total score was .96.

Satisfaction with life. The Satisfaction With Life Scale (SWLS; Diener et al., 1985) is a five-item scale that measures global beliefs toward life satisfaction. Participants rated their responses on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Higher scores on the SWLS indicate greater life satisfaction. Sample items include "In most ways my life is close to ideal" and "If I could live my life over, I would change almost nothing." The reliability of the SWLS was .87, with a test-retest reliability score of .82 (Diener et al., 1985). In this study, the reliability score for the SWLS was .90.

Depression. The Center for Epidemiologic Studies Depression Scale–Revised (CESD-R; Van Dam & Earleywine, 2011) is a 20-item scale that measures symptoms of depression. The CESD-R consists of two subscales: Functional Impairment (12 items) and Negative Mood (eight items). Participants rated their responses on a 5-point Likert-type scale ranging from 1 (*not at all or less than one day*) to 5 (*nearly every day for 2 weeks*). Sample items include "I felt depressed" and "I lost interest in my usual activities." The reliability of the CESD-R was .92 (Van Dam & Earleywine, 2011). In this study, the reliability score was .97.

Data Diagnostics

Data were examined for missing values and statistical assumptions. An analysis of missing data indicated that three participants (1.6%) missed either age or gender items. As described in the Participants section, these three participants

were removed from the data analysis given the essential aspect of such values in the study and the less-than-minimal proportion of missingness in data (Osborne, 2013). Skewness values ranged from –.89 to .98 and kurtosis values ranged from –1.25 to 1.84, which support an acceptable range of data normality (Garson, 2012). However, visual investigations of plots (i.e., histogram and Q-Q [quantile-quantile] plots) showed a moderate degree of skewness in the data distribution, which was further evidenced by the significant value (p < .01) of the Shapiro-Wilk test. Therefore, data were considered to be moderately skewered at univariate level, which suggested multivariate nonnormality (Mvududu & Sink, 2013). Multicollinearity in data was absent, as evidenced by variance inflation factor values less than 10 and tolerance values greater than .10 (Tabachnick & Fidell, 2019). The linearity of data was supported by visual examination of bivariate scatterplots. Therefore, despite the moderate skewness of data distribution, our data were considered to be appropriate for regression analysis (Tabachnick & Fidell, 2019). Regression analysis also tends to produce inconsequential results with small to moderate violation of data normality (Tabachnick & Fidell, 2019).

Analytic Strategy, Sample Size, Power, and Precision

We used a multiple linear regression (MLR) to determine the relationship between racial discrimination, depression, and life satisfaction. In addition, we conducted a factorial analysis of variance (ANOVA) to explore the influence of age, gender, and their interaction on experiences of COVID-19-related racial discrimination, depression, and life satisfaction. Regarding effect size, we consulted Cohen's (1988) benchmarks to define small (η_p^2 = .01), medium (η_p^2 = .06), and large (η_p^2 = .14) effects sizes. A final sample size of 184 was deemed sufficient for detecting a medium effect size at a p value of .05 with power of .80 (Cohen, 1992).

RESULTS

Preliminary Analysis

Scores on COVID-19-related racial discrimination were the highest for Chinese Americans who both experienced and witnessed the racial discrimination (M = 25.31, SD = 9.08), followed by those who only experienced (M = 25, SD = 11.05) and those who only witnessed (M = 16.78, SD = 8.06) the discrimination. Similarly, depression scores were highest among Chinese Americans who both experienced and witnessed COVID-19-related racial discrimination (M = 55.19, SD = 21.23), followed by those who only experienced (M = 50, SD = 27) and those who only witnessed (M = 40.88, SD = 18.40) the discrimination. Scores of life satisfaction were highest among Chinese Americans who only witnessed COVID-19-related racial discrimination (M = 25.36, SD = 5.93), followed by those who both experienced and witnessed (M = 22.40, SD = 6.95) and those who only experienced (M = 20.88, SD = 8.27) the discrimination.

Relationship Between Racial Discrimination, Depression, and Life Satisfaction

An MLR was conducted to assess the relationship between COVID-19-related racial discrimination, depression, and life satisfaction. These results are presented in Table 1. First, MLR was applied to depression as the outcome variable and COVID-19-related racial discrimination as the predictor variable. COVID-19-related racial discrimination ($\beta = .69$, $p < .001$) explained 47.9% ($R^2 = .479$) of the variance in depression. Specifically, every unit increase in the racial discrimination was a .69 unit increase in level of depression. Subsequently, an MLR was also applied to life satisfaction as the outcome variable with COVID-19-related racial discrimination and depression as the predictor variables. Overall, the two predictor variables accounted for 42.3% ($R^2 = .423$) of the variance in life satisfaction. Specifically, every unit increase in COVID-19-related racial discrimination ($B = –0.20$, $p < .05$) resulted in a .20 unit decrease in life satisfaction. Every unit increase in depression ($B = –0.50$, $p < .001$) resulted in a .50 unit decrease in life satisfaction.

Gender, Age, and COVID-19-Related Racial Discrimination

We conducted an MLR analysis to examine the relationship between COVID-19-related racial discrimination and gender and age. The predictive variables (gender and age) together were significant predictors of the total score on COVID-19-related racial discrimination, $F(2, 181) = 14.63$, $p < .001$, accounting for 13.9% variance in the score. When we examined each variable, gender was the only significant predictor of the total score on racial discrimination ($B = .36$, $p < .001$).

A factorial ANOVA was conducted to explore the impact of gender and age on levels of COVID-19-related racial discrimination (see Table 2). There was no significant difference between the three age groups, $F(2, 178) = 0.33$, $p > .05$. However, there was a statistically significant main effect for gender, $F(1, 178) = 7.31$, $p < .05$, with a small effect size ($\eta_p^2 = .04$). Further comparison tests revealed that the mean score for men ($M = 25.65$, $SD = 9.55$) was significantly different from the mean score for women ($M = 19.01$, $SD = 8.58$). The main effect for the interaction effect, $F(2, 178) = 4.75$, $p < .05$, was also statistically significant with a small effect size ($\eta_p^2 = .05$). Further investigation

TABLE 1

Results From Multiple Linear Regression Between COVID-19-Related Racial Discrimination, Depression, and Life Satisfaction

	Depression			Life Satisfaction		
Variable	***B***	***SE***	β	***B***	***SE***	β
Racial discrimination	1.54	0.12	.69**	–0.20	0.06	–.14*
Depression				–0.50	0.03	–.16**
R^2		.479			.423	

*$p < .05$. **$p < .001$.

TABLE 2

Analysis of Variance for the Study Variables

	Racial Discrimination			Depression			Life Satisfaction		
Variable	***F***	***df***	η_p^2	***F***	***df***	η_p^2	***F***	***df***	η_p^2
Gender	7.31*	(1, 178)	.04	2.35	(1, 178)	.01	2.03	(1, 178)	.01
Age	0.33	(2, 178)	.00	4.50*	(2, 178)	.05	1.85	(2, 178)	.02

*$p < .05$.

of the interaction effect (see Figure 1) indicated that male participants in the young age group reported significantly higher levels of racial discrimination experiences ($M = 24.65$, $p < .005$) than female participants ($M = 19.33$) in the same age group. Similarly, male participants in the middle age group also indicated significantly higher levels of racial discrimination experiences ($M = 30.95$, $p < .001$) than female participants ($M = 15.77$) in the same age group. Finally, male participants in the middle age group ($M = 30.95$) experienced a significantly higher level of racial discrimination ($p < .05$) than male participants in the young age group ($M = 24.66$).

Age, Gender, and Depression

We used MLR analysis to explore the relationship between depression and gender and age. Gender and age together were nonsignificant predictors of total scores on depression ($p > .05$). A factorial ANOVA was used to examine the differences

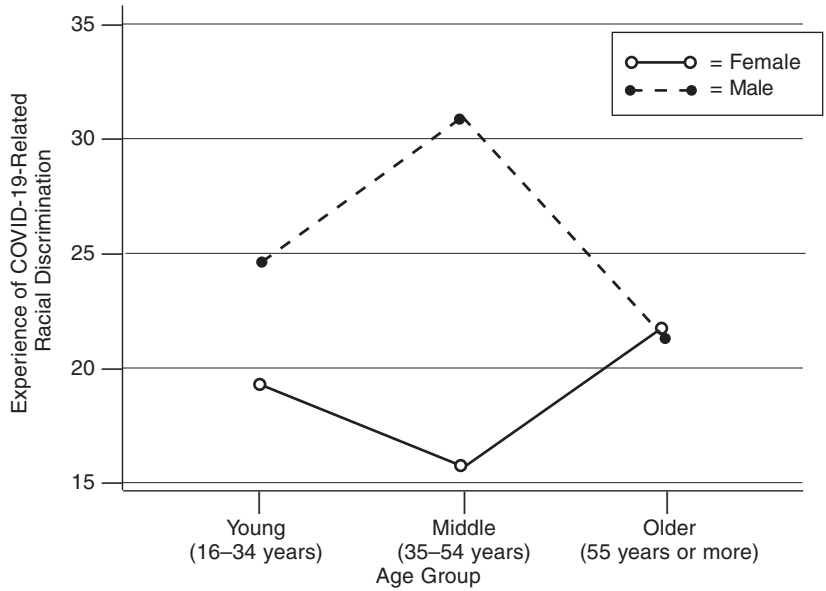

FIGURE 1

Interaction Effect of Age and Gender in Experience of COVID-19-Related Racial Discrimination

in the scores on depression based on gender and age. Findings from the analysis indicated that there were no significant differences in the scores on depression between men and women, $F(1, 178) = 2.35$, $p > .05$. However, the scores on depression were significantly different based on the three age groups, $F(2, 178) = 4.50$, $p < .05$, with a small effect size ($\eta_p^2 = .05$). Further comparison test indicated that the mean score for the young age group ($M = 49.68$, $SD = 20.49$) and the middle age group ($M = 55.26$, $SD = 24.64$) was significantly different from that of the older age group ($M = 27.75$, $SD = 8.55$). In addition, the interaction effect between gender and age was statistically significant, $F(2, 178) = 5.23$, $p < .05$, with a medium effect size ($\eta_p^2 = .06$). Further examination of the interaction effect indicated that male participants in the middle age group experienced significantly higher levels of depression ($M = 65.10$, $SD = 23.36$, $p < .001$) than female participants ($M = 39.38$, $SD = 17.81$) in the same age group. Furthermore, male participants in the middle age group reported significantly higher level of depression ($M = 65.10$, $SD = 23.36$, $p < .05$) than those in the young age group ($M = 49.60$, $SD = 21.76$) and the older age group ($M = 52.78$, $SD = 23.27$).

Life Satisfaction

We used MLR analysis to examine the relationship between life satisfaction and gender and age. Neither gender nor age either together or separately was a significant predictor of total scores on the life satisfaction scale ($p > .05$). A factorial ANOVA was used to explore the differences between the scores on life satisfaction based on gender and age. Levene's test suggested that the dependent variables were distributed equally across group ($p > .05$). There were no significant differences in the scores on life satisfaction between gender, $F(1, 178) = 2.03$, $p > .05$, or the three age groups, $F(2, 178) = 1.85$, $p > .05$. However, the interaction effect between gender and age was statistically significant, $F(2, 178) = 7.43$, $p < .005$, with a medium effect size ($\eta_p^2 = .08$). Further investigation of the interaction effect indicated that women in the middle age group reported significantly higher levels of life satisfaction ($M = 27.62$, $SD = 5.69$, $p < .001$) than men in the same age group ($M = 18.62$, $SD = 5.59$).

DISCUSSION

The results of this study contribute to the cultural diversity–focused gerontology counseling research (Fullen et al., 2019) by examining the relationship between COVID-19-related racial discrimination, depression, and life satisfaction among Chinese Americans and endorsing an intersectional approach to understand how age and gender influence each construct. Our multiple regression analysis identified a negative predictive influence of COVID-19-related racial discrimination and depression on life satisfaction. More specifically, Chinese Americans' depression was predicted by their experiences of COVID-19-related racial discrimination, which explained 47.9% of the variance. Our findings are similar to a previous study wherein perceived general stress and perceived racial discrimination accounted for 53% of the variance in depression among Asian Americans (Wei et al., 2010).

Compared with a previous study by C. M. Liu and Suyemoto (2016) indicating that racial discrimination explained only 2% of the variance in depression among Asian Americans, our study explained 47.9% of the variance. A possible explanation for the inconsistency between our finding and C. M. Liu and Suyemoto's may be attributed to the differences in research design, measurements used, and the demographic makeup between our sample and theirs. In addition, our regression analysis indicated that racial discrimination and depression negatively predicted levels of life satisfaction among Chinese Americans, explaining 42.3% of the variance in life satisfaction. This result is comparable with previous studies (Gee et al., 2007; Litam & Oh, 2020) that determined how racial discrimination negatively affects levels of satisfaction via increased levels of depression among Asian Americans.

To further understand the intersectional influences of age and gender on experiences of racial discrimination, we conducted a multiple regression and ANOVA. On the basis of our findings, gender was the only significant predictor and produced a significant difference in levels of racial discrimination experiences, with a small effect size. Chinese American men in our study reported higher levels of discrimination compared with Chinese American women. Our findings additionally indicated that the intersectional influence between age and gender produced a significant effect for experiences of racial discrimination. Specifically, Chinese American men from the young age group (ages 16–34) and middle age group (ages 35–54) reported significantly higher levels of racial discrimination compared with women in the same age groups, with Chinese American men from the middle age group reporting the highest rates of racial discrimination. Although our results are consistent with a study by Yip et al. (2008), which found that Asian Americans from their young age group (ages 18–40) and middle age group (ages 41–50) reported higher rates of racial discrimination than those in the older age group (ages 51–75), our findings are inconsistent with a meta-analysis that reported higher rates of racial discrimination among women (Carter et al., 2019) and counter findings from Stop AAPI Hate (2021), which reported higher rates of racial discrimination among women (64.8%) compared with men (29.8%).

The mixed results of the intersection of age and gender evidence the complexity of our findings and highlight the need for further investigation. Because our findings on the effect of age are consistent with the literature, our results support notions that older adults develop stronger resilience, better coping strategies, and greater maturity as they age. In line with life-span development theory, older individuals may be more likely to internalize a strong sense of self and acceptance of their intersectional identities in ways that buffer against discrimination compared with younger individuals in earlier stages of their identity formation process (Erikson, 1968). One possible explanation related to our findings on gender may be that the Chinese American women in our study attributed their discrimination experiences to gender (e.g., sexism) rather than to race. In a patriarchal society in which men hold social power and privilege, women of color face intersecting forms of discrimination (i.e., sexism and racism) that may be

difficult to disentangle. In a similar vein, current measures of racial discrimination may not adequately capture women's experiences of racial discrimination. Given the nature of double oppression, women of color experience unique forms of racial discrimination, including biased treatment related to physical appearance and partner choice (Seaton & Tyson, 2019), which are not measured by existing scales of racial discrimination (Ifatunji & Harnois, 2015).

Although gender was not a significant factor for levels of depression, each of the three age groups in our study reported significantly different levels of depression within the context of COVID-19-related racial discrimination, with the young and middle age groups reporting significantly higher levels of depression than the older age group. Further examinations at the intersection of age and gender resulted in a significant difference between levels of depression. Specifically, Chinese American men from the middle age group reported more severe levels of depression than Chinese American women in the same age group and compared with the other two age group across both genders. This result is inconsistent with previous studies that reported higher levels of depression among women (Hahm et al., 2010; Jang et al., 2011; Sato et al., 2020) and research that indicated gender was not a significant predictor of depressive symptoms among Asian Americans (Kim et al., 2015; S. Lee et al., 2013; Yu & Chang, 2020). One possible explanation for our findings may be that Chinese American men in our study face higher rates of depression because a growing number of Americans blame China and Chinese people for the pandemic. This hypothesis is supported by results from a poll that indicated 73% of U.S. adults had an unfavorable view of China (Silver et al., 2020), as well as the results from a study by the Center for Public Integrity and the Independent Polling System of Society (Ipsos, 2020) indicating three in 10 Americans blamed China or Chinese people for the pandemic. The ways in which anti-Asian attitudes may have disproportionately affected the Chinese American men in our study can be further corroborated by the extant body of research that clearly evidences harsher punishment for boys and men from diverse racial and ethnic groups (Skiba et al., 2002; Steffensmeier et al., 2016). It is therefore possible that Chinese American men are being disproportionately targeted for discrimination in ways that result in higher rates of depression.

Finally, age and gender separately and together were not significant predictors for level of life satisfaction among Chinese Americans. However, the intersection effect between age and gender was significant in that women in the middle age group reported higher levels of life satisfaction than their male counterparts in the same age group. This result is contrary to a previous study (Yu & Chang, 2020) in which gender and age did not explain a significant amount of variance in life satisfaction. The unique finding from our study may be attributed to other supportive factors (e.g., ethnic identity, coping strategy, social support, resilience, personal and relational meaning in life) that may have strengthened levels of life satisfaction or weakened the deleterious effects of external stressors. For example, Liang et al. (2007) posited that male and female Asian Americans relied on different

coping strategies (e.g., support seeking vs. active coping) when faced with racism-related stress. Future research would benefit from an investigation of the role of other protective factors in life satisfaction among Chinese Americans, and Asian Americans more broadly, at the intersection of gender and age.

Clinical Implications for Counselors

Following the COVID-19 pandemic, communities of color, including Chinese Americans, are forced to contend with challenges that are not shared by their White counterparts (Litam & Hipolito-Delgado, 2021). The findings from this study highlight the need for professional counselors to endorse an intersectional approach that considers the role of age and gender when counseling Chinese Americans facing COVID-19-related racial discrimination. Given that depression among Chinese Americans was associated with experiences of pandemic-related discrimination, counselors must be prepared to use culturally sensitive strategies to help Asian Americans raise their critical consciousness and use coping responses that mitigate the effects of race-based trauma and COVID-19-related discrimination (see Chan & Litam, 2021; Litam, 2020; Litam & Oh, 2020). Professional counselors can learn strategies to support Chinese Americans during the pandemic by consulting earlier literature (see Litam, 2020; Litam & Oh, 2020) and research on related topics. Litam and Oh's (2020) study of Chinese Americans revealed that higher levels of disengagement and engagement coping responses moderated the relationship between depression and life satisfaction, and higher levels of ethnic identity moderated the relationship between COVID-19-related discrimination and depression. Taken in combination with our findings, professional counselors may encourage Chinese American men from the middle age group (35–54 years) to strengthen their ethnic identities and cultivate coping responses by leveraging social, spiritual, and/or community supports to begin processing their experiences of discrimination and mitigate the effects of depression.

The racial discrimination experiences among middle-aged Asian men are important because Asian men occupy both privileged and oppressed identities (T. Liu & Wong, 2018). Professional counselors must therefore consider how harmful sociopolitical messages from the media and society combine with aspects of systematic and structural racism in ways that position men from minoritized groups to face harsher punishments (Skiba et al., 2002; Steffensmeier et al., 2016). Rather than overlooking these experiences, it would behoove counselors to help Chinese American clients cultivate coping responses, either direct or indirect, while engaging in advocacy for diverse clients by endorsing an antiracist stance within professional and personal realms.

Limitations and Future Research

The findings from this study must be interpreted within the scope of its methodological limitations. First, cross-sectional and retrospective research designs limit directionality and causality of the findings. All the survey items were completed

at the same time and required participants to respond based on memory recall. Therefore, given the correlational nature of our findings, causality of the effects in the present study may not be determined. Future research would benefit from using longitudinal research whereby each study variable is measured at different time points to understand better causality of the effects. Second, a relatively small sample size of the older age group (n = 8) limits implications of our finding regarding effects of age; therefore, it is important not to overstate the effects of age found in this study. Future researchers would benefit from recruiting participants from diverse age groups, including more older adults. Last, other study variables that were not included in this study may confound or influence how individuals with different gender and age groups experience racial discrimination, depression, and life satisfaction. Future studies would benefit from including protective variables (e.g., ethnic identity, resiliency, coping strategy) that may explain variance in experiences of racial discrimination, depression, and life satisfaction.

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