Structured Documentation of Child Abuse History After Treatment of Pediatric Patients for Confirmed or Suspected Child Maltreatment

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BACKGROUND/RATIONALE

- **Nonaccidental trauma (NAT)** is a leading cause of mortality in children within the United States, causing nearly 2000 deaths per year.1,2
- Patients who have experienced NAT and other forms of maltreatment are at a **greater risk of developing chronic conditions** and poor medical outcomes in adulthood.4
- Due to the potential for long-term sequelae of child maltreatment, including NAT, **it is important to recognize and monitor patients who are survivors of physical abuse and childhood trauma** during their continuing care.5-7
- Documenting and monitoring the history of child abuse in electronic health records (EHR) can be facilitated by use of **International Classification of Diseases (ICD)-Clinical Modification (CM) coding** but these codes appear to be under-used for tracking SDH in both surgical and nonsurgical patient populations.8,9
- This lack of documentation may stem from a concern that tracking social issues to guide preventive medicine may lead to social profiling and be detrimental to patient care. 9
- A Z code specifically identifying a history of child maltreatment is available in **ICD-10-CM (Z62.81),9** and routine use of this Z code could help assure accurate identification and **enhance continuity of care for children** who had previously experienced maltreatment. However, patterns of use of this code to document a history of child maltreatment have not been previously investigated.
- We sought to determine how frequently the Z62.81 code for history of child maltreatment was used in documentation of clinical encounters by children who had previously received treatment for injuries and neglect related to child maltreatment in a single academic health system.

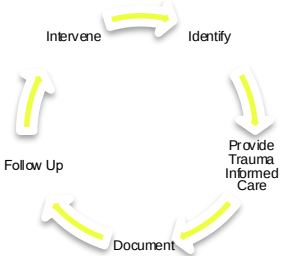
RESULTS

Variable	Patients without Z Code N (%) or median (IQR)	Patients with Z Code N (%) or median (IQR)	P-value
Location Clinic	65 (39.88%)	5(41.67%)	
Location ED	56(34.36%)	6(50.00%)	
Location Inpatient	42(25.77%)	43(24.57%)	0.384
Physical Abuse	46(28.22%)	1(8.33%)	0.185
Sexual Abuse	58(35.58%)	9(75.00%)	0.011
Other Abuse	79(48.47%)	3(25.00%)	0.142
Non- Hispanic Black	91(55.83%)	5(41.67%)	
Non- Hispanic White	37(22.70%)	2(16.67%)	
Hispanic/ Latino	24(14.72%)	5(41.67%)	
Other Race and Ethnicity	11(6.75%)	0(0.00%)	0.151
Medicaid	129(79.14%)	9(75.00%)	
Other Insurance	34(20.86%)	3(25.00%)	0.719
Anxiety	14(8.59%)	2(16.67%)	0.301
Depression	9(5.52%)	2(16.67%)	0.168
Eating Disorder	3(1.84%)	0(0.00%)	1
Substance Abuse	4(2.45%)	1(8.33%)	0.302
Chronic Pain	1(0.61%)	0(0.00%)	1
Cardiovascular Disease	18(11.04%)	1(8.33%)	
Female	93(57.06%)	9(75.00%)	
Male	70(42.94%)	3(25.00%)	0.364

Table 1: Demonstrates only documentation of sexual abuse was associated with subsequent use of the Z62.81 code.

Variable	Patients without Z Code N (%) or median (IQR)	Patients with Z Code N (%) or median (IQR)	P-value
Location Clinic	52(39.10%)	18(42.86%)	
Location ED	49(36.84%)	13(30.95%)	
Location Inpatient	32(24.06%)	11(26.19%)	0.81
Physical Abuse	33(24.81%)	14(33.33%)	0.319
Sexual Abuse	55(41.35%)	12(28.57%)	0.15
Other Abuse	61(45.86%)	21(50.00%)	0.724
Non- Hispanic Black	80(60.15%)	16(38.10%)	
Non- Hispanic White	25(18.80%)	14(33.33%)	
Hispanic/ Latino	19(14.29%)	10(23.81%)	
Other Race and Ethnicity	9(6.77%)	10(23.81%)	0.046
Medicaid	103(77.44%)	35(83.33%)	
Other Insurance	30(22.56%)	7(16.67%)	0.518
Anxiety	11(8.27%)	5(11.90%)	0.54
Depression	8(6.02%)	3(7.14%)	0.727
Eating Disorder	2(1.50%)	1(2.38%)	0.563
Substance Abuse	4(3.01%)	1(2.38%)	1
Chronic Pain	1(.075%)	0(0.00%)	1
Cardiovascular Disease	14(10.53%)	5(11.90%)	0.78
Female	81(60.90%)	21(50.00%)	
Male	52(39.10%)	21(50.00%)	0.216

Table 2: Repeats bivariate analysis while stratifying the sample based on any subsequent use of T74 or T76 diagnosis codes only race and ethnicity was associated with this secondary outcome. With white patients more likely to have T74 or T76 codes documented.



REFERENCES

METHODS

- We queried records from pediatric and adult emergency departments (EDs), inpatient pediatric units, and outpatient pediatric clinics operated by the ECU Health system.
- Patients were included in this study if they were between the ages of 0 and 17 years of age and had an encounter or admission diagnosis of child maltreatment (ICD-10-CM codes T74.x, which identify cases of suspected maltreatment; or T76.x, which identify cases of confirmed maltreatment) at any of these locations between 1/1/2018 and 12/31/2019.
- The **primary outcome was use of the code Z62.81** in each subsequent visits to ECU Health facilities' main campus, as determined by EHR documentation. Patients were assessed for subsequent clinic visits, ED visits or hospitalizations between the index encounter and 01/01/2024.
- A **secondary outcome was defined as use of either the T74 or T76 codes** at each subsequent encounter. In a random 10% subsample of patients with no subsequent use of the Z62.81 code after the initial encounter, we manually reviewed the latest available clinic note, ED visit note, or admission notes to determine if history of child maltreatment was captured in free-text documentation.
- Other independent variables collected at the time of the index encounter included whether it was a clinic visit (primary care vs. subspecialty clinic), ED visit, or inpatient hospitalization, with hospitalizations divided further into medical and surgical admissions. We also classified the specific form of maltreatment coded at the index visit as physical abuse, sexual abuse, or neglect; age; sex; race and ethnicity (American Indian, Asian, Black, Hispanic, or White); and primary payor type for the index encounter, classified as Medicaid, commercial, other, or none.
- We also queried other diagnoses present at the index encounter, including chronic illnesses such as cardiac disease and psychiatric conditions. Data collected at the time of each subsequent encounter included the type of encounter (classified as described above), and time since the index visit (in months).

DISCUSSION

- Our study demonstrated a **significantly limited use of Z Codes** among cases of child maltreatment in follow up appointments. Particularly concerning was the lack of documentation in appointments that directly related to the original case of maltreatment.
- The lasting consequences on an individual's health following maltreatment has been widely reported and **the importance of following patients and providing subsequent care for maltreatment cannot be understated.** We demonstrate an area of needed improvement and focus for clinicians to ensure that children who suffer from maltreatment do not lack proper care and follow up.
- It is imperative that providers implement documentation of child maltreatment at subsequent visits. **The limited utilization of Z Codes may be improved by increasing understanding on the significant impact identifying and recording socialdeterminants of health** to improve patient outcomes and reduce the impact social determinants of health have on an individual's health 8.