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Risk and protective factors with Native American Indian and Alaskan Native children who have a history of suicidal behavior

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Abstract

Suicide is a leading public health problem in the United States, and Native American Indians and Alaskan Native individuals are at an increased risk for suicide. This study sought to understand the demographic and clinical risk and protective factors for young Native American Indians and Alaskan Native children who were hospitalized due to suicide ideation, or an attempt. The demographic and clinical variables evaluated included religious preference, sexual orientation, prior suicidal behavior and psychiatric admissions, history of abuse, CPS involvement, family history of mental illness, family history of substance use, family history of suicidal behaviors, domestic violence, recent significant losses, and sleep disturbances including nightmares and night terrors. Recommendations included providing increased support for LGBTQ youth, increased access and utilization for mental health and medical services, preventative education regarding suicide prevention, and increased follow-up care post-hospitalization.

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Suicide is considered to be a fatal and self-directed act with the explicit, or inferred, intent to die. Suicide is a major health problem in the United States (Olson & Wahab, 2006). It is the 10th leading cause of death for adults, and the 2nd leading cause of death for youth in our country (AFSP, 2018; CDC, 2018). Native American Indians and Alaska Natives have the highest rate of suicide of all ethnic groups in the United States (AFSP, 2018; CDC, 2018). The suicide rate among Native American Indians and Alaska Natives ages 15 to 24 is three times higher than that of other young people in the Unites States (Indian Health Service, 2004).

There are several different risk factors that have been identified for Native American Indian and Alaska Native youth including lack of access to mental health treatment, barriers to seeking help, family conflict, prior suicide attempts, loss of ethnic identity, substance use, depression, anxiety, and poverty (Freedenthal & Stiffman, 2007; Olson & Wahab, 2006; de Schweinitz, Nation, DeCou, Stewart, & Allen, 2017). Borowsky, Resnick, and Ireland (1999) conducted a large-scale study of over eleven thousand Native American Indian and Alaska Native youth and found the most significant risk factors to be having a friend or family member who committed suicide, substance use, access to guns, gang involvement, being a victim of physical or sexual abuse, and general health concerns.

LaFrombois, Medoff, Lee and Harris (2007) posited that the Native American Indian and Alaska Native youth face historical trauma, acculturation stress, and geographic isolation, which may also contribute to the increased risk for suicide. In particular, they found a strong predictive correlate between the psychiatric diagnoses of depression and substance use for this population (LaFromboise et al., 2007). Walls, Chapple and Johnson (2007) found several strains were related to suicidal behavior with Native American Indian and Alaska Native youth which included coercive parenting, caretaker rejection, negative school attitudes, and perceived

discrimination. In addition, depression and anger mediated the key predictors of suicide for this group.

There is considerable information regarding the risk factors for the Native American Indian and Alaska Native population, and adolescents over age 15; however, there is a paucity of information for young Native American Indian and Alaska Native children under age 15. Information regarding the risk factors and demographics for preadolescent Native American Indian and Alaska Native children who have attempted suicide has been overlooked in the research. This is valuable information as over the past 30 years suicides among preadolescent children have increased significantly in the United States (Greydanus & Calles, 2007; Pompili et al., 2005).

When a child is at risk for suicide either by contemplating self-harm, or making an attempt, stabilization may be warranted at an inpatient psychiatric facility. There are few inpatient psychiatric hospital facilities in Southern California. In particular, in the geographic region of the Inland Empire with over 4 million residents there is only one pediatric psychiatric inpatient unit. This study occurred at the only pediatric psychiatric unit in the Inland Empire region.

Method

This research study aimed to examine the demographic characteristics and risk factors for Native American Indian and Alaska Native children under age 12 who were admitted into a psychiatric unit. A retrospective chart analysis was conducted on pediatric inpatient admissions between 2013 and 2017 at Loma Linda University Behavioral Medicine Center in Southern California. The inclusion criteria were self, and/ or, guardian identified as Native American Indian or Alaska Native (AI/AN).

The review included de-identified demographic information from the psychosocial assessment, reason for admission, diagnosis from the psychiatric evaluation, and substance use information. The sample consisted of 16 AI/AN children under age 12, which represented 1.05% of the participants in the data set. During the analysis, each admission was included individually in order to account for multiple admissions by patients during this time frame (N=23). The de-identified data was coded and entered into SPSS 22.0 for analysis. A five percent validity check was done after data entry to ensure accuracy of coding.

Results

The average age of the children was 11.3 years (*M*=11.3, *SD*=1.3). The average grade level was 5.6 (*M*=5.6, *SD*=1.2). Nearly 69% identified as AI/AN only, 6% AI/AN and Hispanic/Latino, 6% AI/AN and Asian, and nearly 19% AI/AN and other.

Table 1

Participant Age and Ethnicity

Variable	%	SD
Age (M)	11.3	1.3
Grade	5.6	1.2
Ethnicity (%)		
AI/AN	69	
AI/AN & Hispanic/Latino	6	
AI/AN & Asian	6	
AI/AN & Other	19	

The participants were 63% males, and 37% females. The participant's sexual orientation was gathered and 75% responded that they were heterosexual, 12.5% asexual, and 12.5% LGBTQ.

Table 2

Participant Gender and Sexual Orientation

Variable	%
Gender	
Male	63
Female	37
Sexual orientation	
Heterosexual	75
Asexual	12.5
LGBTQ	12.5

The participant's religion, faith, and spiritual belief system was assessed and 44% reported they were Christians, 31% none, 13% unknown, 6% Judaism, and 6% other.

Table 3

Participant Religion, Faith, and Spiritual Belief System

Variable	%
Christian	44
Judaism	6
Other	6
None	31

Unknown	13

Information was gathered regarding single or multiple admissions, as it is known that multiple psychiatric admissions increases the risk for suicide (Høyer, Olesen, & Mortensen, 2004). In addition, information regarding the prevalence of suicidal behaviors, including suicidal ideation, suicide plans, and suicide attempts, was also gathered. The majority of participants had a single psychiatric admission at 61%, and 39% had multiple admissions, and 17% of the children's admission was precipitated by a suicide attempt. Also, 57% of children reported suicidal ideation, 39% reported a suicide plan, and 35% reported suicide attempts.

Table 4

Participant Admission and Suicide Prevalence

Variable	%
Single Admission	61
Multiple Admissions	39
Precipitated by Suicide Attempt	17
Suicidal Ideation	57
Suicide Plan	39
Suicide Attempts	35

The results indicated that over half (57%) of the children did not suffer from any type of abuse prior to their admission. However, 26% suffered from physical abuse, 4% from sexual abuse, 4% from emotional abuse, and 9% from undisclosed type of abuse.

Table 5

Participant Abuse History

Variable	%
Sexual	4
Physical	26
Emotional/ Verbal	4
Unknown Abuse Type	9
None	57

Several family factors were examined regarding the children's pre-admission conditions. 22% of the children had current child protective services (CPS) involvement, 78% of the children had a family member with a mental illness, 65% had a family history of substance abuse, 61% had a family member who had a history of suicidal behaviors, and 35% had current or past domestic violence that occurred in their home.

Table 6

Participant Family Factors

Variable	%
Current CPS Involvement	22
Family History Mental Illness	78
Family History Substance Abuse	65
Family History of Suicidal Behaviors	61
Domestic Violence	35

The losses experienced within the past two years were assessed in the study. 48% of the children endorsed experiencing a serious loss within the past two years.

Table 7

Participant Loss History

Variable	%
Recent Loss	48

An inquiry of nightmares and night terrors showed that 30% of the children struggled with these sleep related issues.

Table 8

Sleep Disturbances

Variable	%
Nightmares/ Night Terrors	30

Discussion

In contrast to the large body of literature regarding suicide and suicidal behavior among adults and adolescents, few studies have focused specifically on preadolescent children under age 12 (Anderson, Keyes & Jobe, 2016; Nock & Kazdin, 2002; Soole, Kolves, & DeLeo, 2014). In particular, there are very few studies specifically examining suicidal behavior in AI/AN preadolescent children. The results provided worthwhile information to understand the demographics of this population better.

Nearly 13% of the children reported LGBTQ as their sexual orientation preference. In another study of 13, 213 students (grades 7-12), those who identified as LGBTQ were

significantly more likely to report suicidal ideation within the past month and suicide attempts within the past year than those who identified as heterosexual (Robinson & Espelage, 2011). This is consistent with our results and indicates that identification as LGBTQ correlates with an increased risk of suicide, an important consideration for both assessment and intervention among AI/AN children.

The dominant religious faith reported was 44% Christianity, and 69 % reported having a religious faith. Religious faith is often viewed as a protective factor against suicide (Durkheim, 2010; Nishi, Susukida, Kuroda, & Wilcox, 2017). The importance of religious beliefs has been found to have an inverse relationship with suicidal ideation, and other religious constructs such as less frequent service attendance and low personal importance of religion have been found to be significantly associated with considered/ planned suicide among adolescents (Nishi et al., 2017; Rasic, Kisely, & Langille, 2011). The prevalence of religious faith among the studied AI/AN children seems to indicate a protective factor for this population.

Admission to a psychiatric hospital is correlated with an increased risk of suicide (Appleby, 1992). Mortensen et al. (2003) found that nearly 50% of 811 individuals who had died of suicide had a history of psychiatric hospitalization. Similarly, Marttunen, Henriksson, Aro, Heikkinen, Isometsa, & Lonnqvist (1995) found that 42% of females (ages 13-22) who had died of suicide had a history of psychiatric hospitalization. 39% of the children in this study had multiple admissions to a psychiatric hospital. This is consistent with relevant literature and indicates that prior admission to a psychiatric hospital is a risk factor for AI/AN children.

Victimization by abuse and neglect is a known risk factor for suicide (Soole et al., 2014). 43% of the children had a history of abuse and 22% had current CPS involvement in their home. This is consistent with other studies including one by Soole et al. (2014), which found a history

of physical, sexual, and/or emotional abuse among 34.4 % of children between the ages of 10 and 14 who had died by suicide. Abuse was also found to significantly predict suicidal ideation and other forms of suicidality including suicide attempts, suicide plans, caregiver reports of suicidality, and imminent suicidality among preadolescent children between the ages of 9 and 11 (Taussig, Harpin, & Maguire, 2014). In addition, Geening et al. (2008) found a significant positive correlation between history of abuse and suicidal ideation among inpatient children between the ages of 6 and 12. Our findings lend support to other literature that indicates that abuse is a risk factor for suicide among preadolescent children.

Family history of mental illness and family history of suicide are known factors that increase the risk for suicide (Whalen, Dixon-Gordon, Belden, Barch, & Luby, 2015). In our study, 78% of the children had a family member with a mental illness, 65% had a family history of substance abuse, and 61% had a family member who had a history of suicidal behaviors. This is similar to previous research including a study of 306 children between the ages of 3 and 7, which found a significant relationship between maternal history of psychopathology including depression, bipolar, anxiety, suicide attempt or completion, ADHD, substance abuse, and chemical dependency, and early-childhood suicidal ideation (Whalen et al., 2015). Another study of children under the age of 12, found that 36.8% of children presenting with suicidal phenomena, including suicide attempts, self-harm or suicidal plans, threats of suicide, and suicidal ideation, reported a family history of depression, and 14.5% had a history of parental drug and/or alcohol misuse (Sarkar et al., 2010). In addition, Soole et al. (2014) found that 17.6% of children between the ages of 10 and 14 who had died of suicide had a history of exposure to suicidal behavior within their family. This may indicate a specific vulnerability for young AI/AN children as reported family history of mental illness, substance abuse, and suicide was much

higher in our study than what has been reported in relevant literature among the child population at large.

Sleep disorders such as insomnia and nightmares are correlated with increased risk for suicide (Mayes et al., 2015). 30% of the children struggled with nightmares or night terrors. Mayes et al. (2015) found significantly higher rates of suicidal ideation and suicide attempts among children and adolescents with a sleep disturbance (e.g. sleeping less than most other children, trouble falling asleep, waking often during the night, and nightmares) compared to those without. The prevalence of nightmares and night terrors among the AI/AN children within this study seems appropriate in light of the high levels of traumatic experiences also reported among this group. In addition, it highlights the possible effects of multigenerational trauma among young AI/AN children.

While it is clear that prevention and intervention are greatly needed among this at-risk population, it is also imperative to consider the role of culture in the implementation of prevention and intervention. Several studies have highlighted the importance of cultural considerations calling for more culturally informed and derived interventions that adequately address needs specific to the AI/AN population (Allen et al., 2018; Rasmus, Trickett, Charles, John, & Allen, 2019; Wexler et al., 2015). Community engagement, capacity building, and collaboration has been indicated as important for successful intervention and prevention for suicide among the AI/AN population (Rasmus et al. 2019; Wexler et al., 2015; Whitesell, Mousseau, Parker, Rasmus, & Allen, 2018). Further, network factors such as connection with adults and elders within the community were found to predict family and community protective factors for risk of suicide and alcohol use disorder (Philip, Ford, Henry, Rasmus, & Allen, 2016). In addition, strength-based intervention strategies that increase cultural engagement have also

been indicated as increasing protection from risk of suicide among AI/AN youth (Allen et al., 2018; Rasmus et al. 2019).

Recommendations

The recommendations from this study are to increase support for the LGBTQ youth in the Native American Indian and Alaska Native community, to increase access and utilization of mental health services post discharge from a psychiatric hospital, to provide suicide prevention education to children when there is CPS involvement or when living with a family member who is struggling with mental illness or substance abuse, to increase access and utilization of mental health and medical services to address sleep disorders, and to promote community based interventions to take into account the specific risk and protective factors with Native American Indian and Alaska Native preadolescent children.

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