

Resilience Following Adversity: The Role of Religious Coping and Social Support Among
Black Youth After Traumatic Events

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ABSTRACT

Trauma is a consistent risk factor for negative physical and mental health outcomes due to a combination of environmental, biological and psychological factors. Research has shown that a history of trauma can sensitize a person to subsequent traumas. The COVID-19 pandemic was a traumatic stressor that affected everyone in some capacity, but some individuals were disproportionately impacted more than others such as Black Americans. Research has shown that Black individuals are more susceptible to experiencing traumas such as domestic violence in the home, living in violent neighborhoods, food insecurity, and maltreatment. Religious coping and social support have been highlighted as critical protective factors for Black adolescents and emerging adults in the face of various traumas and stressors. Given this backdrop, this dissertation study explored whether trauma predicted COVID-19-related stress and/or internalizing symptoms, and if this association was moderated by religious coping and social support among 199 Black adolescents and emerging adults (ages 13-25 years; $M = 21.64$, $SD = 2.48$) in the United States. Results showed that trauma predicted internalizing symptoms and stress related to the COVID-19 pandemic, and negative religious coping and less social support were associated with more internalizing symptoms. However, neither religious coping nor social support moderated the association between trauma and internalizing symptoms or COVID-19 related stress. This study highlights the need for further examination of the various dimensions of religion and social support that aid in coping strategies for Black youth exposed to traumatic events.

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GENERAL AUDIENCE ABSTRACT

Exposure to traumatic events has been shown to be linked to negative physical and mental health outcomes, which is influenced by various factors. The COVID-19 pandemic was a traumatic stressor that affected everyone in some capacity, but there were some individuals that were more impacted such as Black Americans. In general, research has shown that Black Americans are more likely to experience traumas such as domestic violence in the home, living in violent neighborhoods, food insecurity, and maltreatment; and the pandemic only worsened the trauma exposure for those individuals. Religious coping and social support have been shown to buffer the negative outcomes stemming from trauma exposure. As such, this dissertation study sought to explore if trauma does predict anxiety, depression and COVID-19-related stress, and if religious coping and social support buffer this association for Black adolescents and young adults in the United States. The results from the study showed that trauma did predict anxiety, depression and COVID-19-related stress. In addition, negative coping and less social support were associated with more anxiety and depression. However, neither religious coping nor social support buffered the association between trauma and COVID-19-related stress or anxiety and depression. This study highlights the need for further examination of the various dimensions of religion and social support that aid in coping strategies for Black youth exposed to traumatic events.

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Introduction

It is estimated that within the United States the national economic burden of adverse childhood experience related adult health conditions is 14.1 trillion dollars (Peterson et al., 2023), which includes direct medical spending and the loss of healthy life-years. One explanation for this economic burden is the significant mental and physical health sequelae associated with trauma, which is due in part to the heightened neuroplasticity of brain development during childhood and adolescence (Ellis et al., 2022). Trauma experienced during childhood has been consistently linked to depression in adulthood and studies have shown that individuals with a history of childhood maltreatment, for instance, are more than twice as likely to develop recurrent and persistent depressive episodes and about 1.5 times as likely to be non-responders to depression treatment (Nanni et al., 2012). One explanation for this finding is that trauma can make an individual more vulnerable and less likely to cope with subsequent traumatic events or stressors and have a lower threshold to depressive symptoms (Hammen et al., 2000). In addition, trauma can impact the way in which individuals make sense of the world after that traumatic event(s) (e.g., negative world view, perceived sense of threat; see Wiseman et al, 2021). The COVID-19 pandemic was a stressor for many people around the world, and for some the pandemic was a traumatic stressor, which increased the incidents of interpersonal violence within the home and caused increased rates of depression, anxiety and posttraumatic stress symptoms among children, adolescents, and adults (e.g., Smith-Clapham et al, 2023; Wolf & Schmitz, 2024). As such, it is important to examine the association between childhood trauma and internalizing symptoms in the aftermath of the COVID-19 pandemic and potential predictors of resiliency in the face of trauma. This dissertation study 1) examined whether a history of trauma predicted internalizing symptoms and/or the experiences of stress related to the COVID-

19 pandemic and 2) examined whether religious coping and/or social support moderated the association between either trauma and COVID-related stressors or internalizing symptoms in a sample of Black adolescents and emerging adults in the United States.

Impact of Childhood Trauma and Coping with Subsequent Trauma: Considerations

Regarding the COVID-19 Pandemic

Over the past 10 years, there has been an increase of traumatic events such as school mass shooting, child abuse, and terrorism (Children's Bureau, 2021; McCabe, 2024, Rapa et al., 2024). This has increased the likelihood of traumatic exposure for the average youth in the United States. This trend of increasing exposure to traumatic events among youth was further exacerbated by the COVID-19 pandemic, with at least 20% of adolescents reporting posttraumatic stress symptoms related to COVID-19 during the first year of the pandemic (i.e., spring 2020 to spring 2021 in the United States; Lewis et al., 2023). In general, long-term traumatic stress experienced during childhood can have a negative impact on physical and mental health, including internalizing and externalizing disorders (e.g., anxiety, depression, substance use; Khoury et al., 2010; Kuzminskaite et al., 2022). According to Ehlers and Clark (2000), there are three psychological processes in response to trauma that may explain these negative sequelae: maladaptive appraisals (e.g., viewing the world as unsafe), changes to memory (e.g., poor elaboration and contextualization, strong perceptual priming), and maladaptive coping strategies (e.g., social withdrawal, self-criticism, resignation).

This same pattern of results has been found already related to the short-term outcomes of the COVID-19 pandemic. For example, studies have shown that peritraumatic distress (psychological and emotional distress that occurs during or immediately after a traumatic event; Bunnell et al., 2018) related to COVID-19 caused anxiety, depression, and post-traumatic stress

disorder (PTSD; Megalakaki et al., 2021; Miao et al., 2023). Findings also suggest that even years after the initial nationwide lockdown in 2020, people were still experiencing elevated internalizing symptoms; for example, Kupcova et al. (2023) found that women still endorsed anxiety related to COVID-19 in 2022.

According to the theory of latent vulnerability there are changes that occur physically and psychologically from exposure to trauma or chronic stressors that may not manifest until later, but which put that child at a greater vulnerability for later physical and mental health problems such as depression, anxiety, and PTSD (McCrory & Viding, 2015). In addition, exposure to a traumatic event affects the perception of subsequent traumatic events later in life (Stroud, 2018). Hébert and colleagues (2022) found that adolescents with a history of five or more past adversities and traumas had a two-fold increased likelihood of COVID-related PTSD symptoms and Solomon et al. (2021) found that those with previous trauma history were experiencing higher PTSD rates during the pandemic. However, significant research underscores that the COVID-19 pandemic did not universally impact everyone, with individuals from marginalized racial and ethnic backgrounds being hit particularly hard. For example, research has found that Black individuals had higher hospitalization rates (Blazina, 2020), higher unemployment rates (Williams, 2020) and higher mortality rate (The COVID Tracking Project, 2021). This body of research collectively highlights the importance of exploring both risk and protective factors among Black adolescents and emerging adults in the aftermath of chronic stressors like the COVID-19 pandemic.

Experiences of Trauma and the Importance of Religion and Social Support in the Black Community

Black adolescents and emerging adults are particularly susceptible to experiencing trauma and thus the negative long-term effects of such trauma. Specifically, Black youth are

more likely to experience domestic violence in the home (Smith-Clapham et al., 2023), food insecurity (Ullmann et al., 2022), childhood maltreatment (Children's Bureau, 2021), and to live in violent neighborhoods (Browning et al., 2017). It is this exposure to multiple traumas that makes Black youth and adults more susceptible to various psychological and physical disorders such as cardiovascular disease, hypertension, depression, and anxiety (Josiah et al., 2021). The traumatic experiences that some Black youth already experience was exacerbated by the pandemic. In addition, the pandemic also worsened existing racial disparities in economics, health and social justice (Elias & Ben, 2023). Unfortunately, Black Americans have become familiar to inequalities in the world, and have a lower perception of the benevolence of the world (Williams, 2015; Zoellner et al., 1999), which may further to maladaptive appraisal. Nevertheless, the individual experience of those event(s) can vary from person to person, which is shaped by age, availability of social support, and culture (SAMHSA, 2014).

Social support has been shown to be an important psychological resource for individuals. Specifically, having a positive social support network can aid in the development of healthy self-esteem, which can act as a protective factor for mental health disorders (Drageset, 2021). For example, Crosby (2024) found that resiliency and well-being were strengthened when social support from friends was high in a sample of Black adults. In the literature, there has been a distinction between received (i.e., actual) vs. perceived social support. Received social support refers to the specific support (e.g., emotional, tangible, or informational) provided to an individual. Whereas, perceived social support refers to the subjective judgment of having support when it is needed or available (Drageset, 2021). Perceived social support has been shown to moderate the severity of psychological symptoms such as depression (Shi, 2021) and PTSD (Kowalchuk et al., 2023), while received support has not (Drageset, 2021). In addition, perceived

social support has been shown to moderate the relationship of posttraumatic growth and COVID-19 related trauma (Berg et al., 2024). Religion can also serve as a social resource that can be used as a coping strategy for individuals that have experienced trauma, and the relationships formed in religious communities can be a pivotal source of social support (Nguyen, 2020).

In general, Black Americans are more religious than Americans of any other race or ethnicity (Mohamed et al., 2021). The importance of religion within the Black community in America can be traced back to slavery. Religion can give a sense of meaning in life and can provide social support in times of distress (Droege et al., 2017). For example, being a part of a religious community can enhance a sense of self-worth in the midst of racial and societal hardship. In addition, for many Black Americans the church is a place where social, political, and educational activities occur (Nguyen, 2020). Because of the historical economic and social disenfranchisement of Blacks in America, churches often times provide a larger number of mental health services and community programs compared to white churches (Taylor et al., 2000).

A review of coping strategies among Black communities indicated that social support and religiosity/spirituality were two of the most widely used strategies (Jacob et al., 2022). Religious coping is defined as religiously framed behavioral, cognitive, and emotional responses to stress (Wortmann, 2016). Religious coping has two distinct patterns, positive and negative coping (Pargament et al., 1998). Positive religious coping (e.g., focusing on religion to stop worrying about problems, seeking help from God to let go of anger) is associated with having a secure relationship with God and seeking God for meaning in life. On the contrary, negative religious coping (e.g., wondering if God had abandoned you, feeling punished by God) is associated with spiritual discontentment and an insecure relationship with God (Pargament et al., 1998). It has

been suggested that both negative and positive religious coping are related to well-being.

Previous research has shown that negative religious coping is associated with higher levels of distress and depressive symptoms, whereas positive religious coping is associated with lower levels of distress and depressive symptoms (Pargament et al., 1998; Park et al., 2018).

Furthermore, even people without formal religious affiliations still engage in religious activities such as prayer (Bentzen, 2021), and utilize religious coping during stressful life events.

However, the finding of religious coping as a protective factor has been mixed. For example, a study of Black women with a history of sexual assault showed that women with greater social support reported less depression and PTSD symptoms; whereas, women who utilized religious coping endorsed greater reported depression and PTSD symptoms (Bryant-Davis et al., 2011). Interestingly, the Pew Research Center found in a survey of more than 8,600 Black adults in the United States that Black Millennials and Gen Z are less likely to be involved in religious services and are less religious than older Black adults (Mohamed et al., 2021). With this shift in religious activity among young adults, it is important to examine if positive religious coping does indeed help to buffer against negative outcomes following past and concurrent traumatic stressors among Black adolescents and emerging adults.

Present Study

Given this backdrop, this dissertation examined whether a history of trauma predicted the experiences of stress during the COVID-19 pandemic, and internalizing (depressive and anxiety) symptoms in Black adolescents and emerging adults. Additionally, it assessed whether religious coping and/or social support moderated the association between either trauma and COVID-19 stress or concurrent internalizing symptoms. The three primary aims of this dissertation and their associated hypotheses were as follows:

Aim 1: Examine whether a history of trauma predicted internalizing symptoms and COVID-19 related stress

Hypothesis 1: Based on prior research (Hébert et al., 2022; Nanni et al., 2012; Widom et al., 2007), trauma was predicted to be associated with internalizing symptoms and COVID-19 related stress among Black adolescents and emerging adults in the aftermath of the COVID-19 pandemic.

Aim 2: Examine whether religious coping (positive coping or negative coping) moderated the association between trauma and COVID-19 related stress or internalizing symptoms

Hypothesis 2: It was expected that both positive and negative religious coping would moderate the association between trauma and internalizing symptoms and/or COVID-19 related stress. Due to mixed finding with positive religious coping in Black sample, a priori hypotheses were not made for these associations; for negative religious coping, it was expected that the association between trauma and internalizing symptoms and COVID-19 stress would be stronger for participants who reported higher levels of negative religious coping.

Aim 3: Examine whether perceived social support moderated the association between trauma and COVID-19 related stress or internalizing symptoms

Hypothesis 3: It was anticipated that social support would moderate the association between trauma history and both COVID-19 related stress and internalizing symptoms, such that participants who report high levels of social support would have a weaker association between trauma and internalizing symptoms (Shi, 2021) or COVID-19 related stress.

Method

Participants

Participants included 199 adolescents and emerging adults (60.3% identifying as a woman) ages 13-25 years ($M = 21.64$, $SD = 2.48$) in the United States who identified as Black. As participants were allowed to select all racial identities that applied to them, in addition to identifying as Black, six identified as White, three identified as American Indian or Alaska Native, two identified as Asian, and one identified as another racial identity. Approximately 10 percent (9.5%; $n = 19$) of participants also identified as Hispanic or Latine. Additional demographic information about the study sample can be found in Table 1, including a breakdown of sexual orientation, religious affiliations, and information regarding the socioeconomic status in which they were raised.

Procedures

Data came from a national sample of adolescents and emerging adults that was collected through Qualtrics Panels in spring 2023. In order to be eligible to participate, participants needed to report being between 10 and 25 years of age (verified via exact birthdate and another question indicating age) and identify as Black. Participants were recruited directly through Qualtrics Panels from various sources, including targeted email lists, gaming sites, social media, customer loyalty web portals, and permission-based networks. Consumer panel members' date of birth, names, and addresses are typically validated via third-party verification measures prior to their joining a panel. Participants are subject to additional quality control measures such as phone calls to the participant's place of business, LinkedIn matching, and other third-party verification methods (e.g., RelevantID, Verity, TrueSample). As part of this study, we also collected participants' zip code to confirm residency in the United States and had attention checks

throughout the survey. Anyone who did not report a valid US zip code or who failed one of the attention check questions was automatically terminated from the survey and not included in the quota and data provided by Qualtrics Panels.

Measures

The Life Events Checklist (LEC-5; Weathers et al., 2013)

The LEC-5 (Appendix A) is a 17-item self-report questionnaire designed to assess for potentially traumatic events that map onto the Diagnostic and Statistical Manual, Fifth Edition (DSM-5; American Psychiatric Association, 2013) criteria for PTSD. Respondents indicate their potential exposure to trauma by endorsing one or more of the six options on the nominal scale: Happened to me; Witnessed it; Learned about it; Part of my job; Not sure; Doesn't apply. Since previous research has shown the cumulative impact of trauma experiences (Hébert et al., 2022), the total trauma score was based on proximity of trauma exposure. The weighted score was composed based on Weis et al. (2022) according to the proximity of trauma exposure with "experienced" events weighted most and "learned about" events weighted least (*Happened to me* = 3, *Witnessed* = 2, *Heard about* = 1, *Part of my job* = 0, *Doesn't apply* = 0)¹. Internal consistency in the current study was $\alpha = .86$.

COVID-19 Adolescent Symptom & Psychological Experience Questionnaire (CASPE; Ladouceur, 2020)

The CASPE (Appendix B) was used to measure COVID-19 related stressors. This measure has four subcategories that assess cognitive, emotional, social, and direct experiences related to COVID-19. For this study, only question 22 from the emotional subcategory was used

¹ Exploratory analyses was conducted to evaluate the difference in results for "part of my job" being coded with a weighted score of "1" or "2" as opposed to "0". The results did not change with "part of my job" being coded differently for either weighted score.

to assess COVID-19 related stress. In the current study, the question asked participants to rate the extent to which the emotions listed described how they have felt during the COVID-19 pandemic on a 5-point Likert scale ranging from 1 (*very slightly/not at all*) to 5 (*extremely*). As such, despite data being cross-sectional, this CASPE item “predates” our measure of internalizing symptoms, as it is reflecting stress from spring 2020 through when the data were collected in spring 2023. Based on Fredrick et al. (2024), a COVID-19 stress score was created by calculating the mean of the total points for the negative emotions (i.e., anxious, angry, afraid, sad, worried, irritable, concerned, stressed, distressed, lonely, hopeless, frustrated, and disappointed), with higher scores indicating greater COVID-19-related stress. Internal consistency in the current study was $\alpha = .93$.

The Patient Health Questionnaire - 4 (PHQ-4; Kroenke et al., 2009)

The PHQ-4 (Appendix C) is a 4-item measure that comprises the Generalized Anxiety Disorder-2 and PHQ-2 Depression subscales and assesses for the presence of depression and anxiety symptoms over the past two weeks. Specifically, participants were asked to rate how often they have been bothered by the four problems over the last two weeks on a 4-point scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*). The total score was determined by adding together the scores of each item. Scores rated as severe (9 -12), moderate (6 - 8), mild (3 - 5) and normal (0 - 2). Internal consistency in the current study was $\alpha = .85$.

The Brief Religious Coping Scale (Brief RCOPE; Pargament et al., 2011)

The Brief RCOPE (Appendix D) consists of 14 items that assess both positive and negative religious coping techniques in dealing with negative life events. Items on the Brief Religious Coping Scale are scored on a 4-point scale ranging from 0 (*I didn't do this*) to 3 (*I did this a lot*). We used both the positive and negative religious coping subscales as moderator

variables to explore whether these are a protective and risk factor in the current study, respectively. The Brief RCOPE has shown been to be valid among various religions such as Christianity, Judaism, and Islam (Saunders & Stephenson, 2024). Internal consistency in the current study was $\alpha = .93$ for the positive religious coping subscale and $\alpha = .87$ for the negative religious coping subscale.

Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988)

The MSPSS (Appendix E) consists of 12 items that assess perceived social support from family, friends, and significant others. Each subscale has four items that are scored on a 7-point Likert scale from 1 (*strongly disagree*) to 7 (*strongly agree*). The total score was calculated by calculating the mean of the total score from all subscales, with low scores indicating less perceived social support. Internal consistency in the current study was $\alpha = .92$.

Data Analytic Strategy

Descriptive and correlational analysis were conducted in SPSS. Furthermore, bivariate correlations were run between each of the main study variables and potentially relevant demographic variables (age, gender identity, sexual orientation, ethnicity, parent education, religious affiliation). Gender identity was coded as 0 = identify as male and 1 = identify as female. For sexual orientation, we compared those who identify as heterosexual (0) relative to those who identify with any other sexual orientation (1). For parent education, a dichotomous variable indicating whether either parent had a college degree or higher was created. Finally, religious affiliation was coded as 0 = identified as agnostic, atheist, unaffiliated, or spiritual but not religious and 1 = identified with any formal religious affiliation (e.g., Buddhist, Catholic/Christian, Muslim, Protestant), due to the demographic breakdown in the current sample. Any demographic variables displaying significant bivariate correlations with main study

variables were included in main analyses as covariates. To reduce noise in our analyses, only covariates that were statistically significant at bivariate level with main study variables were included in relevant models.

For Aim 1, linear regression analyses was run to examine whether a history of trauma predicted more COVID-19 related stress and internalizing symptoms. For Aim 2 and Aim 3, moderation analyses were conducted using Hayes' (2023) PROCESS macro for SPSS (Model 1), with trauma entered as the predictor and positive or negative religious coping entered as a moderating variable in separate models for Aim 2, and social support entered as a moderating variable for Aim 3, predicting current anxiety and depression symptoms and COVID-19 related stress. Based on bivariate correlations, several demographic variables were included in study models. Sexual orientation was included as a covariate for all models. Gender was included as a covariate for models with COVID-19 related stress as the outcome, religious affiliation was included for models with positive religious coping as the moderator, mother's education was included for all models with social support as a moderator and ethnicity was included for models with negative religious coping as the moderator. To reduce multicollinearity, all variables were mean centered (Cohen et al, 2003). Significant interactions were probed using the Johnson-Neyman (Johnson & Neyman, 1936) technique.

Results

Descriptive Statistics

Approximately 93 percent ($N = 186$) of the participants in the sample endorsed at least one traumatic event of the LEC-5 and thus had a non-zero score; rates of endorsement for each response type for each traumatic event can be found in Table 2. The most endorsed traumatic event that "happened to" the participant was transportation accidents (36.2%) followed by physical assault (35.2%). The most endorsed types of traumatic life event that participants

“witnessed” were a serious accident at work, home, or during recreational activity (23.1%) and fire or explosion (20.1%). And the most endorsed traumatic event that participants “learned about” was captivity (32.7%) and sudden violent death (32.2%). Regarding internalizing symptoms, half of the participants (50.2%) reported moderate to severe symptoms. Descriptive statistics including bivariate correlations, means, and standard deviations for the main variables of interest are summarized in Tables 3.

Bivariate correlations between main variables showed that trauma exposure was weakly to moderately positively associated with all the main variables: internalizing symptoms ($r = .327, p < .001$), positive religious coping ($r = .158, p = .026$), negative religious coping ($r = .252, p < .001$), and COVID-19 related stress ($r = .324, p < .001$); see Table 3. Internalizing symptoms were positively associated with COVID-19 related stress ($r = .377, p < .001$), negative religious coping ($r = .256, p < .001$) and negatively associated with social support ($r = -.236, p < .001$). Internalizing symptoms were not associated with positive religious coping. Social support was positively associated with positive religious coping ($r = .203, p = .004$) and negatively associated with internalizing symptoms ($r = -.236, p < .001$). COVID-19 stress was not significantly associated with any of the moderators (i.e., social support, positive or negative religious coping). Notably, despite the CASPE and PHQ-4 both assessing negative affectivity that could be related to anxiety and depression, these two outcome variables were only moderately correlated.

Independent sample *t*-tests were performed to examine the difference in trauma history, COVID-19 stress, internalizing symptoms, religious coping, and social support between youth that were affiliated with a formal religion versus those who were not. Youth affiliated with a formal religion ($M = 13.80, SD = 5.78$) endorsed significantly more positive religious coping compared to the youth not affiliated with a formal religion ($M = 10.75, SD = 7.42$), $t(138.23) = -$

3.09, $p < .001$. As such, formal religious affiliation was included as a covariate in the models with positive religious coping as a moderator. There was no significant difference between the youth affiliated with a formal religion ($M = 8.175$, $SD = 5.617$) and those who were not ($M = 7.77$, $SD = 6.06$) for negative religious coping, $t(197) = -0.48$, $p = .19$. There were no other significant group differences.

Aim 1

Two separate regression analyses were performed to examine whether trauma exposure predicted either internalizing symptoms or COVID-19 stress. A significant main effect was found for trauma and internalizing symptoms $F(2,196) = 16.87$, $p < .001$; $\beta = .29$ with trauma accounting for 14.7% of the variance in internalizing symptoms. A significant main effect was also found for trauma and COVID-19-related stress $F(3,195) = 12.35$, $p < .001$; $\beta = .29$, with trauma accounting for 16.0% of the variance in COVID-19-related stress (see Table 4).

Aim 2 and 3

Hypothesis 2 was not supported for either positive or negative religious coping as none of the interaction terms with either religious coping style were significant for either internalizing symptoms or COVID-19 related stress (see Table 5). Similarly, Hypothesis 3 was not supported for social support as none of the interaction terms with total social support were significant for either internalizing symptoms or COVID-19 related stress (see Table 5). Instead, in addition to the main effect of trauma history remaining significant in all models, main effects of negative religious coping and total social support emerged in the internalizing symptoms models, with higher levels of negative religious coping being associated with more internalizing symptoms and higher levels of social support being associated with less internalizing symptoms. Neither

religious coping style nor social support emerged as significant main effects in predicting COVID-19 related stress.

Discussion

This study investigated the role of religious coping and social support in the association between trauma exposure and current internalizing symptoms and COVID-19 related stress in a sample of Black youth. It was hypothesized that the youth who had experienced trauma would exhibit more internalizing symptoms and would endorse experiencing more stress stemming from COVID-19. Results showed that trauma experiences did predict internalizing symptoms and COVID-19 related stress. Surprisingly, results did not suggest that social support or religious coping were protective factors in the current study, even though previous studies have found these factors to buffer negative psychological outcomes from trauma (Jacob et al., 2022). Instead, results from this study suggest that social support is an independent protective factor for internalizing symptoms, above and beyond the effects of trauma, and that negative religious coping is an independent risk factor for internalizing symptoms, above and beyond the significant effects of trauma history. These results and their clinical implications are now discussed.

Trauma, Internalizing Symptoms, and COVID-19-related Stress

In the current study, traumatic experiences predicted internalizing symptoms and COVID-19 related stress. This is consistent with prior research suggesting that trauma experienced from childhood to early adulthood is a consistent predictor of anxiety and depression (Kuzminskaite et al., 2022). The most endorsed traumatic experiences that “happened” to the participant themselves in this study was a transportation accident and physical assault. These results align with recent data that shows that youth and young adults between the

ages of 15 –20 years are involved in more motor vehicle accidents compared to adult drivers (Young Drivers/NHTSA, n.d.). Studies have shown that involvement in motor vehicle accidents could result in psychological distress leading to depression, anxiety, and PTSD (Kenardy et al., 2018; Marasini et al., 2022). In addition, physical abuse can lead to outcomes such as anxiety and depression. For example, a study of adults that had experienced childhood neglect and abuse before the age of 12, found that physical abuse and neglect were associated with higher risk for lifetime Major Depressive Disorder (Widom et al., 2007).

The results from this study also showed that trauma history is associated with COVID-19 related stress even three years after the initial onset of the pandemic. These findings are supported by and extend previous studies that have shown that individuals with a history of trauma exposure are more vulnerable to experiencing elevated levels of internalizing symptoms and peritraumatic distress (Lahav, 2020; McCrory & Viding, 2015). In addition, studies suggest that continuous traumatic stress exacerbates psychological symptomatology more so than having only a history of traumatic exposure. Lahav (2020) found that individuals with a previous trauma history have elevated depression and anxiety, but that individuals with continuous traumatic stress exhibited higher levels of anxiety and depression compared to individuals with just a history of past trauma. Unfortunately, in the current study, our measure of trauma history, the LEC-5 does not provide information on when the trauma occurred, or the duration or repetition of exposure. As such, we are unable to distinguish whether individuals with continuous traumatic stress throughout their youth were more likely to display clinical elevations on the PHQ-4 and CASPE.

Religious Coping and Social Support

Neither religious coping nor perceived social support moderated the association between

trauma and internalizing symptoms or COVID-19-related stress. Instead, both negative religious coping and perceived social support were independent predictors for internalizing symptoms and unrelated to COVID-19 related stress. Previous studies have shown that social support and religious coping can be a buffer between stress and internalizing symptoms. For example, Shi (2021) found that perceived social support moderated the association between stress and depression in 594 Chinese college students. Bjorck and Thurman (2017) found that positive religious coping buffered against the deleterious effects of negative events on depression in a sample of 336 US adults (28% Black) who were Protestant church members. They suggested that Protestant members could view negative events as a challenge to strengthen their faith, which is one of the positive religious coping items on the Brief RCOPE, and this perspective would cause for a positive outlook on stressful times. Similarly, Carpenter et al. (2012) found evidence of buffering effects for negative religious coping on the stress-depression relationship, which was higher for those with stronger religious commitment (e.g., meditation, prayer) in a sample of 111 US adolescents (6% Black).

These null results could be a reflection of adolescents and emerging adults becoming less religious (Mohamed et al., 2021) and more socially isolated since the beginning of the COVID-19 pandemic (Office of the Surgeon General, 2023). Previous research has already demonstrated that loneliness increases during late adolescence to emerging adulthood (Luhman & Hawkey, 2016). Since the pandemic, research has shown that twice as many young adults between the ages of 18 to 34 report feeling ‘left out’ (The Cigna Group, 2023). In our sample, listening to music was the top coping strategy that participants reported when dealing with anxiety/stress related to COVID-19 followed by talking with friends, watching movies and getting a good night’s sleep. So, even though the participants did endorse talking with friends as a coping

strategy, there were other forms of coping that were utilized to deal with distress. This highlights the importance of exploring other potential protective factors in the current generation of Black youth.

Limitations

There are several limitations that should be considered when interpreting the results and clinical implications from this study. First, although we were able to recruit approximately 200 Black youth nationwide, our sample size for this study was still rather small. Because of the small sample size, the demographic representation of our sample was limited. For example, we had small representation of adolescents under the age of 18, and a large portion of the sample who were affiliated with a formal religion endorsed practicing Christianity. Future research should further investigate the role of religious coping with youth of other faiths, and explore these practices in the early to mid-adolescence developmental period, particularly in light of trends that younger generations are less religious. Second, the measure used for religious coping is much more individualistic and less focused on religious community/belongingness. Lastly, we did not ask the timing of the trauma occurrence nor collect PTSD symptoms in the current study. Therefore, for some of the participants 18 years or older, we were unable to ascertain if the trauma occurred during childhood or more recently during emerging adulthood, and whether the internalizing symptoms they reported were accounted for by potential PTSD symptoms. This concern is slightly reduced by the fact that it was expected that the traumatic events likely occurred in the near to distant past, and not in the past two weeks given that Black Americans experience higher rates of trauma during their childhood (Browning et al., 2017; Children's Bureau, 2021; Smith-Clapham et al., 2023; Ullmann et al., 2022).

Future Directions and Conclusion

A recent worldwide study found that only around 7% of adults with mental health disorders receive effective treatments (Vigo et al., 2025). The study found that most individuals do not seek out medical care, which means that they are not receiving treatment or could possibly be utilizing other coping strategies. For example, media consumption (i.e., listening to music and watching television) was one of the top coping strategies that the youth in this study endorsed. In the future, researchers and clinicians should consider how music can be used for therapeutic purposes for intervention or prevention to treat anxiety, depression, or chronic stress for adolescents and emerging adults since music is easily accessible.

In regard to physical assault, the LEC-5 does not require the participants to specify the context of the physical assault (e.g., caregiver, peer, stranger); however, regardless of the perpetrator, physical violence is highly prevalent among adolescents and emerging adults and has become a global health problem (World Health Organization, 2024). Future studies could examine the impact of physical assault within various environments (e.g., school, home, etc.) and perpetrators (e.g., parent, peer, etc.). Similarly, when using the LEC-5 more studies should use the weighted score to assess its validity in other samples.

The protective and risk factors of religion and social support should be further examined with the Black community. For example, Chatters et al. (2018) found that within the Black community negative church experiences and family support was positively associated with depressive symptoms whereas positive family support and church interactions was related to decreased depressive symptoms. This study demonstrates that having negative experiences within the church community or within the family can be damaging to psychological well-being. Likewise, more studies should examine how being spiritual but not religious (SBNR) relate to

religious coping and social support among Black youth. In this current study, approximately 20% of the sample identified as SBNR, which is representative of the overall American population where around 22% of Americans also identify as SBNR (Pew Research Center, 2023). Lastly, this current study was cross-sectional and it would be beneficial to examine religious coping and social support longitudinally especially for individual that have been exposed to traumatic events.

In conclusion, this study is one of only a handful of studies that has investigated the role of religious coping and social support in a primarily Black, youth sample. Findings from this study confirm that trauma is predictive of COVID-19 related stress and internalizing symptoms and that negative religious coping was associated with more internalizing symptoms and higher levels of social support was associated with less internalizing symptoms, which further highlights the need to investigate the role of religious coping and social support.

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Table 1

Demographic Information for Study Sample (N = 199)

Demographic Variable	<i>n</i> (%)
Age	
13-17	9 (4.5%)
18-21	72(36.1%)
22-25	118 (59.4%)
Gender Identity	
Girl/Woman	120 (60.3%)
Boy/Man	79 (38.3%)
Sexual Orientation	
Lesbian	4 (2.0%)
Gay	5 (2.5%)
Straight	150 (75.4%)
Bisexual	26 (13.1%)
Pansexual	7 (3.5%)
Asexual	1 (0.5%)
Questioning	1 (0.5%)
Other/Prefer Not to Say	5 (2.5%)
Religious Affiliation	
Agnostic	8 (4.0%)
Atheist	10 (5.0%)
Buddhist	2 (1.0%)
Catholic/Christian	94 (47.2%)
Hindu	1 (0.5%)
Jewish	2 (1.0%)
Mormon	1 (0.5%)
Muslim	7 (3.5%)
Orthodox	1 (0.5%)
Protestant	18 (9.0%)
Unaffiliated	10 (5.0%)
Spiritual, but not Religious	41 (20.6%)
Other	15 (7.5%)
Biological Mother Education	
Did Not Graduate High School	11 (5.5%)
High School Diploma/GED	73 (36.7%)
Some College Technical or Vocational School	53 (26.6%)
4 Year College Graduate	40 (20.1%)
Advanced Degree (e.g., Master's MD, PhD)	15 (7.5%)
Unsure	7 (3.5%)
Biological Father Education	
Did Not Graduate High School	16 (8.0%)
High School Diploma/GED	71 (35.7%)
Some College Technical or Vocational School	38 (19.1%)

4 Year College Graduate	34 (17.1%)
Advanced Degree (e.g., Master's MD, PhD)	21 (10.5%)
Unsure	19 (9.5%)

Table 2

Frequency of Traumatic Events for Participants

	Happened to me	Witnessed	Learned About	Part of My Job	Does Not Apply
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>
1. Natural Disaster	47 (23.6%)	33 (16.6%)	55 (27.6%)	3 (1.5%)	61 (30.7%)
2. Fire or explosion	24 (12.1%)	40 (20.1%)	50 (25.1%)	9 (4.5%)	76 (38.2%)
3. Transportation accident	72 (36.2%)	35 (17.6%)	37 (18.6%)	7 (3.5%)	48 (24.1%)
4. Serious accident at work, home or during recreational activity	26 (13.1 %)	46 (23.1%)	36 (18.1%)	8 (4.0%)	83 (41.7%)
5. Exposure to toxic substances	13 (6.5%)	24 (12.1%)	48 (24.1%)	8 (4.0%)	106 (53.3%)
6. Physical assault	70 (35.2%)	32 (16.1%)	32 (16.1%)	8 (4.0%)	57 (28.6%)
7. Assault with a weapon	24 (12.1%)	27 (13.6%)	51 (25.6%)	4 (2.0%)	93 (46.7%)
8. Sexual assault	51 (25.6%)	16 (8.0%)	45 (22.6%)	3 (1.5%)	84 (42.2%)
9. Other unwanted sexual experience	68 (34.2%)	6 (3.0%)	37 (18.6%)	5 (2.5%)	83 (41.7%)
10. Combat or exposure to a war-zone	3 (1.5%)	16 (8.0%)	49 (24.6%)	9 (4.5%)	122 (61.3%)
11. Captivity	6 (3.0%)	5 (2.5%)	65 (32.7%)	5 (2.5%)	118 (59.3%)
12. Life-threatening illness	16 (8.0%)	33 (16.6%)	46 (23.1%)	10 (5.0%)	94 (47.2%)
13. Severe human suffering	13 (6.5%)	23 (11.6%)	46 (23.1%)	9 (4.5%)	108 (54.3%)
14. Sudden violent death	9 (4.5%)	26 (13.1%)	64 (32.2%)	9 (4.5%)	91 (45.7%)

15. Sudden accidental death	7 (3.5%)	22 (11.1%)	58 (29.1%)	12 (6.0%)	100 (50.3%)
16. Serious injury, harm or death you caused to someone else	6 (3.0%)	21 (10.6%)	35 (17.6%)	5 (2.5%)	132 (66.3%)
17. Any other very stressful event or experience	64 (32.2%)	26 (13.1%)	29 (14.6%)	6 (3.0%)	74 (37.2%)

Table 3

Correlations

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1. SS	--	--	--	--	--	--	--	--	--	--	--	--
2. CS	-.041	--	--	--	--	--	--	--	--	--	--	--
3. Trauma	-.022	.324***	--	--	--	--	--	--	--	--	--	--
4. In. Sx	-.236***	.377***	.327***	--	--	--	--	--	--	--	--	--
5. PRC	.203**	.031	.158*	-.062	--	--	--	--	--	--	--	--
6. NRC	-.012	.126	.252**	.256***	.302***	--	--	--	--	--	--	--
7. Age	-.129	-.035	.031	.010	-.067	.051	--	--	--	--	--	--
8. Gen.	-.098	.216**	.072	.075	.032	-.101	-.169*	--	--	--	--	--
9. SO	.032	.239***	.196**	.260***	-.151*	.021	-.124	.273***	--	--	--	--
10. ME	-.146*	-.055	-.002	.008	-.010	-.039	-.104	.096	.040	--	--	--
11. DE	.008	-.133	-.053	-.050	.007	.007	.010	.096	.118	.673***	--	--
12. RA	.082	.010	.045	-.079	.226**	.034	-.044	-.029	-.228**	-.203**	-.180*	--
13. Eth.	.106	-.018	-.033	-.023	-.033	-.162*	-.048	.016	-.052	.067	.029	-.159*
Mean (SD)	4.822 (1.248)	2.776 (1.055)	16.090 (9.998)	5.643 (3.526)	12.587 (6.631)	8.015 (5.783)	21.638 (2.478)	--	--	--	--	--

Note. SS= Social Support, CS= COVID-19 Stress, In. Sx.= Internalizing Symptoms , PRC= Positive Religious Coping, NRC= Negative Religious Coping, Gen.= Gender, SO= Sexual Orientation, ME= Mom Education, DE= Dad's Education, RA= Religious Affiliation, Eth.= Ethnicity. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4

Linear Regression Analyses

Variables	<i>Internalizing Symptoms</i>				<i>COVID-19 Related-Stress</i>			
	<i>B</i>	<i>SE</i>	β	<i>p</i>	<i>B</i>	<i>SE</i>	β	<i>p</i>
Constant	3.605	.445	--	<.001	2.004	.152	--	<.001
Trauma History	0.101	.024	.287	<.001	0.030	.007	.285	<.001
Sexual Orientation	1.666	.549	.204	.003	0.343	.170	.140	.045
Gender	--	--	--	--	0.338	.147	.157	.023

Note. N = 199.

Table 5

Moderation Analyses

Variables	Internalizing Symptoms		COVID-19 Stress	
	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>
<u>Positive Religious Coping Model – Aim 2</u>				
Constant	5.431	< .001	2.447	< .001
Trauma History	0.107	< .001	0.031	< .001
Positive Religious Coping	-0.040	.279	-0.001	.917
Interaction Term	<0.001	.993	-0.001	.421
Sexual Orientation	1.479	.011	0.358	.046
Religious Affiliation	-0.251	.615	0.074	.618
Gender	--	--	0.340	.023
<u>Negative Religious Coping Model – Aim 2</u>				
Constant	4.511	.004	2.426	< .001
Trauma	0.083	< .001	0.028	< .001
Negative Religious Coping	0.120	.004	0.014	.289
Interaction Term	0.002	.681	<0.001	.963
Sexual Orientation	1.725	.002	0.343	.046
Ethnicity	0.359	.650	0.027	.910
Gender	--	--	0.356	.018
<u>Social Support Model – Aim 3</u>				
Constant	5.428	< .001	2.618	< .001
Trauma	0.098	< .001	0.030	< .001
Social Support	-0.682	<.001	-0.030	.597
Interaction Term	0.010	.585	-0.001	.915
Sexual Orientation	1.725	.002	0.354	.041
Mom's Education	-0.286	.575	-0.189	.231
Gender	--	--	0.344	.022

Appendix A

LEC-5 Standard

Instructions: Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally; (b) you witnessed it happen to someone else; (c) you learned about it happening to a close family member or close friend; (d) you were exposed to it as part of your job (for example, paramedic, police, military, or other first responder); (e) you're not sure if it fits; or (f) it doesn't apply to you.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

Event	Happened to me	Witnessed it	Learned about it	Part of my job	Not sure	Doesn't apply
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)	☐	☐	☐	☐	☐	☐
2. Fire or explosion	☐	☐	☐	☐	☐	☐
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)	☐	☐	☐	☐	☐	☐
4. Serious accident at work, home, or during recreational activity	☐	☐	☐	☐	☐	☐
5. Exposure to toxic substance (for example, dangerous chemicals, radiation)	☐	☐	☐	☐	☐	☐
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)	☐	☐	☐	☐	☐	☐
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)	☐	☐	☐	☐	☐	☐
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)	☐	☐	☐	☐	☐	☐
9. Other unwanted or uncomfortable sexual experience	☐	☐	☐	☐	☐	☐
10. Combat or exposure to a war-zone (in the military or as a civilian)	☐	☐	☐	☐	☐	☐
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)	☐	☐	☐	☐	☐	☐
12. Life-threatening illness or injury	☐	☐	☐	☐	☐	☐
13. Severe human suffering	☐	☐	☐	☐	☐	☐
14. Sudden violent death (for example, homicide, suicide)	☐	☐	☐	☐	☐	☐
15. Sudden accidental death	☐	☐	☐	☐	☐	☐
16. Serious injury, harm, or death you caused to someone else	☐	☐	☐	☐	☐	☐
17. Any other very stressful event or experience	☐	☐	☐	☐	☐	☐

Appendix B

22. Please indicate to what extent the emotions or feelings below describe how you have been feeling because of the COVID-19 pandemic?

Emotion	Very Slightly or Not at all	Slightly	Moderately	Quite a Bit	Extremely
Anxious	1	2	3	4	5
Angry	1	2	3	4	5
Content	1	2	3	4	5
Afraid	1	2	3	4	5
Happy	1	2	3	4	5
Sad	1	2	3	4	5
Worried	1	2	3	4	5
Irritable	1	2	3	4	5
Concerned	1	2	3	4	5
Stressed	1	2	3	4	5
Relieved	1	2	3	4	5
Distressed	1	2	3	4	5
Lonely	1	2	3	4	5
Bored	1	2	3	4	5
Hopeless	1	2	3	4	5
Frustrated	1	2	3	4	5
Disappointed	1	2	3	4	5
Calm	1	2	3	4	5
Appreciative	1	2	3	4	5

Appendix C

PHQ-4: THE FOUR-ITEM PATIENT HEALTH QUESTIONNAIRE FOR ANXIETY AND DEPRESSION

Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
Feeling nervous, anxious or on edge	0	1	2	3
Not being able to stop or control worrying	0	1	2	3
Feeling down, depressed or hopeless	0	1	2	3
Little interest or pleasure in doing things	0	1	2	3
TOTALS				

PHQ-4: THE FOUR-ITEM PATIENT HEALTH QUESTIONNAIRE FOR ANXIETY AND DEPRESSION

Appendix D

BRCS

The following items deal with ways you coped with the negative event in your life. There are many ways to try to deal with problems. These items ask what you did to cope with this negative event. Obviously different people deal with things in different ways, but we are interested in how you tried to deal with it. Each item says something about a particular way of coping. We want to know to what extent you did what the item says. *How much or how frequently*. Don't answer on the basis of what worked or not - just whether or not you did it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can. Choose the answer that best applies to you.

	Not at all	Somewhat	Quite a bit	A great deal
1. Looked for a stronger connection with God.	☐	☐	☐	☐
2. Sought God's love and care.	☐	☐	☐	☐
3. Sought help from God in letting go of my anger.	☐	☐	☐	☐
4. Tried to put my plans into action together with God.	☐	☐	☐	☐
5. Tried to see how God might be trying to strengthen me in this situation.	☐	☐	☐	☐
6. Asked forgiveness for my sins.	☐	☐	☐	☐

7. Focused on religion to stop worrying about my problems.	☐	☐	☐	☐
8. Wondered whether God had abandoned me.	☐	☐	☐	☐
9. Felt punished by God for my lack of devotion.	☐	☐	☐	☐
10. Wondered what I did for God to punish me.	☐	☐	☐	☐
11. Questioned God's love for me.	☐	☐	☐	☐
12. Wondered whether my church had abandoned me.	☐	☐	☐	☐
13. Decided the devil made this happen.	☐	☐	☐	☐
14. Questioned the power of God.	☐	☐	☐	☐

Appendix E

Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
 Circle the "2" if you **Strongly Disagree**
 Circle the "3" if you **Mildly Disagree**
 Circle the "4" if you are **Neutral**
 Circle the "5" if you **Mildly Agree**
 Circle the "6" if you **Strongly Agree**
 Circle the "7" if you **Very Strongly Agree**

1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7	SO
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	SO
3.	My family really tries to help me.	1	2	3	4	5	6	7	Fam
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7	Fam
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7	SO
6.	My friends really try to help me.	1	2	3	4	5	6	7	Fri
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7	Fri
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7	Fam
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7	Fri
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7	SO
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7	Fam
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7	Fri

The items tended to divide into factor groups relating to the source of the social support, namely family (Fam), friends (Fri) or significant other (SO).