



# Racism and Stress-Related Growth Among Asian Internationals: Ethnic Identity, Resilience, and Coping During COVID-19

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Accepted: 17 October 2022

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## Abstract

Experiences of anti-Asian discrimination following COVID-19 has deleterious effects on the mental health of Asian internationals residing in the United States. In this study, hierarchical regression models and Hayes' PROCESS models were used to examine the main effect and moderating effect of ethnic identity, coping strategy, and resilience on stress-related growth among Asian international students and workers ( $N=237$ ) in the United States who experienced racism during the pandemic. The findings indicated coping strategies and resilience were significantly associated with stress-related growth. Ethnic identity and coping strategies additionally moderated the link between the experience of racism and stress-related growth.

**Keywords** Asian international students and workers · COVID-19 racism · Coping · Ethnic identity · Resilience

## Introduction

The COVID-19 pandemic has led to the resurgence of anti-Asian discrimination including verbal and physical harassment, discrimination, and xenophobic public rhetoric (Jeung & Nham, 2020; Litam, 2020). Asian international students and workers (AISW) in the U.S. may encounter similar xenophobic incidents, given that Asian Americans and Asian internationals are often perceived as one homogeneous “Asian” group (Iwamoto & Liu, 2010; Wang et al., 2019). For example,

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approximately 17% of international students studying in the U.S. reported experiencing xenophobic incidents during the pandemic that threatened their safety and presence (Chirikov & Soria, 2020). Although both Asian Americans and AISWs face anti-Asian discrimination, AISWs may encounter distinctive experiences with racism due to their unique upbringing and background, personal and sociocultural resources, and race-related experiences (Wang et al., 2019). Because ASIWs are often aggregated into one monolithic Asian entity (Houshmand et al., 2014), their unique experiences with racism may also be underreported and understudied (Chong & Razek, 2014; Kim & Kim, 2010). The current study addresses this literature gap by examining how AISW's ethnic identity, resilience, and coping strategies impact subtle and blatant experiences of racism as well as predict stress-related growth during the COVID-19 pandemic.

## Asian International Students and Workers

According to the Institute of International Education (2019), Asians comprise approximately 64% of the U.S.'s international student population in higher education institutions. In addition, one-quarter of foreign-born workers in 2019 were Asian (U.S. Department of Labor, 2020). Though limited, there has been a growing body of research on the relationship between AISW's experiences with race-related discrimination and psychological consequences. Notably, the extant body of research has indicated that Asian international students reported more frequent incidents of racial discriminations compared to other racial and/or ethnic groups of international students (Lee & Rice, 2007; Ruble & Zhang, 2013) and that experiences of perceived discrimination were positively correlated to psychological distress and poor well-being (Wang et al., 2013, 2019; Wei et al., 2012). For example, Zhai and Du (2020) reported that international Chinese students have to experience an increasing number of COVID-19 fueled discrimination and hate crimes. South Asians living in the US also reported higher rates of race-related discrimination experience in institutional settings, racial slurs, and harassment than their White counterparts (McMurtry et al., 2019).

Despite the prevalence of international students and workers in the U.S, the ways in which this unique population experiences subtle and blatant forms of racial discrimination has received considerably less analytic attention. AISW's racial discrimination experiences during COVID-19 may be distinct from Asian Americans' due to their uniqueness in background and upbringing (e.g., view of help-seeking behaviors, religious backgrounds, different visa status, etc.), difficulty obtaining helpful resources, and ethnic identity salience (Wang et al., 2019). To the best of our knowledge, no studies exist regarding how these various factors may predict stress-related growth among AISWs following COVID-19. The following sections review the constructs of ethnic identity, coping, and resilience and describe their relevance to stress-related growth among ASIWs who experienced racial discrimination.

## Ethnic Identity

Ethnic identity, the sense of affiliation and belonging an individual has towards their ethnic group (Phinney, 1992), may be an important sociocultural resource that helps promote positive psychological growth and change. According to social identity theory (SIT; Tajfel & Turner, 1979), members of ethnically/racially minoritized groups may focus on positive aspects of their ethnic groups to protect or improve their overall self-concept and well-being following stressful or traumatic instances (i.e., racism). That is, individuals who endorse higher levels of ethnic identity may be able to rely on the positive characteristics of their ethnic group to mitigate the negative effects of racism and cultivate stress-related growth. The extant body of research indicates that ethnic identity may serve as a protective factor that attenuates the deleterious effects of race-related stress on the mental health of Asian Americans (Litam, 2020; Litam et al., 2021; Yip et al., 2019). For example, ethnic identity weakened the association between racial discrimination and depressive symptoms among Filipino Americans (Mossakowski, 2003), Chinese American youth (Rivas-Drake et al., 2008), and Chinese American adults (Litam, 2020). Higher levels of ethnic identity were also related to stress-related growth in a national sample of Asians as well as Asian Americans and Pacific Islanders (AAPIs; Litam et al., 2021).

Although ethnic identity may serve as a protective factor among Asian Americans, it remains unknown whether this construct reduces the negative impact of racial discrimination and promotes stress-related growth among AISWs. Ethnic identity may be less visible, meaningful, and salient among AISWs who generally come from more homogenous cultures (Phinney, 1992). Conversely, Asian Americans may be forced to cultivate their ethnic identity more consciously given their social positioning as minoritized beings in a racialized society. The salience of ethnic identity among minoritized groups must be critically considered because the strength of one's ethnic identity may be associated with greater awareness and anticipation of racial discrimination incidents (Alvarez & Helms, 2001). Because experiences of perceived discrimination may impact Asian Americans and AISWs in different ways (Neville et al., 2000; Wang et al., 2019), it is important to explore how ethnic identity might serve as a moderator of racial discrimination on psychological and stress-related growth among ASIWs.

## Coping Strategy

Coping strategies are the cognitive and behavioral adaptive processes of responding, interpreting, and reframing stressful events in ways that shape one's reactions and experiences (Lazarus & Folkman, 1984). Coping responses may be categorized as either problem-focused, emotion-focused, or avoidance-focused strategies (Billings & Moos, 1984; Lazarus & Folkman, 1984). Problem-focused strategies include behaviors directly aimed at removing the source of stress (e.g.,

racism; Carver et al., 1989). For example, ASIWs who engage in problem-focused strategies may cope with racial discrimination by directly challenging individuals or institutions that perpetuate racism. On the other hand, emotion-focused strategies focus on mitigating the emotional consequences of stressful or traumatic experiences on well-being (Carver et al., 1989). For example, ASIWs who use emotion-focused strategies may seek out emotional support from Asian American or ASIW community support groups. Lastly, avoidance-focused strategies involve behavioral attempts to evade stressful or traumatic events (Carver et al., 1989). ASIWs who use avoidance-focused coping strategies may respond to racial discrimination experiences by isolating themselves from friends or family and using alcohol and/or other substances.

Although researchers have identified the moderating role of coping in the links between racial discrimination, mental health, and stress related growth (SRG) among Asian Americans (Litam, 2020; Prati & Pietrantonio, 2009; Tweed & Conway, 2006), only four studies examined whether different coping responses served as protective factors of well-being and SRG among ASIWs following race-related stress (Litam et al., 2021; Houshmand et al., 2014; Tsai & Wei, 2018; Wei et al., 2008). In a qualitative study, coping responses to racial microaggression varied based on country of origin and language proficiency (Houshmand et al., 2014). In a quantitative study, Tsai and Wei (2018) identified a significant positive relationship between racial discrimination and SRG among Chinese international women who utilized internalization coping responses. Wei et al. (2008) pointed out that infrequent use of reactive coping weakened the link between perceived discrimination and depression symptoms for Asian international students from China, India, Korea, Taiwan, and Hong Kong. Finally, coping strategies such as self-blame, use of religion, humor, substance abuse, venting, denial, and behavioral disengagement strategies moderated the relationship between racism experiences and stress-related growth among Asians and AAPIs (Litam et al., 2021). Given the paucity of studies that examined how coping differs between Asian Americans and AISWs following racial discrimination, it is important to further examine the moderating role of different coping strategies to mitigate the effects of racial discrimination and cultivate strategies for stress-related growth among AISWs.

## Resilience

Resilience refers to personality traits or characteristics that help individuals overcome sociocultural adversity and predict positive outcomes (Egeland et al., 1993; Wagnild & Young, 1993). The extant body of literature has identified resilience as an important personal resource for successful adaptation and a protective factor that buffers the development of psychological distresses (Wagnild & Young, 1993). Thus, individuals who endorse higher levels of resilience may be better positioned to effectively respond to traumatic events and reframe stressful incidents into meaningful life experiences (Wagnild & Young, 1993). The protective role of resilience in the relationship between adversity and mental health concerns has been documented in the empirical literature. Several studies have reported that higher levels of

resilience predicted lower rates of mental health concerns (e.g., anxiety, depression; Deng et al., 2020; Hjemdal et al., 2011; Litam et al., 2021) and served as a moderator that reduced the risk of attempted suicide among childhood trauma survivors (Roy et al., 2011). In the context of Asian communities, resilience was associated with lower levels of psychological distress and greater life satisfaction for Vietnamese Americans (Le et al., 2020), fewer depressive symptoms for Korean Americans with traumatic experiences (Bernstein et al., 2017), and lower rates of posttraumatic symptoms among foreign-born Filipino American women (Reyes et al., 2020).

One quantitative study examined the protective role of resilience among ASIWs. In a study with Chinese adolescents, Shi et al., (2016) reported that resilience moderated the link between left-behind experiences and mental health problems. Despite the study's findings, the generalizability of these results to ASIWs residing in the U.S. is limited. Indeed, ASIWs may have different cultural experiences that impact the role of resilience. For instance, one study identified a negative relationship between resilience and traumatic symptoms for foreign-born Filipino American women but not for their U.S.-born counterparts (Reyes et al., 2020). These findings may indicate the presence of different cultural norms between Asian Americans and ASIWs (Reyes et al., 2020). We found no research focusing solely on ASIWs in the U.S. that investigated the direct relationship of resilience with stress-related growth or that examined the moderating role of resilience against traumatic events. Based on the dearth of research, further examination is necessary to understand the possible protective role of resilience in promoting stress-related growth among AISWs following racial discrimination.

## **Stress-Related Growth and Race-Related Stress**

Stress-related growth (SRG; Tedeshi & Calhoun, 1996) refers to positive adaptations following stressful events that may be observed in three areas: (a) increased depth in life perspectives, (b) cultivation of meaningful relationship with others, and (c) positive change in views of the self and the others (Joseph, 2009). The extant body of research has documented that race-related stress directly contributed to poor mental health and well-being for Asian Americans (Lee & Ahn, 2011; Litam, 2020; Litam et al., 2021) and AISWs (Wang et al., 2013, 2019; Wei et al., 2012). Although race-related stress has been well established as a risk factor for poorer psychological wellbeing, individual who experience race-related stress may not develop psychological disorders or negative outcomes.

Events may be interpreted as stressful or traumatic when they cause a severe disturbance to one's way of understanding and interpreting the world (Tedeshi & Calhoun, 1996; Tweed & Conway, 2006). In other words, how individuals understand, reframe, ascribe meaning to, and label their experiences play an important role in determining whether events are experienced as stressful or as an opportunity for stress-related growth (Joseph, 2009; Tedeshi & Calhoun, 1996). Therefore, understanding how personal and sociocultural resources (i.e., ethnic identity, coping strategies, resilience) impact how AISWs interpret stressful events (i.e., racism during COVID-19) and

promote SRG is of paramount importance to support this unique population and disaggregate AISW experiences from the Asian monolith.

## Current Study

The current study examines whether ethnic identity, coping, and resilience moderates the deleterious impact of race-related stress and promotes SRG among AISWs during the COVID-19 pandemic. The conceptual framework of this study is presented in Fig. 1. The following hypotheses were formulated: *Hypothesis 1*: subtle and blatant racism, ethnic identity, coping, and resilience will be significantly associated with SRG among Asian international students and workers. *Hypothesis 2*: The association between subtle and blatant racism and SRG will be moderated by ethnic identity, coping, and resilience, after controlling for sociodemographic variables (gender, age, level of education, sexual identity, income level, international status, and religious affiliation), help-seeking behaviors, and barriers to access mental health service.

## Method

### Participants and Procedures

Participants were invited through AAPI community organizations ( $n = 10$ ) and Amazon Mechanical Turk (MTurk;  $n = 399$ ). Prospective participants were required to (a) identify as Asian with an international status, (b) hold current residence in the U.S., and (c) have experienced either subtle or blatant racism following COVID-19. Although a total of 409 participants completed the study, inclusion criteria was not met for 89 cases and were removed. An additional 79 participants either completed less than half of the items or answered all items with identifiable patterns of responses and were removed. Finally, four extreme cases were identified at the multivariate level and were removed, yielding a final sample of 237 (57.9% usable response rate). The mean age of participants was 33.41 years ( $SD = 8.94$ ), with a range of 18 to 72 years. International Asian participants in our study reported their ethnicity as Chinese ( $n = 95$ , 40.1%), Korean ( $n = 36$ , 15.2%), Indian ( $n = 29$ , 12.2%), Filipino ( $n = 25$ , 10.5%), Vietnamese ( $n = 25$ , 10.5%), Japanese ( $n = 19$ , 8.1%), and not wanting to disclose ( $n = 8$ , 3.4%). Most participants identified as international workers (70.5%,  $n = 167$ ) and 29.5% ( $n = 70$ ) identified as international students. See Table 1 for participant demographics.

Institutional Review Board (IRB) approval was obtained before beginning the study. No monetary compensation was offered to participants who were recruited from AAPI organizations. The study was posted on Amazon MTurk, an online platform for data collection that enables researchers to gain access to a diverse population. To monitor data quality, two screening questions were included that asked participants to select specific responses (i.e., “Please select the *Disagree* option for this item.”) MTurk participants were paid \$0.50.

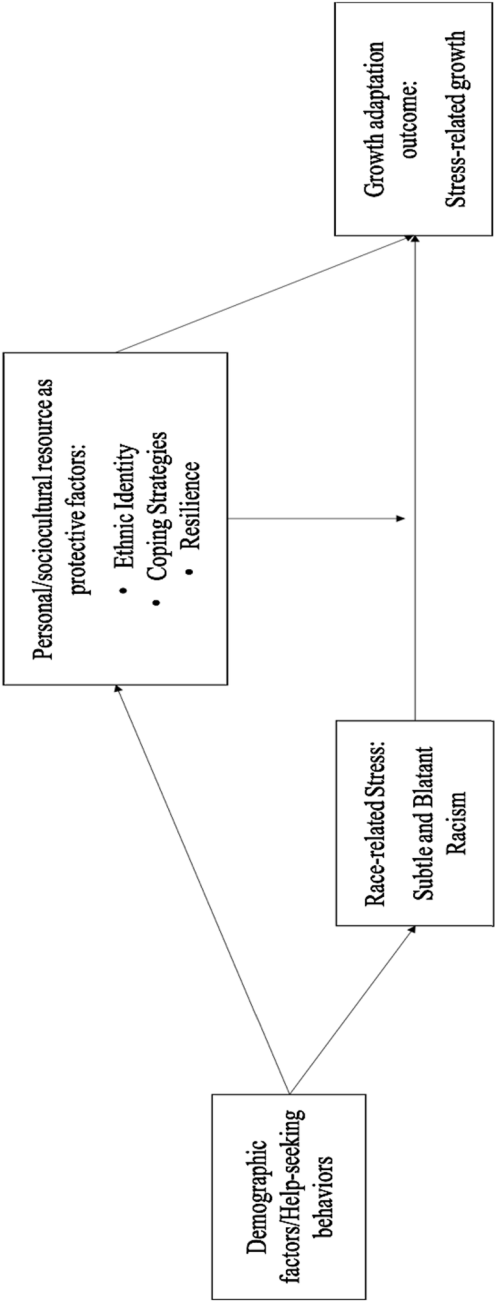


Fig. 1 Conceptual model of race-related stress and adaptation process

**Table 1** Descriptive characteristics of the sample ( $N=237$ )

Characteristic	<i>n</i>	%	SBRS		SRGS	
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Gender						
Male	163	68.8%	26.94	6.93	19.66	16.93
Female	74	31.2%	30.16	5.43	15.09	14.37
Education Level						
High School Diploma or the equivalent	5	2.1%	30.20	4.26	14.40	17.71
Associate Degree	4	1.7%	16.00	6.37	5.25	17.89
Bachelor's Degree	144	60.8%	27.00	6.65	16.34	14.32
Master's Degree	74	31.2%	30.01	6.03	21.28	14.43
Doctorate Degree	10	4.2%	30.00	4.64	19.30	14.00
Sexual Identity						
Heterosexual	157	66.2%	27.09	6.87	16.19	14.10
Gay or Lesbian	8	3.4%	27.13	7.56	15.00	16.97
Bisexual or Pansexual	67	28.3%	29.97	5.57	21.30	15.00
Other	5	2.1%	31.50	6.60	31.00	10.10
Income						
Less than \$20,000	26	11.0%	24.42	8.17	14.19	13.01
\$20,000 to \$34,999	50	21.1%	28.72	6.88	17.10	16.45
\$35,000 to \$45,999	35	14.8%	29.91	6.22	19.86	16.00
\$46,000 to \$49,000	33	13.9%	29.61	4.64	20.97	10.27
\$50,000 to \$74,999	61	25.7%	27.56	6.22	18.23	15.23
\$75,000 or More	32	13.5%	27.33	7.14	17.33	13.76
International Status						
International Student	70	29.5%	27.80	7.00	18.55	13.83
International Worker	167	70.5%	28.31	5.79	15.94	16.30
Religion						
Agnostic or Atheist	14	6.0%	32.43	5.51	16.43	23.86
Evangelical Christian	35	14.8%	26.91	6.09	15.94	13.23
Roman Catholic	131	55.3%	28.50	5.57	18.27	14.23
Buddhist	11	4.6%	25.64	9.98	15.91	16.84
Jewish	8	3.4%	30.13	3.22	24.00	9.50
Other	38	16.0%	27.12	9.93	22.52	11.85
Barriers						
Stigma or Fear	78	32.9%	27.14	6.78	15.27	14.75
Financial Cost, Limited Time, or Not Knowing Where to Go	90	38.0%	28.28	6.34	17.39	16.50
Both	69	29.1%	28.43	6.92	21.13	10.95
Seeking Mental Health Service Since COVID-19						
Yes	121	51.1%	29.78	5.96	21.93	13.71
No	104	43.9%	26.49	6.46	14.29	13.90
No, but I have considered it	12	5.1%	22.17	6.65	17.78	14.62



## Measures

### Demographics Form

The demographic form obtained descriptive information regarding participants' gender, age, level of education, sexual identity, income level, international status, religious affiliation and help-seeking behaviors, including whether participants had sought mental health services since the COVID-19 outbreak as well as barriers that discouraged them to seek services. These factors were controlled for in the current study as they have been considered potential confounding variables (Clough et al., 2018).

### Brief – COPE

The Brief COPE (Carver, 1997) is a 28-item scale that measures the degree to which respondents use a variety of coping strategies. It assesses 14 distinct coping responses (e.g., self-distraction, active coping, denial, positive reframing, etc.), which are grouped into three general coping strategies (i.e., problem-focused, avoidant-focus, and emotion-focused). Items are rated on a 4-point Likert-type scale (1 = *I haven't been doing this at all* to 4 = *I've been doing this a lot*), with higher scores indicating greater frequency of coping response. A sample item is "*I have been criticizing myself.*" The internal consistency for subscales ranged from  $\alpha=0.50$  to 0.90 (Carver, 1997). The internal consistency for this study was  $\alpha=0.92$  for the total scale, ranged from  $\alpha=0.75$  to 0.83 for the three combined scales, and ranged from  $\alpha=0.38$  to 0.49 for the 14 subscales. Considering the poor reliability of the 14 subscales, only the total scale and three combined subscales were used in the current study.

### Multigroup Ethnic Identity Measure – Revised (MEIM-R)

The Multigroup Ethnic Identity Measure-Revised (MEIM-R; Phinney & Ong, 2007) is a 6-item two-dimensional measurement that assesses one's ethnic identity and uses two subscales that represent aspects of ethnic identity (i.e., identity exploration and identity commitment). Respondents are asked to rate how much they agree or disagree with the listed items on a 5-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Higher scores indicate stronger ethnic identity. An example item includes "*I think a lot about how my life will be affected by my ethnic group membership.*" The internal consistency for the overall MEIM-R score as well as for the exploration and commitment subscales were  $\alpha=0.81$ ,  $\alpha=0.76$ , and 0.78, respectively (Phinney & Ong, 2007). In the present study, the internal consistency was  $\alpha=0.63$  for the total scale score and  $\alpha=0.36$  and 0.47 for the exploration and commitment subscales, respectively. Given the subscales' poor reliability, only the MEIM-R total scale score was used in our study.

## Resilience Scale (RS)

The Resilience Scale (RS; Wagnild & Young, 1993) is a 25-item measurement that assesses the degree of individual resilience. The RS is designed to measure two aspects of resilience: personal competence and acceptance of self and life. Items are rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item includes “*I usually manage one way or another.*” The internal consistency for the overall RS score ranged from  $\alpha=0.72$  to 0.94 (Wagnild, 2009). In this study, the internal consistency was  $\alpha=0.95$  for the RS total scale and  $\alpha=0.93$  and 0.84 for the personal competence and acceptance of self and life subscales.

## Stress Related Growth Scale Revised (SRGS-R)

The Stress Related Growth Scale Revised (SRGS-R; Boals & Schuler, 2018) is a unidimensional 15-item scale that measures how much change respondents experience following stressful events. Each item is rated on a bipolar 7-point Likert-type scale, ranging from -3 (*a very negative change*), to +3 (*a very positive change*). An example item includes “*I experienced a change in the extent to which I listen when others talk to me.*” The internal consistency reliability was  $\alpha=0.93$  for the overall SRGS-R score and the SRGS-R demonstrated convergent validity with different outcome measures of mental health (e.g., depression, anxiety, and posttraumatic symptoms; Boals & Schuler, 2018). In the present study, the internal consistency reliability for the SGRS-R was  $\alpha=0.94$ .

## Subtle and Blatant Racism Scale for Asian Americans Revised (SABRA-A<sup>2</sup>)

The Subtle and Blatant Racism Scale for Asian Americans Revised (SABRA-A<sup>2</sup>; Yoo et al., 2010) is an 8-item scale that measures experiences of subtle and blatant racism. The SABRA-A<sup>2</sup> assesses two interrelated aspects of racism: subtle racism and blatant racism. Each item is rated on a 5-point Likert-type scale, ranging from 1 (*almost never*) to 5 (*almost always*), with higher scores indicating more frequent experiences of racism. An example item includes, “*In America, I am faced with barriers in society because I’m Asian.*” The SABRA-A<sup>2</sup> scores demonstrated convergent validity with different measures of mental health and impacts of racism among a sample of Asian and Asian American college students (Yoo et al., 2010). The internal consistency for the SABRA-A<sup>2</sup> total score was 0.88 (Yoo et al., 2010). In the present study, the internal consistency was  $\alpha=0.90$  for the total scale score and  $\alpha=0.76$  and  $\alpha=0.82$  for the subtle racism and blatant racism subscales, respectively.

## Data Diagnostics

Data were cleaned and screened for potential problems (i.e., missing data, normality, linearity, homoscedasticity, and multicollinearity). No items had 1.5% or more of

missing values. Approximately 94% of participants reported no missing values, and 97% of the items did not have any missing value for any case. The pattern of missing data was tested and supported by non-particular pattern of missing data from a matrix of the estimated mean to be Missing at Random (MAR). Therefore, missing values were imputed through multiple imputation (MI), a reliable method to address missing data without causing skewed results (Osborn, 2013). The linearity, normality, homoscedasticity, the absence of multicollinearity was also supported by the assessments of probability plots and VIF values.

## **Analytic Strategy**

Primary analyses included (a) a bivariate correlational analysis to evaluate the relationship among the study variables, (b) a hierarchical regression analysis to examine the main effect of the study variables as potential predictors of SRG, and (c) a moderated path analysis to further clarify the moderating role of ethnicity identity, coping, and resilience in the subtle and blatant racism-SRG pathway. Considering the large number of statistical analyses in the study, the alpha level was adjusted to  $\alpha=0.01$  for all analyses to minimize the probability of Type I errors. For the moderated path analysis, we utilized Hayes' (2018) PROCESS macro (Model 1) with 10,000 bootstrapping resampling and 95% percentile confidence intervals (CIs) for the moderating effect. The moderating effect was deemed significant if the CIs did not include zero (Hayes, 2018). To further understand the moderating effects, three conditional values of moderators were utilized (Hayes, 2018), including low value (the mean score of the moderator  $-1$  SD), moderate value (the mean score), and high value (the mean score of the moderator  $+1$  SD). Effect size across the three moderator values were calculated using Bodner's (2017) formula. All predictors and moderators were mean-centered for meaningful interpretations (Hayes, 2018).

## **Results**

### **Preliminary Analyses**

Participants reported mean scores of 27.95 ( $SD=6.65$ ) and 17.78 ( $SD=14.62$ ) for combined subtle and blatant racism experiences following COVID-19 and SRG, respectively. Female participants reported significantly higher levels of subtle and blatant racism ( $M=30.16$ ,  $SD=5.43$ ) than men ( $M=26.94$ ,  $SD=6.93$ ), with a medium effect size ( $d=0.51$ ; Cohen, 1998). Participants who self-identified as non-heterosexual reported experiencing higher levels of racism ( $M=29.64$ ,  $SD=5.89$ ) than their heterosexual counterparts ( $M=27.09$ ,  $SD=6.87$ ), with a small effect size ( $d=0.39$ ). Participants who reported seeking mental health services following COVID-19 had significantly higher scores of SRG ( $M=21.93$   $SD=13.71$ ) than participants who did not seek services ( $M=13.46$ ,  $SD=14.34$ ), with a medium effect size ( $d=0.60$ ). Lastly, 11.8% of participants reported receiving a negative total score on the SRG scale (ranging from -28 to -1), indicating post-stress depreciation.

## Correlation Analyses

Table 2 shows correlations among the study variables. As expected, SRG evidenced significantly positive correlations with ethnic identity, resilience, and coping strategy, ranging in magnitude from  $r=0.43$  to  $0.75$ . The combined subtle and blatant racism score was significantly positively correlated to scores of SRG, ethnic identity, resilience, and coping strategy, and ranged in magnitude from  $r=0.43$  to  $0.68$  (explained variance ranges from 18.49% to 46.24%).

## Hierarchical Regression Analyses

Regression analyses were implemented to examine the main effect of ethnic identity, coping, and resilience as potential important resources for SRG, after controlling for demographic and help-seeking related variables. Control variables included and tested in Model 1. Among the control variables, help-seeking experience had a significant correlation with SRG. Specifically, AISWs who reported receiving mental health services following COVID-19 had significantly higher SRG scores ( $\beta=0.268$ ,  $p<0.001$ ) than those who did not receive services. Model 1 explained 15.7% of the variance in SRG (see Table 3).

In Model 2, experiences of overall racism (SABRA-A<sup>2</sup> total score) following COVID-19 had a significantly positive and linear association with SRG,  $\beta=0.488$ ,  $p<0.001$ , after controlling for sociodemographic and background variables. Thus, greater overall experiences of subtle and blatant racism were associated with higher levels of SRG. In addition, the subtle racism subscale score was significantly and positively related to SRG,  $\beta=0.363$ ,  $p<0.001$ , whereas the relationship between blatant racism subscale scores and SRG was non-significant,  $\beta=0.145$ ,  $p=0.141$ . Among the control variables, help-seeking experience was significantly related to SRG ( $\beta=0.155$ ,  $p=0.007$ ). Model 2 accounted for 34.9% of the variance in SRG. Adding subtle and blatant racism resulted in a 19.2% increase in the explained variance of SRG.

Ethnic identity, resilience, and coping strategy were included and examined in Model 3. In Model 3, there was no significant association between ethnic identity and SRG ( $p=0.739$ ). However, both overall resilience ( $\beta=0.498$ ,  $p<0.001$ ) and overall coping strategy scores ( $\beta=0.391$ ,  $p<0.001$ ) were significantly positively correlated to SRG. Thus, AISWs who possessed higher levels of overall resilience and reported greater use of overall coping strategies experienced higher levels of SRG. More specifically, the resilience subscale of personal competence was significantly and positively associated with SRG,  $\beta=0.418$ ,  $p<0.001$ , whereas the acceptance of self and life subscale was not significantly associated with SRG,  $\beta=0.097$ ,  $p=0.193$ . For the three coping subscales, problem-focused ( $\beta=0.231$ ,  $p<0.001$ ) and avoidance-focused coping responses ( $\beta=0.185$ ,  $p=0.011$ ) were significantly positively related to SRG, while emotion-focused coping was not significant  $\beta=0.032$ ,  $p=0.639$ . Overall racism and subtle racism became non-significant in Model 3. Additionally, help-seeking experience stopped being significantly

**Table 2** Intercorrelations among major variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12
1. SRGC	---											
2. SBRS	.540**	---										
3. MEIM	.428**	.433**	---									
4. Resilience	.753**	.434**	.439**	---								
5. Coping	.739**	.680**	.498**	.604**	---							
6. SRS	.534**	.949**	.423**	.431**	.624**	---						
7. BRS	.500**	.961**	.406**	.400**	.672**	.825**	---					
8. PCR	.727**	.383**	.396**	.982**	.550**	.391**	.343**	---				
9. ASLR	.720**	.490**	.477**	.920**	.645**	.464**	.472**	.829**	---			
10. PFC	.695**	.570**	.477**	.545**	.881**	.541**	.547**	.494**	.588**	---		
11. EFC	.675**	.515**	.431**	.581**	.935**	.563**	.610**	.537**	.606**	.756**	---	
12. AC	.646**	.684**	.441**	.480**	.921**	.602**	.698**	.436**	.516**	.747**	.800**	---

SRGC Stress Related Growth Scale; SBRS Subtle and Blatant Racism Scale; MEIM Multi-group Ethnic Identity Measure; SRS Subtle Racism Scale; BRS Blatant Racism Scale; PCR Personal Competence of Resilience; ASLR Acceptance of Self and Life of Resilience; PFC Problem-Focused Coping; EFC Emotion-Focused Coping; AC Avoidance Coping

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

**Table 3** Results from hierarchical multiple regression

Variables	Model 1		Model 2		Model 3	
	<i>B</i> (S.E.)	$\beta$	<i>B</i> (S.E.)	$\beta$	<i>B</i> (S.E.)	$\beta$
Gender						
Female (ref)						
Male	-1.796 (1.996)	-.057	.869 (1.788)	.028	-1.878 (1.211)	-.060
Age						
> 34 (ref)						
≤ 34	.500 (1.850)	.017	-.606 (1.634)	-.020	1.157 (1.113)	.039
Education						
≥ Master (ref)						
≤ Bachelor	-3.352 (1.959)	-.110	-.386 (1.763)	-.013	1.578 (1.196)	.052
Sexuality						
Non-hetero (ref)						
Heterosexuality	-4.345 (1.899)	-.141*	-1.935 (1.698)	-.063	-.973 (1.151)	-.032
Help Seeking						
No (ref)						
Yes	7.717 (1.841)	.268***	4.531 (1.671)	.155**	1.834 (1.144)	.063
Income						
> 46,000 (ref)						
≤ 45,999	-.720 (1.947)	-.025	-1.529 (1.718)	-.052	-1.585 (1.152)	-.054
International Status						
Student (ref)						
Worker	-3.361 (2.050)	-.105	-3.476 (1.805)	-.109	-1.353 (1.217)	-.042
Religion						
Non-Catholic (ref)						
Catholic	-.902 (2.107)	-.028	-1.343 (1.856)	-.042	-.675 (1.253)	-.021
Barriers						
Stigma & Fear (ref)						
FLN	2.562 (2.163)	.085	1.315 (1.911)	.044	.226 (1.283)	.008
Both	5.977 (2.308)	.186*	4.659 (2.038)	.145*	2.138 (1.375)	.067
SBRS			1.072 (.131)	.488***	.083 (.114)	.038
SRS			1.629 (.440)	.363***	.508 (.302)	.113
BRS			.573 (.388)	.145	-.321 (.291)	-.082

**Table 3** (continued)

Variables	Model 1		Model 2		Model 3	
	<i>B</i> (S.E.)	$\beta$	<i>B</i> (S.E.)	$\beta$	<i>B</i> (S.E.)	$\beta$
MEIM					-.065 (.195)	-.015
Resilience					.351 (.034)	.498***
PCR					.420 (.069)	.418***
ASLR					.202 (.155)	.097
Coping					.454 (.068)	.391***
PFC					.836 (.225)	.231***
EFC					.106 (.225)	.469
AC					.509 (.199)	.185*
R <sup>2</sup>	.157		.349		.712	
$\Delta R^2$			.192		.362	

*B* unstandardized regression coefficients; *S.E.* standard errors. *B* standardized coefficients; *SBRS* Subtle and Blatant Racism Scale; *MEIM* Multi-group Ethnic Identity Measure; *FLN* Financial Cost, Limited Time, Not Knowing Where to Go. *ref* reference group; *SRS* Subtle Racism Scale. *BRS*= Blatant Racism Scale; *PCR* Personal Competence of Resilience; *ASLR* Acceptance of Self and Life of Resilience; *PFC* Problem-Focused Coping; *EFC* Emotion-Focused Coping; *AC* Avoidance Coping

\*\*\* $p < 0.001$ , \*\* $p < 0.01$  \* $p < 0.05$

associated with SRG when ethnic identity, resilience, and coping strategy were added to the model. Approximately 71.2% of the variance in SRG was explained by Model 3. The addition of ethnic identity, resilience, and coping accounted for a 36.2% increase in the explained variance of SRG, which was large in magnitude.

### Moderated Analyses

The moderating role of ethnic identity, resilience, and coping strategy was examined using Hayes' (2018) PROCESS macro with 10,000 bootstrapping resamples. Overall resilience ( $b = -0.006$ , 95% CI [-0.015, 0.003]), the personal competence subscale ( $b = -0.012$ , 95% CI [-0.025, 0.002]), and acceptance of self and life subscale ( $b = -0.001$ , 95% CI [-0.030, 0.029]) did not significantly moderate the path between total scores of subtle and blatant racisms and SRG. The total and subscale scores of resilience did not moderate the path between subtle racism score and SRG or the path between blatant racism score and SRG. However, overall ethnic identity and coping strategy significantly moderated the link between total scores of subtle and blatant racisms and SRG. Thus, ethnicity identity ( $b = 0.105$ ,  $t = 3.046$ , 95%

CI [0.037, 0.173]) and coping strategy ( $b=0.025$ ,  $t=3.523$ , 95% CI [0.011, 0.039]) strengthened the positive link between racism and SRG. Follow-up examination of the three conditional effects further revealed that subtle and blatant racism had a significant effect on the development of SRG for AISWs with high (+1 SD;  $b=1.261$ , 95% CI [0.890, 1.632]) and low (-1 SD;  $b=0.575$ , 95% CI [0.251, 0.900]) levels of ethnic identity. Subtle and blatant racism produced a significant effect on the development of SRG for AISWs who reported higher level of overall coping strategies ( $b=0.630$ , 95% CI [0.254, 1.005]), but the effect became non-significant for those with lower levels of overall coping strategies ( $b=0.000$ , 95% CI [-0.227, 0.277]). A two standard deviation increase in overall ethnic identity and coping strategy generated 0.05 and 0.06 changes, respectively, in the conditional effect on SRG, which were small effect in magnitude (Bodner, 2017).

The moderating role of ethnic identity was further analyzed for the subtle and blatant racism subscales. Overall ethnic identity significantly moderated (strengthened) the link between blatant racism and SRG ( $b=0.250$ ,  $t=3.949$ , 95% CI [0.125, 0.374]), but did not moderate the subtle racism and SRG link ( $b=0.131$ ,  $t=1.867$ , 95% CI [-0.007, 0.269]). In addition, overall coping significantly moderated (strengthened) the link between blatant racism and SRG ( $b=0.042$ ,  $t=3.420$ , 95% CI [0.018, 0.067]) as well as between subtle racism and SRG ( $b=0.049$ ,  $t=3.220$ , 95% CI [0.019, 0.080]). The moderating role of different coping strategies were further examined. Problem-focused, avoidance-focused, and emotion-focused subscales significantly moderated (strengthened) the link between the total subtle and blatant racism score and SRG ( $bs=0.073$ , 0.109, 0.058, respectively), between subtle racism and SRG ( $bs=0.118$ , 0.227, 0.130), and between blatant racism and SRG ( $bs=0.137$ , 0.008, 0.169).

## Discussion

This study examined how experiences of subtle and blatant racism following COVID-19, ethnic identity, resilience, and coping responses impacted SRG in a sample of international Asian workers and students. Findings from the preliminary analysis yielded higher levels of racism experiences among AISWs compared to previous studies (e.g., Boals & Schuler, 2018; Wang et al., 2019). Additionally, female and non-heterosexual AISWs reported more frequent experiences of subtle and blatant racism compared to their male and heterosexual counterparts, which is consistent with previous studies that reported Asian women experienced more harassment following the COVID-19 pandemic than Asian men (Jeung & Nham, 2020), and that sexual minoritized individuals experienced everyday discrimination more frequently than their heterosexual counterparts (Mays & Cochran, 2001). AISWs who reported seeking mental health services since the COVID-19 pandemic developed higher levels of SRG compared to those who did not seek services. Given the psychological and social benefits that may occur as a result of therapy, it is possible that AISWs in our study who used professional mental health services experienced broadened life perspectives, new coping skills, enhanced personal resources, and deepened meaningful relationships (Park et al., 1996). These findings are especially significant



when considering how international Asians traditionally underutilize professional mental health services (Clough et al., 2018), and support recommendations for mental health professionals to connect international students to counseling resources (Litam, 2020).

Overall experiences of racism were positively correlated to SRG. One possible explanation for this positive relationship may be implied from the life stress model (Lazarus & Folkman, 1984). According to the life stress model, stressful experiences result from cognitive and affective appraisals of stressors combined with one's access to personal or sociocultural resources (Lazarus & Folkman, 1984). It is therefore possible that AISWs in our study had existing resources that uniquely positioned them with the ability to understand and interpret their racial discrimination experiences in ways that cultivated positive life changes and stress-related growth. This hypothesis may be further supported by the significant and positive relationship between coping strategy, resilience and SRG in the present study.

Higher levels of overall resilience and greater use of coping strategies may contribute to higher levels of SRG among AISWs. These results are consistent with previous research (Deng et al., 2020; Le et al.) that supported the importance of resilience and coping responses as critical factors that help individuals minimize the risk of mental health concerns following adversity. AISWs' preferences for problem-focused coping and avoidance-focused coping compared to emotion-focused coping could explain why these strategies were directly related to SRG but emotion-focused coping was not. Another possible explanation for why the acceptance of self and life aspect of resilience, emotion-focused coping, or overall ethnic identity were not directly related to SRG may be that these variables serve as different roles in SRG. Given the dearth of research for AISWs, these findings highlight the needs for further empirical investigation.

The moderated path analysis revealed that the link between racial discrimination experiences and SRG were stronger for AISWs with higher levels of ethnic identity. These findings build upon the social identity theory (Tajfel & Turner, 1979) that views ethnic identity as a sociocultural resource that promotes healthy adaptation and growth among individuals who are faced with discrimination by increasing connection to their ethnic groups. In our study, AISWs with higher levels of ethnic identity may have responded to racial discrimination experiences during COVID-19 by cultivating a stronger sense of belonging, feelings of solidarity, and greater social support with their ethnic group (e.g., U.S. culture or country of origin) to protect their well-being and facilitate psychological growth. These findings align with previous studies that reported how ethnic identity buffered the negative impact of racial microaggressions on depressive symptoms among Asian Americans (Choi et al., 2016) and served as a protective factor of race related stress on wellbeing among Asian American and Asian international college students (Iwamoto & Liu, 2010).

Overall ethnic identity moderated the effect of blatant racism on the development of SRG, but not for subtle racism. Understanding subtle racism requires greater awareness of racial discrimination incidents, which may be associated with ethnic identity salience (Alvarez & Helms, 2001). Given that many international Asians come from largely homogenous countries, they may be more inclined to notice overt forms of racial discrimination upon their arrival to the U.S. (Chan & Litam, 2021;

Chong & Razek, 2014; Kim & Kim, 2010; Litam et al., 2021; Oh & Litam, 2022; Oh et al., 2022) and may not recognize more subtle forms of microaggressions due to the presence of attributional ambiguity.

Our findings revealed that the racism- SRG link became stronger for AISWs with greater use of overall coping. These findings support theoretical literature positing that overall coping strategies may serve as a personal psychological resource that helps individuals successfully navigate stressful events, mitigate psychological distress, and engage in self-reflection (Hobfoll, 2011; Lazarus & Folkman, 1984). These findings further illuminate the importance of cultivating overall coping strategies as a therapeutic intervention for race-related trauma following experiences of COVID-19 related racism (Litam, 2020; Litam et al., 2021).

Interestingly, all three forms of coping significantly moderated (strengthened) the positive link between total scores of subtle and blatant racisms and SRG, subtle racism and SRG, and blatant racism and SRG. These findings supplement the mixed results of existing literature (Do et al., 2019; Houshmand et al., 2014; Tsai & Wei, 2018) and emphasize the nuanced and complex relationship between ASIWs cultural values and coping responses (Chan & Litam, 2021; Litam et al., 2021; Oh & Litam, 2022; Oh et al., 2022). Given the pan-ethnic sample of Asian internationals in our study, the unique cultural values and between-group differences that influence coping responses may have been lost. Lastly, overall resilience and its two subscales did not moderate the link between overall racism experiences and SRG, subtle racism and SRG, and blatant racism and SRG. These findings are inconsistent with the theoretical literature that suggests resilience may serve as a personal resource that helps individuals effectively manage stressful events (Wagnild & Young, 1993). Given SRG's significant relationship to resilience in our study, it is possible that resilience may serve a different role (e.g., mediator) in the pathway between racial discrimination and SRG. The nuanced role of resilience as a moderator, mediator, or both, in the discrimination-SRG link warrants further empirical investigation.

## Implications for Practice

Given that AISWs in this study who used professional mental health services reported higher levels of SRG than those who did not seek professional help, mental health professionals are called to promote the benefits of professional services to the international Asian community. This can be accomplished by developing relationships with community agencies, faith-based organizations, and college and/or university organizations tailored to serve the international Asian community. Chan and Litam (2021) recommended conducting free and reduced-price virtual workshops that introduce mental health services to communities of color, including international Asians, and providing psychoeducation about subtle and blatant racism while leveraging community and cultural resources. In addition, it may be important for mental health professionals to consider the role of ethnic identity in the harmful effects of racial discrimination for AISWs. Given that ethnic identity did not moderate the impact of subtle racism on SRG in our study, it might be helpful for professional counselors to explore with AISWs the meanings of ethnic identity

and its role in their experience with different types of racism (e.g., subtle and blatant racism). In addition, counselors may benefit from explaining the benefits of the use of coping strategies to deal with different types of racism and exploring coping strategies that fit their cultural values. Given the benefit of greater use of overall coping, regardless of its forms, it might be helpful to explain to AISWs the benefits associated with the use of coping strategies and help them develop coping strategies that are consistent with their cultural value. Following the pandemic, mental health professionals can help AISWs promote SRG by cultivating culturally sensitive coping strategies. Notably, the unique within-Asian group differences must be considered when assessing client coping strategies. Mental health professionals can honor preferences for avoidance-focused coping responses by helping AISWs incorporate meditation, reading, and spirituality exercises that enables appropriate distraction from discrimination experiences. Furthermore, counselors could benefit from providing psychoeducation to explain potential external factors (e.g., institutional racism, white fragility, etc.) related to racial discrimination. AISWs may not have a historical understanding of racism and systemic discrimination that have been going in the U.S. and a bigger picture of what is an apparatus at a systemic and cultural level to intensify anti-Asian racism. Having a broader understanding can be helpful for them not to internalize racism. Finally, AISWs may not know the counseling services available in their community or on campus and may not be aware of what counseling process entails (Olivas & Li, 2006). Also, it is well documented that there is a stigma related to help seeking within Asian Americans and AISWs communities (Maeshima & Parent, 2022). Therefore, it might be helpful for counselors to advocate for better access to counseling service and reducing the help-seeking stigma through community outreach programs and workshops for mental health awareness, which can be an alternative to one-on-one counseling service (Li et al., 2013). Specifically, given the important role of friends, elders, and spiritual leaders as cultural resources for mental health (McDonald, 2011), it might be also helpful to offer outreach programs where friends and spiritual leaders from AISW communities serve as liaisons for counseling services (Li et al., 2013). Counseling centers may train AISWs volunteers to work as liaisons who reach out to their friends, families, and community members and help them be aware of counseling services available and understand the counseling process.

## Limitations and Future Research

This study is not without limitations. First, MTurk participants may have misrepresented themselves as international Asians to earn financial incentives. Future studies may benefit from utilizing diverse forms of data collection (e.g., mailing to AAPI organizations) to improve the validity of the data. Another limitation is the cross-sectional and correlational nature of research design in our study. Despite the existing theoretical and empirical research that informed our conceptual model, our research design undermines the validity of causality and directionality in our moderation path analysis. Future studies would benefit from using longitudinal or experimental design to assess the variables separately and further understand the

causality between the variables used in this study. Lack of discriminant validity between resilience and SRG measures is another limitation. Our correlational analysis revealed that SRG and resilience were highly correlated ( $>0.75$ ), which raises a concern regarding multicollinearity and undermines the validity of the findings in the relation between resilience and SRG. Additional research is needed to assess evidence of content and discriminant validity between these two constructs. Lastly, although our findings contribute to an understanding of unique experiences with racism among Asian internationals as a heterogeneous group from Asian Americans, our research did not further analyze within-differences between Asian international subgroups (e.g., Chinese Asian internationals, Indian Asian Internationals, Korean Asian internationals, etc.). Future research would benefit from recruiting a larger sample from each Asian internal subgroup and analyzing the subgroup differences.

## Declarations

**Conflicts of Interest** We have no known conflicts of interest to disclose.

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