

Apr 9th, 11:15 AM - 11:27 AM

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A Case Examination of Factors Impacting Charges in Vehicular Heatstroke

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Abstract — *Since the 1990s, preventing vehicular heatstroke has been the focus of many public health campaigns. Parents are implored to never leave their young children unattended in the car, and to check the backseat before getting out of the car. Despite the increase in awareness about child fatalities due to hyperthermia, children continue to be left or forgotten in vehicles with tragic consequences. Interestingly, the decision to charge the negligent caregiver in cases of vehicular heatstroke is not widely studied. While some evidence indicates that case factors (e.g., intentionality and caregiver intoxication) are relevant in the decision to charge defendants in vehicular heat stroke fatalities. Less is known about how extra-legal factors (e.g., race and socioeconomic status) impact legal decisions in these cases. The current study examined 425 cases of vehicular heatstroke that occurred in the United States between 2000 and 2016. The goal of the study was to examine how case factors impacted decisions to charge the caregiver.*

Keywords – Psychology, Vehicular Heatstroke, Legal Decisions, Extra-Legal Factors, Hyperthermia

Introduction

Each year approximately 35 children die because their caregivers forget them in vehicles (Breed, 2007). Between 1998 and 2021, 882 children have died from hyperthermia because they were left in a vehicle (Null, 2021). While there has been a substantial push to educate the public about the dangers of leaving children unattended in vehicles, children continue to be left alone either intentionally or unintentionally with devastating consequences. Despite the dangers of heatstroke a survey found that 14% of parents reported intentionally leaving children under the age of 6 alone in a car. Additionally, 11% of parents reported they had accidentally left their children in a car (Safe Kids Worldwide, 2014). When a vehicular heatstroke occurs, individual case factors will be used to determine if charges will be filed against the negligent caregiver. The associated press reported that charges are only filed in approximately 50% of vehicular heatstroke cases (Breed, 2007). When charges are filed there is often significant disparity between the severity of charges which can be attributed to the case factors (e.g., was the child left

intentionally or unintentionally; Diamond, 2019). However, it is possible that extra-legal factors may also impact the decisions to charge and prosecute the caregiver. Extra-legal factors (e.g., sex, gender, race, and socioeconomic status) are considered to be irrelevant to the case, however, research has shown that they can inadvertently impact legal decisions. The purpose of this research is to examine the role case factors and extra-legal factors impact the decision to charge and the type of charges given in vehicular heatstroke cases.

Case Factors

Intentionally leaving a child in the care is often associated with more severe charges than forgetting a child (Breitfeld, 2020). Additionally, use of drugs or alcohol at the time the child died was associated with a greater degree of punishment (Collins, 2006).

Extra-Legal Factors

Relationship to the victim and the sex of the caregiver have been found to be associated with decisions to prosecute in hot car deaths (Breed, 2007; Collins 2006). Collins (2006) found that unrelated caregivers were more likely to be prosecuted versus caregivers who were family members with the victim. The associated press also found that paid caregivers were more likely to be prosecuted, interestingly parents were less likely to be sentenced to jail. The findings regarding parent role found that mothers are more likely to be sentenced to jail (Breed, 2007).

Other extra-legal factors like race and socioeconomic status have not been studied in cases of vehicular heatstroke. However, research suggests that defendants in other types of cases were more likely to be given deferred sentences if they had steady employment (Lotz & Hewitt, 1977). Additionally, Perez et al., (1993) found that defendant's socioeconomic status can impact juror decisions, specifically lowered SES is associated with more guilty verdicts. Race has also been associated with sentencing disparities. Black defendants are more likely to be arrested than white defendants and account for more of the prison

population than would be expected based on their proportion in the population (Walker *et al.*, 2012).

Attorneys have raised the issue of possible racial bias in the prosecution of cases of child death by hyperthermia. For example, attorney Carlos Moore argued that his client, Joshua Lewis Blunt, a black man, was charged with second-degree murder in Mississippi after his toddler died of hyperthermia while he was at work when only a week earlier another parent in Mississippi, a white woman who also left her child in the car when she went to work was not charged. In both cases the parent forgot to drop the child off before they went to work and in both cases the child died of hyperthermia (Holley, 2016). The charges against Blunt were eventually reduced to manslaughter and he has pled not guilty (Pettus, 2016).

Hypotheses

Based on the literature review, we hypothesized that in cases of fatal hyperthermia that resulted from an adult leaving a child alone in a vehicle: (1) caregivers who used drugs or alcohol around the time they left the child unattended, would be charged with more serious crimes and receive longer sentences, (2) those who left the child in the car intentionally would be charged with more serious crimes and serve longer sentences, (3) paid caregivers would be more likely to be charged than family members, (4) mothers would be charged at a higher rate than fathers and that they would receive longer sentences, (5) caregivers will be treated more harshly if they have a low status occupation or if they have a low SES status than if they have high status occupation, (6) Black defendants would be more likely to be charged and receive longer sentences than White defendants.

Methods

We analyzed 425 cases of child fatality due to hyperthermia following being left in a vehicle that occurred in the United States between 2000 and 2016. To locate cases, we used the website titled Heatstroke Deaths of Children in vehicles (<http://noheatstroke.org/>) that was created by Jan Null (2021), CCM of San Jose State University. For each case, the goal was to document the initial charge, the final case outcome, and relevant demographic factors including: the sex, occupation, race, and socio-economic status of the defendant; the relationship between the defendant and the victim; the location of the incident (state); and any other case relevant factors (EX: use of drugs or alcohol by the defendant). We compiled database of information gathered from newspaper articles, websites discussing the cases, and legal

repositories. Currently, we are finalizing data collection on the charge type and the potential sentence associated with each charge by reviewing relevant state statutes.

Results

We found victim age information for 420 cases. The ages of the children ranged from just 5 days to 5 years. Incidence decreased as child age increased. The sex of the child was found for 380 cases. There were slightly more male victims (53.9%) than there were female victims (46.1%).

With regard to the sex of the responsible adult(s), there were more women ($N = 182$; 52%) than men ($N = 136$; 39%). In just 30 cases (9%), both a man and a woman were responsible (in almost all cases this was the parents of the child). While this represents a significant difference, it is not necessarily meaningful in that women provide the majority of caregiving in the United States.

Most of the responsible adults who were identified by race were either Caucasian ($N = 56$; 57%) or African American ($N = 33$; 33%). Ten adults were classified as another race ($N = 10$; 10%). Using the percentage of the U.S. population for each race for the expected value, a Chi-Square test indicated that this represented a significant difference, $\chi^2 (N = 99) = 38.79, p < .001, \phi = .63$. There were fewer Caucasian and Other responsible adults than expected and more African American adults than expected.

Next, we looked at the relationship between the responsible adult and the child victim. As expected, the most common relationships were mother (42.2%) and father (30.3%). An additional 4.2% of cases involved both parents. Parents were followed by paid providers (8.3%) and then small numbers of other relatives, foster parents, and friends.

Regression analyses will be conducted to test the hypotheses prior to the presentation.

Conclusion

The purpose of this study was to examine the effects relevant case factors and extra-legal factors had on charges brought in cases of vehicular heatstroke. While the research is ongoing, we expect data analysis to be complete by the end of March.

Acknowledgements

Work on this project this semester has been supported by a Course Reallocation Grant from SARS at USC Upstate.

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How Does the Parent's Sex and Perceived Moral Character Affect Perceptions of Blame and Responsibility Following Child Vehicular Heatstroke?

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Abstract – Numerous studies have demonstrated that extra-legal factors often impact legal decisions in criminal cases, however, it is not always clear what role these factors play in cases involving children. This study examined how defendant attributes impact mock juror decisions of assigned blame and responsibility for a case of child vehicular abandonment and heatstroke death. Participants read one of four scenarios involving the death of an eight-months old girl who died in a vehicle because of prolonged exposure to elevated temperatures. In the scenario, the sex of the parent (father or mother) and perceived moral character (perceived as a bad parent or good parent) was manipulated. It was hypothesized that participants would assign increasing amounts of blame, responsibility, and punishment when the perpetrator is perceived as a “bad” parent, regardless of their sex. Additionally, it was hypothesized that participants would assign increasing amounts of blame, responsibility, and punishment on the female perpetrator (i.e., mother), regardless of their perceived moral character.

Keywords – Psychology, Legal Decisions, Juror Decision Making, Moral Blame and Responsibility, Hot Car Deaths

Introduction

Every year, children who are left unattended in vehicles die of heatstroke, which is caused by prolonged exposure to extremely high temperatures. Previous research has examined the factors that may lead a parent to “forget” their child(ren) in the car. For example, Diamond (2019) suggested that cases of vehicular abandonment are likely caused by prospective memory (PM) failures, one of the most common memory errors in everyday life. Failures of PM usually happen when an individual intends to do something in the future but fails to execute the action when the time comes. Diamond (2019) established that this loss of awareness of an intended action can be caused by sleep deprivation, acute or chronic stress, absence of a reminder (auditory or visual) cue, distractions or interruptions, and habitual behavior (“autopilot” mode).

Although most memory failures are minor annoyances, sometimes they create potentially

hazardous conditions, such as causing a parent to be certain they had taken their child to the target location, while instead the child is still in the rear seat. Most parents and caretakers who have left their child in a car have been prosecuted, with juror decisions that range from acquittals to charges of child neglect or murder (Diamond, 2019). According to Breitfeld (2020), this wide disparity in criminal charges may be attributed to contextual factors, which usually fall within three categories: those who truly forget their child in the rear seat, those who take calculated risks because they are uneducated about the dangers of leaving children unattended in a vehicle, and those who intentionally leave their child in the vehicle, committing criminally negligent and intentional filicide. Breitfeld (2020) found that the second and third categories almost always result in criminal convictions because of the deliberateness of the act; the parent made a risk-benefit analysis, decided (*mens rea*) to leave the child in the car, and eventually did (*actus reus*). However, does the offender accountability change when such offender is a father rather than a mother, and vice versa?

Previous research has looked at parental gender differences and division of tasks, and a study by Hoffman and Kloska (1995) found that people tend to perceive women as the main caregivers in the family. This leads to the assumption that women (or the mother) are primarily responsible for their child's welfare. To date, it is unclear whether women would be held more accountable in judicial cases involving their children, especially when they are traditionally seen as the main caregivers. On the other hand, it is unknown whether men would be judged as less responsible in these cases since they are usually viewed as bearers of responsibilities unrelated to childcare.

Additionally, when defendants are being judged in a court of law, the jurors use their own moral values to determine the defendant's morality and to assign blame, responsibility, and punishment. Past research has indicated that the perceived moral character of the perpetrator of a crime influences how harshly they are punished

both socially, through blame by the community, and criminally, by a court of law (Hanson et al., 2015). Perpetrators who show “controllability” and “responsibility” in the criminal act are more likely to be charged and be assigned blame, while perpetrators who show empathy toward the victim and less control are more likely to obtain a reduced charge and be assigned less blame (Hanson *et al.*, 2015). Thus, it can be assumed that offenders who are perceived as “good people” are less likely to get convicted in court. It is unclear if the same concept applies to cases of child vehicular abandonment and heatstroke deaths.

The body of research on child vehicular abandonment and heatstroke death does not address the role that the parent’s sex and perceived moral character play in the judicial decision-making process. Thus, the main goal of this study was to examine how the sex of the parent and perceived moral character contribute to judgements of blame and responsibility. It was hypothesized that participants would assign increasing amounts of blame, responsibility, and punishment when the perpetrator is perceived as a “bad” parent, regardless of their sex. Additionally, it was hypothesized that participants would assign increasing amounts of blame, responsibility, and punishment on the female perpetrators (i.e., mothers), regardless of their perceived moral character.

Methods

Participants

A total of approximately 56 participants were recruited from Amazon Mechanical Turk. To participate in the study, participants had to be: (1) 18 years or older, (2) a U.S. citizen, and (3) not convicted of a felony. Participants were compensated \$1.20 for participating in the study. Of the 56 the participants, 35 identified as male and 21 as female, with a mean age of 43.77 years (range 27-69). Participants were predominantly white ($n = 43$), with nine identifying as Asian, two as Black, one as Hispanic, and one as “other”.

Materials

Four scenarios about a child vehicular abandonment and heatstroke death case were used. The four scenarios were presented in an online-newspaper’s article form. Each article included two fictitious Facebook posts representing the child in the weeks prior to the incident (a photo of the child in her high-chair, and a portrait-mode photo of the child that was taken after having a bath). In the four scenarios, the parent’s gender (i.e., father or mother) and moral character (i.e., described as a

good parent or bad parent) were the only factors manipulated. All other characteristics and details of the case (i.e., the sex and age of the child, parent’s employment, cause of death, and photos posted on Facebook by the parent) were the same. The four scenarios included a good mother, a bad mother, a good father, or a bad father involved in the vehicular abandonment and heatstroke death of an eight-months old girl named Sarah, as a result of letting her in the car for more than six hours while working. In each scenario, the parent forgot to drop Sarah at daycare because of poor sleep the night before and stressful work calls in the car. In each scenario, the child was found by a person who immediately called 911. The arrival of the paramedics proved useless as Sarah was already dead. In each scenario, the parent was described as “distraught” after realizing what had happened. The sex of the parent involved was manipulated through names (Jane Smith vs. John Smith), while the perceived moral character was manipulated through the Facebook posts’ captions and the neighbors’ opinions. Regardless of the parent’s sex, the “good” parents had captions as “Take a look at that cute face. Such a little sweetheart. So blessed,” while the “bad” parents had captions as “Do not let the cute face fool you. Such a little terror. So stressed.” Additionally, each article reported the neighbor’s opinion on the involved parent’s parenting: “According to a neighbor, Mr./Ms. Smith was not a good father/mother. He/She rarely spent time playing with and caring for his/her daughter” versus “According to a neighbor, Mr./Ms. Smith was a good mother/father. She/He spent time playing with and caring for his/her daughter.”

A multiple-choice test was used as a manipulation check. The participants were asked to answer a few questions about the scenario they just read. Some questions included: “What was the name of the child?,” “Did the neighbor believe Jane Smith or (John Smith) was a good mother (or father)?” Participants were required to correctly answer at least 3 of the 4 questions to be included in data analysis.

A questionnaire asking to rate how the participants would judge the events was also used in this experiment. The participants were asked to rate each question on a scale from 1 to 10. The topics included blame, assigned responsibility, intention, appropriate charge and sentence for the convicted parent, crime rates, and how much the participant could identify themselves with the scenario’s character.

Furthermore, a knowledge questionnaire about vehicular heat stroke and an Attitude Toward Child Rearing and Marital Roles Scale were used. The

Gender-based Attitudes Toward Martial Role and Child Rearing Scale (Hoffman & Kloska, 1995) asked the participants to rate how much they would agree with sentences on a scale from Strongly Disagree (SD) to Strongly Agree (SA). Lastly, participants were asked to complete a demographic survey asking for the participants' age, gender, race, year in school, political affiliation, and parenting.

Procedure

Participants were presented with one of four scenarios about a child vehicular abandonment and heatstroke death case. In the scenario the parent's sex (i.e., father or mother) and moral character (i.e., described as a good parent or bad parent) were manipulated. The four scenarios included: 1) good mother, 2) bad mother, 3) good father, and 4) bad father. After reading the scenario, participants were asked to complete a manipulation check to test the participants' reading of the scenario. Next, participants were asked to complete questionnaires based on the scenario they read. Participants then completed a knowledge questionnaire about vehicular heat stroke and an Attitude Toward Child Rearing and Marital Roles scale (Hoffman & Kloska, 1995). Lastly, participants were asked to complete a demographic survey.

Results

Blame

A 2(parent's sex: mother, father) x 2(moral character: good parent, bad parent) x 2(participant gender: male, female) analysis of variance (ANOVA) was performed using blame as the dependent variable. The results indicated that there was a significant main effect of moral character, $F(1, 48) = 6.76, p = .01$. Participants assigned significantly more blame to the bad parent ($M = 9.07, SD = 1.53$) than the good parent ($M = 7.81, SD = 2.11$). There was also a marginally significant three-way interaction between the parent's sex, moral character, and participant's gender, $F(1, 48) = 3.77, p = .06$.

For male participants there was a marginally significant interaction between parent's sex and moral character, $F(1, 31) = 3.54, p = .07$. Male participants assigned more blame to the bad mother than the good mother; however, the good father and bad father received equal blame. For female participants there was no significant interaction between parent's sex and moral character, $F(1, 17) = .98, p = .37$.

Responsibility

A 2(parent's sex: mother, father) x 2(moral character: good parent, bad parent) x 2(participant

gender: male, female) ANOVA was performed using responsibility as the dependent variable. The results indicated that there was a significant main effect of moral character, $F(1, 48) = 5.49, p = .02$. Participants assigned significantly more responsibility to the bad parent ($M = 9.38, SD = 1.12$) than the good parent ($M = 8.48, SD = 2.11$). All other effects were not significant (p 's > .05).

Forgiveness

A 2(parent's sex: mother, father) x 2(moral character: good parent, bad parent) x 2(participant gender: male, female) analysis of variance ANOVA was performed using forgiveness as the dependent variable. The results indicated that there was a marginally significant interaction between parent's sex and moral character, $F(1, 48) = 3.84, p = .06$. Participants were more forgiving when the mother was described as a good parent rather than a bad parent. However, participants were more forgiving when the father was described as a bad parent rather than a good parent. All other effects were not significant (p 's > .05).

Conclusion

The purpose of this study was to examine the effects of the parents' gender and perceived moral character on assigned blame and responsibility following child vehicular abandonment and heatstroke death. The results from this study revealed that the participant's gender played a significant role in perceptions of blame. For male participants, the bad mother was assigned more blame than the good mother; however, this pattern was not replicated when the perpetrator was a father. These results suggest that male participants may have showed a bias toward one's own gender. In addition, the results suggest that the parent's perceived moral character contributed most to perceptions of responsibility. When the perpetrator was described as a bad parent, they were seen as more responsible for the child's death, irrespective of whether the perpetrator was a mother or father. Interestingly, participants were more forgiving when the mother was described as a good parent rather than a bad parent. However, participants were more forgiving when the father was described as a bad parent rather than a good parent. Together, these findings could help us determine how the perpetrator's characteristics impact jurors' decisions when assigning blame and responsibility for cases involving child vehicular abandonment and heatstroke death.

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