

# Ethnic Differences in Suicidal Ideation and Attempts

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## ABSTRACT

*Suicide is one of the leading causes of death, and suicidal ideation and attempts are a major public health concern. However, little is known about the relationship between ethnicity and suicidal behaviors. This article provides an update on the relationship between ethnicity and suicidal ideation and attempts. It reviews the rates of suicidal ideation/attempts across ethnic groups in the United States as well as the risk factors associated with suicide attempts in each ethnic group. The results of published studies have been inconsistent. Some studies have suggested that non-Hispanic Whites have significantly higher suicide attempt risk than other ethnic groups, while two studies using national data did not find any significant relationship between race/ethnicity and suicidal ideation or attempts. From the epidemiologic point of view, these findings underscore the need to conduct large studies in general population samples that include enough individuals from all ethnic groups and that are large enough to detect significant effects among those groups. From the clinical point of view, mental health professionals should focus on factors consistently found to be strongly associated with suicide attempts across different populations, including major depressive disorder and other psychiatric disorders, female gender, and young age.*

**Needs Assessment:** Suicide prevention is a public health priority but is hampered by the scarcity of data on the relationship between ethnicity and suicidal behaviors. An important first step is to identify groups at increased risk for suicidal ideation and attempts. Clinicians need to be aware of the existence of high-risk groups.

### Learning Objectives:

- Identify the rates of suicidal ideation/attempts across ethnic groups in the United States.
- Recognize individuals at high risk for suicidal behaviors across ethnic groups.
- Recognize specific risk factors for individuals of a given ethnic group.

**Target Audience:** Primary care physicians and psychiatrists.

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This activity has been peer-reviewed and approved by Eric Hollander, MD, chair and professor of psychiatry at the Mount Sinai School of Medicine, and Norman Sussman, MD, editor of *Primary Psychiatry* and professor of psychiatry at New York University School of Medicine. Review Date: January 14, 2008.

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## INTRODUCTION

In the United States, suicide is the 11th cause of death for all ages, the third cause of death in individuals 10–24 years of age, and the second in those 25–34 years of age.<sup>1</sup> Every year, >300,000 individuals (112–145 per 100,000 population) are treated for suicide attempts in emergency departments in the US.<sup>1</sup> Suicidal ideation strongly increases the risk for suicide attempts.<sup>2</sup>

Studies have consistently documented that women<sup>2-5</sup> and young adults<sup>2,5-7</sup> are at increased risk for suicidal behavior. In contrast, much less is known about the relationship between ethnicity and suicidal ideation and attempts. Some studies have suggested that non-Hispanic Whites have significantly higher risk for suicide attempts than other ethnic groups,<sup>4</sup> such as Blacks<sup>2</sup> and Hispanics,<sup>8</sup> although some<sup>9</sup> but not all<sup>10</sup> studies have suggested that different subgroups among Hispanics have divergent rates of suicide attempts. In contrast, two studies using national data did not find any significant relationship between race/ethnicity and suicidal ideation or attempts.<sup>2,6</sup> It is debatable whether these inconsistencies are due to the fact that ethnic groups as usually conceptualized are rather heterogeneous. There are also some questions as to whether risk factors for suicidal ideation and attempts among the general population may not apply to specific ethnic groups such as African Americans, American Indians, or Hispanics.<sup>11</sup>

This article provides an update on the relationship between race/ethnicity and suicidal ideation/attempts. The article reviews the rate of suicidal ideation and attempts across races and ethnic groups in the US as well as the specific risk factors associated with suicide attempts in each race and ethnic group. Rates of suicidal ideation and attempts across ethno-racial groups are presented in Table 1.<sup>2,4-10,12-18</sup> Risk factors for suicide attempts across races and ethnic groups are presented in Table 2.<sup>8-10,13,15-35</sup>

This article uses the five racial classifications used by the US Census Bureau to collect and present federal data on race and ethnicity. These classifications include American Indian and Alaska Native; Asian; Black or African American; Native Hawaiian and Other Pacific Islander; and White.<sup>36</sup> There are also two categories for ethnicity, namely, Hispanic or Latino and Non-Hispanic/non-Latino (Hispanics and Latinos may be of any race).<sup>36</sup> Rates and risk factors for suicidal ideation and attempts in each of these groups are presented in alphabetical order.

## RATES AND RISK FACTORS FOR SUICIDAL IDEATION AND ATTEMPTS

### AMONG AMERICAN INDIANS AND ALASKA NATIVES (NATIVE AMERICANS)

The broader term, “Native Americans,” potentially includes American Indians, Alaska Natives, Native Hawaiians, and all indigenous people of Canada, Mexico, and Central and South America. In contrast with the common view that Native Americans are a homogeneous group, according to Census reports there are >561 tribes speaking over 220 indigenous languages with various dialects living in the US.<sup>37</sup> Relatively little is known about suicidal ideation and attempts among Native Americans, with most of the studies being based on student populations.<sup>13,38-40</sup>

In 1977, the National Congress of American Indians and National Tribal Chairman’s Association issued a joint resolution that preferred the term “American Indian” over “Native American” for the indigenous population of the “lower 48.” The term “Alaska Native” was reserved for the indigenous population of Alaska. Native Hawaiians were not included in either of these groups.<sup>13</sup> A more recent survey by the US Department of Labor<sup>41</sup> indicated that approximately 50% of the Indians sampled preferred the term “American Indian” over “Native American.” Therefore, the more specific term “American Indian” will be used throughout this article.

According to the US Census, 4.1 million American Indians/Alaska Natives live in the US, comprising approximately 1.5% of the US population.<sup>42</sup> Studies have reported a high prevalence of suicidal ideation and attempts among American Indians, particularly among females, adolescents, and young adults.<sup>13</sup> Data on adults are scarce but suggest that there is a high prevalence of suicidal ideation and attempts among American Indians.<sup>13</sup> According to the Alaska Trauma Registry,<sup>43</sup> rates of suicide attempts, particularly those using firearms, were significantly higher for Alaska Natives than Alaska Whites between 1994 and 1999. In a study of a sample of urban Native Americans ≥50 years old, 31% of those who had been physically abused and 12% of those who had not been abused reported a history of depression or suicide attempts. The authors failed to provide rates for history of suicide attempts only, making it difficult to compare their results with those of other studies.<sup>19</sup>

Although the reasons for the high rates of suicidal ideation and attempts among American Indians are unknown, they are likely related to the high prevalence of depression, substance use disorders, including alcohol, and posttraumatic stress disorder in this population.<sup>44,45</sup> Chester and colleagues<sup>45</sup> studied 235 off-reservation Native Americans and found high rates of mental health problems, but low levels of service use.

**TABLE 1**  
**SUICIDE IDEATION AND ATTEMPTS IN DIFFERENT ETHNIC GROUPS**<sup>2,4-10,12-18</sup>

<i>Author(s)</i>	<i>Subjects</i>	<i>Rates of life-time suicide attempt, (%)</i>	<i>Rates of life-time suicide ideation (%)</i>	<i>Other findings</i>
<b>All ethnic groups</b>				
Iribarren et al <sup>12</sup>	87,257 women and 70,570 men 15–89 years of age, rates of hospitalization for suicide attempt			The rate of hospitalization for suicide attempt was higher among Whites than among Asians and African Americans.
	Asian women	9.4*		
	Asian men	5.9		
	African American women	9.0		
	African American men	7.5		
	Caucasian women	17.1		
	Caucasian men	10.5		
Kessler et al <sup>2</sup>	National Comorbidity Survey respondents (n=5,877)	4.6	13.5	Blacks had significantly lower odds of attempted suicide than Whites; however, the 4-category race/ethnicity variable (White, Black, Hispanic, Other) was not significantly related to attempted suicide overall.
Kessler et al <sup>6</sup>	National Comorbidity Survey respondents (n=5,388) National Comorbidity Survey Replication respondents (n=4,320)	0.6 <sup>†</sup>	3.3 <sup>†</sup>	Race/ethnicity variable (White, Black, Hispanic, Other) was not significantly related to attempted suicide.
Kuo et al <sup>7</sup>	3481 continuing participants in the 13-year follow-up of the Baltimore sample of the NIMH Epidemiologic Catchment Area survey			People in the youngest age group, in the lowest socioeconomic status, and previously married were at increased risk for suicide attempts. People in the youngest age group were at increased risk for suicide attempts.
Moscicki et al <sup>4</sup>	NIMH Epidemiologic Catchment Area respondents (n=18,571)			Black adults ≥25 years of age had lower odds of attempting suicide than non-Blacks.
Spicer and Miller <sup>5</sup>	57,439 attempted suicides among hospital-admitted individuals in eight states; 6,219 attempted suicides among individuals released from emergency departments in two states.			Groups with high attempted suicide rates were teenagers, young adults, women, and Blacks and Whites aged 25–44 years.
<b>Native Americans</b>				
LeMaster et al <sup>13</sup>	Northern Plains American Indians (n=1,638)			Suicidal behaviors were more frequent among females and younger respondents. Suicidal behaviors were associated with depressive disorders, posttraumatic stress disorder, substance abuse/dependence, and violent ideation/aggression.
	Males (n=790)	6.6	5.3	
	Females (n=848)	10.7	8.2	
<b>Asian Americans</b>				
Kennedy et al <sup>14</sup>	1,135 European, Chinese, and Indo-Asian undergraduates			Suicide ideation, plans, and attempts did not vary by generation level or with mainstream acculturation for any of the ethnic groups studied, nor did they vary across ethnic groups. Individuals who identified closely with their heritage culture had increased risk for suicide ideation but not for suicide attempts.
<b>Blacks</b>				
Ialongo et al <sup>15</sup>	Economically disadvantaged, African American young adults (n=1,157)	5.3	14.0	Two-thirds of those who reported lifetime ideation and/or suicide attempts had a history of at least one lifetime psychiatric disorder. Although most attempts were severe, few attempters received mental health care during their lifetime or at the time of their most recent attempt.

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Alcoholism has been described as “epidemic” among Alaska Natives.<sup>46</sup> Hill and colleagues<sup>43</sup> reported that alcohol was involved in 60.8% of intentional injuries involving Alaska Natives, compared to only 27.1% for Alaska Whites. May and colleagues<sup>21</sup> observed that two-thirds of all self-destructive acts in the Western Athabaskan Tribal Nation reservation were alcohol related and occurred among unemployed individuals. This is particularly relevant given that in some

reservations 80% of those ≥16 years of age are unemployed. Moreover, physical abuse may be particularly prevalent in some Native American communities and has been associated with depression and suicide attempts.<sup>47</sup> The lack of culturally appropriate models of mental health in Native Americans and the barriers to providing effective mental health services to Native Americans may also be related to the high rates of suicidal acts in this population.<sup>48</sup>

TABLE 1 (cont. from pg. 46)

**SUICIDE IDEATION AND ATTEMPTS IN DIFFERENT ETHNIC GROUPS<sup>2,4-10,12-18</sup>**

<i>Author(s)</i>	<i>Subjects</i>	<i>Rates of lifetime suicide attempt (%)</i>	<i>Rates of life-time suicide ideation (%)</i>	<i>Other findings</i>
Joe et al <sup>16</sup>	Blacks (n=5,181)	4.1	11.7	The lifetime prevalence of suicide attempts among Caribbean black men (7.5%) was the highest among the four ethnic-sex groups analyzed
	African American (n=3,570)	4.0	11.7	
	Caribbean American (n=1,621)	5.1	12.3	
Moscicki et al <sup>4</sup>	African Americans	2.8		Black adults ≥25 years of age had lower odds of attempting suicide than non-Blacks.
<b>Hispanics</b>				
Fortuna et al <sup>10</sup>	Latinos (n=2,554)	4.4	10.1	There were no significant differences in rates of suicidal ideation or attempts across Latino subgroups. Ethnicity was not associated with higher odds of suicidal ideation or attempts after adjusting for demographic, sociocultural, and psychiatric covariates.
	Puerto Rican	6.9	14.2	
	Cuban	2.9	7.0	
	Mexican	3.9	9.8	
	Other Latino	4.9	9.9	
Oquendo et al <sup>9</sup>	Whites (n=9,872)	3.3		Puerto Ricans had significantly higher rates of lifetime suicide attempts than Mexican Americans
	Blacks (n=3,663)	2.7		
	Hispanics (n=1,164)	3.7		
	Mexican American (n=3,555)	3.1		
	Cuban American (n=907)	1.9		
	Puerto Rican (n=1,353)	9.1		
Sorenson and Golding <sup>8</sup>	Hispanics (n=1,425)	3.2	8.8	Hispanics had significantly lower rates of lifetime suicide ideation and attempts than non-Hispanic whites.
	Non-Hispanic whites (n=1,309)	5.1	18.9	
Sorenson and Golding <sup>17</sup>	Mexican Americans born in Mexico (n=706)	1.6	4.5	Mexican-Americans born in Mexico reported significantly lower lifetime rates of suicide thoughts than Mexican Americans born in the US, who reported significantly lower rates than non-Hispanic whites born in the US. Rates of suicide attempt were lowest among Mexican Americans born in Mexico and higher among both Mexican Americans and non-Hispanic whites born in the US.
	Mexican Americans born in the US (n=538)	4.8	13.0	
	Non-Latino whites born in the US (n=1,149)	4.4	19.2	
Ungemack and Guarnaccia <sup>18</sup>	Mexican American (n=3,538)	3.0		Puerto Ricans had the highest risk of suicidal behavior, and Cubans had the lowest risk of suicidal behavior.
	Cuban American (n=898)	2.0		
	Puerto Rican (n=1,335)	9.0		

\* Per 100,000 (1979-1993)

† Annual rates (%)

NIMH=National Institute of Mental Health; US=United States.

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**TABLE 2**  
**RISK FACTORS FOR ATTEMPTING SUICIDE ACROSS ETHNIC GROUPS**<sup>8-10,13,15-35</sup>

<i>Author(s)</i>	<i>Subjects</i>	<i>Risk factors</i>	<i>Other findings</i>
<b>Native Americans</b>			
Buchwald et al <sup>19</sup>	550 urban Native Americans ≥50 years old	Physical abuse	Younger age, female gender, current depression and dependence on others for food were significant correlates of physical abuse.
Kost-Grant <sup>20</sup>	34 Alaska Natives who had survived a self-inflicted gunshot	Alcohol, Interpersonal problems	
LeMaster et al <sup>13</sup>	Northern Plains American Indians (n=1,638)	Female gender Younger age Depressive disorders PTSD Substance abuse/dependence Violent ideation/aggression	
May et al <sup>21</sup>	Native Americans in the Western Athabaskan Tribal Nation reservation	Alcohol Family history of trauma (family disruption, violent death of relatives, abuse or neglect) Unemployment	
Mock et al <sup>22</sup>	American Indian suicide attempters over a 15-month period and control subjects matched for age and gender	Psychological problems Interpersonal problems	
<b>Asian Americans</b>			
Hurwitz et al <sup>23</sup>	South Asian women (n=208)	Intimate partner violence increased the risk for suicide ideation	
<b>Blacks</b>			
Anderson et al <sup>24</sup>	Low-income African American women	Childhood abuse (emotional, physical, sexual)	Women who had experienced all three types of abuse were statistically more likely to attempt suicide.
Bush <sup>25</sup>	Young Blacks	“The loss or threatened loss of a love partner in the context of a negative value-orientation and intragroup pressures”	
Compton et al <sup>26</sup>	African Americans (n=200) Case-control study of suicide attempters and non-attempters	Low family adaptability and cohesion Lower levels of social embeddedness and social support Depressive symptoms	The presence of depressive symptoms appears to mediate the association between social environment factors and suicide attempt.
Ialongo et al <sup>15</sup>	Economically disadvantaged, African American young adults (n=1,157)	Two thirds of those who reported lifetime ideation, and of those who reported lifetime attempts, had a history of at least one lifetime psychiatric disorder	
Joe and Kaplan <sup>27</sup>	Review article; no study subjects	Limited economic resources Residing in areas with high rates of income inequality Exposure to violence Access to firearms Marital disruption	

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Some studies have found that a greater percentage of American Indians had attempted suicide in their lifetime than had reported suicidal ideation or planning. This suggests that in this population suicide attempts may be more

impulsive than previously hypothesized.<sup>13</sup> Alternatively, the wish to die, which has been understudied so far, as opposed to the presence of suicidal ideation, may be a key factor related to the risk for attempting suicide.<sup>49</sup>

TABLE 2 (cont. from pg. 48)

**RISK FACTORS FOR ATTEMPTING SUICIDE ACROSS ETHNIC GROUPS**<sup>8-10,13,15-35</sup>

<i>Author(s)</i>	<i>Subjects</i>	<i>Risk factors</i>	<i>Other findings</i>
Joe et al <sup>16</sup>	Blacks (n=5,181)	Younger birth cohort Less education Midwest residents Psychiatric disorder	Caribbean males had the highest rates of suicide attempts among all ethnic and sex categories within African Americans.
Juon and Ensminger <sup>28</sup>	Cohort of African Americans followed prospectively from first grade to age 32	Lifetime depressive moods Lifetime use of cocaine Frequent mobility	
Kaslow et al <sup>29</sup>	African American female suicide attempters (n=148) African American female non-attempters (n=137)	Partner abuse Psychological distress Hopelessness Drug use	
Kaslow et al <sup>30</sup>	African American female suicide attempters (n=126) African American female non-attempters (n=112)	Marital discord Childhood sexual abuse	
Kaslow et al <sup>31</sup>	African American female suicide attempters (n=148) African American female non-attempters (n=137)	Psychological distress Hopelessness Drug abuse Relationship discord	
Kaslow et al <sup>32</sup>	Low-income African American attempters and non-attempters (n=200)	Life events Child maltreatment Psychological distress Depression Hopelessness Alcohol and drug problems	
Kaslow et al <sup>33</sup>	Low-income African American attempters and non-attempters (n=200)	Younger age Homelessness Psychological distress Aggression Substance use Maladaptive coping strategies Less religiosity/spirituality Lower levels of ethnic identity.	
Nisbet <sup>34</sup>	African American women	Seeking support from professional sources (versus seeking support from friendship and familial resources)	
Thompson et al <sup>35</sup>	African American abused women (n=200)	Depressive symptoms Hopelessness Drug abuse Childhood abuse and neglect	

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## RATES AND RISK FACTORS FOR SUICIDAL IDEATION AND ATTEMPTS AMONG ASIANS

Asian Americans are also an extremely diverse group of people with varying cultures, histories, views of mental illness, and views of suicide, although they comprise slightly >2% of the US population.<sup>50</sup>

Suicide attempts and suicidal ideation among Asian Americans have been understudied to date.<sup>50</sup> Part of the problem is that most epidemiologic studies examining this topic collapse Asian Americans and American Indians into a single category, precluding the examination of the suicidal behavior in those groups independently.<sup>2,6</sup> Asian Americans and American Indians represent very small percentages of the general population (2.0% and 1.5%, respectively), and some of the outcomes are sufficiently rare that most epidemiologic surveys may not have enough power to detect differences in such small group

sizes.<sup>6</sup> Iribarren and colleagues<sup>12</sup> analyzed rates of hospitalization for suicide attempt in a sample of White, Asian, and African American men and women. Among women, the rate of hospitalization for suicide attempts was highest among Whites, while rates for Asian and African American women were lower (Table 1). Among men, the rate of hospitalization for suicide attempt was highest among Whites, intermediate among African Americans, and lowest among Asians. By contrast, Kennedy and colleagues<sup>14</sup> reported no differences in rates of suicide attempts across Europeans, Chinese, and Indo-Asians. Studies in other Western countries have generally reported significantly lower rates of suicidal behaviors among individuals of Asian origin than among individuals of other ethnic groups.<sup>51-53</sup> Furthermore, some groups of Asian Americans, such as southeast Asian refugees, appear to have increased needs for mental health services compared to the general population.<sup>54-56</sup> Overall, these data suggest that clinicians and researchers should pay more attention to Asian American communities.<sup>54</sup>

**TABLE 2 (cont. from pg. 49)**  
**RISK FACTORS FOR ATTEMPTING SUICIDE ACROSS ETHNIC GROUPS**<sup>8-10,13,15-35</sup>

<i>Author(s)</i>	<i>Subjects</i>	<i>Risk factors</i>	<i>Other findings</i>
<b>Hispanics</b>			
Fortuna et al <sup>10</sup>	Latinos (n=2,554)	Female gender Acculturation Family cultural conflict Any lifetime psychiatric disorder	
Oquendo et al <sup>9</sup>	Whites (n=9,872) Blacks (n=3,663) Hispanics (n=1,164) Mexican American (n=3,555) Cuban American (n=907) Puerto Rican (n=1,353)	Major depression	Whites and Puerto Ricans had significantly higher rates of lifetime major depression than other ethnic groups
Sorenson and Golding <sup>8</sup>	Hispanics (n=1,425) Non-Hispanic whites (n=1,309)	Female gender Disrupted marital bonds Psychiatric disorder	
Sorenson and Golding <sup>17</sup>	Mexican Americans born in Mexico (n=706) Mexican Americans born in the US (n=538) Non-Latino whites born in the US (n=1,149)		Rates of suicide ideation or attempts were not affected by degree of acculturation when immigrant status was controlled.
Ungemack and Guarnaccia <sup>18</sup>	Mexican American (n=3,538) Cuban American (n=898) Puerto Rican (n=1,335)		The risk factors associated with suicide attempts varied for each of the three groups.

PTSD=posttraumatic stress disorder; US=United States.

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## RATES AND RISK FACTORS FOR SUICIDAL IDEATION AND ATTEMPTS AMONG BLACKS

Two large national epidemiologic studies have suggested that Blacks are at lower risk for suicide attempt than non-Hispanic Whites.<sup>2,4</sup> However, another recent national study indicated that there may have been an increase in the rate of suicide and nonfatal suicidal behaviors among Blacks, particularly among youths.<sup>16</sup> Studies based on Black samples have reported high rates of suicidal ideation and attempts among Blacks, particularly among young individuals.<sup>15,16</sup> Moreover, it has been suggested that suicidal behavior among African Americans is often underreported or misclassified.<sup>30</sup> These contradictory findings need to be explored in national studies with large samples that include all other ethnic groups.

Regarding subgroups within the Black community, Joe and colleagues<sup>16</sup> reported that the lifetime prevalence of suicide attempts among Caribbean black men (7.5%) was the highest among the four ethnic-sex groups analyzed (African American and Caribbean American men and women). The authors of this article have not found any other studies comparing suicide attempts in different groups within the African American community.

Blacks share some of the risk factors for suicide attempt identified in the general population, such as life events, female gender, depression and other psychiatric disorders, and hopelessness.<sup>15,16,26-29,31-34,57</sup> According to data from the National Hospital Ambulatory Medical Care Survey, African Americans had significantly higher rates of psychiatric-related emergency department visits compared with Whites.<sup>58</sup> There are also some indications that Blacks may also have specific risk factors such as lower ethnic identity, alienation from family, and fragmentation of social support.<sup>26</sup> By contrast, other authors have reported that religious well being, but not acculturation, was related to history of suicidal ideation and attempt.<sup>59</sup> Some studies have found that Blacks report suicidal ideation or depression as a possible precursor to suicide attempts less often than non-Hispanic Whites. Similarly, it has been hypothesized that Black youths may act out and attempt suicide as a defense against feelings of sadness.<sup>60,61</sup>

## RATES AND RISK FACTORS FOR SUICIDAL IDEATION AND ATTEMPTS AMONG HISPANICS

It is estimated that by 2020 Hispanics will be the largest racial/ethnic minority group in the US and that by that time they will represent 17% of the US population.<sup>62</sup> However, research on sui-

cidal ideation and attempts among Hispanics in the US is limited and rarely analyzes different Hispanic groups separately. In addition, many Hispanic individuals are undocumented workers who are not represented in epidemiologic studies.<sup>63</sup>

Some studies have suggested that suicide attempts may be less common among Hispanics than in other ethnic groups.<sup>8</sup> In contrast, two large nationwide surveys did not find any significant relationship between race/ethnicity and suicide ideation or attempts,<sup>2,6</sup> and studies focused on Hispanic samples have reported rates of suicidal ideation and attempts that are similar to those reported in White populations or even higher among some subgroups of Hispanics.<sup>9,10</sup>

Studies have also reported that rates of suicidal ideation and attempts are different across Hispanic ethnic subgroups,<sup>9,18</sup> while others have not found any significant differences in rates of suicidal ideation or attempts across Hispanic subgroups after adjusting for demographic, psychiatric, and sociocultural factors.<sup>10</sup> The most consistently reported findings are a higher rate of lifetime suicide attempts among Puerto Ricans and a lower rate among Cuban Americans.<sup>9,10,18,64</sup>

This variability in suicide attempt rates across Hispanic subgroups has been attributed to many factors such as the impact of the migration process, socioeconomic status, acculturation, cultural differences in norms and attitudes, and different rates of psychiatric disorders, among others.<sup>9,10</sup> This is supported by the fact that the Hispanic population is heterogeneous in terms of ethnicity, geography, acculturation, migration patterns, education, and socioeconomic status.<sup>10</sup>

The variability in suicide attempt rates across Hispanic subgroups is consistent with the differences in the prevalence of major depressive disorder (MDD) observed among Hispanic subgroups. Non-Hispanic Whites and Puerto Ricans have higher rates of MDD compared to other Hispanic ethnic groups.<sup>9,65</sup> Fortuna and colleagues<sup>10</sup> observed that any lifetime *Diagnostic and Statistical Manual of Mental Disorders*, Fourth Edition,<sup>66</sup> psychiatric diagnoses were associated with an increased risk of lifetime suicidal ideation and suicide attempt among Hispanics.

Acculturation may also be related to suicidal behavior among Hispanics.<sup>10,67</sup> Fortuna and colleagues<sup>10</sup> observed that different aspects of acculturation, such as language spoken as a child, current English proficiency, and parental US nativity may be risk factors for suicidal behaviors. The prevalence of suicidal ideation and attempts appear to be higher among Puerto Ricans and Mexican Americans<sup>17</sup> with higher levels of acculturation than among those with lower levels of acculturation. It has been reported that US-born Hispanics have a higher rate of mental health and substance abuse problems than recent immigrant Hispanic populations.<sup>68</sup> The mechanism by which acculturation

is a potential risk factor for psychiatric disorders and suicidality may be related to culturally influenced coping strategies and cultural values such as moral objections to suicide, which may be less prominent as acculturation progresses.<sup>10,69</sup>

Despite the existence of some specific risk factors such as acculturation or family cultural conflict, Hispanics appear to share some of the risk factors for suicidal behavior found in the general population, such as female gender and presence of psychiatric disorders, particularly MDD.<sup>8-10</sup>

## LIMITATIONS

The findings of studies examining suicide attempt and suicidal ideation rates in specific ethnic groups should be viewed with two limitations in mind. First, some of the groups analyzed are heterogeneous in terms of ethnicity, geography, acculturation, education, migration patterns, socioeconomic status, and access to health care.<sup>9,10</sup> The second limitation is that studies have different designs and target populations. For example, the results reported in studies of clinical populations whose data are based on discharge diagnoses rather than self-reports may reflect issues such as access to care, which may vary across ethnic groups and may have excluded suicidal behavior not requiring medical attention.<sup>9</sup> It has been reported that immigrants may under-use psychiatric services.<sup>70</sup> A third limitation is that some of the ethnic groups analyzed may be too small (<5% of the general population) for the differences to achieve statistical significance in epidemiologic surveys in the general population.<sup>6</sup>

## CONCLUSION

The published studies indicate that the prevalence of suicidal ideation and attempts vary widely across ethnic groups. However, many of these studies were focused on a single ethnic group or used relatively small or local samples sizes, suggesting caution in their interpretation. Overall, these existing findings underscore the need to conduct large studies in general population samples that include enough individuals from all ethnic groups and that are large enough to detect significant effects among those groups.

This stresses the importance of focusing on factors that have been consistently found to be strongly associated with suicide attempts across different populations, such as MDD and other psychiatric disorders, female gender, and young age.<sup>2-7</sup>

Besides examining associations between suicide and risk factors such as demographic variables (eg, female gender, young age), future research should aim at identifying factors that may be modifiable with interventions, including the treatment of

psychiatric disorders such as MDD.<sup>71</sup> A better understanding of risk factors may allow the implementation of selective suicide prevention programs that could then be tested empirically.<sup>63</sup> These programs are more likely to be effective if they are culturally sensitive. More research is needed to examine which aspects of the prevention programs can be universally applied and which have to be tailored for the specific target groups.

Another key issue is the identification of protective factors that may act upon individuals of different ethnicities and may help explain the lower rates of suicide attempts found among some of them. For example, Oquendo and colleagues<sup>69</sup> found that several factors protective against suicidal behaviors (those regarding survival and coping beliefs, responsibility to family, and moral objections to suicide) were significantly more common among Hispanics than non-Hispanics. Since this may reflect cultural norms endorsed by Hispanic groups, it would be of interest for further studies to examine the impact of protective factors on suicidal behavior and their relationship to specific cultural constructs.<sup>69</sup> The protective role of African American culture has been consistently reported.<sup>72</sup> Culture-based strengths like spiritually based coping, extended social support networks, flexible family roles, strong family ties, and positive ethnic group identity have been suggested as protective factors against suicide risk.<sup>26,72</sup> Female kinship networks have been suggested as a protective factor against suicidal behaviors among African American women.<sup>34</sup> In a sample of 1,456 Northern Plains American Indians, Garroutte and colleagues<sup>73</sup> observed that high levels of cultural spiritual orientation had a protective effect against suicide attempts. Although most suicide prevention strategies so far have been aimed at decreasing the suicide risk factors, research should also focus on increasing the effects of factors that protect against suicide.

Despite recent progress in the area, the examination of the relationship between ethnicity and suicidal ideation and attempts is still in its infancy. As the ethnic diversity of the US continues to increase, the identification of common and specific risk and protective factors for suicidal ideation and attempts and the development of effective preventive interventions offer important opportunities and challenges for clinicians, researchers, and policy-makers. **PP**

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