

## PRESENTER DISCLOSURES

**Andrew Owusu**

**(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:**

**No relationships to disclose**

## Association Between Bullying and Psychological Health Among Senior High School Students In Ghana

2010 American Public Health Association  
Annual Meeting & Exposition



Andrew Owusu Ph.D.  
Peter Hart  
Brittney Oliver  
Minsoo Kang Ph.D.



## BACKGROUND

### SCHOOL BULLYING IN AFRICA

- Relatively, there is a lack bullying data in African countries (*Liang H et al, 2007*).
- Available (scant) research indicates that bullying is pervasive among African adolescents (*2010 GSHS*).
- Young people are especially vulnerable during early adolescence to the psychological effects of bullying (*Kaltiala - Heino R, Rimpela PR, Rimpela A., 2000*)
- Bullied adolescents are more likely to be depressed, report having suicidal thoughts and social isolation (*Rigby, 1999*).

## PURPOSE OF STUDY

- **To examine the relationship between bullying victimization and psychological health among senior high school (SHS) students in Ghana.**
- **Questions:**
  - What is the relationship\* between being **bullied in general** at school and self-reported signs of depression, suicide ideation, anxiety, and loneliness?
  - What is the relationship\* between **physical forms of bullying** and self-reported signs of depression, suicide ideation, anxiety, and loneliness?

## DEFINING BULLYING

- It is defined as **“repeated intentional infliction of injury or discomfort (physical or non - physical) on another person over time in an imbalanced relationship”** (*Craig, 1998; Olweus, 1994; Roland & Munthe, 1989; Smith & Sharp, 1994; United Nations, 2006; Whitney & Smith, 1993*).

## METHODOLOGY

### DATA SOURCE/VARIABLES

- Used data from the 2008 Ghana Global School-based Student Health Survey (GSHS)
  - **Control Variables:**
    - gender, age and grade level.
  - **Outcome Variables:**
    - Loneliness, anxiety, signs of depression, and suicide ideation.
  - **Exposure Variable:**
    - bullying victimization

**METHODOLOGY**  
**ANALYSIS PLAN/DESCRIPTIVE STATS**

- Prevalence estimates (95% CIs).
- Chi-square test of independence
- Multiple logistic regression to predict likelihood of being bullied based on demographic variables and selected psychological variables.
- Descriptive Statistics**
- 7,137 participants**
  - 56% Male, 44% Female
- Grade Level:**
  - SHS 1 → 34.9%
  - SHS 2 → 33.8%
  - SHS 3 → 31.3%

**RESULTS**  
**BULLYING VICTIMIZATION PREVALENCE**

	n	%	95% CI	p
Overall	2551	40.1	37.2 - 43.1	
Gender				
Boys	1438	41.2	37.2 - 45.2	.273
Girls	1106	38.8	35.7 - 42.0	
Age	n	%	95% CI	p
18+	1277	35.4	32.2 - 38.7	<.001
17	567	41.5	38.0 - 45.1	
16	461	45.3	39.9 - 50.6	
15	241	47.4	42.7 - 52.1	
Grade	n	%	95% CI	p
SHS3	603	24.1	21.6 - 26.6	<.001
SHS2	1192	46.1	42.2 - 50.0	
SHS1	738	48.9	44.9 - 52.9	

**RESULTS**  
**ODDS RATIO: EVER SEEN BULLIED?**

	Odds Ratio	95% CI
Age		
18+	1.00	
17	1.10	0.95 - 1.29
16	1.04	0.86 - 1.25
15	0.99	0.78 - 1.25
Grade		
SHS3	1.00	
SHS2	2.67	2.33 - 3.05
SHS1	3.01	2.45 - 3.68

**RESULTS**  
**ODDS RATIO: MOST OFTEN BULLIED PHYSICALLY**

	Odds Ratio	95% CI
Gender		
Girls	1.00	
Boys	2.10	1.64 - 2.68
Age		
18+	1.00	
17	1.06	0.79 - 1.42
16	0.87	0.58 - 1.31
15	0.88	0.57 - 1.38
Grade		
SHS3	1.00	
SHS2	1.48	1.04 - 2.10
SHS1	1.99	1.35 - 2.93

**RESULTS**  
**VICTIMIZATION PREVALENCE BY MENTAL HEALTH STATUS EVER BEEN BULLIED**

	n	%	95% CI	p value
Lonely				
Yes	513	50.5	45.5 - 55.6	<.0001
No	2018	38.2	35.3 - 41.1	
Anxiety				
Yes	498	54.3	49.6 - 59.0	<.0001
No	2039	38.0	35.0 - 40.9	
Sad				
Yes	1205	49.1	45.2 - 53.1	<.0001
No	1277	34.3	31.7 - 36.9	
Suicide Ideation				
Yes	490	51.3	47.3 - 55.3	<.0001
No	2031	38.3	35.1 - 41.4	

**RESULTS**  
**ODDS RATIO: PSYCHOLOGICAL HEALTH BY VICTIMIZATION EVER BEEN BULLIED**

	OR*	95% CI
Lonely		
No	1.00	
Yes	1.82	1.49 - 2.22
Anxiety		
No	1.00	
Yes	2.10	1.77 - 2.49
Sad		
No	1.00	
Yes	1.97	1.75 - 2.21
Suicide Ideation		
No	1.00	
Yes	1.72	1.45 - 2.05

## IMPLICATIONS FOR SCHOOL HEALTH

### ■ **Summary:**

- Nationally, bullying is a substantial problem at SHS level.
- It is negatively associated with psychological health of students.
- Both physical and non-physical forms of bullying are equally associated with poor psychological health.

### ■ **Recommendations:**

- Address high burden of victimization borne by SHS 1 students
- Address both physical and non-physical forms of bullying
- Better engage (educate) teacher and parents about bullying
- Further research to examine bullying patterns and roles

## ACKNOWLEDGEMENTS

### ■ **Collaborators**

- Middle Tennessee State University (MTSU)
- Ministry of Education (MOE, Ghana)
- World Health Organization (WHO)
- US Centers for Disease Control and Prevention (CDC)

**THANKS**