**Introduction:**

Non-Accidental trauma (NAT) is a leading cause of early childhood injury and death. It affects 9 of every 1000 children in the United States every year with estimated 1750 death per year[1, 2]. Risk factors for NAT have been extensively investigated. The risk of NAT is inversely associated with age with the majority of victims being less than 1 year old[3-5]. Although some studies report a higher risk of NAT in males, African Americans, and patients with low socioeconomic status (SES), results are controversial and currently, there is no consensus regarding gender, race, and SES as risk factors for NAT[1, 6-10].

Child protective service (CPS) data have been shown to only capture a fraction of NAT cases. The true incidence of child abuse might be several times higher. Also, studies suggest ongoing biases in the evaluation of child abuse. Minority children are more likely to be involved in the child welfare system than White children[11, 12]. There is a concern that clinicians are more likely to evaluate for and diagnose NAT among Black children and children with low SES and less likely to evaluate White patients and children with higher SES[3, 13]. The racial disparity in suspecting child abuse has been significant even after adjusting for the likelihood of abuse[13].

Three waves of the National Incidence Study (NIS) found no racial difference in child abuse incidence while Black children being more likely to be found in the CPS system[3, 14]. It was concluded this might be due to overreporting Black children or underreporting White children to CPS. Based on these results even if there is no racial disparity in the incidence of NAT, there is a disparity in reporting of the cases. It might be because of the cultural differences or an unwillingness of providers to report parents with the same ethnicity and SES[11, 15]. These results raise the concern that different thresholds for suspicion of child abuse may result in over-evaluating in some children and under-evaluation in others. Over-evaluation in Black and low SES patients may increase their hospital costs, hospitalization length, and anxiety on their caregivers[7]. On the other hand, under-evaluation in White children and those with higher SES may lead the patients to suffer more injuries[3].

In order to achieve a better understanding of the patterns of suspecting child abuse in the hospital system, by using the national database, we sought to compare NAT and accidental trauma patients and characterize the racial composition of suspected child abuse patients to determine if there is a racial disparity in representing the cases of child abuse nationwide.

**Methods:**

Data source

The Kids’ Inpatient Database (KID) is the largest publicly available all-payer pediatric inpatient care database in the United States developed by the Agency of Healthcare Research and Quality (AHRQ), as a part of Healthcare Cost and Utilization Project (HCUP). KID yields an estimate of hospital inpatients for patients younger than 21 years old. In 2019, data of 48 states + District of Columbia were included in KID database with roughly 7 million hospitalizations each year. Data are available every three years. Key features of KID are large sample size and including data from 4000 U.S. community hospitals, newborns, and pediatric discharges of all payers. Data elements for each patient that are included in KID database are patient demographics (gender, age, race, median income for ZIP Code), primary and secondary diagnosis, discharge status, the severity of the condition, primary payer, total charge, and length of stay. Further description of KIDS database is available at <https://www.hcup-us.ahrq.gov>.

Study population

Cases of pediatric trauma in the KID database from 2006, 2009, 2012, 2016, and 2019 were identified using International Classification of Disease, Ninth Revision, Clinical Modification (ICD-9CM) codes ??? for 2006, 2009, 2012, and ICD-10CM codes??? for 2016 and 2019. Cases of suspected or confirmed child abuse (SCAN) for the same years were identified using ICD-9CM codes 995.50-995.55, 995.59, 967.0-967.9 and ICD-10CM codes T74.02XA, T74.1, T74.12XA, T74.22XA T74.32XA, T74.4XA, T74.9A, T74.92XA, T76.02XA, T76.1, T76.12XA, T76.22XA, T76.9A, T76.92XA, Y07-Y07.59, and Y07.9.

Variables

The primary outcome was characterizing the racial composition of trauma patients who were suspected or confirmed to be injured because of child abuse (SCAN). The racial composition of SCAN patients was compared with non-SCAN trauma patients and overall US population racial composition using the 2010 US Census[16].

Secondary outcomes were comparing SCAN and non-SCAN patients in 3 categories: patient demographic characteristics, injury characteristics, and hospitalization characteristics.

Patient demographic characteristics categorization included:

* Race: 6 groups including White, Black, Hispanic, Asian or pacific islander, Native American, and Other
* Gender: 2 groups including males and females
* Age: 5 groups including <1, 1-3, 4-7, 8-11, and 12-17 years old.
* SES: 4 groups based on Zip Code associated median household income

The Injury Severity Score (ISS) was calculated based on ICD9-CM and ICD10-CM codes. ISS characteristic categorization included:

* ISS: 3 groups including mild/moderate (1-15), serious (16-24), and severe (>25)

Hospitalization characteristics categorizations included:

* Primary payer: 4 groups including Medicaid, Private, Self-pay, and Other
* Hospital location: 3 groups including Rural, Urban nonteaching, Urban teaching
* Hospital Bed-size: 3 groups including small, medium, and large
* Hospital region: 4 groups including Northeast, Midwest, South, and West
* Hospital type: 3 groups including Not children’s, Children’s general, and Children’s unit of general hospitals

Also, hospital length of stay (LOS), mortality, and hospital cost was compared between SCAN and Non-SCAN patients, and among different ethnicities of SCAN patients.

Data analysis

For categorical variables, frequencies and percentages were used to describe the characteristics and outcomes. Initially, Non-SCAN trauma patients and SCAN trauma patients were compared, and subsequently, patients with different races within the SCAN trauma database were compared before and after adjusting for other confounding variables. Statistical analysis was performed using Python (Scotts Valley, CA). P-value<0.05 was considered statistically significant.

The institutional board of Stanford University reviewed the study and determined it as an exempt study.

**Results:**

**Comparison between SCAN versus. Non-SCAN trauma patients**

**Patient demographic characteristics**

In the KID registry total of 419805 pediatric trauma incidents were obtained for patients under 17 years old in 2006, 2009, 2012, 2016, and 2019. The incident of non-SCAN pediatric trauma was 411620 and the incident of SCAN pediatric trauma was documented for 8189 patients during the same years. Based on this result, 2% of pediatric trauma patients were suspected or confirmed cases of NAT.

-Gender distribution in SCAN patients versus. non-SCAN patients

65.7% of non-SCAN patients and 57.2% of SCAN patients were males which demonstrated significant differences in gender distribution in the two groups (P<0.001). Although a higher proportion of pediatric trauma patients were males, the gender difference was less significant in the SCAN trauma patients compared with the non-SCAN patients. (57.2% male and 42.8% females in SCAN and 65.7% males versus. 34.3% females in non-SCAN trauma patients).

-Age distribution in SCAN patients versus. non-SCAN patients

SCAN patients tended to be younger than non-SCAN patients. The median age for non-SCAN trauma patients was 12[5-15] years with most of the patients (50.4%) being 12-17 years old. Only 7% of non-non-SCAN trauma patients were under 1 year old and the incidence of trauma was going high as patients were getting older. SCAN trauma patients were significantly younger (p<0.001). In the SCAN group, the median age was 0[0-1] years with 65% of patients being less than 1 year old. The incidence of NAT was going lower as patients were getting older. Only 4.3% of SCAN patients were 12-17 years old.

-Racial distribution in SCAN patients versus. non-SCAN patients

The racial distribution in non-SCAN trauma patients was 56.5% White, 15.2% Black, 19.8% Hispanics, 2.2% Asian or Pacific Islander, 1% Native Americans, and 5.2% other races. The racial makeup of the SCAN group included 47.4% White, 23.8% Black, 20% Hispanics, 1.1% Asian or Pacific Islander, 1.1% Native Americans, and 6.6% Other races. The racial distribution of the population, based on the 2010 US census is 56% Whites, 13% Blacks, 16% Hispanics, 5% Asian or Pacific Islanders, 1% Native Americans, and 9% Other races[16]. Based on this data, the number of Caucasians and African American non-SCAN trauma patients were proportional to their population, based on the 2010 US census (56.5% versus. 56% in Caucasians and 15.2% versus. 13% in African Americans respectively) but it was under-presented in Caucasians SCAN trauma patients (47.4% in SCAN versus 56% in total population) and over-presented in African American SCAN trauma patients (23.8% in SCAN versus 13% in total population).

-SES distribution in SCAN patients versus. non-SCAN patients

In both SCAN and non-SCAN trauma patients, lower SES was associated with higher rates of trauma. The difference observed between patients with high and low SES was more significant among SCAN trauma patients compared with the non-SCAN patients(P<0.001). 38.3% of SCAN patients were in the low SES group and 11.6% of them were in the high SES group while 29.6% of non-SCAN patients were in the low SES group and 22.3% of them were in the high SES group.

**ISS characteristics**

ISS score distribution of SCAN and non-SCAN patients was significantly different (p<0.001). SCAN patients tended to present with more severe injuries compared with non-SCAN patients. The median ISS score for SCAN patients was 13[6-18] which was higher than non-SCAN patients with a median ISS score of 5[4-9]. In the SCAN group, 54.7% of patients had mild to moderate ISS, 31.7% had serious ISS, and 13.5% had severe ISS while in the non-SCAN group, the distribution of ISS was 85.8% with mild to moderate, 9.8% with serious, and 4.4% with severe ISS.

**Hospitalization characteristics**

In both groups, most of the patients initially presented to the emergency department (67.7% in SCAN and 66.7% in non-SCAN patients). Most of the patients in the SCAN group had Medicaid insurance (75.7%) follow by private insurance (21.5%) while in the non-SCAN group, most of the patients had private insurance (51.7%) followed by Medicaid (37.6%). More patients in the SCAN group presented to Children’s general hospitals (41.4% in SCAN versus. 17.6% in non-SCAN) while a higher proportion of non-SCAN patients was reported in non-Children’s hospitals (51.5% in non-SCAN versus. 21.2% in SCAN patients). Although in both groups patients presented to Teaching hospitals more frequently, the difference was more significant in SCAN patients. 89.4% of SCAN patients presented to Urban Teaching hospitals and 8% of them presented to Urban Nonteaching hospitals while it was 73.4% versus 20.2% respectively in non-SCAN patients.

**Mortality**

The overall mortality rate for the SCAN group was 7.2% with the Emergency Department (ED) mortality rate of 2.6% which was significantly higher than the mortality rate in the non-SCAN group with an overall mortality rate of 1% and ED mortality rate of 0.4% (P<0.001). Racial disparity was observed in the mortality rate of non-SCAN patients. After adjusting for all the confounding factors including gender, age, SES, ISS, and hospitalization characteristics, the overall mortality rate of non-SCAN patients in Black children was 1.2 times higher than White children (P= 0.02) but no difference was seen in the mortality rate between White and Black children in the SCAN group (P= 0.2).

**LOS**

Mean LOS for the SCAN group was 8.16 ± 0.19 days which was significantly longer than the LOS for the non-SCAN group with a mean LOS of 3.83 ± 0.01 days (P<0.001). Even after adjusting for all the confounding factors including gender, age, SES, ISS, and hospitalization characteristics, in patients with mild/moderate and serious ISS injury, all racial groups tended to have longer LOS in the SCAN group compared to the non-SCAN group. For example, mean LOS for White and Black patients in the SCAN group was 5 and 6.5 days respectively for mild/moderate ISS, and 8.7 and 12.7 days for serious ISS which was longer than LOS for non-SCAN patients with similar ISS scores (3.4 days and 4.8 days respectively for mild/moderate ISS and, 5.1 days and 7.3 days respectively for serious ISS). This pattern was not persisted for patients with a severe ISS score.

Also, the racial disparity in the LOS was seen in both SCAN and non-SCAN groups even after adjusting the confounding factors. The difference in the LOS between White and Black patients was statistically significant for all non-SCAN patients with different ISS scores but was only significant for SCAN patients with a serious ISS score.

In non-SCAN patients with mild/moderate, serious, and severe ISS scores, Black children used to stay 0.6 (CI: 0.5-0.7) days, 1.4 (CI: 0.9-1.4) days, and 2.1 (CI: 1.04-3.15) days longer in the hospital compared to White patients with similar ISS scores which was statistically significant (P<0.001).

In SCAN patients with a serious ISS score, Black patients had 3.2 (CI: 0.6-5.7) days longer mean LOS compared to White patients which was statistically significant (P<0.01). Although in the SCAN patients with mild/moderate and severe ISS scores, Black children had 1.3 (CI: -0.03-2.6) days and 0.6 (CI: -3.7-4.9) days longer mean LOS compared to White children with similar ISS scores, it was not statistically significant (p= 0.59, and p= 0.99 respectively). Interestingly, Hispanic patients with a severe ISS score in the SCAN group had 5.1 days longer LOS compared to White patients which was statistically significant (p<0.05).

**Cost**

Although the total cost for SCAN patients was significantly higher than the total cost for non-SCAN patients (mean: $ 24911.9 ± 569 vs. $ 14021.99 ± 61.4 respectively, P<0.001), the mean cost per day for the SCAN group was $ 3621.89 ± 58.2 which was significantly lower than the cost per day for the non-SCAN group with the mean cost per day of $ 4489.7± 8.4 (P<0.001). Higher total cost for SCAN patients might be attributed to the longer LOS in this population.

**SCAN population characteristics**

**Patient Demographics**

-Racial distribution

The racial distribution of SCAN patients was 47.4% White, 23.8% Black, 20% Hispanics, 1.1% Asian or Pacific Islander, 1.1% Native Americans, and 6.6% Other races. Asians (71 patients) and Native Americans (75 patients) were omitted from further analysis because of the low patient population in these groups. Initial analysis showed a 1.86 (CI: 1.72-2.01) times higher risk of child abuse for the Black population compared with White children. Overall, the risk of child abuse for all minority groups was higher than Whites including 1.2 (CI: 1.11-1.3) times higher risk for Hispanics and 1.51 (CI: 1.33-2.71) times higher for Other races (P<0.01). Subsequently, further analysis was done to determine the impact of race on reporting cases of child abuse after adjusting the data for other confounding variables including age, gender, SES, and hospitalization characteristics. This analysis showed only 1.2 (CI: 1.06-1.35) times higher risk of child abuse in the Black population compared with Whites. Interestingly, Hispanics demonstrated 0.61 (CI: 0.54-0.7) times lower risk of child abuse (P<0.01) and Other races demonstrated equal risk of child abuse (OR:0.85 (CI: 0.71-1.01), p= 0.07) after adjusting the data for other variables.

-Gender distribution

The initial analysis demonstrated that in all patients with different ethnicities the number of male patients was higher than females. But further analysis after adjusting the data for all cofounding factors including race, age, SES, and hospitalization characteristics showed that the female gender was associated with a slightly higher risk of child abuse (OR= 1.09 (CI: 1-1.2), P= 0.04).

-Age distribution

In all racial groups, most of the victims were less than 1 year old. Interestingly the age difference was less significant for Black patients than for Whites, Hispanics, and Other races. 58% of Black patients were under 1 year old and 29% of them were 1-3 years old while it was 67% and 24% respectively in Whites.

After adjusting the data for all confounding factors including race, gender, SES, and hospitalization characteristics, compared to the 12-17 years old patients, the risk of child abuse in children less than 1 year old and 1-3 years old was 90 times and 19.7 times higher respectively (P<0.01).

-SES distribution

For all racial groups, low SES was associated with a higher risk of child abuse. This difference was more significant in the Black population compared to Whites and Hispanics. 52% of abused Black children were in the low SES group, 39.5% of them were in the 2 middle SES groups, and only 7.9% were in the high SES group. The association between SES and race was not as significant for White children. 30% of White patients were in the low SES, 56% in the 2 middle classes, and 12.7% in the high SES group.

After adjusting for all cofounding factors including race, gender, age, and hospitalization characteristics, low SES remained as a risk factor for NAT. Children in families with low SES were at 1.33 (CI: 1.13-1.55) times higher risk of being abused compared with the children in families with high SES.

**ISS characteristics**

In the SCAN group, the number of Black patients with low ISS was higher than all other racial groups. 60.7% Black children, 54.6% of White children, 56.4% of Hispanics, and 46.4% of Other races had mild/moderate ISS injury.

**Hospitalization characteristics**

In all racial groups, patients were mostly detected in Emergency and Urgent care units and most of the patients had Medicaid insurance (80.5% of Black and 76% of White children). The next more common insurance was private insurance with rates of 11.9% in Blacks and 13.5% in White children. Regardless of ethnicity, more than 85% of SCAN patients were detected in Teaching hospitals. In all ethnicities, the higher proportion of patients were detected in Children’s General or Children’s unit of General hospitals compared with non-Children’s hospitals. Overall, 77% of Whites, 83% of Blacks, 78% of Hispanics, and 80% of Other races were detected in either Children’s General or Children’s unit of General hospitals.

After adjusting for all confounding factors including patients’ demographic characteristics, there was a higher rate of SCAN patient detection in all kinds of children’s hospitals compared with non-Children’s hospitals. Compared with non-Children’s hospitals, SCAN patient detection was 3.3 (CI: 2.86-3.83) times higher in Children’s general hospitals (P<0.01) and 1.47 (CI: 1.27-1.69) times higher in Children’s unit of general hospitals (P<0.01). Also, private and self-pay insurances were associated with a lower risk of suspected child abuse compared with Medicaid with an OR of 0.31 (CI: 0.28-0.36) and 0.51 (CI: 0.78-1.16) respectively, (P<0.01).

**Mortality**

The total mortality rate for Withes was 6.5% which was equal to the mortality rate for Hispanics but lower than the total mortality rate for Blacks (7.8%) and Others (9.9%). After adjusting the data for all other confounding factors including gender, age, SES, ISS, and hospital characteristics, the risk of mortality for Blacks and Hispanics was similar to Whites but it was 2 (CI: 1.15-3.98, p= 0.01) times higher in Others compared to the Whites.

**LOS**

Initial data analysis showed that the LOS for Black patients was slightly longer than the other races. Mean LOS for different races was reported as 8.82 ± 0.48 days for Blacks, 8.16 ± days for Whites, 8.5 ± 0.4 for Hispanics, and 7.2 ± 0.2 for Other races. After adjusting the data for confounding factors, LOS for different ISS scores were compared among different racial groups. The difference in the LOS observed for patients with a serious ISS score was more prominent. For patients with serious ISS, Black patients had 3.2 (CI: 0.6-5.7) days longer LOS compared to White patients (p<0.01). For patients with mild/moderate and severe ISS scores, no significant difference in the LOS was observed among different racial groups.

**Cost**

Initial data suggested that the total mean cost and mean cost/day for Whites was higher than all other races. After adjusting the data for confounding factors, no difference in the total mean cost was seen among different races in the SCAN population.

**Discussion**

In this study, using KID national database, inpatient pediatric trauma admissions were identified and patients with suspected child abuse (SCAN) were compared with patients with accidental trauma. Subsequently, the racial distribution of SCAN patients was analyzed for potential national-wide racial disparity in suspecting and treating victims of child abuse.

Initially, various characteristics of SCAN and non-SCAN patients were compared. Based on our results, demographic, injury severity score, and hospitalization characteristics distribution of SCAN patients is different from non-SCAN patients. SCAN patients tend to be younger than non-SCAN patients with most of the patients being under 1 year old as opposed to being teenagers in patients with accidental trauma. Also, patients with NAT present with more severe injuries compared to the other trauma patients. Based on our data, the number of patients with NAT who present with severe injury is more than three times higher than patients with accidental trauma. The mortality rate of suspected NAT patients is also significantly higher than patients with accidental trauma. Higher rates of severe injury and mortality rates in NAT patients have been reported in previous studies too[2, 5, 7, 17]. Patients with suspicion for NAT tend to have longer LOS compared to patients with accidental trauma. The difference persists for patients with mild/moderate and serious injury scores even after adjusting the data for other confounding factors. Total hospital charge for patients with suspected child abuse is also higher than those with accidental trauma while they have lower cost/day. So, the higher total cost for these patients should be because of their longer LOS.

Patients’ low SES is independently associate with a higher rate of child abuse suspicion. The rate of suspicion for NAT in patients with high SES is ½ of the suspicion rate in patients with low SES. Also, the rates of suspicion for child abuse in patients with Medicaid insurance is twice of patients with private insurance. Although low SES has been introduced as a risk factor for child abuse in many studies, significantly higher rate of suspected child abuse in patients with low SES and those with Medicaid insurance to some degrees might be due to the over-presenting of patients with low SES and/or under-presenting of patients with high SES.

Based on our results, rates of reporting child abuse in Teaching hospitals and Children’s hospitals are higher than non-Teaching and non-Children’s hospitals. Suspected child abuse reports in Children’s hospitals are more than twice of non-Children’s hospitals. This data might represent higher detection of SCAN patients in Children’s and Teaching hospitals compared with non-Children’s and nonteaching hospitals. Health care providers in Children’s hospitals have better training to detect cases of child abuse. The higher proportion of using standard guidelines to screen NAT in Children’s hospitals might contribute to higher reports of NAT in these hospitals as well.

Subsequently, the racial distribution of suspected NAT patients was analyzed in this study. Based on our data, while the racial distribution of patients with accidental trauma is proportional to their population based on census 2010, nationalwide discrepancy is observed between the population of different ethnicities and the racial distribution of reported NAT patients. Rates of suspicion for child abuse are over-presented in Black patients and under-presented in White patients. The initial analyses determined a higher risk of child abuse in minorities compared to White children which is more significant for Black children with a 1.86 times higher risk of child abuse compared to Whites. Since a higher proportion of Black children are living with families with low SES, further analysis was done to adjust for any other confounding factor that might contribute to the higher risk of child abuse suspicion in them. After adjusting the data for gender, age, SES, and hospital characterization of patients, Black children demonstrate only 1.2 times higher risk of child abuse compared to Whites, and Hispanics show 0.6 times lower risk of child abuse. These data show that although Black patients might have a higher risk of being abused compared to Whites, the majority of the difference is due to factors other than their ethnicity.

Despite the higher risk of child abuse in Black patients, suspected abused White children tend to have more severe injuries which might represent a higher threshold in diagnosing child abuse in the White population and a lower threshold in suspecting Black children. Previous data show that in children with indeterminate injuries, the proportion of White patients who are reported is significantly lower than others[13]. Similarly, NAT suspicion rate for Black patients with low SES and Medicaid insurance is higher than Whites. These data suggest that health care providers tend to be more suspicious of child abuse in Black patients with low SES even with less severe injuries. Also, there is a high probability that White children with high SES being overlooked especially if they present with less severe injuries which puts them at a higher risk of recurrent NAT with more severe injuries in future.

According to the literatures, patients with NAT have a higher mortality rate and worse outcomes compared to the other trauma patients. NAT accounts for 46% of all trauma deaths in the pediatric population. Failure to diagnose leaves the victim with a 10% chance of death at the following visit[17-20]. Reporting of NAT to CPS has been scrutinized because of consistent documented racial disparity and disproportionality in the CPS and child welfare system[21]. Hospital records have shown a tendency to over-reporting poor families and minorities to CPS compared to middle-class, Caucasian families[21]. Relative to their distribution in the population and relative to Caucasian children, African American children have consistently higher annual rates of report to CPS[14]. However, NIS data hasn’t demonstrated any racial differences in NAT therefore, African American children may not be abused more than Caucasians even though they are reported to CPS at a higher rate[21]. An equal concern is for abused Caucasian children for the potential of being unnoticed and unreported to CPS, putting them at a significant risk of further severe physical and emotional trauma[21]. The current study redemonstrates the difference in demographic, injury severity, and hospital characterization of trauma and suspected child abuse patients. Along with the current literatures, we observed that suspected NAT patients tend to be younger and from low SES families. They present with more severe injuries and a have higher mortality rate. Our data also emphasizes on the presence of racial disparity in reporting cases of suspected child abuse with Black children being over presented and White children being under presented.

Data shows that medical personnel report Caucasian children to CPS at rates that are disproportionately lower than their distribution in the overall pediatric patient population[21]. American College of Physicians states that Medical providers’ diagnostic decision and their feelings about patients are influenced by patients’ race[22]. It may extend to their determination to report NAT suspicions. For example, previous data shows that minority children with fractures due to NAT were reported to CPS significantly more than Caucasian children with similar injuries[21]. Higher rates of severe ISS among White children with suspected NAT along with higher reports of suspected NAT in Black patients with low SES in our data demonstrates the possibility of a lower threshold for providers to report Black children with milder injuries and in families with low SES compared to White children with similar demographic and injury severity resulting in over-diagnosing of NAT in the Black population and putting White children at a higher risk of recurrent NAT.

Racial disparity not only is observed in suspecting cases of child abuse but also affects how to treat these patients afterward. Based on our data, although generally Black patients tend to have longer LOS compared to Whites, the difference is more significant for suspected NAT Black patients with serious ISS. Among patients who are admitted with suspicion for child abuse, LOS for Black children with serious injury score is 3.2 days longer than White children with similar ISS while for patients with accidental trauma, Black children with serious ISS tend to stay in hospital 1.4 days longer than White patients with similar severity of injuries. This data shows that although there is a racial disparity in the LOS for Black patients compared to Whites who are admitted with trauma, this disparity becomes more significant in suspected NAT Black patients compared to White patients with similar criteria. Literatures show, even after discharge from the hospital, Black children who are reported and removed from their families have a lower likelihood of being returned to their families or being adopted[21].

Effectively addressing the providers’ unconscious bias and subsequent disparities in diagnosing NAT needs comprehensive and evidence-based interventions[22-24]. Development of a standardized tool for differentiation and diagnosis of NAT is critical [25]. Adherence to screening protocols will increase the accuracy and detection of NAT cases[26, 27]. Additionally, having a diverse society of health care providers would help with addressing the unconscious racial bias that has been observed in the hospitals[23].

**Conclusion**

NAT patients tend to be younger than patients with accidental trauma and more commonly from families with low SES. They present with more severe injuries and have a higher Mortality rate. Racial disparity is present in suspecting cases of child abuse with over-presenting Black patients and under presenting White children. Although the risk of child abuse is slightly higher in Black patients, White patients with suspected NAT tend to have more severe injury which might be due to higher threshold of health care providers in suspecting child abuse in White children from families with high SES especially if they present with minor injuries. Developing standardized screening tool will help eliminating the unconscious bias in diagnosing NAT among different ethnicities.

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