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Authors

Alcalá, Héctor

Buchanan, Zeruiah

Chu, Jun

et al.

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RESEARCH ARTICLE OPEN ACCESS

Does Early Life Adversity Limit Delivery of High-Quality Health Care Among Children?

Héctor E. Alcalá^{1,2}  | Zeruah V. Buchanan^{3,4} | Jun Chu⁵ | Dylan H. Roby⁶ | Mienah Z. Sharif⁷

¹Department of Behavioral and Community Health, University of Maryland School of Public Health, College Park, Maryland, USA | ²Program in Oncology, University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center, Baltimore, Maryland, USA | ³Department of Epidemiology, University of Washington School of Public Health, Seattle, Washington, USA | ⁴Robert Wood Johnson Foundation Health Policy Research Scholars, Johns Hopkins University, Baltimore, Maryland, USA | ⁵Department of Sociology, Anthropology, and Public Health, University of Maryland Baltimore County, Baltimore, Maryland, USA | ⁶Department of Health, Society, and Behavior, Joe C. Wen School of Population & Public Health, University of California, Irvine, Irvine, California, USA | ⁷Division of Community Health Sciences, School of Public Health, University of California, Berkeley, Berkeley, California, USA

Correspondence: Héctor E. Alcalá (halcala@umd.edu)

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ABSTRACT

Background: Adverse childhood experiences (ACEs) have been associated with poor health and underuse of preventive health services. However, less is known about how ACEs are associated with quality of care that children receive, like care that involves shared decision-making.

Methods: Using data from the 2021–2022 National Survey of Children's Health ($n = 47\,179$) the association between ACEs, both individual and cumulative and (1) needing medical decisions made in the past 12 months and (2) three different measures of always receiving care that involved shared decision-making. Logistic regression models were used to calculate odds of each outcome. Each of the 11 ACEs and the cumulative number of ACEs served as independent variables each in separate models.

Results: After accounting for confounders, the number of ACEs experienced, and most individual ACE items were associated with higher odds of needing medical decisions made, and lower odds of receiving health care that involved providers always engaging in the three measures of shared decision-making.

Conclusions: This study expands the research showing a deleterious impact of ACEs on utilization of health care by showing that ACEs are associated with lower quality health care. This can be particularly determinantal to children with a history of ACEs because they have a greater need for health care and are less likely to use many types of health care. Efforts to improve health care quality for all children will be of particular benefit to vulnerable groups, like those with a history of ACEs.

1 | Introduction

Adverse childhood experiences (ACEs) are stressful and potentially traumatic incidents that occur before the age of 18. These can include physical, mental, and sexual abuse and household dysfunction (Alcalá and Dellor 2019; Alcalá et al. 2018; Bernard et al. 2022; Loveday et al. 2022). In 2016, a report

examining ACEs in the United States using the National Survey of Children's Health (NSCH) found that 45% of children reported at least 1 ACE, and 1 in 10 children reported 3 to 8 ACEs (Bartlett and Sacks 2019), revealing the high population-level burden of childhood adversity. ACEs are linked to various negative health outcomes, including suicidality, depression, cardiovascular disease, asthma and substance use among children

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Summary

- Adverse childhood experiences (ACEs) are a pressing population health concern.
- While children with a history of ACEs have more health concerns, they are less likely to use certain kinds of health care.
- This study showed that children with a history of ACEs are less likely to receive care that involved shared-decision making, an indicator of high-quality health care.
- Providers and health care administrators should increase efforts to ensure that vulnerable children receive high quality health care.

(Elmore and Crouch 2020; Kaess et al. 2013; Meeker et al. 2021; Morgan et al. 2021; Pretty et al. 2013). Across the life course, ACEs are associated with memory impairment, risky sexual behaviour, psychological distress, being a victim of violence and poor life quality (Petrucelli et al. 2019). Importantly, ACEs have a dose effect with negative outcomes, meaning that as the burden of ACEs increases, the risk of experiencing deleterious health outcomes in childhood and adulthood rises as well (Dube et al. 2003; Tan and Mao 2023), underscoring the need to focus on the direct and indirect impact of ACEs on children to mitigate cumulative ACEs across life stages.

Given the increased burden of disease seen among children with a history of ACEs, the provision of high-quality care is particularly important as it may help buffer the deleterious effect of ACEs. However, among those with a history of ACEs, their pattern of health care use is more likely to involve underuse of preventative health care. For example, ACEs are associated with the under-utilization of preventative health care services and higher use of emergency health care services (Alcalá and Dellor 2019; Alcalá et al. 2023; Koball et al. 2021). This suggests that health care is sought in dire situations rather than in a preventative setting, or that there are barriers to accessing care in a primary care setting among people who report experiencing ACEs. Further, children with a history of ACEs may be more likely to experience care delivered in a particular way, when compared with their peers. For example, among children with a history of ACEs, adverse health outcomes are more likely to develop into complex co-morbidities requiring care coordination, which can include shared decision-making (Koball et al. 2021). Overall, children with ACEs would benefit from high quality of care due to their needs and childhood trauma.

One facet of high-quality care involves shared decision-making, which is a collaborative, evidence-based approach to health care treatment in which patients partner with their health care provider to weigh the risks and benefits of their medical options to inform a treatment plan that best suits their preferences. (Eaton et al. 2022; Jacobs et al. 2023; Montori et al. 2023) While shared decision-making among adults is, in theory, a collaborative partnership with the health care provider and the patient, shared decision-making for paediatric patients requires collaboration with caregivers and children (Eaton et al. 2022; Jacobs et al. 2023). Although shared decision-making is a core

component of patient-centred care, shared decision-making in paediatrics is limited in part due to the perceived capacity to include youth in decision-making, as well as being impacted by broader barriers such as limited time among clinicians and poor continuity of care (Boland et al. 2019). Further, in the context of paediatric care, shared decision-making involves navigating characteristics such as health, sociodemographic factors and emotional states across children and their caregivers, presenting greater opportunities for relational barriers (i.e., lack of trust, conflict, power imbalance etc.) to present themselves (Boland et al. 2019).

Despite barriers to implementation, shared decision-making is linked to improved communication with healthcare providers, increased access to care, efficient utilization of health care services, lower decisional conflict and regret, better understanding of treatments, health care empowerment, and greater treatment adherence (Fiks et al. 2015; Kuhlthau et al. 2011; Langer et al. 2022; Wyatt et al. 2015). Among adults, shared decision-making has been linked to improving the patient's general condition, symptoms, perceived control of the condition and self-management of their health condition (Brody 2005; Clever et al. 2006; Heisler et al. 2002; Lerman et al. 1990). The benefits of shared decision-making highlight the need for quality paediatric shared decision-making for those encountering ACEs.

Extant work has shown that an increased burden of ACEs was associated with lower odds of family-centred care (Ng et al. 2023a), a part of shared decision-making. Further, ACEs are associated with a lower likelihood of children receiving care that involves shared decision-making (Cohen et al. 2022; Schweer-Collins and Lanier 2021). However, this work did not detail the components of shared decision-making that were examined or the effects of individual ACE experiences on shared decision-making (Cohen et al. 2022; Schweer-Collins and Lanier 2021). Thus, the current study aims to (1) determine if specific and cumulative ACEs are associated with needing health care decisions made for children and (2) examine whether or not specific and cumulative ACEs are associated with specific components of shared decision-making in paediatric health care.

2 | Methods

2.1 | Study Sample and Data Source

Data for this study utilized the 2021 and 2022 waves of the NSCH (Child and Adolescent Health Measurement Initiative (CAHMI) 2024). The NSCH is an annual, complex, mail and web-based survey that assesses the health of children under age 18 living in the United States. The questionnaire used by the NSCH is administered in both English and Spanish. Questions asked pertain to the health of a child in the sampled household, and are answered by a knowledgeable adult.

A total of 104 995 responses were collected in the pooled 2021–2022 NSCH sample. For this study, only the 64 535 responses representing children ages 6–17 were considered because all ACE items were only asked if the selected child was 6 and older. A further 12 786 were excluded from the analytic sample because the selected child did not have a health care visit in the

past 12 months and thus did not have information for shared decision-making items, leaving a sample of 51 749. After excluding cases with missing data, a final analytic sample of 47 179 was obtained. Questions about the details of shared decision-making were only assessed when the respondent reported that the selected child needed decisions made regarding their health care. Thus, for analyses of these outcomes, a subsample of 15 588 responses was used.

2.2 | Variables

The independent variables of interest consisted of 11 different ACE items, representing adversity that the child had experienced at any point in their life. These were (1) financial hardship; (2) living with parents or guardians that were separated or divorced; (3) living with parents or guardians who had died; (4) living with parents or guardians who had been jailed; (5) exposure to adults abusing each other; (6) exposure to violence in their neighbourhood; (7) living with someone who was mentally ill; (8) living with someone who had problems with drugs or alcohol; (9) discrimination due to race or ethnicity; (10) discrimination due to sexual orientation or gender identity and (11) discrimination due to disability or health condition.

Outcomes of interest consisted of shared decision-making measures. The first was whether or not the selected child needed decisions to be made regarding their healthcare in the past 12 months. Among children who needed decisions made, three variables captured aspects of shared decision-making occurring in the past 12 months: (1) providers always discussing a range of treatment options with the respondent; (2) providers always made it easy for respondents to raise concerns or disagree with them; and (3) providers always worked with the respondent to decide the best treatment for the child. These three measures come from a previously validated four-item measure of shared decision-making that was used in an earlier iteration of the NSCH (Butler et al. 2015). These variables were recoded from their original 4-point Likert scale that captured how frequently they happened, into dichotomous variables indicating that they always happened, versus usually, sometimes or never happening.

Several variables were included in multivariable analyses as controls based on prior published research examining health care utilization outcomes using the NSCH (Alcalá et al. 2023; Ng et al. 2023a; Ng et al. 2023b). Socio-demographic characteristics included were child's gender (male or female), child's race (White; Latino; Black; Asian; and Other race or multiracial) child's nativity status (US born or foreign born), primary language spoken at home (English or Other), household poverty level as a percentage of the federal poverty level (FPL; 0–99% of FPL; 100–199% of FPL; 200–399% of FPL; or 400% or more of FPL), highest level of education among caregivers (less than a college degree or college degree or greater) and family structure (two parents who are currently married; two parents who are not currently married; single parent; or other family structure). Measures of access and utilization of health care were child's insurance status (insured or not insured) and child having a usual source of health care (yes or no). Finally, several measures of health included were child's health status (excellent very good or

good; or fair or poor) and child having a health condition diagnosed in their lifetimes (yes or no).

2.3 | Analyses

All statistical analyses were conducted using Stata 18, using survey weights to account for the complex survey design of the NSCH. This involved using weights to account for differential probability of being selected into the sample, non-response, and to ensure that estimates were representative of the US population (Child and Adolescent Health Measurement Initiative (CAHMI) 2024). Accounting for this allows for unbiased estimates of standard errors to be calculated, and thus accurate conclusions to be drawn from statistical tests. Univariate analyses were used to calculate means, frequencies and standard errors for all children 6–17 years of age, and the subsample of these children who needed health care decisions made in the past 12 months.

A multivariable logistic regression model was used to calculate adjusted odds ratios (AORs) and 95% confidence intervals (CIs) of needing decision made about health care in the past 12 months. Separate models were fit using each of the 11 individual ACEs items, and the sum scale of ACEs as independent variables, while accounting for confounders.

Logistic regression models were used to calculate AORs 95% CIs of the three shared decision-making outcomes. Separate models were fit using each of the 11 individual ACEs items, and the sum scale of ACEs as independent variables, while accounting for confounders.

3 | Results

Table 1 shows the weighted characteristics of the study sample, and the subsample of children who needed health care decisions made. Over one-fourth of the larger sample (28.56%) needed health care decisions made. Experiencing financial hardship was the most common ACE reported in both the sample and subsample (45.05% and 49.63%). The samples were both majority White; currently insured; in excellent, very good or good health; and living in a two-parent household.

Table 2 shows logistic regression models with odds of needing health care decisions made as the outcomes. Most ACEs, with the exception of living with parents or guardians who died and living with parents or guardians who were jailed, were associated with higher odds of needing health care decisions made. Each additional ACE reported was associated with 20% higher odds of needing health care decisions made (AOR = 1.20, 95% CI = 1.16, 1.23). The strongest association for individual ACE items was observed for experiencing discrimination due to a health condition or disability (AOR = 2.93, 95% CI = 2.44, 3.51).

Table 3 shows the logistic regression analyses with odds of reporting that a provider always discussed a range of treatment options. All but three ACEs [living with parents or guardians who were (1) divorced or separated; (2) dead or (3) jailed] were associated with lower odds of reporting that a provider always discussed a

TABLE 1 | Sample characteristics, children ages 6–17, NSCH, 2021–2022.

| Variable | All children 6–17 (<i>n</i> = 47 179) | | All children 6–17 who needed health care decisions made in past 12 months (<i>n</i> = 15 588) | |
|--|--|-------|--|-------|
| | % or Mean | SE | % or Mean | SE |
| Shared decision making | | | | |
| Needed decision made about health care in the past 12 months | 28.56% | 0.39% | — | — |
| In the past 12 months ... | | | | |
| Doctors or providers always discuss the range of options for health care or treatment | — | — | 67.14% | 0.74% |
| Doctors or providers always make it easy to raise concerns or disagree with recommendations | — | — | 67.29% | 0.73% |
| Doctors or providers always work with caregiver to decide best health care and treatment choices | — | — | 69.38% | 0.73% |
| Adverse childhood experiences | | | | |
| Experienced financial hardship | 45.05% | 0.47% | 49.63% | 0.78% |
| Lived with parents or guardians divorced or separated | 26.71% | 0.41% | 29.56% | 0.73% |
| Lived with parent or guardian who died | 3.59% | 0.17% | 3.75% | 0.27% |
| Lived with parent or guardian who was jailed | 7.56% | 0.27% | 8.66% | 0.47% |
| Saw or heard adults abuse each other | 6.40% | 0.24% | 8.31% | 0.43% |
| Witnessed or experienced violence in neighbourhood | 4.70% | 0.21% | 7.03% | 0.42% |
| Lived with anyone who was mentally ill | 10.80% | 0.29% | 17.68% | 0.58% |
| Lived with anyone who had problems with drugs or alcohol | 10.34% | 0.27% | 14.02% | 0.52% |
| Experienced racial or ethnic discrimination | 5.71% | 0.21% | 7.86% | 0.43% |
| Experienced discrimination due to sexual orientation or gender identity | 1.73% | 0.10% | 3.41% | 0.22% |
| Experienced discrimination due to disability or health condition | 4.19% | 0.17% | 9.42% | 0.41% |
| Number of adverse childhood experiences | 1.27 | 0.01 | 1.59 | 0.03 |
| Child's gender | | | | |
| Male | 50.90% | 0.47% | 49.02% | 0.78% |
| Female | 49.10% | 0.47% | 50.98% | 0.78% |
| Child's age | 11.45 | 0.03 | 11.83 | 0.05 |
| Child's race | | | | |
| Latino/Latinx | 23.43% | 0.48% | 19.41% | 0.78% |
| White | 53.81% | 0.47% | 61.05% | 0.81% |
| Black | 12.06% | 0.35% | 9.75% | 0.52% |
| Asian | 3.85% | 0.16% | 2.29% | 0.18% |
| Other race or multiracial | 6.85% | 0.19% | 7.51% | 0.35% |
| Child's nativity status | | | | |

(Continues)

TABLE 1 | (Continued)

| Variable | All children 6–17 (<i>n</i> = 47 179) | | All children 6–17 who needed health care decisions made in past 12 months (<i>n</i> = 15 588) | |
|---|--|-------|--|-------|
| | % or Mean | SE | % or Mean | SE |
| US born | 95.54% | 0.22% | 96.16% | 0.34% |
| Foreign born | 4.46% | 0.22% | 3.84% | 0.34% |
| Child's health insurance status | | | | |
| Not insured | 96.63% | 0.21% | 98.04% | 0.21% |
| Insured | 3.37% | 0.21% | 1.96% | 0.21% |
| Child has usual source of care | | | | |
| No | 16.95% | 0.40% | 9.51% | 0.49% |
| Yes | 83.05% | 0.40% | 90.49% | 0.49% |
| Child's health status | | | | |
| Excellent, very good or good | 98.14% | 0.17% | 96.56% | 0.33% |
| Fair or poor | 1.86% | 0.17% | 3.44% | 0.33% |
| Child has or had a health condition | | | | |
| No | 48.79% | 0.47% | 26.61% | 0.70% |
| Yes | 51.21% | 0.47% | 73.39% | 0.70% |
| Primary language spoken at home | | | | |
| Language other than English | 11.90% | 0.41% | 7.12% | 0.53% |
| English | 88.10% | 0.41% | 92.88% | 0.53% |
| Household poverty level | | | | |
| 0%–99% of Federal Poverty Level | 15.22% | 0.39% | 11.35% | 0.54% |
| 100%–199% of Federal Poverty Level | 18.74% | 0.40% | 18.33% | 0.69% |
| 200%–399% of Federal Poverty Level | 29.67% | 0.42% | 29.15% | 0.69% |
| 400% or more of Federal Poverty Level | 36.37% | 0.42% | 41.17% | 0.75% |
| Highest education level of child's caregivers | | | | |
| Less than college degree | 43.29% | 0.48% | 36.55% | 0.80% |
| College degree or greater | 56.71% | 0.48% | 63.45% | 0.80% |
| Family structure | | | | |
| Two parents who are currently married | 66.99% | 0.46% | 67.89% | 0.78% |
| Two parents who are not currently married | 5.38% | 0.22% | 4.87% | 0.35% |
| Single parent | 23.50% | 0.42% | 22.59% | 0.72% |
| Other family structure | 4.13% | 0.20% | 4.65% | 0.36% |

range of treatment options. Experiencing financial hardship had the strongest association (AOR = 0.50, 95% CI = 0.43, 0.58). Each additional ACE reported was associated with 15% lower odds of reporting that a provider always discussed a range of treatment options (AOR = 0.85, 95% CI = 0.81, 0.89).

Table 3 also shows the logistic regression analyses with odds of reporting that it was always easy to raise concerns or disagree

with providers. All but four ACEs [living with parents or guardians who were (1) divorced or separated; (2) died or (3) jailed; and experiencing financial hardship] were associated with lower odds of reporting that it was always easy to raise concerns or disagree with providers. Experiencing racial or ethnic discrimination (AOR = 0.61, 95% CI = 0.47, 0.78) and experiencing discrimination due to sexual orientation or gender identity (AOR = 0.61, 95% CI = 0.46, 0.80) had the strongest associations.

TABLE 2 | Odds of needing decision making about health care in past 12 months, children ages 6–17, by adverse childhood experience, National Survey of Children's Health, 2021–2022 (*N*=47 179).

| Variable | AOR | 95% CI |
|---|-------------|---------------------|
| Experienced financial hardship | 1.44 | (1.32, 1.57) |
| Lived with parents or guardians divorced or separated | 1.18 | (1.05, 1.31) |
| Lived with parent or guardian who died | 0.99 | (0.81, 1.21) |
| Lived with parent or guardian who was jailed | 1.12 | (0.94, 1.33) |
| Saw or heard adults abuse each other | 1.30 | (1.09, 1.56) |
| Witnessed or experienced violence in neighbourhood | 1.60 | (1.30, 1.96) |
| Lived with anyone who was mentally ill | 1.84 | (1.63, 2.08) |
| Lived with anyone who had problems with drugs or alcohol | 1.40 | (1.23, 1.60) |
| Experienced racial or ethnic discrimination | 1.59 | (1.35, 1.88) |
| Experienced discrimination due to sexual orientation or gender identity | 2.03 | (1.58, 2.60) |
| Experienced discrimination due to health condition or disability | 2.93 | (2.44, 3.51) |
| Number of adverse child experiences | 1.20 | (1.16, 1.23) |

Note: Each cell represents a separate model. Models adjust for child characteristics (age, gender, race/ethnicity, nativity, insurance status, having a usual source of care, health status and having condition in their lifetimes) and family/household characteristics (primary language spoken in the household, income as a percent of the federal poverty level, care giver educational level and family structure). Significant associations are bolded.

Abbreviations: AOR = adjusted odds ratio; CI = confidence interval.

Each additional ACE reported was associated with 14% lower odds of reporting that it was always easy to raise concerns or disagree with providers (AOR = 0.86, 95% CI = 0.83, 0.90).

Table 3 also shows the logistic regression analyses with odds of reporting that providers always work with respondent to decide the best treatment for the child. All but four ACEs [living with parents or guardians who were (1) divorced or separated; (2) died or (3) jailed; and living with anyone who had problems with drugs or alcohol] were associated with lower odds of reporting that providers always work with respondent to decide the best treatment for the child. Experiencing financial hardship had the strongest association (AOR = 0.51, 95% CI = 0.44, 0.59). Each additional ACE reported was associated with 14% lower odds of reporting that a provider always discussed a range of treatment options (AOR = 0.86, 95% CI = 0.82, 0.90).

4 | Discussion

This study showed that reporting most individual ACEs was associated with higher odds of needing decisions made about

health care. This is intuitive, given the well documented increased risk of various health conditions among children with a history of ACEs (Alford et al. 2024; Casas-Muñoz et al. 2024; Hinojosa and Hinojosa 2024). Interestingly, these associations existed after accounting for measures of health care need, like health status, suggesting that other facets of need may be at play, like severity of illness or how well a condition is managed.

The findings showed that ACEs, generally, are associated with a lower likelihood of receiving care that involved shared decision-making. This poses potential concerns relating to equity for two primary reasons. First, children who experience ACEs have worse health (Flaherty et al. 2013) and more health care needs (Lanier et al. 2018), making receiving timely and high quality, health care critical. If children with a history of ACEs are less likely to receive care that is associated with better outcomes and patient satisfaction, as is the case with shared decision-making, this may then contribute to avoiding or forgoing health care. ACEs. Second, care involving shared decision-making is associated with better indicators of quality of care (Toomey et al. 2016). Thus, this study shows that children who likely have greater need for health care because of their history of ACEs are less likely to receive high quality care. For clinicians and health care administrators, these shortcomings can be addressed by either ensuring that all patients receive care involving shared decision-making, as appropriate, or by identifying children with a history of ACEs in order to address the disparities in the provision of care.

The present study also revealed some consistent patterns when it came to which ACEs were not associated with receiving care that involved shared decision-making. In particular, non-health characteristics of the parents or guardian that may lead them not to be in the life of the child (i.e., if they had died, they had been jailed or incarcerated, or if parents or guardians were separated or divorced). This may be partially explained by at least two reasons. First, if a parent or guardian is not in a child's life or not consistently in a child's life, due to divorce, death or other circumstances, this may introduce additional people to be involved in the shared-decision making process, like foster parents and the child welfare agencies, making the execution of shared decision-making more complex (Seltzer et al. 2020). Second, if a parent or guardian is no longer alive or living with the child, there may be fewer people available to report care involving shared decision-making when it does happen. Thus, future work should attempt to disentangle the mechanisms by which ACEs are associated, or not, with receiving care that involved shared decision-making.

Importantly, ACEs capturing facets of discrimination were associated with lower likelihood of receiving care that involved shared decision-making. Discrimination has been a more recent addition to measures of ACEs, providing an opportunity to examine whether these measures impact health in similar ways to other ACEs. Measures of ACEs specific to discrimination capture prior exposure to discrimination, that may have occurred across different contexts, including in health care. Discrimination in health care could be important, because children not receiving care involving shared decision-making may be due to discrimination from various actors in the health care system. Further, experiences of discrimination have been

TABLE 3 | Odds of shared decision-making outcomes, children ages 6–17, by adverse childhood experience, National Survey of Children's Health, 2021–2022 (N = 15 588).

| Variable | Provider always discussed range of treatment options | | Always easy to raise concerns or disagree with provider | | Provider always works with respondent to decide best treatment for child | |
|---|--|---------------------|---|---------------------|--|---------------------|
| | AOR | 95% CI | AOR | 95% CI | AOR | 95% CI |
| Experienced financial hardship | 0.50 | (0.43, 0.58) | 0.54 | (0.47, 0.62) | 0.51 | (0.44, 0.59) |
| Lived with parents or guardians divorced or separated | 0.85 | (0.71, 1.03) | 0.85 | (0.70, 1.03) | 0.87 | (0.72, 1.04) |
| Lived with parent or guardian who died | 1.03 | (0.74, 1.44) | 1.08 | (0.77, 1.50) | 0.87 | (0.62, 1.22) |
| Lived with parent or guardian who was jailed | 1.04 | (0.79, 1.36) | 1.05 | (0.76, 1.39) | 1.14 | (0.87, 1.49) |
| Saw or heard adults abuse each other | 0.71 | (0.55, 0.92) | 0.75 | (0.58, 0.97) | 0.72 | (0.56, 0.92) |
| Witnessed or experienced violence in neighbourhood | 0.68 | (0.52, 0.90) | 0.76 | (0.58, 0.99) | 0.70 | (0.53, 0.91) |
| Lived with anyone who was mentally ill | 0.71 | (0.60, 0.85) | 0.75 | (0.62, 0.89) | 0.74 | (0.62, 0.88) |
| Lived with anyone who had problems with drugs or alcohol | 0.79 | (0.65, 0.96) | 0.80 | (0.66, 0.98) | 0.86 | (0.71, 1.06) |
| Experienced racial or ethnic discrimination | 0.60 | (0.47, 0.77) | 0.61 | (0.47, 0.78) | 0.62 | (0.48, 0.80) |
| Experienced discrimination due to sexual orientation or gender identity | 0.53 | (0.39, 0.70) | 0.61 | (0.46, 0.80) | 0.62 | (0.47, 0.82) |
| Experienced discrimination due to health condition or disability | 0.57 | (0.47, 0.69) | 0.62 | (0.51, 0.76) | 0.64 | (0.52, 0.79) |
| Number of adverse child experiences | 0.85 | (0.81, 0.89) | 0.86 | (0.83, 0.90) | 0.86 | (0.82, 0.90) |

Note: Each cell represents a separate model. Models adjust for child characteristics (age, gender, race/ethnicity, nativity, insurance status, having a usual source of care, health status and having condition in their lifetimes) and family/household characteristics (primary language spoken in the household, income as a percent of the federal poverty level, care giver educational level and family structure). Significant associations are bolded. Abbreviations: AOR = adjusted odds ratio; CI = confidence interval.

associated with reduced utilization of health care for various marginalized groups (Alcalá and Cook 2018; Jaffee et al. 2016; Trivedi and Ayanian 2006), so these experiences may result in decreased use of needed health care. However, more research is needed to specifically understand how experiences of discrimination impact health care utilization in the paediatric context.

This study has a few limitations that are important to consider when interpreting the results. First, the data are cross-sectional, making establishing temporality or causality impossible. In particular, it is possible that the lack of shared decision-making is itself interpreted as a discriminatory experience, while in other cases ACEs may have happened after care was sought. This is partially mitigated by the fact that the recall window for reporting shared decision-making outcomes was limited to the past 12 months. Second, because adults are reporting ACEs on behalf of a child, the instrument used to measure ACEs does not capture measures of abuse. As such, we cannot directly compare these findings to any study that uses a version of the ACEs scale that captures abuse. Finally, because all information is reported by an adult on behalf of the sampled child, it is possible

that these adults misreport (and/or misremember) information, thus introducing bias into results. Recent work has suggested that parents under-report the ACEs of their children, when compared with a child's self-report (Ng et al. 2025), suggesting that parent/guardian report will be a more conservative measure.

Shared decision-making is an important facet of high-quality care. This study found that children with a history of ACEs were less likely to receive care involving shared decision-making. Given the increased health and health care needs associated with ACEs, this presents an opportunity for clinicians and health care administrators to improve delivery of care so that all patients and their families are actively involved in making health care decisions along with clinicians.

Author Contributions

Héctor E. Alcalá: conceptualization, investigation, writing – original draft, methodology, writing – review and editing, formal analysis, supervision. **Zeruiah V. Buchanan:** writing – original draft, writing – review and editing. **Jun Chu:** writing – review and editing, writing

– original draft. **Dylan Roby H:** writing – original draft, writing – review and editing, supervision. **Mienah Z. Sharif:** supervision, writing – original draft, writing – review and editing.

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The authors have nothing to report.

Ethics Statement

Original data collection for this study was done with IRB approval.

Consent

Original data collection for this study was done with appropriate consent.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data are available through <https://www.childhealthdata.org/learn-about-the-nsch/NSCH>.

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