

**Socio-demographic Characteristics Predictive of Bullying Behavior and the
Significance of Parental Engagement**

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On My Honor, I have neither given nor received unauthorized aid on this thesis.

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ABSTRACT: Bullying among school-aged children has received notoriety in the media as of late, especially following highly publicized incidents in which victims have killed themselves or others as a result of being bullied. The following study analyzed data from the 2005-2006 Health Behavior in School-aged Children (HBSC) survey, a national survey of students, in order to determine the socio-demographic factors predictive of bullying behaviors. A dichotomous bully variable was derived from the data set and used in an initial logistic regression with a set of independent variables representing student race/ethnicity, gender, family SES, family structure, and parental engagement. Initial results demonstrated the significance of parental attachment above all other independent variables, in addition to gender and family SES. OLS regressions were then run in order to determine which independent variables affected parent engagement. Results indicated that both mothers and fathers, especially those from racial/ethnic minority backgrounds, were significantly less engaged with their children than their white counterparts, particularly racial/ethnic minority fathers being significantly less engaged with their daughters. These results point to a crisis of masculinity as well as greater structural inequality that prevents minority parents from being more engaged with their children.

1. INTRODUCTION

Bullying among school-aged children has recently gained increased media attention following a string of high profile incidents in which bullying was said to have played a central role in victims' suicides. Victims of bullying have been found to have significantly higher chances of developing new psychosomatic and psychological problems when compared to children who were not bullied (Fekes et al. 2006.) Additionally, bullies and their victims reported similarly significant emotional and psychosomatic complaints, however these worsened for the victims only with increasing victimization (Meland et al. 2010). Studies have even demonstrated a link between peer rejection and grandiose acts of violence in the form of school shootings (Leary et al. 2003, Vossekuil et al. 2002). After the mass school shooting and suicides at Columbine High School in 1999 and subsequent reports that the perpetrators had long been victims of bullying, the US Secret Service teamed with the Department of Education to craft a report called *The Safe Schools Initiative* (2002.) The report confirms the existence of a pattern between bully victimization and subsequent violent acts on a grand scale.

Specifically, many attackers felt bullied, injured, or persecuted by others before carrying out such violent attacks. Over the course of their lifetimes, bullies are more likely to engage in externalizing behaviors like physical violence and substance abuse (Olweus 1993). Nansel (2004) found that bullying was positively linked to carrying a weapon in all six countries she studied. Other long-term outcomes for bullies include delinquency, criminality, intimate partner violence, and unemployment (Farrington and Ttofi 2011; Pepler et al. 2008).

In the wake of such incidents, schools throughout the country have worked to establish rigorous anti-bullying policies in order to increase awareness about the issue as well as decrease the number of serious incidents that occur as a result of bullying. Between 1999 and 2010, 120 Bills were enacted by state legislatures introducing or amending laws related to bullying behavior in schools (Stuart-Cassel, Bell, and Springer 2011). President Obama has worked to actively encourage such measures, contributing a personal video to the “It Gets Better Campaign,” supporting bullied LGBT youth in October 2010 (Bond 2010). In August 2010, the first ever taskforce assembled for a National Bullying Summit, which was followed by the State Department’s establishment of the website, www.stopbullying.gov, a conglomerate of all federal resources on bullying (Stuart-Cassel, Bell, and Springer 2011). The website elaborately defines bullying as “unwanted, aggressive behavior that involves a real or perceived power imbalance.” The behavior must also be or have the potential to be repetitive and is broken down into three types: verbal, social or relational, and physical bullying (US Department of Health and Human Services 2010).

This paper seeks to delve further into the context of bullying by identifying the distinguishing socio-demographic characteristics of bullies. While much has been made of the problem of bullying, characteristics of bullies need to be identified in order to fully understand the social underpinnings and tailor effective solutions. The following paper investigates whether specific socio-demographic characteristics such as race/ethnicity, family structure, gender, parent-child relationships and economic status relate to bullying behaviors. The results are of significance in that the complex relationships between the set of independent variables will be identified and it will become clear how certain variables, especially those related to parent involvement account for and mitigate the effects of others as they relate to bullying behavior.

2. LITERATURE REVIEW

The state of the relevant literature is extensive, with historical roots reaching back to the 1960s work in Scandinavia by Richard Olweus. In terms of major themes, gender and bullying has been examined far and wide, with recent developments concerning relational bullying as widely prevalent among females. Race/ethnicity and SES have also been studied frequently, with less uniform results, however. While the health consequences of bullying- both mental and physical- are examined most commonly above all else, this paper seeks to identify how specific independent variables predict bullying behavior, and as such, will not focus directly on these kinds of long term consequences.

2.1. The Prevalence and Types of Bullying

While the percentage of children internationally who report being regularly bullied ranges from 15 to 70% (King et al. 1996), almost one in three school aged children are victims of bullying in the United States (Nansel et al. 2001). Types of bullying are widely varied and have been categorized in various manners from study to study. However, most bullying behaviors can be categorized under subcategories of direct and indirect bullying. Direct bullying behaviors include physical and verbal harassment. Indirect behaviors include social exclusion and rumor spreading, as well as cyber bullying, or bullying that is carried out through the use of electronic devices (Baldry 2004; Crick and Grotpeter 1995; Li 2007; Raskauskas and Stoltz 2007; Rivers and Smith 2006; Wang et al. 2012). Bullying can be categorized as such when it occurs between people of the same age group, is repeated over time, and the relationship between the bully and victim is characterized by an existing power imbalance (Olweus 1999).

2.2. Gender, Class, Race/ethnicity, and Bullying

The literature on bullying has attended to the association of socio-demographic characteristics to such behavior. While gender has been written about more than race/ethnicity and class, all three characteristics are present in some form in the literature and must be addressed.

With respect to gender, research typically finds boys to be more involved in both sides of bullying interactions- both as bullies and victims (Scheithauer et al. 2006; Espelage, Mebane and Swearer 2004). However, some studies find boys and girls are equally likely to be the victims of bullying behavior (Slee 1995; Scheithauer et al.2006).

In terms of gender's effect on the process of victimization, Olweus (1993) determined that girls are victimized by boys 60% of the time. The gendered nature of the male-as-bully, female-as-victim dynamic has also been examined in conjunction with sexual harassment. It is believed that the origins of sexual harassment begin during childhood, with one study reporting that 38% of women who have experienced sexual harassment had their first experiences with it in elementary school (American Association of University Women Educational Foundation 2001). However, the notion that sexual harassment is a form of bullying is not universally agreed upon, with some finding the legal distinction between the two to be too severe to categorize them together (Gruber and Fineran 2008).

Additionally, gender is a salient variable in discussions on bullying in terms of the different types of bullying perpetrated by male and female students. While male students more commonly employ direct (physical, verbal) bullying tactics, female students tend towards bullying using indirect, or relational, tactics that include social exclusion and rumor spreading (Crick and Grotpeter 1995). As a kind of relational bullying, cyber bullying would appear to be practiced more by females (Campfield 2006). However, some studies have determined that males actually practice cyber bullying more often than their female counterparts (Arıcak et al. 2008; Li 2006). The general explanation given to justify boy's greater role in bullying has been that it is much easier to identify overt forms of aggression as bullying behavior, while relational aggression remains subtle by its nature, making it more difficult to accurately track girls involvement in bullying (Crick and Grotpeter 1995). Others suggest that parenting differences for each gender are also influential in shaping bullying behaviors in distinct ways (Finnegan et al. 1997). For

boys, maternal over protectiveness was associated with victimization, but only for those boys who felt afraid of their mother and compelled to defer to their mothers during conflict. On the other hand, for girls, maternal hostility was associated with victimization, particularly for girls who were perceived by their peers as lacking physical strength (Finnegan et al. 1997).

With respect to race/ethnicity, the literature is less consistent than with gender. Various studies have shown that no significant correlation between race/ethnicity and prevalence of bullying behaviors exists (Seals and Young 2003), while others have asserted the opposite (Nansel et al. 2001; Spriggs et al. 2007). For example, Nansel et al. (2001) found that Hispanic youth reported higher involvement in moderate and frequent bullying than other students, while black youth reported being bullied less frequently than others overall, which has also been confirmed by other studies (Spriggs et al. 2007). Spriggs et al. demonstrated that the basis for bullying behaviors across all racial/ethnic groups was related to parental communication and involvement. African American students have, however, been found to be more involved with all kinds of bullying-physical, cyber, and verbal, than students from other racial backgrounds (Wang et al. 2009). Thus, the existence of any links between race/ethnicity and bullying are still unclear and necessitate further examination.

Last, investigation into patterns between socioeconomic status and bullying behaviors is least common of all, but exists in a couple of instances. For example, in a study of English and German students, Wolke et al. (2001) found a small but significant association between SES and bullying behavior, ranking behind gender, age, and country in significance of impact of bullying behaviors. Socioeconomic status was also examined

in relation to peer victimization with the finding that students from low socioeconomic backgrounds were significantly more prone to bully victimization than their middle and higher-class background counterparts (Barker et al. 2008). Due et al. (2009) come to a similar conclusion, but add that bullying was more prevalent in schools with great disparities in student affluence and in countries with greater overall economic inequality. For example, a 10 percentage point increase in national economic inequality generated a 34% increased presence of bullying. The explanation for this correlation is that countries with higher inequality have more rigid social hierarchies, which are then reflected in the micro level interactions of students in school settings (Due et al. 2009).

2.3. Parental Attachment and Bullying

Another characteristic that has been shown to be predicative of bullying behavior is one's family structure and parental attachment (Smith and Myron-Wilson 1998; Olweus 1993). Peer aggression has been linked to specific parenting attributes, specifically lack of warmth, inconsistent discipline, and lack of supervision (Smith and Myron-Wilson 1998). Insecure parental attachment in the early years has been found to act as a causal factor for bullying (Smith and Myron-Wilson 1998). A lack of communication with parents contributes to bullying tendencies across racial and ethnic groups (Spriggs et al. 2007). Bullies also perceive their families more negatively than their non-bully counterparts "in terms of problem solving, communication, affective responsibilities, affective involvement, behavior control, and general functioning" (Cenkseven Onder and Yurtal 2008: 821). Family characteristics such as parental depression, low socioeconomic status, and domestic violence in the home can predict the occurrence of increased bully victimization, as well (Arsenault, Bowes, and Shakoor

2010). On the contrary, a different study found that parenting was unrelated to bullying once other factors were controlled for (Lindenberg et al. 2005), adding to the ambiguity of the possible significance that family characteristics and parental attachment potentially have in predicting the likelihood of bullying behavior.

2.5. The Current Study

It is clear, then, that much research concerning socio-demographic characteristics and bullying behaviors has already been undertaken. Certain patterns between gender, race/ethnicity, and family background as they relate to bullying behaviors have already been identified, albeit inconsistently. The study seeks to not only analyze the association between the independent variables as they relate to bullying, but also to examine these factors in depth, especially the role that family structure and parental engagement may play in accounting for race/ethnicity, gender, and class effects. The following study will use updated data from the Health Behavior in School Aged Children survey from 2005-2006 in order to do so. The 2001 version of the survey was used in the Spriggs et al. (2007) study, the Shetgiri, Lin, and Flores study (2012), and the Nansel et al. study (2001) described in the literature review. The current 2005-2006 version was analyzed in the Wang et al. study also featured in the literature review. Others have created their own, smaller samples from children in specific geographic areas, while still others have used different national surveys such as the General Health Questionnaire (Rigby 2000). Rather than using a small, geographically isolated sample the data for the present study is nationally representative and will therefore yield results that are applicable nation-wide. This paper will investigate the validity of the claims of previous studies with the goal being to create a coherent profile of specific characteristics that are shared by habitual

school bullies, rather than including students who have only occasionally bullied others as other studies have done. Thus, the current study will successfully address gaps in previous literature and the general ambiguity that characterizes its conclusions.

3. METHODS

3.1. The Data Set

Data used for the present study are from the 2005-2006 Health Behavior in School-aged Children (HBSC) study of the United States. The HBSC survey has been distributed to 43 countries in four-year increments for the past 30 years as part of a collaborative project with the World Health Organization. According to the 2005-2006 codebook, the HBSC survey collects data “on a wide range of health behaviors and health indicators, and factors that may influence them. These predictors are primarily characteristics of the children themselves, such as their psychological attributes and personal circumstances, and of their perceived social environment, including their family relationships, peer-group associations, school climate and perceived socioeconomic status” (Haug 2006: 2). The mission of the study is twofold: first, to establish a monitoring tool for policy development as well as to develop adolescent health research (Roberts et al. 2009). The population that the HBSC samples is students aged 11, 13, and 15 as these ages are representative of the onset of adolescence, the challenge of physical and emotional changes, and the middle years when important life and career decisions begin to be made. (Roberts et al. 2009). Methodology for the 2005-2006 Survey in the US began with three stages of sampling. First, schools were divided by census region and grade, with school districts serving as Primary Sampling Units. To ensure that each

PSU included 10 schools, rural schools districts within a county were grouped together. Private and Catholic schools were assigned to PSU's as well, making them eligible for inclusion into the sample of the 100 sampled PSU's. The second stage of sampling entailed the random selection of schools within districts, and last, classes were randomly selected from the group of schools (Haug, 2006).

3.2. Dependent Variable(s)

The data set presented multiple variables related to bullying behaviors, asking respondents to provide information about how often they left others out, spread rumors, engaged in physical confrontations, and used technology to bully one another. The variable that was selected to identify a student as a bully or non-bully simply asked students how often they acted as a bully without specifying the kind of bullying technique used. The variable was dummied out and collapsed into a dichotomous, bully=1, nonbully=2, by grouping students who bullied 2-3 times a month and more into the yes category, with those bullying less frequently into the "no" category. This method ensured that no specific type of bullying was referred to, this keeping the category as open as possible for students to self-report on, while also ensuring that only those who regularly engaged in bullying were counted as bullies. This follows Spriggs et al., who established their bullying variable based on the same criteria. The table below breaks down the frequency and percentage of respondents who fell under each category, with almost 90% of the respondents classified as non-bullies, and 10%, or 945 respondents, who were categorized as bullies.

Figure 1: Descriptive Table: Bully Variable

Independent	Frequency	Percent	Cumulative
Variable: Bully			
Non-bully	7911	89.33	89.33
Bully	945	10.67	100.00

3.3. Independent Variables

In order to get a complete picture of the socio-demographic profiles of students who were identified as bullies, a specific few independent variables were identified. First was race/ethnicity. The original variable was dummied out and recoded into the following categories: White non-hispanic, Black non-hispanic, Latino, and Other. Next, gender was also dummied out and in its place the dichotomous variable “female” was created, with female=1, male=0. In order to determine SES, the variable that asked students to self-report how well off their perceived their family to be was chosen and recoded so that answers were ranked from low to high, with 1=not at all well off and 5=very well off. Additionally, a variable asking students to report on the primary adult that they lived with was used, collapsed into six categories (mom and dad, just mom, just dad, one biological and one stepparent, grandparents, and other), and incorporated in order to help determine student’s family arrangements. Last, in order to measure parental engagement, two composite variables were generated. Cronbach’s alpha tests were run and means examined in order to determine which questions to include in the composite variables. These composite variables consisted of the following component variables:

mother/father knows who your friends are, mother/father knows how you spend your money, mother/father knows where you go at night, mother/father knows where you are after school, mother/father knows what you do with your free time. Response categories were uniform across all questions, with the options: Don't have/see mother or father, He/she doesn't know anything, He/she knows a little, and He/she knows a lot. Respondents who did not answer each and every one of these questions about parental engagement were not included in data analysis.

3.4. Methods of Analysis

Logistic regression was conducted in order to determine the independent variables that were significantly correlated with bullying behavior. After initial logistic regression demonstrated the significance of the composite parental engagement variables Ordinary Least Squares (OLS) regressions were performed to demonstrate the relationship between the socio-demographic and parental structure variables with parental engagement treated as the dependent variable. For the OLS regressions, variance inflation factors and multicollinearity were checked for, and no issues were found.

4. RESULTS

4.1. Table 1: Logistic Regression of Bully and Selected Independent Variables

First, it is important to note that in Table 1, gender remained significant at the $p < .001$ throughout the logistic regression, with females being 35% less likely to be bullies than their male counterparts. Family SES was also still significant ($p < .05$) once the sixth model was carried out, making those with a higher SES 9% less likely to be a bully than their peers from lower SES backgrounds. Their constant significance

throughout all six models demonstrates the unique power of the relationship of both of these variables to students identified as bullies. The significance of race/ethnicity steadily decreased with each new input of an independent variable. Initially, race was a significant predictor of bullying behavior for Blacks, Latinos, and Others relative to their White peers. When controlling for family SES, adult responsible for primary care, and the mother's level of engagement, race/ethnicity was rendered insignificant for Latinos and Others, however remained significant at the ($p < .05$) for Black students. Once father engagement was controlled for, race/ethnicity was rendered insignificant for Black students, too. While primary adult responsible for the child's care initially appeared to have a significant correlation with bullying behaviors for those who lived with only their father, a stepparent and a biological parent, or had a living arrangement that was classified as "other," this too lost significance once mother engagement was accounted for. The sixth model of the table demonstrates the strong significance of mother engagement, father engagement, gender, and the less significant association between family SES and students identified as bullies. Students with highly engaged mothers were 50% less likely to be bullies, whereas students with highly engaged fathers were only 18% less likely to be bullies. Females were 35% less likely to be bullies, while each level of increase in family SES contributed to a 9% decrease in the likelihood of being a bully. As the regression indicated that the significance of parental engagement was so great that it rendered race/ethnicity and family structure insignificant in identifying students as bullies, it became clear that parental engagement needed be explored further through OLS Regressions.

4.2. Table 2: OLS Regressions with Parent Engagement as the Dependent Variables

With parent engagement as the dependent variable and the rest of the same socio-demographic characteristics from Table 1 acting as independent variables, significant information regarding factors effecting parental engagement was brought to light. First, it appears that mothers are much more engaged than fathers with their daughters. While mothers are significantly engaged ($p < .001$) with their daughters relative to their sons, fathers are significantly less engaged at the ($p < .001$) with their daughters relative to their sons. Race had a negative relationship with parent engagement, as well. Compared to their white counterparts, racial/ethnic minority mothers and fathers both demonstrated significantly less engagement with their children, with the effect being even stronger for fathers than mothers. Family SES had a significant positive effect on parental engagement for mothers and fathers, with each increase in SES contributing to increased engagement upon initial analysis- 11% more engagement for mothers and 19% more engagement for fathers. Once controlled for the primary adult responsible for childcare these numbers remained significant ($p < .001$) but dropped to 9% and 13%, respectively. The primary adult responsible for care had a significant negative effect on parental engagement for mothers and fathers- except for when fathers themselves acted as the primary adult responsible for childcare. This situation increased a father's engagement by 12%. Overall, these independent variables accounted for 14% of the variance in a mother's engagement with her child, and 30% of the variance of a father's engagement with his child.

5. DISCUSSION

5.1. Discussion

The implications of these results are many. The notion that having an unengaged parent lends itself to bullying behaviors, while having an engaged parent prevents these behaviors seems relatively logical, especially when referring back to the literature and examining the significance of early childhood parental attachment in predicting bullying behaviors. These computed variables of parental engagement provide information that likely accurately reflects the kinds of attachment bonds these parents and their children share, therefore supporting the literature that identifies parental attachment as a significant predictor of bullying behavior.

The issue of lacking parental engagement among racial minorities and groups from lower SES backgrounds is pressing and affect some of the most vulnerable children in our population. The problem here is to clearly due to structural barriers built into the framework of contemporary society that prevent the poor and minorities from having the freedom of time to be more engaged with their children. Such barriers for racial/ethnic minorities likely include access to the high quality education, jobs and subsequent economic success that is much more easily attained by their White counterparts. Further research that identifies these barriers and how to eliminate them is needed in order to create effective solutions to this problem.

Additionally, the analysis demonstrates the salience of gender as it relates to both bullying behavior and parental engagement patterns. The fact that fathers are so significantly less engaged with their daughters than their sons is highly problematic. This is possibly explained by the current normative standards that disproportionately favor the

mother for childcare and domestic responsibilities. These standards are becoming increasingly archaic, especially in an economic downturn that has shifted the way that many parents operate their households, but these norms still pervade and must be dismantled if we are to see fathers who are significantly engaged in the lives of their daughters.

The increased prevalence of male bullying that this study observed also speaks to the current state of masculinity. It would seem that bullying is more of a problem of masculinity than anything else, and must be taken into account in order to really address the root causes of bullying.

6. CONCLUSION

6.1. Conclusion

Revisiting the results of the present data analysis through the lens of the related literature, it would seem that the existing ambiguous, at times even contradictory, nature of the results of these studies have been cleared up. For example, the inconsistent correlations made regarding race and bullying behaviors have been demonstrated as insignificant once controlled for parental engagement. Family arrangement, examined in the current study through the independent variable that asked students to self-report the adult who was primarily responsible for their care, was also shown to be an insignificant factor in predicting bullying behavior once controlled for parental engagement, clearing up another question posed by the literature. The significance of gender supports claims made by current literature, as does the weak significance of family SES. The overriding importance of parental engagement also supports the current literature that has

emphasized the significant and lasting effects of parent-child relationships on aggressive behavior.

By conducting logistic regressions, the present study was successful in getting to the heart of the matter concerning the factor most associated with bullying behavior- parental levels of engagement in their children's lives- and exploring this variable in depth, determining how the other independent variables shape parental engagement, as well. This is something that other studies had not attempted to do, and as such uniquely contributes to the existing literature.

Limitations of this study exist, however. First, while the data set is the most recent one produced by the Health Behavior in School-aged Children survey, the data is still seven years old and may not accurately reflect current patterns occurring with socio-demographic characteristics and bullying behavior. Additionally, while decisions regarding the selection of independent variables were made as objectively as possible, some variables were necessarily neglected that could have acted as representatives of certain categories such as family SES and family structure. Choosing different variables to represent these categories could possibly change the results of this study, rendering it invalid. Further research on the topic using a more up-to-date data set is necessary. Also, further research specifying the types of bullying children perpetrate and how the variances in that category can be explained by a similar set of independent variables related to socio-demographics would provide an even more nuanced examination of the present topic. Most importantly, as stated above, further research on the structural obstacles that exist to parental engagement for racial/ethnic minority parents is needed in order to create functional solutions for closer parent-child relationships and perhaps

decrease the prevalence of bullying behaviors among school aged children. Equally significant is the further research that is needed regarding how the contemporary state of masculinity distinctly contributes toward both father's decreased engagement in the lives of their daughters and increased involvement in bullying behavior.

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APPENDIX:

Table 1:	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Logistic	N=8131	N=8131	N=8131	N=8131	N=8131	N=8131
Regression of						
Bully against:						
Ind. Var.	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Female	0.643*** (.047)	0.640***(.046)	0.629***(.046)	0.626***(.045)	.673***(.050)	.654***(.048)
Race (White)						
Black		1.401*** (.143)	1.366**(.140)	1.280*(.136)	1.239*(.133)	1.206(.130)
Latino		1.278** (.117)	1.252*(.115)	1.239*(.114)	1.136(.106)	1.122(.105)
Other		1.303* (.138)	1.275* (.135)	1.237*(.131)	1.124(.121)	1.113(.121)
Family SES			.811***(.031)	.829***(.032)	.896**(.036)	.911*(.036)
Primary						
Adult (Both						
parents)						
Mom				1.168(.111)	1.107(.107)	.908(.099)
Dad				1.781**(.329)	.809(.167)	.921(.190)
One step and				1.346**(.140)	1.219(.129)	1.139(.122)
one biological						
Grandparents				1.395(.309)	1.021(.235)	.905(.209)
Other				1.504*(.267)	1.110(.204)	.997(.187)
Mother					.464***(.285)	.504***(.032)
Engagement						
Father						.824***(.040)
engagement						
Log	-2736.8206	-2729.3433	-2714.4533	-2705.2396	-2630.7721	-2623.0747
likelihood						

Note: * p<0.05, **p<0.01, ***p<0.001