



Impact of Parenting Behaviors on Adolescent Suicide Based on Age of Adolescent

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Abstract

Adolescent suicide remains a major public health problem. Parenting behaviors can significantly impact the psychological well-being of youth. This study examined whether adolescent suicide differed based on specific parenting behaviors and whether the impact of such behaviors differed based on age of the adolescent. A secondary analysis of the 2012 National Survey on Drug Use and Health was performed. Results indicated that adolescents who were female, older and who had parents who never/seldom performed authoritative parenting behaviors were at elevated risk for suicidal ideation, making a suicide plan and attempting suicide. The parenting behaviors placing adolescents at highest risk for all three suicide measures were never/seldom telling their children they were proud of them, never/seldom telling them they did a good job, and never/seldom helping them with their homework. The impact of these parenting behaviors on suicide was largest among younger adolescents (12–13 year olds). Results illustrate the critical importance of authoritative parenting in helping to protect adolescents from suicide. Findings may be beneficial to professionals aimed at developing efforts to prevent adolescent suicide. Parents should be educated on authoritative parenting and specific behaviors they can perform to protect youth against suicide.

Keywords Adolescent · Suicide · Parenting · Mental health · Well-being

Introduction

Suicide is currently the second leading cause of death among individuals age 10–24 (17.4% of all deaths) (Heron 2016). Data from the most recent Youth Risk Behavior Survey indicated that during the 12 months prior to the survey, 17.7% of 9th through 12th graders seriously considered attempting suicide, 14.6% made a suicide plan, and 8.6% attempted suicide (Kann et al. 2016). Despite numerous public health efforts, adolescent suicide remains a critical health concern with greater than 4600 youth annually dying due to suicide (Centers for Disease Control and Prevention [CDC] 2014).

Sex and race disparities exist regarding youth suicide, with females more likely than males to seriously consider, plan and attempt suicide while males are more likely to complete suicide (Kann et al. 2016). Compared to other races, Native American youth are at elevated risk for suicide and possess the highest suicide rate (Centers for Disease Control and Prevention 2014). Regarding sex and race, African-American adolescent males possess the highest rate for suicide (Sheftall et al. 2016).

Various risk factors for adolescent suicide have been identified, including individual, parent, school, peer and community factors (American Psychological Association 2013; Cash and Bridge 2009; Wong et al. 2013). Specifically related to parent factors, parenting behaviors play a critical role in the development of positive emotional and mental health among youth. Adolescents exposed to authoritative parenting, as defined by that which displays high levels of demandingness and emotional responsiveness, tend to show increased involvement in healthy behaviors (Bowers et al. 2014) and decreased involvement in high risk behaviors, such as depression (King et al. 2016), substance abuse (Baumrind 1991; King et al. 2015), and suicide (Donath et al. 2014).

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While much research has been conducted and indicated the link between parenting styles and mental health among youth, gaps currently exist regarding whether the impact of specific parenting behaviors on adolescent suicide differs based on age of adolescent. Research has indicated that youth suicidal behavior increases with age of adolescent (CDC 2014). It would be helpful to more thoroughly understand whether certain parenting behaviors have a different effect on suicidal thoughts, plans and attempts among 12–13 year olds, 14–15 year olds and 16–17 year olds. Therefore, we examined the following research questions in the present study: (1) Does adolescent involvement in suicidal ideation, making a suicide plan, and attempting suicide differ based on sex and age? (2) Does adolescent involvement in suicidal ideation, making a suicide plan, and attempting suicide differ based on specific parenting behaviors? (3) Does the impact of parenting behaviors on adolescent involvement in suicidal ideation, making a suicide plan, and attempting suicide differ based on the age of the adolescent?

Method

Participants

The participants of this study consisted of a national sample of 17,399 adolescents aged 12 to 17 years old who completed the 2012 National Survey on Drug Use and Health (NSDUH). Results indicated an even split between males (50.5%; $n = 8,613$) and females (49.5%; $n = 8,786$). Ages were evenly divided among 12–13 year olds (31.9%; $n = 5,555$), 14–15 year olds (33.0%; $n = 5,748$), and 16–17 year olds (35.0%; $n = 6,089$). Most students self-identified as being white (56.7%), followed by Hispanic (13.4%), African American (4.8%), Asian (3.4%), Native American (1.3%), and Pacific Islander (0.5%).

Procedure

We performed a secondary data analysis of the 2012 National Survey on Drug Use and Health (NSDUH) with a national sample of adolescents aged 12 to 17 years old ($n = 17,399$). We subsequently trichotomized ages into the following categories: 12–13 years old, 14–15 years old, and 16–17 years old. The NSDUH is a national study which assesses substance use and mental health among individuals aged 12 and greater. The NSDUH is sponsored by the Substance Abuse and Mental Health Services Administration and the US Department of Health and Human Services (SAMHSA 2013). Participants were recruited by the Research Triangle Institute through utilizing multistage probability sampling methods and parental permission for

adolescent participation was obtained. Participants were assured of the voluntary and confidential nature of the study and provided with a \$30 incentive. For a detailed explanation regarding sampling methods and data collection procedures, please refer to the Substance Abuse and Mental Health services document (SAMHSA 2013). The secondary data analysis performed in the current study was approved by the University of Cincinnati institutional review board.

Measures

Parenting behaviors

Participants rated their parents' frequency of involvement in seven behaviors via a four-point scale (1 = always; 2 = seldom; 3 = sometimes; 4 = never). Items requested participants to report how often within the past 12 months their parents: (1) checked whether homework is done; (2) helped with their homework; (3) made youth do chores around the house; (4) limited the amount of time spent watching television; (5) limited the amount of time spent with friends on school nights; (6) told them they did a good job; (7) and told them they were proud of them. Responses for each item were in turn dichotomized (0 = always/sometimes; 1 = never/seldom).

Suicide

Suicidal ideation, suicide plan and suicide attempt within the past 12 months were measured in the present study. Participants were requested to answer yes or no to the following three items: (1) When problems were the worst did you think about killing yourself? (2) When problems were the worst did you make a plan to kill yourself? (3) When problems were the worst did you make a suicide attempt? Responses were dichotomized into two levels (0 = no; 1 = yes).

The NSDUH survey has been extensively tested for validity and reliability, resulting in percent agreements greater than 80% on individual items.

Data Analyses

We performed data analyses using SPSS (Version 23.0). Frequencies and descriptive statistics were conducted. We computed unadjusted odd ratios via univariate logistic regression analyses to determine whether suicidal ideation, suicide plan and suicide attempt differed based on sex, age and frequency of specific parent behaviors. We computed odds ratios via logistic regression to assess whether the impact of specific parenting behaviors on suicidal ideation, suicide plan, and suicide attempt differed among 12–13, 14–15 and 16–17 year olds.

Table 1 Odds ratios for suicide based on sex and age

	Suicidal ideation		Suicide plan		Suicide attempt	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Sex</i>						
Male ^a	1.000		1.000		1.000	
Female	2.854	(2.537, 3.212)***	3.125	(2.612, 3.740)***	4.170	(3.281, 5.299)***
<i>Age</i>						
12 to 13 years old ^a	1.000		1.000		1.000	
14 to 15 years old	2.372	(2.017, 2.789)***	2.831	(2.209, 3.628)***	3.056	(2.238, 4.172)***
16 to 17 years old	2.537	(2.164, 2.975)***	3.099	(2.429, 3.954)***	3.375	(2.486, 4.582)***

* $p < .05$; ** $p < .01$; *** $p < .001$

^aReferent; $N = 17,399$

Results

Suicidal Ideation, Suicide Plan and Suicide Attempts among Adolescents

Regarding suicide, within the past 12 months 7.8% ($n = 1,334$) of adolescents thought of suicide, 3.7% ($n = 624$) made a suicide plan, and 2.4% ($n = 416$) attempted suicide. Suicide differed significantly based on sex. Females were 2.9 times more likely than males to experience suicidal ideation, 3.1 times more likely to make a suicide plan and 4.2 times more likely to attempt suicide, $p < .001$ (Table 1). Suicide also differed significantly based on age with 16–17 and 14–15 year olds showing significantly higher odds for suicidal ideation, suicide plan and suicide attempts than 12–13 year olds, $p < .001$. More specifically, 14–15 years olds were 2.37, 2.83 and 3.06 times more likely than 12–13 year olds to think about suicide, make a suicide plan and attempt suicide, respectively. Similarly, 16–17 years olds were 2.54, 3.10 and 3.38 times more likely than 12–13 year olds to think about suicide, make a suicide plan and attempt suicide, respectively.

Frequency of Parenting Behaviors and Adolescent Suicide

A sizeable percentage of adolescents reported that their parents never/seldom limit the amount of television (60.7%), limit the time out on a school night (30.2%), help with homework (19.5%), check if their homework is done (18.8%), tell them they did a good job (15.0%), and tell them they are proud of them (14.9%), make them do chores around the home (12.2%). Adolescents who reported that their parents never/seldom performed each of the specific parenting behaviors were significantly more likely than

adolescents who reported that their parents always/sometimes performed each of the specific parenting behaviors to experience suicidal ideation, make a suicide plan and attempt suicide, with one exception (Table 2). Making youth do chores around the home was not significantly associated with suicide attempts. Parenting behaviors placing adolescents at highest risk for suicidal ideation, making a suicide plan and attempting suicide were having parents who never/seldom tell them they were proud of them, never/seldom tell them they did a good job, and never/seldom help them with their homework.

Frequency of Parenting Behaviors and Adolescent Suicide based on Age of Adolescent

Adolescents who reported that their parents never/seldom performed each of the specific parenting behaviors were significantly more likely than adolescents who reported that their parents always/sometimes performed each of the specific parenting behaviors to experience suicidal ideation, regardless of age of adolescent, with a few exceptions (Table 3). Making youth do chores around the home was not significantly associated with suicidal ideation among 12–13 and 14–15 year olds. Similarly, limiting time out on a school night was not significantly associated with suicidal ideation among 14–15 and 16–17 year olds. Compared to their same age counterparts, 12–13 year olds who had parents who never/seldom tell them they did a good job were 5.1 times more likely to experience suicidal ideation, 14–15 year olds were 3.4 times more likely to experience suicidal ideation, and 16–17 year olds were 2.6 times more likely to experience suicidal ideation.

Regarding making a suicide plan, adolescents who reported that their parents never/seldom performed each of the specific parenting behaviors were significantly more likely than adolescents who reported that their parents always/sometimes performed each of the specific parenting behaviors to make a suicide plan, regardless of age, with a few exceptions (Table 4). Making youth do chores around the home was not significantly associated with suicidal ideation among 12–13, 14–15, and 16–17 year olds. Limiting time out on a school night was not significantly associated with making a suicide plan among 14–15 and 16–17 year olds. Limiting the amount of television was not significantly associated with making a suicide plan among 16–17 year olds. Compared to their same age counterparts, 12–13 year olds who had parents who never/seldom tell them they were proud of them were 6.7 times more likely to make a suicide plan, 14–15 year olds were 4.0 times more likely to make a suicide plan, and 16–17 year olds were 3.8 times more likely to make a suicide plan.

Regarding attempting suicide, adolescents who reported that their parents never/seldom performed each of the

Table 2 Odds ratios for suicide based on parent behaviors

Parent behavior	Suicidal ideation		Suicide plan		Suicide attempt	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Parents check if homework is done</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	2.795	(2.477, 3.155)***	3.349	(2.833, 3.960)***	3.075	(2.509, 3.768)***
<i>Parents help with homework</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	3.057	(2.713, 3.444)***	3.725	(3.155, 4.399)***	3.157	(2.578, 3.865)***
<i>Parents make youth do chores around the house</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.245	(1.062, 1.461)**	1.287	(1.028, 1.611)*	1.242	(.943, 1.637)
<i>Parents limit amount of TV</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.683	(1.488, 1.904)***	1.595	(1.338, 1.902)***	1.642	(1.323, 2.036)***
<i>Parents limit time out on a school night</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.263	(1.120, 1.424)***	1.289	(1.086, 1.529)**	1.304	(1.059, 1.604)*
<i>Parents tell youth they did a good job</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	3.496	(3.095, 3.948)***	4.466	(3.786, 5.268)***	3.907	(3.194, 4.780)***
<i>Parents tell youth they are proud of you</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	3.684	(3.263, 4.159)***	4.509	(3.822, 5.318)***	4.491	(3.679, 5.482)***

* $p < .05$; ** $p < .01$; *** $p < .001$ ^a Referent; $N = 17399$; Missing values excluded

specific parenting behaviors were significantly more likely than adolescents who reported that their parents always/sometimes performed each of the specific parenting behaviors to attempt suicide, regardless of age, with a few exceptions (Table 5). Making youth do chores around the house was not significantly associated with attempting suicide among 12–13 and 14–15 year olds. Limiting time out on a school night was not significantly associated with attempting suicide among 14–15 and 16–17 year olds. Limiting the amount of television was not significantly associated with attempting suicide among 16–17 year olds. Compared to their same age counterparts, 12–13 year olds who had parents who never/seldom tell them they were proud of them were 7.0 times more likely to attempt suicide, 14–15 year olds were 3.7 times more likely to attempt suicide, and 16–17 year olds were 3.9 times more likely to attempt suicide.

Discussion

In the present study, we examined the associations among specific parenting behaviors and adolescent involvement in suicidal ideation, making a suicide plan, and attempting

suicide. Results indicated that within the past year, 7.8% of adolescents experienced suicidal ideation, 3.7% made a suicide plan, and 2.4% attempted suicide. Previous research has similarly shown adolescent suicide to be an urgent public health problem (CDC 2014; Kann et al. 2016). Of particular concern is the fact that adolescence is the time of highest risk for initial onset of suicidal behaviors and predicting suicidal behavior among youth remains complex and multifactorial (Lyons-Ruth et al. 2013).

Not surprisingly, we also found that suicide differed significantly based on sex and age. Compared to males, females were 2.9 times more likely to experience suicidal ideation, 3.1 times more likely to make a suicide plan and 4.2 times more likely to attempt suicide. Past studies have also shown females to be at elevated risk for suicidal ideation, plans and attempts (Kann et al. 2016; Langhinrichsen-Rohling et al. 2009; Walsh and Eggert 2007). We also found that suicidal thoughts and behaviors increased with age, which is similarly substantiated by other studies (Bridge et al. 2015). Continued research is needed to more thoroughly understand reasons for sex and age differences in suicidal thoughts and behaviors.

Regarding parenting behaviors, a sizeable percentage of adolescents reported that their parents never/seldom

Table 3 Odds ratios for suicidal ideation based on parent behaviors among 12–13, 14–15, and 16–17 year olds

Parent behavior	12–13 Year olds		14–15 Year olds		16–17 Year olds	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Parents check if homework is done</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	3.125	(2.303, 4.486)***	2.677	(2.195, 3.264)***	2.258	(1.893, 2.693)***
<i>Parents help with homework</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	3.371	(2.420, 4.697)***	3.158	(2.599, 3.836)***	2.347	(1.970, 2.796)***
<i>Parents make youth do chores around the house</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	.920	(.597, 1.417)	1.164	(.891, 1.521)	1.409	(1.121, 1.771)**
<i>Parents limit amount of TV</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.740	(1.320, 2.293)***	1.482	(1.220, 1.801)***	1.385	(1.132, 1.693)***
<i>Parents limit time out on a school night</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.721	(1.288, 2.300)***	1.096	(.898, 1.339)	1.139	(.954, 1.361)
<i>Parents tell youth they did a good job</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	5.080	(3.786, 6.817)***	3.443	(2.833, 4.183)***	2.640	(2.194, 3.178)***
<i>Parents tell youth they are proud of you</i>						
Always/Sometimes ^a	1.000		1.000			
Never/Seldom	4.720	(3.508, 6.351)***	3.335	(2.736, 4.066)***	3.164	(2.640, 3.791)***

* $p < .05$; ** $p < .01$; *** $p < .001$ ^aReferent; $N = 17,399$

performed specific parenting behaviors. Those who reported that their parents never/seldom performed each of the specific parenting behaviors assessed in this study were at elevated risk to experience suicidal ideation, make a suicide plan and attempt suicide. The parenting behaviors placing adolescents at highest risk for suicidal ideation, making a suicide plan and attempting suicide were having parents who never/seldom tell them they were proud of them, never/seldom tell them they did a good job, and never/seldom help them with their homework. This finding held true regardless of adolescent age. However, the impact of these parenting behaviors on younger adolescents (12–13 year olds) had a much more pronounced impact on suicide than it did on the older adolescents (14–15 and 16–17 year olds). The odds ratios based on adolescent age showed a decline in the impact that these parenting behaviors have on adolescent suicide. More simply, parents telling youth that they are proud of them, that they did a good job and helping them with homework was more impactful on suicidal thoughts and behaviors among 12–13 year olds than among 14–15 year olds and 16–17 year olds. Parent factors have been shown to play a critical role in adolescent suicide (Frey and Cerel 2015; Heilbron et al. 2014). With that stated, it should be noted that the parenting behaviors were significantly

important for all age groups. The findings tend to indicate that parental encouragement and reinforcement may have a more pronounced effect on younger adolescents (12–13 year olds) as it relates to suicide, than on older adolescents (16–17 year olds). Adolescents of all ages need and rely upon their parents, however, as they age, they tend to seek higher levels of encouragement and reinforcement from their peer group. Thus, some of the differences in the odds ratios may be due to adolescents shifting encouragement and reinforcement expectations from parents to peers. Further research is needed to more thoroughly explore this issue.

Baumrind (1971) identified three parenting styles which affected child health and behavior: authoritative parenting, authoritarian parenting and permissive parenting. Authoritative parenting is defined as parenting which provides children with a high level of demandingness and a high level of emotional responsiveness (care/support). Authoritarian parenting provides children with a high level of demandingness and a low level of responsiveness. Permissive parenting provides children with a low level of demandingness and a high level of responsiveness. Macoby and Martin (1983) identified a fourth parenting style, neglectful parenting, characterized by low levels of both

Table 4 Odds ratios for suicide plan based on parent behaviors among 12-13, 14-15, and 16-17 year olds

Parent behavior	12–13 Year olds		14–15 Year olds		16–17 Year olds	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Parents check if homework is done</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	5.731	(3.595, 9.137)***	3.055	(2.330, 4.005)***	2.469	(1.937, 3.146)***
<i>Parents help with homework</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	5.917	(3.705, 9.449)***	3.754	(2.878, 4.897)***	2.347	(1.970, 2.796)***
<i>Parents make youth do chores around the house</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.360	(.750, 2.469)	1.158	(.795, 1.685)	1.329	(.966, 1.829)
<i>Parents limit amount of TV</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	2.845	(1.771, 4.572)***	1.332	(1.015, 1.749)*	1.089	(.833, 1.422)
<i>Parents limit time out on a school night</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.779	(1.126, 2.811)*	1.189	(.899, 1.572)	1.112	(.868, 1.425)
<i>Parents tell youth they did a good job</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	6.433	(4.144, 9.987)***	4.900	(3.777, 6.359)***	3.090	(2.414, 3.956)***
<i>Parents tell youth they are proud of you</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	6.671	(4.305, 10.337)***	4.049	(3.106, 5.277)***	3.708	(2.910, 4.726)***

* $p < .05$; ** $p < .01$; *** $p < .001$ ^aReferent; $N = 17,399$;

demandingness and responsiveness. Steinberg (2001) asserted that authoritative parenting is the most beneficial parenting style for youth. Research has demonstrated the protective effect of authoritative parenting on risky health behaviors in youth, as well as the link between authoritarian parenting and increased youth involvement in risky behaviors (Demuth and Brown 2004; King et al. 2016; King et al. 2015; King et al. 2015). The present study found that youth who did not have parents engaged in authoritative parenting, but rather had parents who never/seldom performed positive parenting behaviors, were significantly more likely to think about suicide, make a suicide plan and attempt suicide. Donath et al. (2014) similarly found that authoritarian parenting increased suicidal risk among youth.

Positive parent-child communication is critical to the healthy growth and development of youth (Scales and Leffert 1999). The findings of the present study highlighted the importance of such communication on adolescent suicide. Other researchers have similarly found poor parent-child communication and neglect to be associated with increased youth suicide (Fortune et al. 2016; Gould et al. 1996). Frequent communication between parent and child is associated with decreased odds for suicidal behavior (Mark 2013). Thus, it is imperative for professionals, clinicians, preventionists, educators, and others working with parents

to emphasize the importance of parents verbally encouraging their children, telling them they are proud of them and telling them that they are doing a good job. Providing children with frequent praise for academic achievement, displays of appropriate behavior, and involvement in healthy activities can serve as protective factors against adolescent suicide (Borowsky et al. 2001).

The relationship between parents checking and helping with their child's homework and adolescent depression leads to interesting discussion. Adolescents who reported that their parents never/seldom checked or helped with their homework were significantly more likely to think about suicide, make a suicide plan and attempt suicide. Most interesting was the pronounced impact these parenting behaviors had on 12–13 year olds who were greater than three times more likely to think about suicide, five times more likely to make a suicide plan, and four times more likely to attempt suicide, compared to 12–13 year olds who had parents frequently or always checking and helping with homework. Previous research has similarly found parents frequently checking homework to be a protective factor against adolescent suicide (Cheng et al. 2009). This tends to again illustrate the importance of authoritative parenting and its elements of demandingness and responsiveness. By checking their child's homework, parents are setting clear

Table 5 Odds ratios for suicide attempt based on parent behaviors among 12-13, 14-15, and 16-17 year olds

Parent behavior	12–13 Year olds		14–15 Year olds		16–17 Year olds	
	OR	(95% CI)	OR	(95% CI)	OR	(95% CI)
<i>Parents check if homework is done</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	4.189	(2.270, 7.729)***	2.860	(2.065, 3.961)***	2.349	(1.754, 3.147)***
<i>Parents help with homework</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	4.352	(2.352, 8.052)***	3.252	(2.360, 4.481)***	2.189	(1.635, 2.931)***
<i>Parents make youth do chores around the house</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.775	(.888, 3.551)	.795	(.472, 1.339)	1.451	(.999, 2.108)*
<i>Parents limit amount of TV</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	1.801	(1.031, 3.147)*	1.525	(1.088, 2.138)*	1.189	(.856, 1.652)
<i>Parents limit time out on a school night</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	2.333	(1.330, 4.094)**	1.096	(.779, 1.541)	1.132	(.840, 1.527)
<i>Parents tell youth they did a good job</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	5.984	(3.426, 10.453)***	3.948	(2.877, 5.419)***	2.859	(2.124, 3.850)***
<i>Parents tell youth they are proud of you</i>						
Always/Sometimes ^a	1.000		1.000		1.000	
Never/Seldom	6.955	(4.010, 12.063)***	3.729	(2.706, 5.138)***	3.889	(1.599, 2.104)***

* $p < .05$; ** $p < .01$; *** $p < .001$ ^aReferent; N = 17,399;

expectations with their child for academic achievement. By helping their child with homework, parents are actively engaged with their child and thus, showing them that they care about and are emotionally invested in their child.

Another plausible explanation for the link between parents not checking/helping with homework and increased adolescent suicide could be the fact that if adolescents do not successfully complete their homework, they may fall behind in class and seriously struggle academically. This may in turn, result in many perceiving themselves as academic failures and inferior to classmates and peers. These feelings could contribute to feelings of low-self esteem, potential depression and eventual suicide. Such psychological problems may lead to continued poor academic performance (Hong et al. 2016). Spending time helping adolescents with homework, reading to them, and teaching them effective study habits and strategies may boost adolescent self-confidence in academics and thus serve as a protective factor against suicide.

Limitations

Limitations of the present study should be noted. First, all data were self-reported which may have resulted in some youth responding in a socially desirable manner. Second,

since data were self-reported, some responses may have been inaccurate due to recall errors. Third, data were cross-sectional in nature, thus causal relationship could not be determined.

Author Contributions K.A.K.: designed and executed the study, analyzed the data, and wrote the paper. R.A.V.: collaborated with the design and writing of the study. R.A.Y.: assisted with writing the study and developing the tables. A.L.M.: collaborated with the writing of the study.

Compliance with Ethical Standards

Conflict of Interest All of the authors declare that there was no conflict of interest in conducting this study. No personal financial relationships with commercial interests relevant to this study existed. All authors have no conflicting relationships to disclose regarding this study.

Ethical Approval This study was a secondary data analysis of the NSDUH dataset. This article does not contain any studies with human participants performed by any of the authors. Approval for this study was granted by the University of Cincinnati Institutional Review Board. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This study was self-funded.

Informed Consent This study was a secondary data analysis. Informed consent was obtained from all individual participants included in the original NSDUH study.

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