PERCEPTIONS AND PSYCHOSOCIAL CORRELATES OF BULLYING AMONG LUMBBEE INDIAN YOUTH

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Abstract: Although bullying has been linked to suicide among youth, little is known about bullying in American Indians, a population at high risk for suicide. Qualitative data from focus groups with Lumbee Indian youth (N = 31, 16 males, 15 females, 12-17 years of age) and in-depth interviews with gatekeepers in the Lumbee community revealed that bullying is common, and is perceived to contribute to depression and suicide. Youth expressed powerlessness to overcome bullying. Survey data (N = 79, 32 males, 47 females, 11-18 years of age) showed that bullied youth (11.5%) had lower self-esteem and higher levels of depressive symptoms. Interventions are needed to address this behavior that contributes to poor psychosocial health in Lumbee youth.

INTRODUCTION

Bullying is generally defined as repeated, unwanted, aggressive behavior that is intentional and that involves a real or perceived imbalance of power (U.S. Department of Health and Human Services [US DHHS], n.d.b). The most comprehensive national study of bullying, published by Nansel and colleagues (2001), indicated that 30% of teens are involved in bullying, either as a victim or perpetrator. In addition, with the recent rise in texting and Internet usage, there is a growing concern with “cyberbullying” and other alternative forms of bullying. Wang and colleagues (2009) described the prevalence of U.S. adolescents involved (either as a victim or perpetrator) in bullying by type as 20.8% physical, 53.6% verbal, 51.4% social, and 13.6% electronic. National initiatives are currently underway to increase awareness of the impact of bullying among youth, including the “Stop Bullying Now” initiative by the U.S. Departments of Education, Justice, and Health and Human Services (www.stopbullying.gov; US DHHS, n.d.a).
A growing body of literature demonstrates that bullying is a major risk factor for poor psychosocial health, including depression, and is a contributor to suicidal ideation and behavior (e.g., Gini & Pozzoli, 2009; Saluja et al., 2004; Schneider, O’Donnell, Stueve, & Coulter, 2012). A systematic review of 37 published studies by Kim and Leventhal (2008) revealed that any participation in bullying increases the risk of suicide, regardless of the social environment of the adolescent. In a recent large study of high school-age youth in Boston, Hepburn and colleagues (2012) showed a strong correlation between involvement in bullying as a victim and/or perpetrator and reported suicidal ideation or attempted suicide, with the greatest level of risk among those who were both victims and perpetrators. Other negative factors associated with bullying include substance abuse and risk-taking behaviors (Luk, Wang, & Simons-Morton, 2012; Tharp-Taylor, Haviland, & D’Amico, 2009; Topper, Castellanos-Ryan, Mackie, & Conrod, 2011).

American Indian (AI) youth have the highest rates of suicide among all racial/ethnic groups in the U.S., more than double the rates of non-Hispanic White youth (Dorgan, 2010), and alarming enough to lead the U.S. Senate to convene hearings in 2009. However, there appears to be a paucity of literature about bullying among AI youth. In data collected as part of the Primary Prevention Awareness and Attitude Survey in middle and high school districts in Columbus, Ohio in 2003, AI youth had the highest reported rate of being a victim or perpetrator of bullying of the five racial/ethnic groups in the study (Carlyle & Steinman, 2007). While both bullying and being bullied were correlated with depressive symptomatology, these analyses were not conducted within specific ethnic groups.

The study for which these data pertaining to bullying were collected was part of a larger pilot study (described below). Bullying arose as a significant issue during the larger study, and, given the limited information available on this topic related to AI youth, we extracted these data from the larger study and examined them to determine the role of bullying in the lives of Lumbee youth. These data can be used to provide a much-needed understanding of bullying in AI youth and develop interventions to address this significant problem.

This study, part of the larger Lumbee Rite of Passage (LROP) study, examines the perceptions and demographic, health, and psychosocial correlates of bullying among Lumbee Indian youth in North Carolina. LROP is a National Institute of Mental Health-funded study with the overall goal of assessing the mental health perceptions and needs of Lumbee Indian youth, and determining the impact of a cultural program conducted by the Lumbee tribe on risk factors for suicide in Lumbee Indian adolescents.

The Lumbee Tribe of North Carolina is a state-recognized tribe of approximately 55,000 members, one of the largest tribes in the eastern U.S. The Lumbee tribe has lived in eastern North Carolina since the 1700s, and has social and cultural ties and traditions that remain strong today.
While the Lumbee do not have reservation lands, the tribal government and central homeland are located in Robeson County, one of the largest, most rural counties in the state.

AIs make up a small percentage of the North Carolina population, so availability of health and economic data is limited, and there is little information available on the health of Lumbee Indian youth. However, statewide data indicate that AIs in North Carolina have significant health and economic disparities (North Carolina State Center for Health Statistics & Office of Minority Health and Health Disparities, 2010).

**METHODS**

The study used a mixed methods approach drawn from the principles of community-based participatory research (CBPR; Minkler & Wallerstein, 2003; Patton, 1990) to help elucidate the issue of bullying in the Lumbee community. Using the CBPR model, the study was conducted as a partnership between the Maya Angelou Center for Health Equity at Wake Forest School of Medicine (WFSM) and the Lumbee Tribe of North Carolina. The tribe was involved in the formulation, development, implementation, evaluation, and dissemination of the study. The study was approved by the WFSM Institutional Review Board and the Lumbee tribal leadership.

The study had a Data Safety Monitoring Board, which provided input on qualitative instrument development and questionnaire selection and wording, and approved all consent forms and safety data.

In line with the CBPR model, the study also had a Community Advisory Board (CAB). Established in Fall 2010, the CAB included representatives from health care, schools, churches, and tribal government, as well as Lumbee youth. The CAB met monthly and worked in partnership with the study team throughout the program on instrument design, qualitative and quantitative implementation, recruitment, strategies to address program and participant concerns, development of additional partnerships, and dissemination. Speakers from the community who had expertise in working with youth and/or mental health were invited to each meeting to provide education and insight to CAB members on these and related issues.

LROP was conducted in two phases, as described below, from 2010-2012 to achieve the following aims: 1) to assess perceptions of suicidal behavior and other factors associated with suicide; 2) to examine perceived mental health needs among, and services for, Lumbee Indian youth (ages 11-18 years) in Robeson County, and to solicit perceptions regarding content of culture classes for youth offered by the tribe; 3) to elicit perceptions of the impact of the tribally run culture classes; 4) to enhance and administer the tribally run culture classes after evaluating data from the first three aims; and 5) to determine the impact of the tribally run culture classes on suicidal ideation and its risk factors.
Phase 1

Qualitative data were collected in Phase 1 using in-depth interviews with community gatekeepers and focus groups with Lumbee youth. For this study, gatekeepers are defined as community-based professionals working with youth or in the fields of mental health and/or counseling. To identify gatekeepers, we first consulted with the CAB to select several key individuals. After the initial interviews, snowball sampling (Bernard, 2011) was used to identify additional interview candidates. Individuals were eligible as long as they were age 18 years or older and worked with youth in the local community and/or in the mental health field. Participants were screened by telephone, and in-person interviews were scheduled at their convenience.

Interviews were conducted either in participants’ workplaces or in other locations convenient for them, and were audio-taped (with permission) for data analysis purposes. Interviews lasted 40-80 minutes. Sixteen gatekeepers (11 women, 5 men; 15 AI, 1 White) were interviewed. Of the 16 gatekeepers, 11 identified as mental/behavioral health service providers, 3 were clergy or had a vocation of a religious nature, 3 were health care providers, and 3 were employed at an AI and/or community advocacy agency (some gatekeepers identified multiple categories).

For focus groups, youth were recruited through community gatekeepers, via word of mouth at community events/agencies, and at tribally operated Boys & Girls Clubs using flyers. When potential participants called the telephone number provided on the flyer, they were screened for eligibility and, if eligible, scheduled for a focus group session. Eligible youth were Lumbee by self-report, were 12-17 years of age, lived in the research county, spoke English, and had a parent or legal guardian to consent for them. Focus groups took place in a conveniently located community setting. All participants provided written informed assent or consent, and consent was obtained from a parent or legal guardian of each youth prior to participation. Participants received $10 incentives. Thirty-one youth (16 males, 15 females; average age, 14.7 years) participated in 4 focus groups, ranging from 60-75 minutes in length.

The semi-structured interview and focus group guides (Bernard, 2011; Morgan & Krueger, 1997) were designed to elicit information about (1) local perceptions regarding the prevalence of mental illness and related stigma, particularly for youth; (2) risk factors (behavioral, social, genetic) that may influence mental health and/or suicide risk for youth; (3) experiences with suicidal youth; (4) quality and availability of local mental health resources; and (5) cultural resources for AI youth. To guide our instrument development, we conducted an extensive search of published literature on these topics.

The study team became cognizant of the significant role of bullying in the lives of Lumbee youth during our initial discussions with our CAB members. Therefore, and because bullying is a major contributor to suicide and poor mental health among youth, questions pertaining to bullying
were included in the focus group and interview guides. In addition, data gleaned from Phase 1 gatekeeper interviews and focus groups guided Phase 2 activities (development of content for the tribally run culture classes, and for an accompanying survey instrument). These data complemented the standard measures being used, as a means to further tailor the intervention and survey instrument for the target audience.

**Phase 2**

Phase 2 of LROP included an intervention which consisted of a 6-month, weekly cultural enrichment program offered by the Lumbee Tribe Youth Services program. Each session lasted approximately two hours. Program sessions were held in the evening at either a tribally operated community center or a Boys & Girls Club. Sessions included presentations on Lumbee history and traditions, singing, dancing, drumming, beadwork, artwork and participation in cultural events. Youth were assisted in making dance regalia using materials provided by the Tribe’s Youth Services program. Attendance was taken at each session, and the study team conducted a quarterly evaluation of the program. Elders were encouraged to attend and assist with the classes. To address the aims of this project, mental health promotion topics were also included.

Eligibility criteria for participation in the intervention included: age 11-18 years, residency in Robeson or a neighboring county, enrolled membership in the Lumbee tribe by self-identification; fluency in English, and cognitive ability to provide assent and to actively participate in the intervention.

In addition, participating youth were asked to complete a survey instrument that included a series of questions to assess demographic and physical and mental health characteristics. After informed assent or consent was obtained from participants, and consent was obtained from a parent or legal guardian of each youth, trained interviewers collected survey data at one primary intervention site and one delayed intervention site. The survey was mostly self-administered and took approximately 45-60 minutes to complete. Study team members were available to respond to any questions the participants had. The two groups were administered surveys at the same time points: baseline, 6 months, and 9 months. After the 9-month assessment, the culture classes were offered at the delayed intervention site. The baseline sample ($N = 80$), from which data are reported below, had a mean age of 13.8 years ($SD = 2.0$), and 60% were female.

**Study Measures**

The primary quantitative outcome for this analysis was whether the participant was either a victim or perpetrator of bullying behavior. These data were collected using one individual question from the survey instrument for each behavior: (1) Circle the answer that best describes how you
act around other kids: I do not usually bully other children, I sometimes bully other children, or I bully other children nearly every day; and (2) Circle the answer that best describes how other kids act around you: Other children do not usually bully me, Other children sometimes bully me, or Other children bully me nearly every day (Klomek et al, 2009). We categorized both perpetrators and victims of bullying as those who gave either of the latter two responses to each question. Due to our small sample size, we were not able to adequately compare those who sometimes bullied/experienced bullying to those who bullied/experienced bullying every day.

Data were collected on demographic variables including age, grade in school, ethnicity, community of residence, and gender. Socioeconomic status and other demographic information were collected from parents. Given the association between obesity, bullying, and poor mental health (Hebebrand & Herpertz-Dahlman, 2009; Nieman & Leblanc, 2012), we assessed body mass index (BMI) for each participant. Height was measured using a standard stadiometer, recorded to the nearest half inch and repeated; the two measures were then averaged. If there was a discrepancy of more than half an inch in the two measurements, a third measurement was taken and the discrepant measure was discarded. Weight was measured using digital scales. Participants removed their shoes and were asked to stand up straight during the measurement. BMI was calculated using measured weight (kilograms) divided by measured height (meters) squared, and is reported as a mean as well as categorized as overweight/obese (BMI $\geq 85^{th}$ percentile) and normal weight ($< 85^{th}$ percentile).

In the current literature (see meta-analysis review by Marshal et al., 2011), sexual orientation has been linked to behaviors that increase risk for suicidal ideation. As a result, we also included in the quantitative survey instrument a question pertaining to sexual orientation. Given the sensitive nature of this topic, particularly among our target age group, the following question was used after consultation with the CAB: “People are different in their sexual attractions to other people. Circle the response that best describes your feelings. Are you: Only attracted to females? Mostly attracted to females? Equally attracted to females and males? Mostly attracted to males? Only attracted to males? Not sure?” Based on their responses, participants were classified as heterosexual (only attracted to the opposite sex) or not heterosexual (any other answer).

Suicidal ideation was measured using the Suicidal Ideation Questionnaire-Junior Version (SIQ-JR; Reynolds, 1988). The SIQ-JR is a 15-item battery designed to measure the presence and severity of suicidal thoughts among adolescents. Although originally developed for use with junior high school youth, it can also be used among older youth. A version of the scale has been used successfully with AI youth (Keane, Dick, Bechtold, & Manson, 1996). The SIQ-JR has a high degree of reliability (alpha = .93-.94). Participants were asked to rate various suicidal thoughts on a 7-point scale, where 0 means I never had this thought and 6 means Have this thought almost every day. Scores on each item are summed to provide a total severity score. A raw score greater than 31
on the SIQ-JR indicates a need for further evaluation regarding potential suicide risk (Reynolds, 1988). For our analysis, due to the skewed distribution of the responses, we stratified the SIQ-JR score as “0” and “1 or more.”

Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale for Children (CES-DC; Weissman, Orvaschel, & Padian, 1980). The CES-DC is a 20-item self-report depression inventory with possible scores ranging from 0 to 60, where a score higher than 23 may indicate the presence of clinically significant depressive symptoms. The instrument uses a 0-3 Likert scale format in which (for most questions) 0 means *Not at all* and 3 means *A lot*, with some questions reverse-scored. Reliability and validity of the CES-DC have been well established (Faulstich, Carey, Ruggiero, Enyart, & Gresham, 1986; Fendrich, Weissman, & Warner, 1990).

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965). This assessment consists of 10 Likert-style questions answered on a 4-point scale, from *Strongly agree* to *Strongly disagree*. The original scale was developed for a sample of 5,024 high school juniors and seniors, but it has been validated for use with younger children as well. Previous studies have indicated a reliability of 0.85 and have confirmed face and convergent validity (Robinson, Shaver, & Wrightsman, 1991).

We assessed connection to Lumbee heritage by response to the following question: “How connected do you feel to Lumbee culture?” Youth could respond on a scale from 1-10, and were instructed that 1 meant *Not connected at all* and 10 meant *Extremely connected.*

**Statistical Analysis**

For qualitative data, transcripts were compared with notes taken from each interview/focus group and verified with audiotapes. The analysis followed the strategies described by Green et al. (2007) and Arcury and Quandt (1998). A codebook was developed after the preliminary review of all transcripts. The codes included core concepts (e.g. stigma, family, bullying) based on project objectives and related significant points expressed by participants during interview and focus group discussions. Transcripts were imported into Atlas.ti v6.2, a software program designed to organize and manage textual qualitative data. Text was cross-coded by the study team (SG, SL) using a collaborative, iterative process. Topical codes were supplemented by emergent codes as analysis proceeded. The investigators determined themes according to (1) the level of consensus for a concept among the reviewers, (2) strength and depth of a concept, and (3) frequency of a concept throughout the discussion.

After coding, segments of text were abstracted by code and reviewed. For this analysis, all segments for the code “bullying” were extracted. Due to the nature of the study’s focus area, text was not mutually exclusive with regard to codes, and text from both the interviews and focus groups
frequently was coded under more than one theme. The interpretation of these themes is supported by use of quotations from participants. To protect confidentiality, quotations have been deidentified. Quotations from focus group participants are referenced with an “R,” and quotations from gatekeepers begin with a “G.” Analysis is ongoing for all themes identified; thus, this manuscript reports solely on those themes relevant to the its topic.

To assess factors associated with bullying behaviors, we examined whether youth indicated they had bullied others, or indicated they had been bullied, for each of the demographic, health, and psychosocial variables. Chi-square tests were conducted for dichotomous variables, and $t$-tests were conducted for continuous variables. All analyses were conducted using the SAS Statistical Software package (version 9.2). Significance for each test was set at $p < 0.05$.

RESULTS

Phase 1

What is Bullying?

During focus groups, youth were consistent in their descriptions of bullying as a form of covert or overt aggression against another person. One youth quipped that “making fun of people” is something teenagers do for fun. Much of the “picking on” or “talking bad” about someone is in the form of spreading rumors or talking about someone in a negative manner while not in that person’s presence. Fighting is often the result of bullying that led to physical aggression. One respondent explained:

Sometimes one person starts a rumor, and then they’ll tell somebody, and then it will just be all over the school…then the person that they started the rumor about gets jumped or something, and the person who started the rumor gets off with it. (R19)

Who Are the Bullied/Bullies?

Interviews and focus groups both revealed that, generally, youth who are considered “outside the norm” or “different” are victims of bullying. Gay youth, particularly males, are perceived as common victims of bullying in the school setting. Youth who are “unfortunate,” experiencing a bad home life or having few financial resources, are bullied, as well as those who are exceptionally smart or not well connected socially. One youth explained:

All of the smart students are always being made fun of by the children that are not as smart as them. The children that are not as smart as that child thinks they’re better than that child in certain ways. (R25)
Those who bully come from a variety of backgrounds, and include those who have experienced abuse at home, as well as those who are more fortunate from a social or financial standpoint.

**Bullying Causes Harm**

Youth were explicit in their description of the effects that bullying can have on the psychosocial health of those who are bullied. One youth described the suicide of a classmate that was believed to be related to incessant bullying. A gatekeeper mentioned bullying as one of many factors which has contributed to the growing rate of suicide among youth in the community. Other participants felt that youth who are bullied have lower self-esteem, more depression, or other negative reactions. During one focus group, several youth discussed the impact of verbal bullying:

- R22: “One little word can just drive someone crazy, I believe.”
- R24: “Especially over and over again.”
- R29: “I know you keep hearing it and hearing it.”
- R22: “If you keep hearing it at school, people keep calling you the same thing over and over again, and…”
- R29: “What makes it worse is when you walk down the hallway and you can hear people whispering behind you talking about it like it’s the worst thing ever.”
- R28: “Or like if you’re at school and you feel like there is people behind you talking about you.”

The link between bullying and suicide made by participants was clear. One focus group discussed the suicide of a student who was being bullied, and one gatekeeper (G04) stated that for children battling depression who are bullied, the bullying “pretty much pushes them over the edge. I think it’s just another stressor that’s being added on.”

**Responding to Bullying**

Youth saw bullying as an inevitable part of their social lives. Efforts to stop bullying by teachers or other adults were seen as futile, or, worse, as making the situation more serious.

Usually if a kid tells a teacher, the teacher will just tell them to tell the child to stop bullying them….that doesn’t really do anything so they just continue on. Sometimes if you go to a teacher for help, then sometimes that teacher will involve that person that’s hurting you, and then that person…they’ll say ‘I am sorry’ and all that, but they won’t really mean it. Then they’ll go around telling everybody that you told the teacher and got involved in all of this and that you’re not strong enough to face up to them and you’re just weak and emotional. (R17)
Others indicated that youth who are bullied often develop coping mechanisms, such as ignoring the behavior or finding an activity to take their minds off the victimization. However, some youth utilize substance abuse, violence, and other risk-taking behaviors as unhealthy coping mechanisms.

Gatekeepers mentioned the need for education and for comprehensive services to support those being bullied:

I would say we need more education…we need to be there and help this person. So education would be the biggest thing. We really just need a place to where they can go and receive the services they need all together, that understands every aspect of where they are coming from. (G10)

Phase 2

Due to missing responses, data on bullying were removed for one participant, and data on being bullied were removed for two participants. Tables 1 and 2 provide data on the associations among demographic, health, and psychosocial correlates of bullying and being bullied. Seven participants (8.9%) reported some bullying behavior. No factors were significantly associated with bullying, although some were of borderline significance. Those who reported bullying were less likely to be overweight or obese ($p = 0.05$), and had lower self-esteem scores ($p = 0.07$). Nine participants (11.5%) reported having experienced some bullying. Those who were bullied had significantly higher CES-DC scores ($p < 0.01$) and lower self-esteem scores ($p < 0.01$). The lower cultural connection score among those who were bullied approached significance ($p = 0.06$).

| Demographic, Health, and Psychosocial Factors | No $(n = 72)$ | Yes $(n = 7)$ | Chi-square | $p$-value |
|---------------------------------------------|--------------|--------------|------------|----------|
| Gender                                      |              |              |            |          |
| Male                                        | 30 (41.7%)   | 2 (28.6%)    | 0.50       |          |
| Female                                      | 42 (58.3%)   | 5 (71.4%)    |            |          |
| BMI                                         |              |              |            |          |
| Normal/Underweight (<85th)                  | 34 (47.2%)   | 6 (85.7%)    | 0.05       |          |
| Overweight/Obese (> 85th)                   | 38 (52.8%)   | 1 (14.3%)    |            |          |
| Sexual Orientation                          |              |              |            |          |
| Heterosexual                                | 61 (84.7%)   | 6 (85.7%)    | 0.94       |          |
| Other                                       | 11 (15.3%)   | 1 (14.3%)    |            |          |

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Table 1, Continued
Demographic, Health, and Psychosocial Factors
According to Reporting of Bullying Behavior

|                          | No (n = 72) | Yes (n = 7) | Chi-square p-value |
|--------------------------|-------------|-------------|--------------------|
| CES-DC                  |             |             |                    |
| 0-23                    | 50 (69.4%)  | 4 (66.7%)   | 0.89               |
| 24+                     | 22 (30.6%)  | 2 (33.3%)   |                    |
| SIQ                     |             |             |                    |
| 0                       | 33 (45.8%)  | 3 (42.9%)   | 0.88               |
| 1+                      | 39 (54.2%)  | 4 (57.1%)   |                    |

|                          | Mean (SD) | Mean (SD) | t-test p-value |
|--------------------------|-----------|-----------|---------------|
| BMI                      | 0.96 (1.2)| 0.07 (1.4)| 0.06          |
| CES-DC Score             | 16.8 (12.2)| 17.7 (13.4)| 0.87          |
| Rosenberg Self-esteem Score | 23.0 (4.5)| 19.2 (3.2)| 0.07          |
| SIQ                      | 3.7 (6.5) | 1.9 (2.1) | 0.11          |
| Cultural Connection      | 7.4 (2.2) | 5.9 (3.8) | 0.31          |

* Due to missing responses, data for one participant are not reported here

Table 2
Demographic, Health, and Psychosocial Factors
According to Reporting of Being a Victim of Bullying

|                          | No (n = 72) | Yes (n = 7) | Chi-square p-value |
|--------------------------|-------------|-------------|--------------------|
| Gender                   |             |             |                    |
| Male                     | 28 (40.6%)  | 3 (33.3%)   | 0.68               |
| Female                   | 41 (59.4%)  | 6 (66.7%)   |                    |
| BMI                      |             |             |                    |
| Normal/Underweight (< 85th) | 35 (50.7%)  | 5 (55.6%)   | 0.79               |
| Overweight/Obese (> 85th) | 34 (49.3%)  | 4 (44.4%)   |                    |
| Sexual Orientation       |             |             |                    |
| Heterosexual             | 59 (85.5%)  | 7 (77.8%)   | 0.55               |
| Other                    | 10 (14.5%)  | 2 (22.2%)   |                    |
| CES-DC                   |             |             |                    |
| 0-23                     | 50 (73.5%)  | 4 (44.4%)   | 0.07               |
| 24+                      | 18 (26.5%)  | 5 (55.6%)   |                    |
| SIQ                      |             |             |                    |
| 0                       | 33 (47.8%)  | 3 (33.3%)   | 0.41               |
| 1+                      | 36 (52.2%)  | 6 (66.7%)   |                    |

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Table 2, Continued
Demographic, Health, and Psychosocial Factors According to Reporting of Being a Victim of Bullying

|                              | Mean (SD) | Mean (SD) | t-test | p-value |
|------------------------------|-----------|-----------|--------|---------|
| BMI                          | 0.88 (1.22) | 0.70 (0.84) | 0.67   |         |
| CES-DC Score                | 15.3 (11.3) | 26.7 (14.5) | <0.01  |         |
| Rosenberg Self-esteem Score | 23.4 (4.2)  | 18.4 (4.1)  | <0.01  |         |
| SIQ                          | 3.5 (6.4)   | 3.9 (5.3)   | 0.87   |         |
| Cultural Connection         | 7.5 (2.3)   | 5.9 (2.9)   | 0.06   |         |

*Due to missing responses, data for two participants are not reported here*

**DISCUSSION**

Social scientists and public health advocates increasingly recognize the importance of bullying as a contributor to psychological health in youth. Research has documented that youth who are recipients of persistent bullying experience higher rates of depression, risk-taking behavior, suicidal ideation, and suicidal behavior (Gini & Pozzoli, 2009; Hepburn, Azrael, Molnar, & Miller, 2012; Kim & Leventhal, 2008; Luk et al., 2012; Saluja et al., 2004; Schneider et al., 2012; Tharp-Taylor et al., 2009; Topper et al., 2011). Thus, understanding the factors that contribute to negative psychosocial outcomes associated with bullying is imperative.

AI youth have the highest rates of suicide compared to all other racial/ethnic groups in the U.S. Factors that have been shown to contribute to risk of suicide in this population include poverty, disconnection from Native culture, substance abuse, and dysfunctional family and social networks (Chino & Fullerton-Gleason, 2006; Howard-Pitney, LaFromboise, Basil, September, Johnson, 1992; LeMaster, Beals, Novins, & Manson, 2004; Novins, Beals, Roberts, & Manson, 1999; Yoder, Whitbeck, Hoyt, & LaFromboise, 2006). Unfortunately, little is known about the prevalence and correlates of bullying among AI youth. Our review of the literature generated minimal data on this topic. One of the few reports was from a nationwide survey of middle and high school youth, where Carlyle and Steinman (2007) showed that AI youth had the highest rates both of being the victim (27.5%) and the perpetrator (30.9%) of bullying, relative to all other racial/ethnic groups.

Our study revealed a number of very important findings about bullying among AI youth. Only about 10% of youth reported either being a victim or perpetrator of bullying. This rate is much lower than that shown by Carlyle and Steinman (2007). This difference might be due to the fact that we relied on a convenience sample for our study, rather than a nationwide survey as in the latter study. Thus, our sample may be better adjusted and not subject to bullying to the extent that a more representative sample would be. However, we found that victims and perpetrators both had lower
self-esteem than their peers, and victims of bullying had higher levels of depressive symptoms. We also noted in our focus groups that youth were explicit about the factors that contribute to becoming a bully or experiencing bullying, and they were vocal about the helplessness they felt in responding appropriately to bullying.

Our study has a number of strengths, including the mixed-methods design, the focus on an at-risk population, and the array of demographic and psychosocial measures. However, it has several noteworthy limitations, including the small sample size, the convenience sampling (i.e., most youth were recruited via word of mouth or advertising), and the potentially limited generalizability to other AI populations.

The convenience sampling, in particular, might have resulted in the most at-risk youth not participating in either Phase 1 or Phase 2. There also exists among youth in this community a social stigma against both those who are seen as victims of bullying and those seen as perpetrators. As a result, youth may be unlikely to report bullying behaviors. Both of these limitations suggest that further study is needed to determine the best way to recruit at-risk youth and to elucidate detailed information about bullying behaviors.

In addition, the questions used to assess bullying exposure and behavior in Phase 2 were very broad. These questions did not provide a time frame, and did not specify the type of bullying that was used or experienced. Also, most of the bullying examples cited by participants in the focus groups were person to person, in a school or school activity setting. Given the availability of social networks and texting, cyberbullying has become an increasingly important issue among youth (US DHHS, n.d.a), and, as such, future studies should seek to extrapolate bullying data based on type of bullying behavior.

Despite these limitations, this study adds to the sparse literature on bullying in AI youth, a population at high risk for suicide. Further information is needed to fully understand the issue, and concerted efforts should be made to identify those youth who are experiencing bullying, and to develop collaborative efforts among school, community, and tribal leadership to combat bullying. A number of efforts are ongoing among the Lumbee tribe. Our CAB and the Lumbee tribe co-sponsored a community forum, including a panel of Lumbee youth who described the challenges that youth in the community face. The CAB also continues to meet regularly and to provide a social media presence to increase awareness of suicide and mental health issues among Lumbee youth. The Lumbee tribe also continues to offer cultural enrichment programs for Lumbee youth.
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ACKNOWLEDGEMENTS

Data from this manuscript were presented in poster format at the 2012 Summit on the Science of Eliminating Health Disparities, December 17th-19th, 2012, National Harbor, Maryland.

The Lumbee Rite of Passage Study was funded by the National Institute of Mental Health (NIMH 1R21MH085878). The study team wishes to thank our study participants, and the staff of the Youth Services Division of the Lumbee Tribe of North Carolina.

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