Original Paper

Association Between Discrimination and Depressive Symptoms Among Hispanic or Latino Adults During the COVID-19 Pandemic: Cross-Sectional Study

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Abstract

Background: Discrimination and xenophobia toward Hispanic and Latino communities increased during the COVID-19 pandemic, likely inflicting significant harm on the mental health of Hispanic and Latino individuals. Pandemic-related financial and social instability has disproportionately affected Hispanic and Latino communities, potentially compounding existing disparities and worsening mental health.

Objective: This study aims to examine the association between discrimination and depressive symptoms during the COVID-19 pandemic among a national sample of Hispanic and Latino adults.

Methods: Data from a 116-item web-based nationally distributed survey from May 2021 to January 2022 were analyzed. The sample (N=1181) was restricted to Hispanic or Latino (Mexican or Mexican American, Puerto Rican; Cuban or Cuban American, Central or South American, and Dominican or another Hispanic or Latino ethnicity) adults. Depression symptoms were assessed using the 2-item Patient Health Questionnaire. Discrimination was assessed using the 5-item Everyday Discrimination Scale. A multinomial logistic regression with a block entry model was used to assess the relationship between discrimination and the likelihood of depressive symptoms, as well as examine how controls and covariates affected the relationship of interest.

Results: Mexican or Mexican American adults comprised the largest proportion of the sample (533/1181, 45.13%), followed by Central or South American (204/1181, 17.3%), Puerto Rican (189/1181, 16%), Dominican or another Hispanic or Latino ethnicity (172/1181, 14.6%), and Cuban or Cuban American (83/1181, 7.03%). Approximately 31.26% (367/1181) of the sample had depressive symptoms. Regarding discrimination, 54.56% (634/1181) reported experiencing some form of discrimination. Compared with those who did not experience discrimination, those who experienced discrimination had almost 230% higher odds of depressive symptoms (adjusted odds ratio [AOR] 3.31, 95% CI 2.42-4.54). Also, we observed that sociodemographic factors such as age and gender were significant. Compared with participants aged 56 years and older, participants aged 18-35 years and those aged 36-55 years had increased odds of having depressive symptoms (AOR 3.83, 95% CI 2.13-6.90 and AOR 3.10, 95% CI 1.74-5.51, respectively). Women had higher odds of having depressive symptoms (AOR 1.67, 95% CI 1.23-2.30) than men. Respondents with an annual income of less than US $25,000 (AOR 2.14, 95% CI 1.34-3.41) and US $25,000 to less than US $35,000 (AOR 1.89, 95% CI 1.17-3.06) had higher odds of depressive symptoms than those with an annual income of US $50,000 to less than US $75,000.

Conclusions: Our findings provide significant importance especially when considering the compounding, numerous socioeconomic challenges stemming from the pandemic that disproportionately impact the Hispanic and Latino communities. These challenges

include rising xenophobia and tensions against immigrants, inadequate access to mental health resources for Hispanic and Latino individuals, and existing hesitations toward seeking mental health services among this population. Ultimately, these findings can serve as a foundation for promoting health equity.

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KEYWORDS

depressive symptoms; everyday discrimination; COVID-19 pandemic; Hispanic and Latino; immigrant health

Introduction

Mental health conditions are a major public health concern in the United States, with 20% of US adults (ie, 52.9 million people) experiencing mental illness annually [1]. Risk factors for mental health conditions include having chronic diseases, experiencing homelessness, financial and food insecurity, substance use, racism and discrimination, and stressful life events [2-5]. The prevalence of mental health conditions also varies by sociodemographic factors such as gender, race and ethnicity, and income [2,6-9]. Although data suggest that racial and ethnic minorities have lower rates of mental health conditions than White individuals, these trends may be a result of higher rates of misdiagnosis or underdiagnosis of mental health conditions among non–White populations [6,10,11]. Furthermore, the impact of mental health symptoms is more far-reaching and drastic among racial and ethnic minoritized communities [6,10]. Despite having a lower lifetime risk for mood and anxiety disorders, Hispanic and non-Hispanic Black adults are more likely to have persistent disorders than non-Hispanic White adults [12].

In addition, barriers to mental health care access are more pronounced among racial and ethnic minoritized communities. For example, disability burden due to inadequate mental health services and unmet needs are disproportionately higher among racial and ethnic minorities [13]. Among adults with moderate or severe anxiety or depression in 2019, 53% of Black adults and 40% of Hispanic adults reported that they were not receiving treatment [14]. Lower use and poorer access to psychological services among underrepresented and underserved racial and ethnic groups (eg, Black and African American communities; Hispanic and Latino communities) stem from socioeconomic inequities that are compounded by stigma, financial barriers, structural racism, and lack of representation in health care [5,10,15,16]. Moreover, historical and current discrimination, as well as abuse by the health care system, discordance between providers and patients, and lack of cultural humility and empathy among providers perpetuates apprehension to seek care and worsens mental health care access and use [5,10,15,16].

The COVID-19 pandemic has had especially drastic mental health consequences, with the prevalence of depression and anxiety being nearly 4-fold higher during the pandemic (2020) than before (2019) [17]. Concurrent with the increase in mental health burden in the United States was an increase in anti-immigrant sentiment and misinformation, racism, discrimination, exploitation, and xenophobia targeted toward Hispanic and Latino groups [18]. Exclusion of immigrants, 44% of whom are Hispanic or Latino (ie, two-thirds of Hispanic and Latino individuals in the United States are born outside the United States), from COVID-19 relief bills has likely further entrenched inequities for immigrant, Hispanic, and Latino communities in the United States [19,20]. Moreover, Hispanic and Latino communities have been disproportionately affected by COVID-19, having higher rates of COVID-19 infection, hospitalization, and mortality [19,21]. Data on layoffs due to the pandemic also show that Hispanic and Latino adults had the highest probability of being laid off compared with their Black, Asian, and White counterparts [22]. Thus, the increase in discrimination toward Hispanic and Latino groups combined with preexisting low psychological service use rates and worsening financial and social disparities is likely to have major, synergistic effects on the acute and long-term mental health of the Hispanic and Latino community. In fact, data as recent as February 2023 from the Household Pulse Survey show that Hispanic or Latino adults have the highest prevalence of depressive symptoms among all racial and ethnic groups [23]. Hispanic and Latino adults also reported a higher prevalence of depressive symptoms and a higher unmet need for mental health services compared with non-Hispanic Asian, non-Hispanic Black, and non-Hispanic White adults during the pandemic (March 2020, December 2020, and January 2021) [4,17,24,25]. Moreover, a prepandemic meta-analysis of 333 studies reported that discrimination may incur greater mental health tolls for Latino adults compared to other racial and ethnic groups, indicating that recent increases in discrimination may have particularly drastic effects on Hispanic and Latino psychological outcomes [26].

Importantly, the heterogeneity of the US Hispanic or Latino population must be considered, with prepandemic research showing differences in psychological distress, depression, and anxiety across acculturation and Hispanic or Latino ethnicity [27-32]. However, it remains to be seen whether these differences are present during the pandemic. To address these knowledge gaps, we examined the association of discrimination and depressive symptoms during the COVID-19 pandemic among a national sample of Hispanic and Latino adults that was further analyzed by Hispanic or Latino ethnicity group. We hypothesize that (1) discrimination will be associated with higher odds of depressive symptoms and (2) differences will be observed in the odds of depressive symptoms across Hispanic or Latino ethnicity group.

Methods

Study Participants

Data from "Understanding the Impact of the Novel Coronavirus (COVID-19) and Social Distancing on Physical and Psychosocial (Mental) Health and Chronic Diseases" were analyzed. This was a 116-item web-based survey that was

nationally distributed in the United States from May 2021 to January 2022. Qualtrics, LLC conducted recruitment and survey distribution using a national survey panel. The survey was in English only. For more details, see the study by Montiel Ishino et al [33]. Analysis was restricted to Hispanic or Latino (ie, Mexican or Mexican American; Puerto Rican, Cuban or Cuban American, Central or South American, and Dominican or another Hispanic or Latino ethnicity) adults, which included both foreign-born and US-born groups. The final sample size was 1181.

Outcome Variable: Depressive Symptoms

Depressive symptoms were assessed using the Patient Health Questionnaire-2 [34]. Two items were used to assess whether "Over the last 2-week period how often were you bothered by the following problems?": (1) "Little interest or pleasure in doing things"; and (2) Feeling down, depressed or hopeless." Responses to these items included (1) "not at all" for a score of 0; (2) "several days" for a score of 1; (3) "more than half the days" for a score of 2; and (4) "nearly every day" for a score of 3. Scores were summed for a range of 0-6, where a score of 0-2 (reference category) indicates no depressive symptoms and a score of 3 or more indicates present depressive symptoms [34]. The Patient Health Questionnaire-2 has been validated by both Spanish- and English-speaking Hispanic and Latino adults [34-37].

Predictor Variable: Everyday Discrimination

The short version of the Everyday Discrimination Scale was used [38]. Items of the short version assessed whether "In your day-to-day life how often have any of the following things happened to you?": (1) You are treated with less courtesy or respect than other people. (2) You receive poorer service than other people at restaurants or stores. (3) People act as if they think you are not smart. (4) People act as if they are afraid of you. (5) You are threatened or harassed. Responses to the 5 items were (1) never; (2) monthly to weekly; and (3) multiple times a week to daily. A composite score was created to compare participants who had never experienced any discrimination with those with experiences of discrimination.

Acculturation and Sociodemographic Covariates and Controls

All items were self-reported. Acculturation factors included years in the United States (ie, less than 10 years and 10 or more years) and English-speaking proficiency level (ie, none or poor, fairly well, well, or very well). Self-reported sociodemographic factors included the following: age group (ie, 18-35 years, 36-55 years, and 56 years of age and older); gender (ie, man, woman, and another gender category that included responses for nonbinary, transgender, or responses provided through fill in the blank); marital status (ie, divorced or separated, married or living with a partner, never been married, or widowed); educational attainment (ie, categorized by self-reported highest schooling that included less than high school, did not attend school, elementary level education, more than elementary to junior high school, or some high school; high school diploma or GED; some college or vocational or technical schooling; bachelor's degree; and master's degree or above that includes doctoral, professional, or postgraduate degree); and annual household income (ie, US <$25,000, US $25,000 to US $34,999, US $35,000 to US $49,999, US $50,000 to US $74,999, and US ≥$75,000).

Statistical Analysis

We used a multinomial logistic regression with a block entry model to assess the relationship between discrimination and the likelihood of depressive symptoms, as well as to examine how controls and covariates affected the relationship of interest. All findings are reported in odds ratios (ORs) or adjusted odds ratios (AORs) using 95% CI and *P* value at ≤.05 statistical level of significance. All analyses were conducted using Stata/MP (version 16.1; StataCorp).

Ethical Considerations

The NIH Intramural Research Program institutional review board, Human Research Protection Program, and Office of Human Subjects Research Protections reviewed this study's research protocol, determined that our protocol did not involve human participants and granted an exemption on December 23, 2020 (IRB#000308). For full information on ethical considerations for this study, see the study by Ishino et al [33]. Qualtrics recruited participants, and web-based informed consent was obtained from each participant prior to filling out the survey. Participants were assured that responses were confidential and were reminded that the study was voluntary, and they could opt out of the survey or skip any questions without repercussions. All answers were kept confidential, and no personal identifiers were shared with the National Institute on Minority Health and Health Disparities research team, which participants were also made aware of. A US $10 gift card was given to each participant after the completion of their survey, which took approximately 30 minutes to complete.

Results

Sample Characteristics

The largest subpopulation among the sample was Mexican or Mexican American (533/1181, 45.13%), followed by Central or South American (204/1181, 17.3%), Puerto Rican (189/1181, 16%), Dominican or another Hispanic or Latino ethnicity (172/1181, 14.6%), and Cuban or Cuban American (83/1181, 7.03%; Table 1). Depressive symptoms were reported in 31.26% (367/1181) of the sample and 54.56% (634/1181) reported experiencing some form of discrimination. Most of the participants reported living in the United States for 10 years or more (900/1181, 76.53%), spoke English very well (832/1181, 70.63%), were 18-35 years of age (541/1181, 49.54%), and were women (728/1181, 61.75%). About a quarter of participants (290/1181, 24.83%) reported having a household income of less than US $25,000 (Table 1).

Table 1. Descriptive characteristics of the sample (N=1181)[a].

	Values, n (%)
Depressive symptoms	
Present depressive symptoms	367 (31.26)
Discrimination	
Experienced discrimination	634 (54.56)
Years in the United States	
≥10	900 (76.53)
English-speaking proficiency	
None or poor	60 (5.09)
Fairly well	94 (7.98)
Well	192 (16.30)
Very well	832 (70.63)
Age (years)	
18-35	541 (49.54)
36-55	366 (33.52)
56 and older	185 (16.94)
Gender	
Another gender	32 (2.71)
Man	419 (35.53)
Woman	728 (61.75)
Hispanic or Latino ethnicity	
Central or South American	204 (17.27)
Cuban or Cuban American	83 (7.03)
Dominican or another Hispanic or Latino ethnicity	172 (14.56)
Mexican or Mexican American	533 (45.13)
Puerto Rican	189 (16)
Marital status	
Divorced or separated	106 (9.01)
Married or living with a partner	617 (52.47)
Never been married	425 (36.14)
Widowed	28 (2.38)
Education	
Less than high school	36 (3.06)
High school or GED[b]	368 (31.24)
Some college, vocational, or technical	364 (30.9)
Bachelor’s degree	280 (23.77)
Master’s degree or above	130 (11.04)
Household income (US $)	
<$25,000	290 (24.83)
$25,000 to <$35,000	208 (17.81)
$35,000 to <$50,000	190 (16.27)
$50,000 to <$75,000	235 (20.12)

	Values, n (%)
≥$75,000	245 (20.98)

[a]Some category values do not add to the total (N) due to missing numbers.

[b]GED: General Education Development.

Multinomial Logistic Regression

Model 1 (the unadjusted model) found that there was a significant relationship between discrimination and the likelihood of depressive symptoms. In model 2, we then included acculturation factors, where years in the United States were found to be significant. In model 3, the comprehensive model that was selected for interpretation included the variables from the aforementioned models in addition to sociodemographic variables. Compared with those who did not experience discrimination, those who experienced discrimination had almost 230% higher odds of depressive symptoms (AOR 3.31, 95% CI 2.42-4.54). In addition, we observed that sociodemographic factors such as age and gender were significant. Participants aged 18-35 years of age and 36-55 years of age had increased odds of having depressive symptoms (AOR 3.83, 95% CI 2.13-6.90 and AOR 3.10, 95% CI 1.74-5.51, respectively) when compared with participants 56 years of age and older. Regarding gender, women compared with men had higher odds of having depressive symptoms (AOR 1.67, 95% CI 1.23-2.30). Respondents with an annual income of less than US $25,000 (AOR 2.14, 95% CI 1.34-3.41) and US $25,000 to less than US $35,000 (AOR 1.89, 95% CI 1.17-3.06) had higher odds of depressive symptoms than those with an annual income of US $50,000 to less than US $75,000 (Table 2).

Table 2. OR[a] and CIs for associations between depressive symptoms and covariates[b].

	Model 1, OR (95% CI)	Model 2, AOR[c] (95% CI)	Model 3, AOR[c] (95% CI)
Discrimination			
Experienced discrimination	*3.66 (2.78-4.82)*[d]	*3.55 (2.69-4.70)*	*3.31 (2.42-4.54)*
Experienced no discrimination	Reference	Reference	Reference
Years in the United States			
<10	N/A[e]	*1.46 (1.04-2.05)*	1.34 (0.90-1.98)
≥10	N/A	Reference	Reference
English-speaking proficiency			
None or poor	N/A	0.78 (0.41-1.46)	0.71 (0.34-1.49)
Fairly well	N/A	*0.58 (0.34-0.99)*	0.60 (0.34-1.08)
Well	N/A	0.89 (0.61-1.30)	1.04 (0.68-1.58)
Very well	N/A	Reference	Reference
Age (years)			
18-35	N/A	N/A	*3.83 (2.13-6.90)*
36-55	N/A	N/A	*3.10 (1.74-5.51)*
56 and older	N/A	N/A	Reference
Gender			
Another gender identity	N/A	N/A	1.50 (0.65-3.46)
Man	N/A	N/A	Reference
Woman	N/A	N/A	*1.67 (1.23-2.30)*
Hispanic or Latino ethnicity			
Central or South American	N/A	N/A	0.73 (0.43-1.22)
Cuban or Cuban American	N/A	N/A	1.44 (0.71-2.91)
Dominican or another Hispanic or Latino ethnicity	N/A	N/A	Reference
Mexican or Mexican American	N/A	N/A	1.01 (0.66-1.55)
Puerto Rican	N/A	N/A	1.22 (0.72-2.05)
Marital status			
Divorced or separated	N/A	N/A	1.05 (0.60-1.84)
Married or living with a partner	N/A	N/A	0.99 (0.71-1.38)
Never been married	N/A	N/A	Reference
Widowed	N/A	N/A	1.72 (0.58-5.09)
Education			
Less than high school	N/A	N/A	0.77 (0.29-2.00)
High school or general educational diploma	N/A	N/A	1.22 (0.70-2.14)
Some college, vocational, or technical	N/A	N/A	1.06 (0.62-1.83)
Bachelor’s degree	N/A	N/A	0.71 (0.41-1.23)
Master’s degree or above	N/A	N/A	Reference
Household income (US $)			
<$25,000	N/A	N/A	*2.14 (1.34-3.41)*
$25,000 to <$35,000	N/A	N/A	*1.89 (1.17-3.06)*
$35,000 to <$50,000	N/A	N/A	1.35 (0.83-2.20)
$50,000 to <$75,000	N/A	N/A	Reference

	Model 1, OR (95% CI)	Model 2, AOR[c] (95% CI)	Model 3, AOR[c] (95% CI)
≥$75,000	N/A	N/A	1.44 (0.89-2.33)

[a]OR: odds ratio.

[b]Covariates included years in the United States, English-speaking proficiency level, age, gender, marital status, educational attainment, and annual household income.

[c]AOR: adjusted odds ratio.

[d]Values in italics indicate statistical significance level at $P \leq .05$.

[e]N/A: not applicable.

Discussion

Principal Findings

We found a significant association between discrimination and depressive symptoms that persisted after adjusting for acculturation and sociodemographic factors, indicating that discrimination cannot be overlooked among Hispanic and Latino communities during the pandemic. This relationship is particularly important given discrimination's role in perpetuating systemic inequities and socioeconomic disparities [39]. For instance, research predating the pandemic reported that discrimination toward Latino communities significantly limits job opportunities, income, housing, and education [40,41]. Discrimination has also been shown to increase substance use disorders, chronic disease, and blood pressure [42]. All these discrimination-related adverse life and health outcomes were risk factors for poor physical and mental health during the pandemic [43]. Thus, when placing our findings in the context of a pandemic that has caused greater financial and social instability for racial and ethnic minoritized communities, the need to address the deleterious effects of discrimination on the mental health of Hispanic and Latino communities is urgently salient. Ultimately, our findings mirror research showing that discrimination is associated with depressive symptoms and other adverse psychological outcomes both predating [26,40,42,44] and during the COVID-19 pandemic [45-47].

Contrary to our hypothesis, we did not find differences in the odds of depressive symptoms by Hispanic or Latino subgroup. This may be because we adjusted for sociodemographic and migration factors, which have been shown to attenuate differences in anxiety and psychiatric disorders by Hispanic or Latino subgroup [48,49]. Furthermore, our findings may be an indication that the pandemic was detrimental to mental health irrespective of subgroup given the prevalence of discrimination and depressive symptoms was exceedingly high and similar across all subgroups. Thus, future research should examine whether discrimination impacts depression symptoms differently by Hispanic or Latino subgroup during the pandemic and beyond. For instance, Held and Lee's [49] study about discrimination and mental health among Latino adults reported that discrimination was more likely to have an effect on the odds of having a psychiatric disorder among Mexican adults than among Puerto Rican adults, and there was no difference between Cubans and Puerto Ricans. However, no further investigation or comparison regarding other Hispanic or Latino subgroups was performed.

This study also found that younger respondents (18-35 and 36-55 years of age) were more likely to report depression symptoms than older respondents (56 years of age and older). This finding is discordant with prepandemic literature, which has typically reported a higher risk of depression and levels of distress among older Latino adults [50]. Explanations for these trends lie within the longer time spent in the United States being linked with loss of cultural values that may be protective against depression and distress, and longer exposure to discrimination and acculturative stress [50,51]. Our findings align with previous research conducted during the pandemic, which has shown a consistent pattern in the United States of an inverse relationship between age and mental health symptoms, including psychological distress and depressive disorder [52,53]. Furthermore, a web-based study using a national sample of 124 Hispanic and Latino adults found that younger age was associated with poorer overall mental health during the COVID-19 pandemic [54]. These findings may be explained by younger Latino individuals (younger than 50 years) being more likely to report experiencing discrimination during the pandemic, according to a March 2021 report from the Pew Research Center, which may translate to greater odds of mental health symptoms [55].

In our study, women had higher odds of depressive symptoms than men, which is consistent with prior studies [53,56-59]. Multiple explanations for this association exist, including Latina women having greater internalizing behaviors (ie, anxiety and mood disorders), psychological distress, depressive responses to discrimination and family conflict, and experiencing greater levels of acculturative stress than Latino men [56-58,60]. Furthermore, traditional Latino cultural values such as *machismo* and *marianismo* may increase the odds of depressive symptoms among Latina women compared with men [59]. In addition, discrimination is linked to greater family conflict among Latino adults, although whether gender modifies this association is unclear and requires further study [61]. These pathways for distress and depression may be exacerbated during the pandemic, especially given that Hispanic and Latino families have faced significantly more economic and health-related hardships than Asian and White families across the income spectrum [62]. Also, among Hispanic and Latina parents, women more than men report childcare during the pandemic as being very or somewhat difficult, suggesting that the burden of family responsibilities and childcare may be higher among Latina women [63]. Furthermore, Latina women are overrepresented in unemployment and layoffs during the pandemic, which is likely to worsen financial instability and inequities [22,64]. The disproportionate burdens of stressors and risk factors may

manifest into worse depressive symptoms among Latina women as seen in our study. Finally, this study found that individuals with lower income had increased odds of depressive symptoms, which is consistent with prior research showing that lower-income groups are more affected by national financial and public health crises [65-67]. Low-income Latino individuals also face numerous structural and systemic barriers to well-being, such as segregation, food deserts, limited job opportunities, and overcrowded housing—all of which can contribute to worse mental health [68-70]. Moreover, low-income and Latino communities have a heightened risk of COVID-19 incidence and severe symptoms [21,68,71]. Thus, this constellation of factors may also contribute to their higher odds of depressive symptoms.

Limitations

Given this study is cross-sectional, directionality and causality cannot be established. Also, Dominicans and individuals who indicate "Another Hispanic, Latino, or Spanish origin" were combined due to small sample sizes. Thus, the association between discrimination and depressive symptoms among Dominicans could not be elucidated and may be obscured. In addition, the survey was conducted in English and web-based only, meaning individuals with limited English proficiency or who do not have access to the internet may not be captured and are underrepresented. Another limitation is the survey was administered over a 6-month period when vaccines became more available and some restrictions were lifted, meaning answer choices may differ depending on when the survey was completed. It should also be noted that the 5-item Everyday Discrimination Scale has not been previously validated among Hispanic and Latino adults, which may affect our results.

Conclusions

Using a national sample of Hispanic and Latino adults, we found that discrimination was associated with depressive symptoms during the COVID-19 pandemic. We further found elevated odds of depressive symptoms among women, individuals younger than 56 years, and lower-income adults—highlighting potentially at-risk groups. Our results hold significant relevance due to the numerous pandemic-related socioeconomic crises that disproportionately impact Latino communities, increased xenophobia and tension toward immigrants, inadequate resources to address mental health care demands among Hispanic and Latino communities, and existing hesitancy in accessing mental health services in these communities. The findings of this study serve as compelling evidence of the poor depression outcomes experienced by Hispanic and Latino communities. This study can serve as an important foundational step in promoting health equity for these at-risk groups.

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Data Availability

The data are available by requesting FW per the new NIH Data Management and Sharing Agreement plan.

Authors' Contributions

Authors CKO (cameron.ormiston@icahn.mssm.edu) and FW (faustine.williams@nih.gov) are co-corresponding authors for this article

Conflicts of Interest

None declared.

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Abbreviations

AOR: adjusted odds ratio
OR: odds ratio

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