

FAMILY ABDUCTION OUTCOMES Factors Associated with Duration and Emotional Trauma to Children

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Using data from a national survey, we examine factors associated with two specific outcomes of family abduction events: duration of the episode and the likelihood of emotional trauma to children involved. Duration appears to be influenced by indicators of preparedness, planning and intent, and with difficulty in physically locating the child. Emotional harm is influenced by factors associated with child awareness, disruption in the child's routine, and levels of animosity between parents.

Research in the area of family abductions has indicated that literally thousands of children and their families are affected each year by these events in the United States. The release of data from several major studies in the past 5 years (e.g., Greif & Hegar, 1993; Finkelhor, Hotelling, & Sedlak, 1990; see also, Kiser, 1987) has greatly increased the understanding of the dynamics of family abductions by both the scholarly community and the general public. It is increasingly clear that the spectrum of family abduction events is quite broad, ranging from stereotypical events in which a child is taken and literally never seen again by the left-behind parent, to situations in which the location of a child is known, but desired and legal contact between him or her

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STUDY METHODOLOGY

THE NISMART SAMPLE

In NISMART's national probability sample, telephone contact was made with 10,544 households, where primary caretakers were asked about the experiences of 20,505 children age 17 or younger. Starting with a sampling frame of 60,000 telephone numbers, which yielded 11,617 actual households in which a child resided for at least 2 weeks during the previous year, interviews were completed with caretakers in all but 1,250 households, for a response rate of 89.2%. (A more detailed description of the design is available in Finkelhor, Hotaling, & Sedlak, 1990; and Sedlak, Mohadjer, McFarland, & Hudock, 1990.)

DEFINING FAMILY ABDUCTIONS

The ultimate operationalization of family abduction events in NISMART was designed to reflect the ways in which such events are defined under the law as well as the way in which they might be perceived by lay persons. Thus two types of situations were included in the intentionally broad definition of family abduction employed by NISMART, namely (a) situations in which a family member took a child in violation of a custody agreement or decree ("takings") or (b) situations in which a family member (in violation of a legal or agreement or decree) failed to return a child at the end of a legal or agreed on visitation period, with the child being away at least one additional night in these cases ("keepings"). Three elements of this definition deserve further comment, namely the nature of the taking and keeping distinction, the issue of the custodial status of the perpetrator (abductions could have been perpetrated by custodial as well as by noncustodial parents), and the way in which the concept of family itself was classified.

Taking and Keeping Distinction

A family abduction could have involved either unauthorized keeping or taking of children. Thus, in addition to the stereotypical abduction scenario in which children are whisked away and hidden by a

and one parent is prevented. There is also some evidence that the etiology of family abductions all along this continuum of seriousness may be similar (Plass, Finkelhor, & Hotaling, 1994).

Clearly, some of the most important questions to be asked regarding the nature and dynamics of these events are those associated with outcomes. For example, what differentiates between episodes that are easily resolved and those that persist for long periods? How are children likely to be affected by these events, and what differentiates between episodes in which children appear to be traumatized and those in which the effects are less disruptive?

One of the difficulties with asking such questions regarding what variables may affect outcomes of family abductions has been the fact that most data available about abductions have been taken from official sources (police or court records, missing children's organizations, and the like). In these samples, which tend to be uniformly quite serious cases, serious outcomes are the norm—most of these cases are likely to be of quite long duration, and to result in considerable trauma for children. In the absence of such outcomes, they would probably not have been reported to official agencies in the first place.

This article makes use of the only data regarding family abductions currently available that were not drawn from such official sources. The National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children (NISMART) relied on a national population survey, so that it uncovered many of the kinds of abduction cases that were resolved relatively quickly without the assistance of agencies (as well as more serious episodes that did involve the intervention of, for example, the police). We focus here on two abduction outcomes: (a) duration of the episode (i.e., how long aggrieved parents and children were separated from one another) and (b) whether an episode resulted in emotional harm or trauma to a child involved. Factors associated with each outcome measure are examined separately in the analyses that follow. In addition, however, as it is also quite likely that these two indicators would be related to one another (e.g., duration might play a role in the effect an episode had on children involved), we also provide discussion of possible links between these two indicators themselves. Before presenting any data, it is necessary to clarify some methodological issues surrounding the study and the ways in which events were defined.

noncustodial family member, the definition used here also included situations in which a family member who initially had legitimate custody of a child refused to give the child up when this period of legitimate custody (e.g., a legal visitation period) ended.

Custodial Status of Abductors

According to the study criteria, abductions (either keepings or takings) could have been perpetrated by custodial as well as by noncustodial parents. Thus the NISMART abductions involved both situations in which custodial parents disappeared with the children and those in which noncustodial parents were denied legal visitation or prevented from having any contact with their child(ren). Although stereotypic conceptions of family abduction are not likely to include such events, these custodial keepings are nonetheless clearly within the realm of a legal definition of family abduction. For example, California's criminal statute defines family abduction to cover "every person who in violation of the physical custody or visitation provisions of a custody order, judgment, or decree, takes, detains, conceals or retains the child with the intent to deprive another person of his or her rights to physical custody or visitation" (California Penal Code, 1996, Chap. 4, No. 278.5, p. 91; emphasis added).

Recognizing, however, that such custodial keepings may differ markedly in terms of outcome issues likely to be associated with an episode, we distinguish a special category of keepings (which we refer to as "denial of visitation" events) in the analyses that follow. A denial of visitation is an event in which the perpetrator was the primary custodial parent, who refused to allow legitimate visitation between the child and the aggrieved parent, keeping the child in his or her usual place of permanent residence.

The Concept of Family

A family member in the definitional criteria for a family abduction included not only the usual meaning of the term (e.g., parents, grandparents, etc.), but anyone with a romantic or sexual involvement with a parent. In addition, it was not necessary for the child's parents to

have been divorced at the time of the abduction (in fact, about 27% of the episodes involved abductors who were current spouses/partners or in-laws of the respondent at the time of the event). We see, then, that the NISMART definition of family abduction used here includes a fairly broad spectrum of events, involving the actions of a broad spectrum of family members.

OVERVIEW OF NISMART FAMILY ABDUCTED CHILDREN

Using the definition described above, NISMART identified 104 family abduction incidents, involving a total of 142 individual children (thus about 33% of the episodes involved multiple children). Table 1 provides an overview of some relevant characteristics of NISMART family abductions, and of the adults and children who were involved in these events. (For further information about basic characteristics of family abductions uncovered in NISMART, see Finkelhor et al., 1990; Finkelhor, Hotelling, & Sedlak, 1991.)

Having established something of the nature of the NISMART events and the basic characteristics of the children and families involved in them, we now turn to an examination of risk factors for the experience of episodes of longer duration and for those which bring some sort of emotional harm to the child(ren) involved.

PREDICTING DURATION OF EPISODES

DEFINING AND MEASURING DURATION

Duration of episodes in the NISMART data does not refer to the amount of time a child was actually physically missing. Indeed, as seen in Table 1, the whereabouts of children in the majority of the episodes was known for at least half of the length of the event. Rather, duration refers to the amount of time it took to resolve a situation, or the period of time in which the aggrieved parent was deprived of legitimate contact with his or her child(ren). Thus the reader should keep in mind that the issue we are investigating here is what factors are predictive of the length of time it takes a family to resolve an

TABLE 1
General Characteristics of the NISMART Family Abductions

Percentage of NISMART Cases*		n
<i>Episode characteristics</i>		
Taking	51	53
Keeping	49	51
Denial of visitation event	20	20
Location of child(ren) known:		
None of the time	18	18
Less than 1/2 time	20	21
More than 1/2 time	9	9
All the time	53	55
Effort to conceal location of child	33	37
Episode intended to permanently affect custody arrangements	39	39
Child(ren) taken out of state	10	10
Event involved more than one child	33	34
Episode in violation of custody order	67	68
Police contacted	36	37
Attorney contacted	50	51
Respondent defined event as kidnapping	34	34
<i>Characteristics of perpetrators</i>		
Male abductor	59	61
Female abductor	41	43
Abductor parent (figure) to child	94	94
Abductor nonparent (figure) to child	6	6
Total abduction events	100	104
<i>Percentage of Abducted Children*</i>		
<i>Characteristics of individual children</i>		
Age 0-4	23	32
Age 5-9	39	55
Age 10-13	28	40
Age 14-17	11	15
White	87	123
African American	10	14
Other race	3	5
Male	57	81
Female	43	61
Total individual children involved	100	142

* All percentages are of valid responses; that is, missing values for a variable are excluded from the denominator in calculating the percentages that appear in this table.

abduction event, and to restore the legal and desired contact between an aggrieved parent and his or her child(ren).

Table 2 provides descriptive statistics for the duration of NISMART events. Most of the episodes were resolved in a matter of a few days, but a fairly large percentage of the 102 episodes took more than a week to be resolved. (Note that 2 of the 104 cases in the sample are lost, because of missing data on the duration variable. These were cases in which the parent-respondent either refused to answer a question about duration of the episode, or said that he or she did not know how long the episode lasted.) The average episode duration was almost 12 days, whereas the median length was 3 days. The discrepancy between these two measures of central tendency and the values of the skewness and kurtosis statistics indicate that the distribution of the duration variable is considerably skewed. This issue is one of concern, as skewness of this magnitude may affect the outcome of analyses. Consequently, a data transformation strategy was developed to normalize the distribution, and hence make the variable more amenable to analysis.

There are basically three strategies for dealing with skewness of this sort in a variable. The variable can be mathematically transformed (a logarithmic transformation would be appropriate in the case of positive skew revealed in the duration variable); the variable can be truncated in some way (shortening the tail of the distribution in a sense); or the variable can be categorized (distributing raw values into categories on the basis of, for example, quartiles). We decided to truncate the high values of the original variable. Specifically, we took the highest 20% of the duration values (from 21 days to 180 days; see Table 2 for the distribution of these values), and recoded them all to a value of 21 (which then became the highest value in the distribution). Relevant statistics for the resulting recoded variable are found in the bottom panel of Table 2, and reveal that, although still somewhat positively skewed, the variable now has a much more acceptable distribution, which should make accurate analysis possible.¹

GENERAL HYPOTHESES

Both previous research and simple logic can suggest several factors that might be expected to influence the duration of abduction episodes. We identified four such factors, and established indicators for each in the NISMART data. First, factors that are associated with simple convenience, or increased ease of accommodating a child or children

TABLE 2
Duration of Episodes in NISMART—
Frequencies and Descriptive Statistics

Duration of Episode	A. Frequencies	
	Percentage of Cases	n
Less than 1 day	19.6	20
1-3 days	36.3	37
4-7 days	14.4	15
10 days	1.0	1
14 days	9.8	10
21 days	4.9	5
28 days	2.0	2
30 days	5.9	6
35 days	1.0	1
42 days	1.0	1
60 days	2.0	2
150 days	1.0	1
180 days	1.0	1
Missing		2
Total	100.0	104

B. Descriptive Statistics	
Raw Variable	
Mean number of days	11.67
Skewness	4.94
Median number of days	3
Kurtosis	28.62

C. Descriptive Statistics	
Truncated Variable (Values for 28-180 Set Equal to 21)	
Mean number of days	7.08
Skewness	.91
Median number of days	3
Kurtosis	-.79

involved in an abduction would be expected to result in episodes of longer duration. Adding a new child or group of children to a household can be difficult, and the problems associated with this might serve to shorten the duration of abductions. We selected six indicators of these convenience factors from the NISMART data:

1. We predicted that keepings and denial of visitation events would be of longer average duration than would takings and nondenial of visitation events.

2. We predicted that abductions perpetrated by women would be of relatively longer duration than those perpetrated by men. We expected this relationship because women (who are still more likely to be awarded custody of children in divorce proceedings (Steinon, 1991)) would be more likely to be perpetrators in keepings and denial of visitation events. In addition, however, women (due perhaps to greater socialization into the parent role) might be expected to be more prepared to maintain possession of an abducted child or children for a longer period, without having the addition of the child(ren) to their households greatly disrupt their lives.
3. We expected that events that began during school holiday periods (January and the three summer months) would also be associated with longer duration (as children are not enrolled in school at these times, thus eliminating at least temporarily the necessity of making arrangements for new school placements).
4. We expected that the age of children involved in an event could be important. We predicted that episodes that involved any very young children (under age 5) would be of shorter duration, due to the increased time required to care for and accommodate such young children.
5. We expected that episodes that involved more than one child (i.e., a sibling group) would be of shorter duration, because of the greater difficulty of providing care for multiple children.
6. We expected that social class of both perpetrators and aggrieved parents might play a role, in the sense that higher class might be associated with greater resources to care for the child (in the case of abductors) and to pursue recovery of the child (in the case of aggrieved parents). Hence we predicted that episodes in which the perpetrator had higher levels of education (at least a college graduate) would be of longer duration. We also predicted that education level of the head of the household in which the child lived would have a negative relationship to duration.

Second, factors that indicated some planning or intent to permanently disrupt existing custody arrangements would be expected to be associated with episodes of longer duration. The NISMART data offered one clear indicator of this element of intent:

1. We predicted that episodes in which the perpetrator made threats to use the event to permanently affect custody arrangements (indicating a desire to keep possession of the child or children for an indefinite period) would be associated with longer average duration of episodes.

Third, factors that were related to difficulty in actually physically locating a child would be expected to be associated with episodes of longer duration. Concealment of a child not only can be expected to complicate efforts at recovery, but is also indicative of events in which the perpetrator's intent, as suggested above, is to permanently disrupt custody arrangements. The NISMART data offered three indicators of this element of concealment:

1. We predicted that episodes in which aggrieved parents did not know the physical location of their children for at least half the time of the episode would be of longer duration.
2. We predicted that episodes in which the perpetrator made some attempt (regardless of whether this attempt was successful) to conceal the location of the child would be of longer duration.
3. We predicted that those episodes in which children were taken out of state would be of longer duration.

Fourth, we expected that official sanctioning—for example, the legal status of the custody agreement—might play a role in the duration of episodes. It has been assumed, for example, that it is harder to recover children in the absence of a formal legal custody agreement. We selected two indicators of this element of legal sanctioning from the NISMART data:

1. We predicted that episodes which did not involve a formal custody order would be of longer duration.
2. We predicted that episodes which involved ex-relatives as perpetrators (e.g., ex-spouses or in-laws) would be of shorter duration. (Those episodes involving current relatives would presumably be less likely to involve a formal custody order, and would most likely be occurring in the early stages of marital dissolution, when issues such as child custody arrangements were not well established.)

DURATION OF EPISODES—RESULTS OF ANALYSIS

Because of the relatively small number of cases available for analysis, and because of the interrelationship of many of the independent variables of interest here (and the associated problems of multicollinearity), a multivariate analysis strategy in which all of the

indicators identified above are entered in the same model is somewhat impractical, and most likely not the best way to illustrate the relevant relationships between independent and dependent variables. However, elements of the NISMART sampling design do require controlling for a key demographic characteristic—namely, education level of the head of household—in doing any household (or episode) level analyses of these data. Hence the first step in our analysis was to enter each of the indicators identified above into a regression equation while controlling for education of head of household in which the child lived. Column 1 of Table 3 provides the regression coefficients for these equations.

Clearly, factors associated with convenience (found in the first panel of Table 3) and with intent (found in the second panel) are most influential in determining the duration of abduction events. All of the convenience factors (with the exception of the number of children involved and the presence of at least one very young child in the abduction), and our measure of intent appear to have strong (and significant) effects in the direction we hypothesized. None of the measures in the other two categories (i.e., factors associated with physically locating a child, or with the legal status of the custody relationship) had a significant effect on the duration of abductions. We interpret this as indicating that factors associated with intent and with preplanning, convenience, or preparedness—the availability of resources, if you will—are likely to be associated with increased duration of episodes. Thus cases in which time to care for the child and an established place (and routine) to keep him or her exist are apparently likely to take longer to resolve.

The strongest predictors of duration—whether an episode was a keeping (as opposed to a taking), and whether an episode was a denial of visitation type event—are obviously related to one another. Denial of visitation events is in fact a special subset of all keeping events. We expected that these status of event indicators might be related to some of the other measures in the table. For example, denial of visitation events (by definition; see above) is not likely to involve situations in which the physical whereabouts of children are unknown. Furthermore, as suggested above, they might be more likely to be perpetrated by women (who are more likely to have primary custody of children). Hence we thought it prudent to perform an additional series of regression analyses in which we also controlled for the status of an

TABLE 3
Results of Regression Equations

Independent Variable	(A)		(B)	
	Education of Head of HH Control	β	Education of Head of HH and Denial of Visitation Control	β
<i>Convenience factor indicators</i>				
Episode was a keeping	4.98	.32***	—	—
Denial of visitation	6.37	.32***	—	—
Female perpetrator	5.00	.32***	4.63	.22*
Holiday onset	3.22	.20	3.59	.23*
Any child < age 5	-2.96	-.18	-1.70	-.10
> 1 child in episode	1.76	.11	2.13	.13
Perpetrator—college degree	-2.77	-.11	-2.88	-.11
Education of head of household	.08	.01	.21	.02
<i>Intent factor indicator</i>				
Perpetrator intended to use event to affect custody	3.28	.21*	3.74	.24**
<i>Concealment factor indicators</i>				
Knew location < 1/2 time	1.08	.07	3.40	.21*
Perpetrator tried to conceal	2.15	.13	3.80	.23*
Taken out of state	3.22	.12	4.54	.17
<i>Legal status indicators</i>				
Episode violated custody order	2.18	.13	1.75	.11
Perpetrator was ex-relative	1.95	.11	.66	.04

NOTE: This table shows the independent influence of variables on duration of family abduction episodes, while controlling for (a) education of head of household and for (b) education of head of household and denial of visitation event status.
* $p \leq .05$. ** $p \leq .01$.

event. We chose the denial of visitation status because its potential influence seemed both logically and statistically (from the results of the original equations in Column 1 of Table 3) to be most important. Results of the equations in which denial of visitation status was controlled are found in Column 2 of Table 3.

The influence of other convenience factors (including the gender of perpetrator) remains when controlling for denial of visitation status of episodes, as does the influence of the intent measure found in Panel 2. Measures of "physical missing-ness," found in Panel 3, do have a significant and positive effect on duration, when controlling for denial of visitation status of events. The measures of legal sanctioning—found in Panel 4—remain insignificant in their effect.

The factors that were not found to be significant in predicting duration of events are also interesting. Notably, neither of our measures of legal status had an effect on duration. It has been assumed that it might be harder to recover children in the absence of a legal custody agreement. Divorcing parents have been urged to get custody orders quickly because of the presumption that in their absence legal authorities would be less able and willing to foil some unilateral disruption of contact with the child. However, our findings do not support this. Events involving children in situations in which no custody order existed, or who were abducted by current relatives of the aggrieved parent, were not likely to take significantly longer to resolve.

Indicators of class—either that of the aggrieved parent's family or of the abductor himself or herself—also made no significant contribution to predicting the duration of an abduction episode. Having access to economic resources has often been assumed to play a role in the resolution of family abductions. It has been suggested that economic resources might assist in an aggrieved parent's efforts to recover children, and that it might assist in an abductor's ability to maintain possession of children. The class measures available in NISMART for aggrieved parents and for abductors are not ideal (e.g., no reliable measures of income of abductors was available). The indicators of class that were available, however (education of child's head of household, and employment status and education of the abductor), had no effect on the duration of episodes.

It is important to keep in mind that the duration of events is only one indicator of the level of seriousness of an episode. As stated in the introduction, we also have an interest in examining a second indicator of episode seriousness, namely the incidence of emotional trauma to children who are abducted by family members.

PREDICTORS OF EMOTIONAL TRAUMA TO CHILDREN

DEFINING EMOTIONAL TRAUMA

Parents who were interviewed in NISMART were asked a series of questions regarding whether their child(ren) had been harmed during the course of an abduction event. Although parents were asked about

physical or sexual abuse, very few reported that these kinds of harm were outcomes of a family abduction—so few, in fact, that an analysis of risk factors for this type of harm was virtually precluded by the small number of cases available. Consequently, our focus in the analyses that follow is on factors associated exclusively with the risk of emotional trauma for children involved in an abduction episode.

The fact that most of the harm experienced by children in the NISMART sample was of the psychological variety is consistent with the literature on the effects of family abductions (Agopian, 1984; Greif & Hegar, 1993; Terr, 1983). Unfortunately, the measure of mental harm provided by the NISMART interview was a crude one: simply the aggrieved parent's global judgment that a child experienced some serious mental harm. In an effort to assess what parents meant by this serious mental harm, we examined uncoded respondent comments from the interview forms. Verbal descriptions of the behaviors parents described among children whom they defined as having experienced serious mental harm included such things as nightmares, crying, nail biting, decline in school performance, and general fearfulness.² We found these characteristics to be consistent with literature describing responses of traumatized children (e.g., Greif & Hegar, 1993). Altogether, the parent respondent reported that at least one child involved in an episode had suffered serious mental harm in 21 events, or about 20% of the whole sample. (The parent respondent was unwilling or unable to assess the mental harm experienced by a child in 6 of the 104 episodes, resulting in missing data for these cases.)

GENERAL HYPOTHESES

We identified three broad factors that might be expected to be associated with a higher or lower likelihood that an episode would result in emotional trauma for any child involved. As in our examination of factors associated with duration of episodes, we then established indicators of each factor in the NISMART data. *First, we expected that factors associated with a child's awareness of what was happening would have an effect on the likelihood of emotional harm.* We assumed that measures associated with a child's awareness of what was happening to him would have an influence on the likelihood that

he would experience some sort of mental harm. We selected one indicator of this factor from the NISMART data:

1. We predicted that very young children (between the ages of 0 and 4) would be less likely to experience emotional trauma in an episode than would children of older ages. Very young children might be expected to have little or limited knowledge of what was happening to them in an abduction event, and would hence be less likely to suffer serious mental harm.³

Second, factors that are associated with a greater amount of disruption in a child's routine would be expected to be associated with an increased likelihood that an episode would be associated with emotional trauma for one of the children involved. Disruption of a child's usual lifestyle can be expected to be associated with the types of emotional trauma identified by parents in the NISMART sample. We identified six indicators of such disruption:

1. We predicted that episodes which involved extended kin—either as abductors or as the parent respondent—would be associated with a higher likelihood of emotional trauma for a child involved. The involvement of extended kin might be an indicator of greater disruption in the child's family life in general. If the child was living with extended kin and abducted by a parent, it would seem as if the parent must have had significant life problems in the first place to have lost or given up custody of a child to extended family. If the abductor was a nonparent, he or she might be expected to be less likely to provide a care setting for a child that would be very familiar, and might (especially in the case of grandparents) have quite different rules and regulations for the child's behavior. In either case, we expected cases that involved extended kin to be associated with more disruption—and more emotional trauma—for children.
2. We predicted that denial of visitation events would be associated with a lower likelihood of emotional trauma. Because in denial of visitation events children were by definition kept in their usual place of residence, we assumed that this type of event would be least disruptive to a child or children involved.
3. We predicted that as the duration of episodes increased, the likelihood that a child would be traumatized would increase as well. Longer

episodes are most likely associated with a greater disruption in a child's usual routine, and hence might be associated with greater emotional trauma.

4. We predicted that episodes in which the abductor tried to prevent phone or letter contact between the child(ren) and the aggrieved parent would be associated with a higher likelihood of emotional harm to a child involved in the event. Being cut off from a left-behind parent would seem to be a potential cause of considerable distress for a child, and a source of major disruption in his or her life.
5. We predicted that episodes which began during a holiday period (January/December and the three summer months) would be associated with a lower likelihood of emotional trauma to a child, as they would be less likely to require missing or changing school.
6. We expected that social class of the abductor would be associated with the likelihood of emotional trauma for a child involved in an event, such that events with perpetrators of lower social class (and with fewer resources) would be more likely to result in mental harm for a child involved. We chose education level of the perpetrator as a class indicator here.

Third, factors that indicate a greater amount of conflict or animosity between the parties involved either before or after the episode would be expected to be associated with a higher likelihood of mental harm for a child involved in an event. When an episode greatly increases the ill will between family members, the child(ren) involved might be expected to experience more trauma due to simply being caught up in this anger. Contact with the abductor after the event might be made more difficult or even prohibited. In the case of indicators of great animosity before the event, the abductor might be expected to take his or her anger out on the child(ren). We established five indicators of factors that might be associated with such pre- and post-episode animosity in the NISMART data:

1. We predicted that episodes in which the perpetrators threatened to use the event to permanently disrupt custody would be associated with a higher likelihood of mental trauma.
2. We predicted that episodes in which the perpetrator concealed or attempted to conceal the child(ren) would be associated with a higher likelihood of emotional trauma for a child. This might also be consid-

ered an indicator of the level of disruption in a child's life associated with an episode.

3. We predicted that episodes in which the aggrieved parent reported that there had been violence between adults in the household in the previous year would be associated with a higher likelihood of mental harm to a child involved. If the violence was between the aggrieved parent and the abductor, it would indicate a more raucous situation between these parties. If it was between the aggrieved parent and, for example, a new partner (i.e., a step-parent to the child(ren)), it might again be considered to be a source of great contention between the abductor (who, in this situation, might see himself or herself as rescuing the child) and the caretaking parent.
4. We predicted that episodes that were perpetrated by current relatives (i.e., in relationships that had not yet been legally dissolved) would be associated with a higher likelihood of emotional trauma (again, as the level of animosity between the adult parties involved might be greater in such situations).
5. We predicted that episodes in which the aggrieved parent knew the physical location of the child(ren) less than half the time of the episode would be associated with a higher likelihood of mental trauma. Such a situation might be seen as contributing to higher levels of animosity or distrust between the adult parties after the event.

EMOTIONAL TRAUMA TO CHILDREN—RESULTS OF THE ANALYSIS

Table 4 provides odds ratios associated with the likelihood that a child would be emotionally harmed in a family abduction event for each of the independent variables identified above.⁴ An odds ratio of less than 1 indicates that the variable was associated with a decreased likelihood that any child involved in the event experienced serious mental harm, whereas a value greater than 1 indicates that the presence of the variable in question resulted in an increased likelihood that a child would experience emotional trauma. It would appear that indicators of all three factors have a significant effect on the likelihood that a child will be emotionally harmed in a family abduction event, as there are significant indicators in each category.

The only indicator associated with a significantly decreased likelihood of emotional trauma in an event (also one of the most powerful variables in the table) was the age of the child. Clearly, the level of

TABLE 4
Odds Ratios Predicting the Likelihood of Emotional Trauma

Independent Variable	Odds Ratio ^a
<i>Child awareness indicators</i>	
Child was < 5 years old ^b	.09*
<i>Disruption indicators</i>	
Involvement of extended family in event	4.06**
Event was a denial of visitation	.61
Duration of event (in days) ^c	1.09**
Perpetrator tried to prevent contact	5.15**
Holiday onset of event	1.32
Perpetrator education level ^d	.35**
<i>Conflict/antimosity between adults indicators</i>	
Perpetrator threatened to use event to disrupt custody permanently	6.92**
Perpetrator tried to conceal	2.27
Violence between adults in the household	.77
Perpetrator is a current relative	1.49
Knew location < 1/2 time	1.93

a. All odds ratios in this table were computed from logistic regression equations in which the education of the child(ren)'s head of household was held constant.

b. The unit of analysis used in computing the odds ratio for age was an individual child. All other odds ratios in this table were computed using an event unit of analysis.

c. The measure of duration used here is the same as that used in Table 2; that is, one in which the high levels of the variable were truncated to compensate for skewness.

d. This is an ordinal measure, ranging from 1 (less than high school education) to 4 (college degree or higher).

* $p \leq .05$. ** $p \leq .01$.

awareness that a child has as to what is happening in an abduction event is quite important in affecting the likelihood of mental harm. It would also appear, however, that measures of disruption to a child's life or general routine, as well as indicators of conflict between adults involved in an event, are quite important as well.

The emotional trauma of an episode seems related to factors associated with disruption of the routine of the child(ren), with the presence of an increased level of conflict between adults, and with the general awareness of the child(ren) as to what is happening. We found that episodes which did not involve young children (under age 5) and those which went on for longer periods were more likely to involve mental harm. Likewise, abductions involving extended kin—perhaps an indication of more widespread familial conflict—along with those

in which the abductor adopted a threatening posture toward the aggrieved parent carried an increased likelihood that a child involved in the event would experience emotional trauma. Because our analysis focuses on emotional trauma, however, it is important to consider that these results might not be as applicable in predicting the likelihood of sexual or physical abuse, which might occur in an abduction.

DISCUSSION

A certain degree of caution should be used in interpreting these findings, and an awareness of the study's potential limitations should be part of any conclusions drawn here. One limitation is that NIS-MART uncovered only a small number of episodes that took a long time to resolve. Only 14% of the cases used in our analyses had been ongoing for more than 3 weeks. It is not uncommon for nationally representative samples to fail to procure enough rare cases for analysis, but it can produce problems for policy. Family abductions in which children are gone for months or perhaps years are precisely those of greatest interest to law enforcement and missing children's organizations. Our findings about factors affecting the duration of episodes may not be completely applicable to the extremely long duration episodes found in agency files. It is possible that cases that go on for months or years, or those that are never concluded, are different in many respects from episodes that take only up to a month to resolve.

A second, and perhaps more complex, limitation of the study is that our information was gathered from the point of view of only one party to a frequently complicated conflict: the aggrieved parent. It is likely that the information gleaned from the other (abducting) parent (and perhaps also from the abducted child) would have been quite different. It is possible that biases and grievances on the part of the aggrieved parent may create spurious findings or associations in the data. One variable particularly vulnerable to such biases is the measure of emotional trauma to a child. As stated above, we considered an episode to have produced an emotionally harmed child based on the perceptions of the child's caretaker. Thus extra caution is required in considering the findings related to emotional harm, and an awareness of how this variable was defined must be maintained.

Given these limitations, however, these analyses also provide valuable information regarding factors associated with different types of family abduction outcomes. The length of time it takes to resolve a family abduction and the likelihood of emotional trauma to the abducted child(ren) are clearly related to each other—both logically and statistically. Greater duration of abductions is associated with an increased risk that a child involved in the event would be emotionally traumatized. Moreover, both are indicators of more serious events that should receive special attention from police and court officers.

One common factor seems to be somewhat related to both duration and likelihood of mental harm. Perpetrator behaviors that are threatening—including, in the case of duration, the specific threat to use the episode to permanently affect custody—have a positive relationship to both duration of episodes and the likelihood of emotional harm to a child. When perpetrators make such statements, episodes are likely to take longer to resolve and also children are more likely to be emotionally traumatized.

Our findings suggest that both duration and emotional trauma will be more affected by the circumstances of the event than by characteristics of the participants. There is no indication here, for example, that a specific demographic type of parent (e.g., unemployed ex-fathers who lack custody agreements) might be most likely to create abduction situations that take greater amounts of time to resolve or are more likely to result in emotional harm to children. The warning signs for more serious outcomes seem to be found more in the circumstances surrounding the event, and in the expressed intent of the perpetrator, than in any demographic characteristics of those involved.

The NISMART data, precisely because they were drawn from a national household sample (and not from any official records), provide a unique source of information about the dynamics of a broad spectrum of family abduction events. Clearly, the questions posed here regarding factors associated with more alarming outcomes in family abduction events are crucial ones. It is our hope that the findings presented here will help direct both policy and future research on factors associated with specific outcomes of family abduction events.

NOTES

1. We would add that we ran the analyses that are presented in Table 3 on logged and categorized versions of the duration variable, and that the substantive content of our conclusions remained the same. The only major changes were that some significance levels varied somewhat for the truncated, logged, and categorized dependent variable treatment strategies. Copies of these other analyses are available from the first author on request.

2. Not all interviews contained such helpful comments. In some cases, a parent respondent indicated that he or she felt that the event had resulted in serious mental harm for a child involved, but there were no uncodded comments anywhere in the interview to suggest on what the parent might have based his or her assessment.

3. Note that in evaluating the influence of age of child on the likelihood of harm, we use a *child level* unit of analysis; that is, the data shown in Table 4 regarding the influence of age indicate the likelihood that an individual child would experience some sort of harm in an episode.

Other variables in the table are measured with an *event level* unit of analysis. The dependent variable, in this case, is if any child involved in an episode experienced harm. The latter approach, which is using an event level dependent variable in examining the influence of event level independent variables, allows the avoidance of the statistical problems that would be associated with using child level data (and with examining the influence of household or event level measures, all of which are the same for individual children involved in the same event). In addition, note that we also found that in events which involved more than one child, caretakers' assessments of the extent of harm (especially mental harm) were generally uniform for all children involved in the event.

4. Each of these odds ratios was produced from logistic regression equations in which the education of head of household was held constant. Recall, as stated above, that elements of the NISMART sampling design require controlling for this demographic element whenever doing analyses with the data. The odds ratios in Table 4 then can be interpreted as the likelihood that a child would be harmed in an event (in the presence of the specified independent variable), whereas controlling for the education of head of household.

In the single equation produced using child level data—that is, the influence of an individual child's age—the race and gender of children were also held constant, along with the education of head of household. Again, elements of the NISMART sampling design require controlling for these demographic features in analyses performed using a child unit of analysis.

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