

Abstract

Background: Latino/a adolescents report the highest rates of suicide attempts and depressive symptoms compared to White and African American youth for over 40 years. The purpose of the current study was to investigate trends in bullying, gun carrying, and suicidality over 10 years in a nationally representative sample of Latina/o youth.

Methods: The Youth Risk Behavior Survey subsample of Latina/o youth (N=13,378) from 2005-2015 is examined for suicide attempts, bullying, and gun carrying.

Findings: Overall, suicide attempts for females declined slightly; there was no significant change over time for males. Females, compared to males, reported significantly higher rates of suicide attempts, victimization by bullying, and victimization by cyberbullying, and lower rates of gun carrying. Gun carrying was significantly associated with greater likelihood of suicide attempts for both boys and girls.

Discussion: Suicidality varies by gender; Latina females reported higher rates of suicide attempts, depressive symptoms, and bullying than Latino males. Latino young men who reported being cyberbullied were also more likely to carry a gun than young women. Implications for gun carrying as a risk factor for suicidality are discussed for Latino males, and in relation to cyberbullying. There is a continued need for innovative methods to address bullying through widespread and effective campaigns that consider the intersectionality of ethnicity and gender of youth.

Background

Suicide is the leading cause of death among all young people ages 15-34 years in the U.S. (CDC, 2013); however this varies by age, gender, and ethnicity/race (Suicide Prevention Resource Center, 2013). Latina females have reported the highest rates of suicide attempts compared to other ethnic and gender groups for over 40 years (Romero et al., 2014; Zayas & Pilat, 2008). One study found that gun carrying had the second strongest association with suicide among youth in New York (Swahn et al., 2010). While boys tend to report higher rates of carrying weapons, girls who did carry a weapon were highly likely to engage in suicidal behavior (Nickerson & Slater, 2009). Firearms are the leading method for suicide among U.S. youth aged 10-24 years old (American Association for Suicidology, 2012).

Bullying is a predictor of suicidal behaviors based on longitudinal studies (e.g. Evans et al., 2001; Kim & Levanthal, 2008; Klomek et al., 2010). Bullying is defined as aggressive actions (physical threat, verbal threats, social exclusion) that are committed on a repeated basis against an individual with less power (Hinduja & Patchen, 2011). Cyberbullying is harassment or mistreatment perpetuated through technology, such as cellphone or internet (Hinduja & Patchen, 2010).

Females tend to report more relational bullying and males tend to report more overt and physical victimization (Bauman et al., 2013). Males who report more physical bullying were more likely to report carrying a weapon (Dukes et al., 2010). Weapon carrying is higher among victims and bullies compared to uninvolved teens (Romero et al., 2016; Stein et al., 2007); one study found that 45% of weapon carriers reported at least one victimization experience (Stayton, 2011). In the current study we will examine how bullying and gun carrying are associated with suicidality among a nationally representative samples of Latina/o youth over 10 years.

Methods

- The Youth Risk Behavior Surveillance System was analyzed over 6 time points from 2005 to 2015.
- A cross-section of youth from grades 9th-12th grade completed the survey (2005: N=2061; 2007: N=1009; 2009: N=1542; 2011: N=1120; 2013: N=866; 2015: N=1179) (51% female/49% male)
- Measures included: suicidal behavior in the past 12 months (yes/no), number of suicide attempts (0-6 times or more), depressive symptoms in past 12 months (yes/no), 30 day frequency of gun carrying (0-6 or more days).
- Bullying items, added to the survey in 2011, included questions about being a victim at school or being a cybervictim in the past 12 months (e.g.: During the past 12 months, how frequently have you been harassed or bullied on school property? "During the past 12 months, how frequently have you been electronically bullied, such as through email, chat rooms, instant messaging, web sites, or text messaging?"). A definition of bullying was provided (Bullying is when 1 or more students, tease, threaten, spread rumors about, hit, shove or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way). The response options were yes/no.

Results

Table 1: Tables of percentage of participants endorsing each item

| | 2005 | | 2007 | | 2009 | | 2011 | | 2013 | | 2015 | |
|-------------------|------|----|------|-----|------|----|------|-----|------|-----|------|----|
| | M | F | M | F | M | F | M | F | M | F | M | F |
| Depression | 26 | 44 | 28 | 40 | 21 | 39 | 22 | 41 | 23 | 44 | 24 | 43 |
| Suicide thoughts | 10 | 24 | 11 | 20 | 8 | 17 | 10 | 20 | 9 | 22 | 10 | 22 |
| Suicide plan | 9 | 19 | 10 | 14 | 7 | 13 | 10 | 15 | 10 | 18 | 9 | 18 |
| Suicide attempt | 6 | 15 | 7 | 14 | 4 | 10 | 6 | 12 | 5 | 12 | 5 | 13 |
| Bullied | | | | | | | 13 | 17 | 13 | 17 | 11 | 14 |
| Cyberbullied | | | | | | | 8 | 14 | 7 | 15 | 5 | 11 |
| Carried gun often | 2 | 0 | 3 | 0.2 | 2 | 0 | 3 | 0.1 | 2 | 0.2 | 2 | 0 |

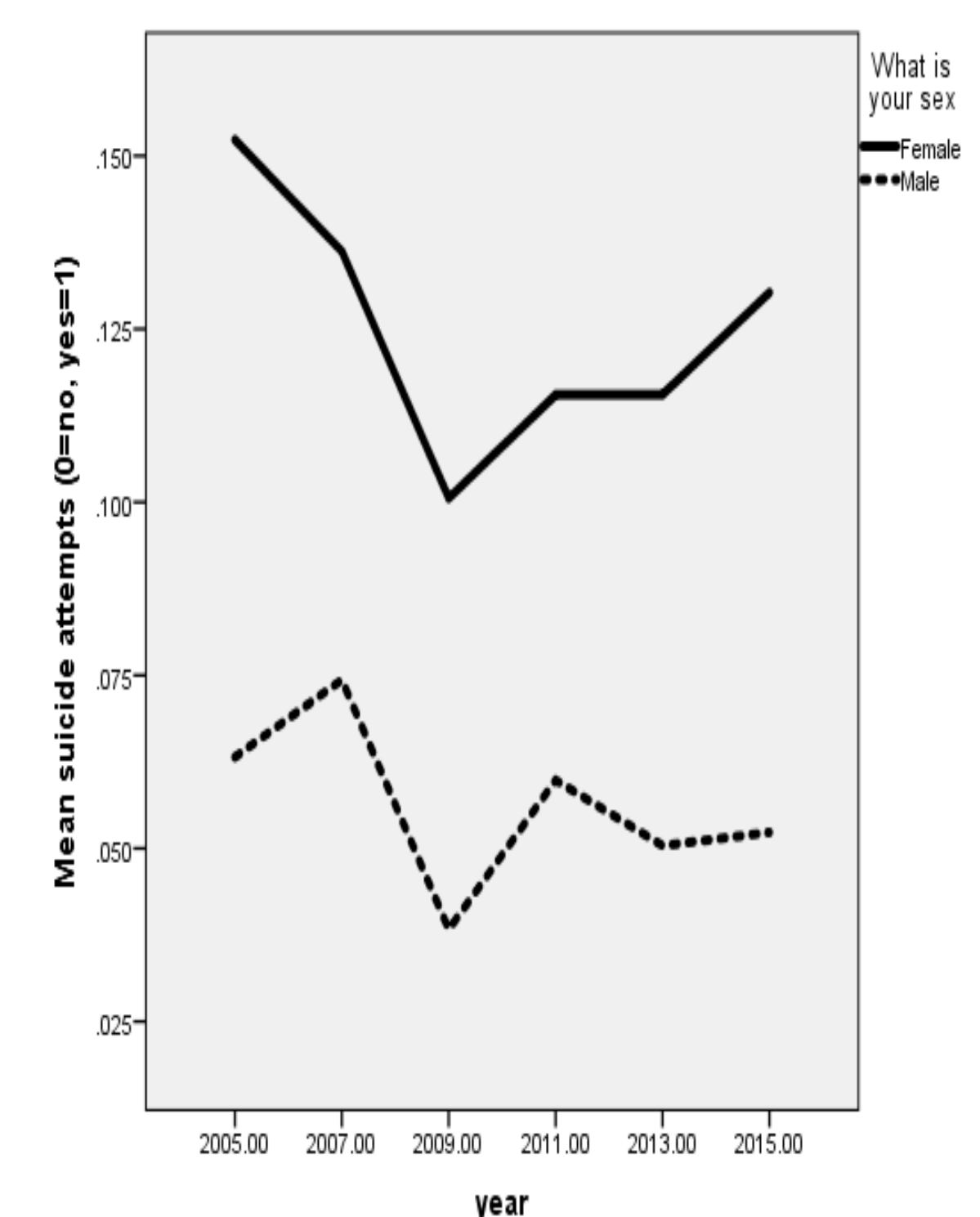


Figure 1. Predictors of the probability of reporting at least one suicide attempt 2005-2015. For girls, 2005 was significantly different from 2007 and 2015, 2007 and 2009 were also significantly different from each other; for boys, 2007 and 2009 were significantly different from each other.

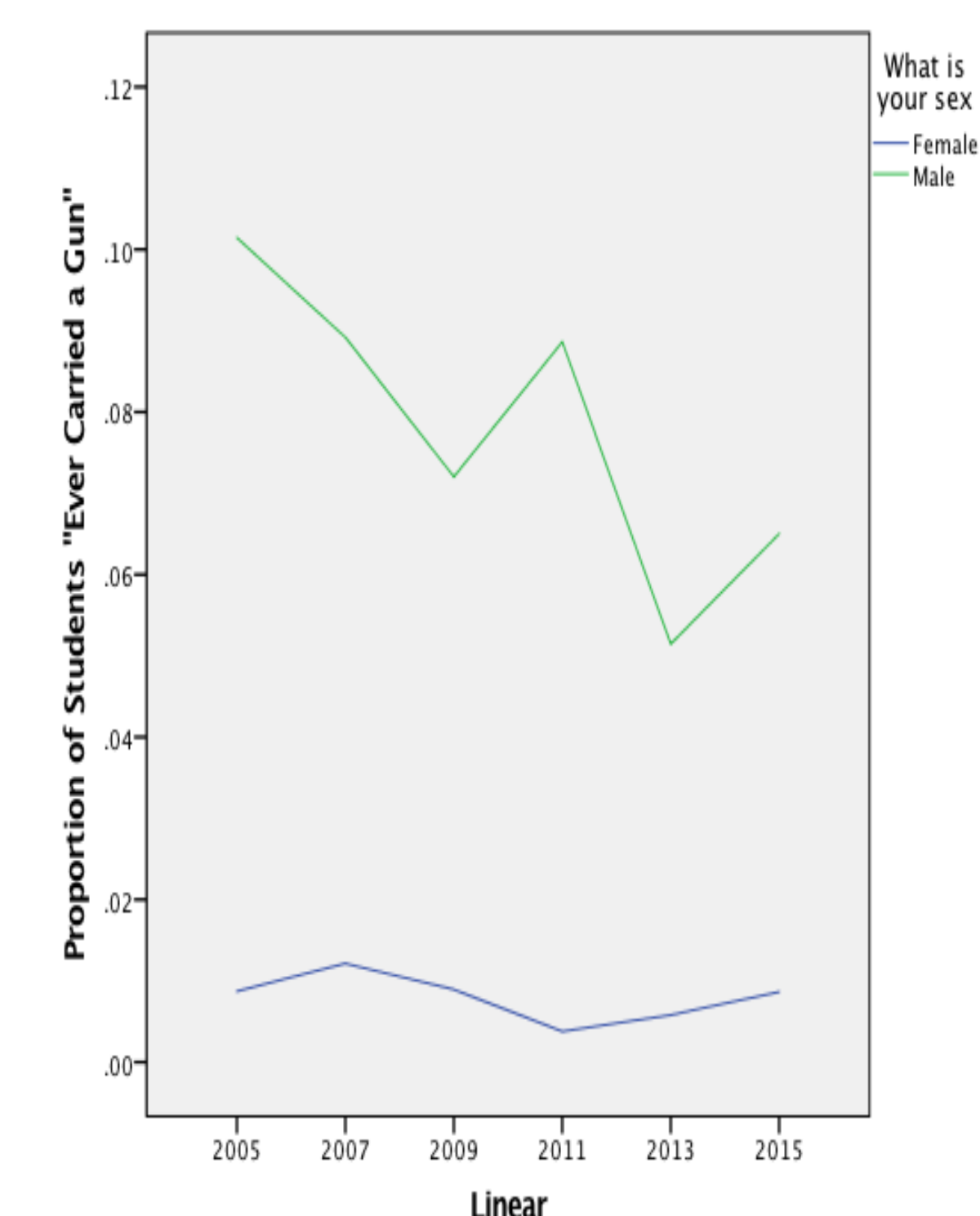


Figure 2. Proportion of students who ever carried a gun by sex from 2005-2015.

Table 2. Bullying variables as predictors of frequent gun carrying in the sample

| | | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I. for EXP(B) | |
|--------|--------------|---------|----------|-------|----|------|--------|---------------------|-------|
| Female | Bullied | -13.831 | 1754.150 | .000 | 1 | .994 | .000 | .000 | . |
| | Cyberbullied | -13.634 | 1877.007 | .000 | 1 | .994 | .000 | .000 | . |
| Male | Bullied | .008 | .404 | .000 | 1 | .985 | 1.008 | .457 | 2.224 |
| | Cyberbullied | 1.161 | .406 | 8.158 | 1 | .004 | 3.193 | 1.440 | 7.082 |

Table 3. Regression analysis: Attempted Suicide At Least Once

| What is your sex | Grade | B | S.E. | Wald | df | Sig. | Exp(B) | 95% C.I. for EXP(B) | |
|------------------|------------------------|-------|-------|---------|------|-------|--------|---------------------|---------|
| | | | | | | | | Lower | Upper |
| Female | Grade | | | 19.063 | 3 | .000 | | | |
| | Grade(10) | .156 | .158 | .972 | 1 | .324 | 1.169 | .857 | 1.595 |
| | Grade(11) | -.363 | .158 | 5.267 | 1 | .022 | .695 | .510 | .948 |
| | Grade (12) | -.480 | .171 | 7.902 | 1 | .005 | .619 | .442 | .865 |
| | Frequent Gun carrying | 3.375 | 1.184 | 8.126 | 4 | .004 | 29.238 | 2.871 | 297.747 |
| | Depression(yes) | .551 | .136 | 16.326 | 1 | .000 | 1.735 | 1.328 | 2.267 |
| | Suicidal thoughts(yes) | 3.617 | .158 | 527.170 | 1 | .000 | 37.232 | 27.341 | 50.701 |
| | Suicide plan(yes) | 1.552 | .124 | 156.293 | 1 | .000 | 4.721 | 3.701 | 6.021 |
| | Year2005 | | | 24.052 | 5 | .000 | | | |
| | year1(2007) | -.623 | .143 | 19.060 | 1 | .000 | .536 | .406 | .709 |
| | year1(2009) | -.068 | .137 | .242 | 1 | .623 | 1.070 | .817 | 1.401 |
| | year1(2011) | .232 | .146 | 2.504 | 1 | .114 | 1.261 | .946 | 1.679 |
| year1(2013) | -.224 | .149 | 2.279 | 1 | .131 | .799 | .597 | 1.069 | |
| year1(2015) | .166 | .142 | 1.360 | 1 | .244 | 1.181 | .893 | 1.560 | |
| Male | Grade 9 | | | 6.398 | 3 | .094 | | | |
| | Grade (10) | -.330 | .227 | 2.115 | 1 | .146 | .719 | .461 | 1.121 |
| | Grade (11) | -.563 | .231 | 5.928 | 1 | .015 | .569 | .362 | .896 |
| | Grade (12) | -.402 | .229 | 3.085 | 1 | .079 | .669 | .427 | 1.048 |
| | Frequent gun carrying | 1.201 | .389 | 9.529 | 4 | .002 | 3.324 | 1.550 | 7.127 |
| | Depression(yes) | .644 | .182 | 12.528 | 1 | .000 | 1.903 | 1.333 | 2.718 |
| | Suicidal thoughts(yes) | 3.384 | .224 | 227.568 | 1 | .000 | 29.503 | 19.006 | 45.797 |
| | Suicide plan(yes) | 1.347 | .196 | 47.404 | 1 | .000 | 3.845 | 2.621 | 5.642 |
| | year-2005 | | | 8.792 | 5 | .118 | | | |
| | year(2007) | -.484 | .204 | 5.869 | 1 | .015 | .610 | .409 | .910 |
| | year1(2009) | .035 | .198 | .031 | 1 | .860 | 1.035 | .703 | 1.525 |
| | year1(2011) | .083 | .204 | .166 | 1 | .684 | 1.087 | .728 | 1.622 |
| year1(2013) | -.197 | .205 | .931 | 1 | .335 | .821 | .550 | 1.226 | |
| year1(2015) | .227 | .196 | 1.335 | 1 | .248 | 1.254 | .854 | 1.842 | |

Conclusions

Being a victim of bullying or a cybervictim were both significantly associated with a greater likelihood of making a suicide attempt in the last year for both males (2.9/2.1) and females (2.8/2.3). Our results demonstrate that suicidality varies by gender. Latina females report higher rates of suicide attempts, depressive symptoms, and bullying than males. Latino young men who reported being cyberbullied were also more likely to carry a gun than young women. There is a need for innovative suicide prevention strategies that consider the intersectionality of ethnicity and gender of youth.

