

RACE-ETHNICITY DIFFERENCES IN ADOLESCENT SUICIDE IN THE 2009 DANE COUNTY YOUTH ASSESSMENT



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Note that these findings are being prepared for a manuscript to be submitted for publication in the *Journal of Adolescent Health*. Any updates or changes to these results will be shared with the DCYC by Andy Supple

METHODS AND ANALYSIS

Using the 2009 Dane County Wisconsin Youth Assessment data, this study considered race-ethnic differences in adolescent suicidal thoughts (in the previous 30 days) and adolescent suicide attempts (in the past year). In addition age and gender differences in suicide are presented. In some cases age differences within racial-ethnic groups are different for males versus females.

- Analyses were conducted using the `svy` subcommand in Stata10 to generate accurate standard errors when using weighted data. With the statistical weights applied, these findings represent 21,109 adolescents.
- For the purposes of this analysis adolescents indicating that their race-ethnicity was Native American or “other” were excluded as these groups were too small for accurate estimates. Respondents under the age of 12 or over 18 years were also excluded.
- Items assessing suicidal thoughts and suicide attempts were recoded into 0/1 variables to indicate *any* thoughts or attempts
- Estimates were computed via contingency tables and also via logistic regression analyses. Logistic regressions included the White group (since it is largest) as the reference category so all other groups are compared relative to the responses of white students. This also was reasonable given that white respondents indicated the lowest rates of suicidal thoughts and attempts.
- The appended tables show the proportion of adolescents in various subgroups who indicated either suicidal thoughts or attempts with the 95% confidence interval around that estimate.
- In addition to comparing differences across White, African American, Hmong, Hispanic, and Asian (non-Hmong) students, we also considered within group differences in age and gender in suicidality. Age differences were compared by creating groups of *younger* respondents (ages 12-15) and *older* respondents (ages 16-18).

KEY FINDINGS

- The highest rate of suicidal **thoughts** was among Hmong respondents
- The 2nd highest rate of suicidal **thoughts** was reported by African Americans
- Hispanic, White, and Asian Americans (non-Hmong) had statistically similar rates of suicidal thoughts
- African Americans were more likely than whites to indicate suicidal **attempts**
- Latinos and Hmong had higher odds of indicating **attempts**, but these differences were not statistically significant ($p = .07$)
- Overall:
 - African Americans compared to whites were 41% more likely to report suicidal thoughts and twice as likely to report a suicide attempt
 - Hmong adolescents were twice as likely as whites to indicate suicidal thoughts and 71% more likely than whites to report an attempt
 - Latinos were 50% more likely than whites to report a suicide attempt
- Across *the entire sample* females were 28% more likely to report suicidal thoughts than males, but were statistically similar in attempts
- There were no differences by age in either suicidal thoughts or attempts
- A statistically significant race-by-gender-by-age interaction suggested that within racial-ethnic groups risk is sometimes higher for males when they are older and higher among females when they are younger (see Table 2). For example:
 - Risk for suicidal thoughts is higher among African American males when they are older, but risk is higher for African American females when they are younger
 - For Hmong respondents suicidal thoughts are higher for younger females compared to older females (26% versus 9%) but similar between younger (19%) and older Hmong males (19%). Whereas for attempts, risk is higher for males when older and for females when younger.

CONCLUSIONS AND FUTURE DIRECTIONS

- Risk for suicidal thoughts and attempts are higher for Hmong and African American adolescents compared to other groups
- For some groups, risk might be higher among males when adolescents are older
- We are now working towards constructing variables that may: (1) explain racial differences in suicidality, (2) predict suicidal outcomes, and (3) be unique predictors within specific ethnic groups. For example:
 - Adverse childhood experiences/family chaos
 - Parental involvement, positive school experiences
 - Experiences being bullied or being discriminated against

TABLE 1

Means and Confidence Intervals for Suicide Thought and Attempt by Gender/Age across Race-Ethnicity

| Race-Ethnicity | African American | Latino | Hmong | Asian | White |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Suicide thought | | | | | |
| Male | .1275 (.0936- .1714) | .0915 (.0591- .1391) | .1906 (.1240- .2816) | .1000 (.0605- .1608) | .0773 (.0690- .0866) |
| Female | .1221 (.0932- .1585) | .1288 (.0913- .1786) | .1525 (.1009- .2239) | .1124 (.0708- .1740) | .1062 (.0975- .1155) |
| Young | .1163 (.0871- .1536) | .1080 (.0764- .1505) | .2315 (.1628- .3182) | .1176 (.0697- .1915) | .0877 (.0797- .0964) |
| Old | .1315 (.0987- .1731) | .1119 (.0743- .1652) | .1312 (.0814- .2046) | .0964 (.0625- .1459) | .0956 (.0869- .1050) |
| Total | .1247 (.1016-.1521) | .1100 (.0840-.1427) | .1691 (.1255- .2241) | .1060 (.0755- .1468) | .0921 (.0860- .0985) |
| Suicide attempt | | | | | |
| Male | .0796 (.0542- .1154) | .0508 (.0269- .0938) | .0924 (.0452- .1796) | .0454 (.0210- .0953) | .0279 (.0229- .0340) |
| Female | .0608 (.0399- .0915) | .0501 (.0286- .0863) | .0325 (.0149- .0694) | .0500 (.0265- .0925) | .0399 (.0342- .0465) |
| Young | .0621 (.0405- .0941) | .0415 (.0238- .0714) | .0670 (.0340- .1279) | .0256 (.0100- .0638) | .0322 (.0272- .0382) |
| Old | .0765 (.0524- .1103) | .0586 (.0321- .1045) | .0536 (.0231- .1193) | .0659 (.0367-.1153) | .0355 (.0300- .0420) |
| Total | .0700 (.0528- .0924) | .0503 (.0330- .0760) | .0587 (.0336- .1006) | .0476 (.0290- .0773) | .0340 (.0302- .0384) |

TABLE 2

Means and Confidence Intervals for Suicide Thought and Attempt by Gender and Age across Race-Ethnicity

| Race-Ethnicity | African American | Latino | Hmong | Asian | White |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Suicide thought | | | | | |
| Young males | .0902 (.0554- .1435) | .0687 (.0365- .1255) | .1932 (.1105- .3157) | .1335 (.0627- .2619) | .0677 (.0579- .0791) |
| Young females | .1405 (.0978- .1976) | .1529 (.1009- .2250) | .2618 (.1645-.3899) | .1033 (.0497- .2026) | .1056 (.0936- .1191) |
| Old males | .1555 (.1051- .2239) | .1156 (.0636- .2011) | .1891 (.1013- .3253) | .0765 (.0410- .1382) | .0847 (.0725- .0989) |
| Old females | .1060 (.0703- .1566) | .1086 (.0611- .1856) | .0871 (.0444- .1637) | .1215 (.0663- .2120) | .1066 (.0947- .1198) |
| Suicide attempt | | | | | |
| Young males | .0575 (.0297- .1084) | .0262 (.0092- .0720) | .0604 (.0198- .1699) | .0076 (.0010- .0533) | .0261(.0198- .0342) |
| Young females | .0666 (.0379- .1146) | .0591 (.0306- .1110) | .0723 (.0303- .1630) | .0420 (.0147- .1145) | .0378 (.0303- .0470) |
| Old males | .0960 (.0597- .1508) | .0766 (.0351- .1593) | .1127 (.0463- .2495) | .0722 (.0318- .1556) | .0293 (.0222- .0386) |
| Old females | .0557 (.0296- .1023) | .0425 (.0164- .1056) | .0086 (.0021- .0353) | .0579 (.0260- .1241) | .0417 (.0337- .0515) |