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Are negative/unrealistic parent descriptors of infant attributes associated with physical abuse?

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Abstract

Parents' perceptions of child behavior influence their responses to the child and may be important predictors of physical abuse. We examined whether infants 12 months of age or younger who were described with negative or developmentally unrealistic words were more likely than other infants to have been physically abused. As part of a prospective observational multicenter study investigating bruising and familial psychosocial characteristics, parents were asked to (1) describe their child's personality, and (2) list three words to describe their child. Four independent raters coded parent responses using a qualitative content analysis, identifying descriptors of infants and classifying each as positive, neutral, or negative/unrealistic. A medical expert panel, blinded to the

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psychosocial data, separately categorized each case as abuse or accident. We then analyzed the potential association between negative/unrealistic descriptors and abusive injury. Of 185 children enrolled, 147 cases (79%) were categorized as accident and 38 (21%) as abuse. Parents used at least one negative/unrealistic descriptor in 35/185 cases (19%), while the remaining 150 cases (81%) included only positive or neutral descriptors. Of the infants described with negative/unrealistic words, 60% were abused, compared to 11% of those described with positive or neutral words ($p < .0001$; age group-adjusted OR= 9.95; 95% confidence interval [3.98, 24.90]). Though limited by sample-size, this pilot study informs future work to create a screening tool utilizing negative/unrealistic descriptors in combination with other predictive factors to identify infants at high risk for physical child abuse.

Keywords

physical child abuse; attributions; screening tool

Introduction

More than 1,700 children die from abuse and neglect each year, with nearly one-half of these deaths occurring in children less than one year of age.[1] Unfortunately, child abuse often goes unrecognized and unreported. Early identification of infants at risk for abuse is critical not only to treat current injuries but also to intervene, preventing future injuries of potentially greater severity.[2] Sheets et al. found that 27.5% of severely abused infants had previous, unrecognized injuries from physical abuse in their medical histories.[3] New tools are clearly needed to help medical providers better identify infants at risk for abuse. A first step in creating a useful screening tool is to identify potential case characteristics that have both significance and clinical utility.

One potentially predictive characteristic relates to parents' causal attributions, or the way that parents perceive and explain the reasons for child behaviors. Previous studies looking at causal attributions in distressed parent-child relationships have shown that abusive mothers, compared to non-abusive mothers, attributed more hostile intent to their children's actions and also demonstrated more physically aggressive behavior.[4–7] Similarly, we postulate that parents' expectations and perceptions of child attributes strongly influence their responses to their children, and thus may be important predictors of risk for physical abuse.

To better understand the influence of parental conceptions and their potential association with abuse, we examined data from interviews with parents regarding their infants' attributes. Our goals were to measure the frequency with which parents used negative/unrealistic words to describe their infants, and to determine whether infants described with negative/unrealistic words were more likely to have been physically abused than infants described with only positive or neutral words.

Methods

Bruising Clinical Decision Rule (BCDR) Main Study

The data used in this pilot study were drawn from a prospective observational multicenter study, known as the BCDR study, which investigated bruising in young children and caregiver psychosocial characteristics to distinguish between accidental and non-accidental trauma. The methodology of the BCDR study has been described in detail elsewhere.[8–9] Briefly, study participants included patients under four years of age who were found to have bruising or skin injury on initial physical exam. Patients were enrolled via two pathways: pediatric emergency departments (PEDs) and child abuse assessment teams. For patients enrolled through PEDs, parental consent was obtained prior to study participation. Consent was waived for patients undergoing an abuse evaluation. All data collected were part of the standard of care evaluation; no additional information was obtained for research purposes. For all enrolled patients, data were obtained by caregiver interview and medical record review. IRB approval was obtained at all participating sites.

Case Categorization by the Medical Expert Panel (MEP)

A nine-member panel of multidisciplinary injury experts including four child abuse pediatricians, four pediatric emergency medicine physicians, and a bioengineer subsequently reviewed the history of injury, physical examination, and test results of each de-identified subject. This compilation of reviewed data was referred to as the subject's "case" file. Using pre-defined criteria, each case was categorized as *clinically determined abuse*, *clinically determined accident*, or *indeterminate* by members of the MEP. Only cases classified by the expert panel as clinically determined abuse or accident were included in our final analysis. Importantly, the MEP was blinded to the psychosocial data including personality descriptors when classifying cases. This strategy was designed to minimize potential biases in decision-making regarding the compatibility of history and physical exam characteristics based on psychosocial risk factors that are associated with but not necessarily causal for abuse.[10]

Data Collection Procedure

Trained study staff conducted standardized parent interviews using the Psychosocial Assessment Screening Tool (PAST) [11] for both PED-enrolled patients and patients enrolled through the child abuse assessment teams. This PED-based screening tool was first developed and piloted in conjunction with social workers, psychologists, and emergency medicine and child abuse experts. The PAST is utilized by our child abuse assessment teams as part of their standard of care and includes questions about the child from the parent's perspective. As part of this tool, parents were asked to (1) describe their child's personality and (2) list three words to describe their child. Families whose primary language was not English were interviewed through certified interpreters. Parents' responses were documented verbatim in free text, and all information was de-identified.

Attributes Study

For our pilot study examining the predictive value of parents' negative or unrealistic descriptors of infant attributes, we included children from the BCDR study who met all of

the following criteria: (1) 12 months of age or younger; (2) parent(s) answered at least one of the PAST questions related to child's personality; (3) enrolled between January 2012 and May 2014; and (4) categorized by the MEP as *clinically* determined accident or clinically determined abuse.

Coding of Qualitative Data

Four raters independently coded the parents' responses using a qualitative content analysis, identifying descriptive words from the text of the interview and assigning each a valence (positive, neutral, or negative/unrealistic; Table 1). The label "developmentally unrealistic" was applied to words conveying inappropriate expectations about child behavior (e,g, "mean," "impatient"). When these unrealistic descriptors had a negative connotation, they were grouped with negative attributes as potentially reflective of harmful parental attitudes. No objective assessment of the infant's attributes or temperament was conducted to determine whether parental descriptions were accurate. All negative descriptors were therefore included in order to identify parental perceptions that may increase the risk of physical abuse.

Culture and context were considered to distinguish between valently different parental uses of the same descriptor. In one case, for instance, parents reported that their infant was a "very, very good baby, [who] only cries when dirty or hungry," while in another case, the parents stated that their child "[had] been crying since birth." In context, therefore, it became evident that the same descriptor ("cries"/"crying") was used negatively in the second case but not in the first. The cultural and socioeconomic diversity of our patient population created additional analytic complexity. For example, the Spanish word "*gordo*" translates to "fat" in English, which may have a negative connotation, but is often used as a term of endearment by native Spanish speakers. Therefore, descriptors were recorded in the parents' own words, with the context in which they were used. In the previous example, the interviewer annotated: "when the mother said [the word *gordo*], she had a very big smile and bright eyes."

We randomly selected a subset of 96 cases to be coded twice by each rater at least one week apart to establish intrarater reliability. Following independent valence assignments of descriptors by each rater, we identified all words for which there was disagreement among raters. These descriptors were discussed by the raters, and unanimity was achieved for the final valence assignments used in statistical analyses of association with physical child abuse. During coding and consensus procedures, the raters knew the age of the child in months (0–12), but they were blinded to the case classifications (i.e. clinically determined abuse or clinically determined accident) assigned by the MEP .

Data Analysis

Descriptive statistics were calculated for demographic characteristics, negative descriptors, and MEP abuse-accident classifications. Intrarater and interrater reliability were evaluated with Kendall coefficients of concordance for the number of descriptors identified by each rater for each case in 4 ways: (1) total number of descriptors, (2) positive descriptors, (3) neutral descriptors, and (4) negative/unrealistic descriptors.[12] Intrarater coefficients were

calculated between the first and second coding rounds for each rater, and interrater coefficients were calculated among the 4 raters for the first round of coding. Confidence intervals for the coefficients were calculated by nonparametric bootstrap over 10,000 iterations.

As an additional assessment of reliability, we calculated a "word agreement" measure as follows. For each case, we counted the number of unique words assigned by coders. We then multiplied this by the number of coders (2 for intra-, 4 for inter-rater reliability). This product represents the maximum number of times the given set of words for a case could be assigned and reflects perfect agreement, under which all coders assigned the exact same set of words to a case. We then counted and summed the number of times each word was actually assigned by coders. We calculated the ratio of the actual number of assignments by the coders to the maximum possible number of assignments, a ratio bounded above by 1 under perfect agreement, and linearly rescaled the measurement to be bounded below by 0 under perfect disagreement (see Appendix A for example calculations). We also calculated these measures for descriptors with their valence assignments.

We estimated age group-adjusted Cochran-Mantel-Haenszel odds ratios (OR) to evaluate the relationship between negative/unrealistic descriptors and abuse,[13–14] and the Breslow-Day test to evaluate OR homogeneity between the age categories.[15] All analyses were conducted in the open-source R software environment.[16]

Results

Demographic Characteristics

The cohort for this study included 185 infants (Figure 1). A majority were 7–12 months of age, white, non-Hispanic, male, and from families carrying private insurance (Table 2). Excluded from this final cohort were six cases that were otherwise eligible but were categorized as "indeterminate" by the MEP.

Intrarater and Interrater Reliability

From the 96 cases comprising the reliability cohort, there were 2854 total identifications of 186 unique descriptors provided by the 4 raters over the 2 rounds of case review. Each rater coded and assigned a valence to between 658 and 786 descriptors over the 2 rounds. The vast majority of valence assignments were positive (2038 of 2854, 71%). A median of 5 descriptors per case were identified, with the number of descriptors per case ranging from 0 to 12. A median of 3 positive descriptors [min = 0, max = 9], 0 negative descriptors [0, 7], and 1 neutral descriptor [0, 6] per case were identified.

Each of the 4 raters exhibited good intrarater reliability with regard to the total number of descriptors and positive descriptors identified per case in rounds 1 and 2 (Table 3), with Kendall coefficients in excess of 0.85. Reliability was not as strong for the counts of negative and neutral descriptors, with Kendall coefficients ranging from 0.54 to 0.80. Agreement as measured by the summary measures of word and valence agreement was also strong – three raters had median measures equal to the maximum score of 1.0 and one a

median of 0.83 for word agreement, while median valence agreement scores ranged from 0.67 to 0.88.

Interrater reliabilities for the total, positive, and negative descriptor counts was strong, with Kendall coefficients of 0.87, 0.84, and 0.79, respectively. Reliability for the neutral descriptor counts was lower. The median word and valence agreement summary measures were 0.83 and 0.53, indicating reasonable agreement among raters in the words identified and their valences. Importantly, there were no positive-negative valence disagreements among raters, i.e., all disagreements involved identification of descriptors not recognized by other raters, neutral-positive disagreements, or neutral-negative disagreements.

Parental Descriptors and Physical Abuse

The MEP categorized 147 cases (79%) as accidental and 38 (21%) as abuse. In 35 of the 185 cases (19%), parents used at least one negative or unrealistic word to describe their infants. The use of at least one negative or unrealistic descriptor was associated with a MEP classification of abuse, having been identified in 21 of 38 cases classified as abuse (55%), compared to 14 of 147 cases classified as accident (10%; Figure 2). The age-group adjusted odds ratio for an abuse classification in cases with one or more negative descriptors relative to cases with only positive/neutral descriptors was 10.0 (95% CI = [4.0, 24.9]), reflecting a significant association.

Age was associated with a classification of abuse, such that children in the 0–6 month age group were more likely to have been classified as abused (25 of 62 cases, or 40%) than those 7–12 months old (13 of 123 cases, or 11%; OR = 5.7, [2.5, 13.4]). Negative attributions were also more likely in the younger age group (29% vs. 14%, OR =2.6 [1.2, 5.4]). However, there was no evidence that the relationship between negative/unrealistic descriptions of infants and abuse classification was different across the age strata (p = .31). See Appendix B for a complete list of negative/unrealistic descriptors provided by parents and their frequencies of use in cases of accidental vs. abusive injury.

Figure 3 provides a word-cloud displaying the descriptors from all cases scaled by size according to frequency of use as a percentage and sorted by outcome of abuse vs. accident. The most commonly used word in both groups was “happy” (114 cases: 93 accident, 21 abuse), which has been excluded from the word clouds to allow for better visualization of other descriptors. In the 147 accident cases, a majority of the words used were positive or neutral, though some negative/unrealistic descriptors were also provided (e.g. “temperamental”, “mean”, “impatient”). Descriptions from the abuse cases also included a number of positive words, but negative/unrealistic descriptors accounted for a greater proportion of words than in the accident cohort. Interestingly, the descriptors “needy”, “drama-queen”, “temper”, “not-receptive”, “whines”, and “zombie (to the world)” were found only in the abuse group.

Discussion

In this pilot study, only 19% of parents were found to use a negative or developmentally unrealistic word to describe their infants 12 months of age and younger. However, infants

described with one or more negative/unrealistic words had ten times greater odds of being classified as cases of abuse than those described with exclusively positive/neutral words.

This study was intentionally designed to examine an infant cohort. As children grow beyond one year of age, the evolution of their personality traits complicates the attempt to determine how "developmentally unrealistic" a parent's perceptions may be. For example, there is no clearly defined age at which a child may developmentally become "independent" or "impatient." Though these traits may indeed apply to children at a certain stage in development, it is subject to great individual variation. Within the first 0–12 months of life, however, there is a much better established consensus regarding realistic developmental expectations. In addition, children less than one year of age are at particular risk for serious physical abuse, accounting for the greatest proportion of child abuse fatalities each year in the United States.[1] In a study of severely abused infants, 95% of sentinel injuries identified were present at or before the age of 7 months.[3] The demographic findings of our study also suggest that infants 0–6 months of age may be more likely to experience physical abuse than older infants. Notably, this study specifically included infants found to have bruising or skin injury on initial physical exam; different patterns of risk may be identified when considering skull fractures, abdominal trauma, or other forms of physical abuse.

Parental descriptions of "normal" child behaviors such as "crying," "whining," or being "fussy" were classified as negative/unrealistic when the parent used those words as key descriptors of the child's personality (such as "cry baby"). Though crying in infancy is both normal and expected, caregiver perceptions of and responses to crying have been shown to be more important risk factors than the actual duration and intensity of crying.[17] Further illustrating this point, a study of 26 infants diagnosed with abusive head trauma (AHT) found that 88% of parents had contacted their physician about excessive crying prior to the child's presentation with injury.[18] Regardless of whether the parents' perception of "excessive crying" is accurate or not, it is essential to address these reports rather than solely attributing them to "appropriate" child behaviors. Moreover, when such a behavior is chosen as a key or central descriptor of an infant's personality, it must be recognized as a potential indicator of escalating parental frustration or hostility, and therefore prompt further evaluation. Our findings—that children described as "fussy" or "criers" are at a higher risk for physical child abuse converge with prior research showing that "proximal factors," such as lack of sensitivity regarding the child and negative perceptions of parenthood, more accurately predict risk for physical abuse and/or neglect than do "distal factors" such as demographic and socioeconomic characteristics, though these factors all exist within a complex ecological framework.[19, 20]

To better understand the risk conferred by negative/unrealistic parental descriptors, it may be helpful to draw upon the four-stage cognitive-behavioral model of abuse proposed by Twentyman and colleagues.[21] In stage one, a parent sets unrealistic expectations for his/her child, which the child then fails to meet in stage two.[22] Stage three describes the parent misattributing the child's action to intentional characteristics such as spitefulness or hostility, and subsequently reacting excessively and/or harming the child in stage four.[23–24] Prior evidence supporting this theory can be found in Bugental's studies of parents who tend to perceive themselves as victims with little personal control over "difficult" child behaviors.

Interpreting any such behavior as intentionally threatening, these parents experienced heightened arousal and negative affect escalating to abuse.[25–26] In another study, mothers with negative attributional biases toward others were more likely to exhibit coercive interactions, negative reactivity, and aggressive behavior toward their children.[27]

In the context of Twentyman's model, the findings described above construct a new foundational layer in the pathophysiology of physical abuse, by which a child's injuries are in part symptoms of an underlying problem: parental misconceptions. It follows, then, that interventions targeting the underlying cause could potentially prevent physical abuse and associated child fatalities. As one example, Sanders and colleagues added elements of attributional retraining and anger management to standard behavioral family intervention (BFI) techniques. Though both the standard and enhanced BFI groups demonstrated a reduction in dysfunctional attributions, the enhanced group showed a greater reduction in child abuse potential and unrealistic expectations, measured by the Child Abuse Potential Inventory (CAPI) and the Parent Opinion Questionnaire (POQ).[28] Similarly, in studies of a home visitation program designed to prevent child maltreatment, the prevalence of physical child abuse was 4% among mothers whose visits were enhanced with cognitive retraining to counter misattributional processes, compared to 23% in the unenhanced condition and 26% among controls.[29] As part of a trauma-informed approach to care, the creation of new tools to educate parents about appropriate developmental expectations may improve family dynamics and prevent the emergence of abusive behaviors.

Importantly, the implications of our study transcend beyond family therapy to the acute and primary care settings. Parents who used negative/unrealistic words chose these as *key descriptors* of their infants' personalities. These descriptions, in conjunction with the context in which they were said, hold great potential to identify harmful parental attitudes, especially when combined with other predictive variables to create a multifactorial screening tool. Existing surveys such as the Child Abuse Potential Inventory and the Parenting Stress Index seek to identify similar psychosocial risk factors embedded in parent-child relationships, and the "Working Model of the Child Interview" maps a useful route to explore mothers' representations of their infants.[30–32] While each of these tools offers its own advantages, most require a lengthy process of questioning that is not feasible in an acute care setting. The Five-Minute Speech Sample, though somewhat condensed, may still be impractical for time-limited settings and focuses exclusively on one component of a more complex risk assessment.[33] In this study, data collection was limited to two items to assure feasibility in the acute care setting. This strategy also allows for the future incorporation of other predictive variables such as demographic characteristics and physical patterns of injury to create a multidimensional screening tool with significance as well as clinical utility. Improving the ability of providers to identify infants at risk for abuse would enable earlier detection of maltreatment along with opportunities for intervention to prevent future injuries.

Limitations

This pilot study was designed to explore potential associations between parents' descriptions of their infants and abusive injuries, and is not intended to provide a list of words that should be used to diagnose abuse. We hope to pursue prospective testing and validation of a

screening tool incorporating multiple risk factors in acute as well as primary care settings, and this is a first step toward that goal. Our study was limited by a small sample size and consequentially imprecise confidence intervals. In addition, because interviews were carried out through two different pathways (pediatric emergency departments and child abuse assessment teams), there may have been slight variation in data collection procedures, though each used the same standardized form. Another potential limitation is reflected in our study demographics as comparted to the ED demographics from each site, with a disproportionate number of whites enrolled over AA. It is unknown whether this disproportionality affected our study results. Future studies should seek to enroll sufficient numbers to address this question. Finally, there were six cases in which parents provided interview data but were excluded from the data analysis due to an indeterminate classification by the MEP. Two of these cases included negative words/descriptors of their child with the remaining four using only positive or neutral words.

Parental report was the primary method for obtaining information, which is an accepted method in the clinical setting. However, the parent completing the interview may not have been the person who had abused the child. If the perpetrator of abuse were responding to the interview questions, it is possible that more negative descriptors would be provided. Future studies should seek to obtain the same information from all caregivers in the infant's environment, including any alleged perpetrator if one or more have been identified. Further classification of negative descriptors into domain-based categories may also help to identify specific patterns of language or perception associated with risk for abuse. Study staff were trained to conduct non-biased interviews, though we were unable to monitor the use of these techniques as audio/video recording was not feasible in these settings. Additionally, when language interpretation was required, the original meaning or context of words may have been partially lost in translation. Even for interviews conducted in English, cultural differences in word usage may have affected valence assignment during the coding process.

Conclusion

Infants described by caregivers with one or more negative or developmentally unrealistic words were at greater odds of abuse than those described with exclusively positive/neutral words. Limited by sample-size, this pilot study requires prospective testing and validation in different clinical settings. However, our findings will inform future work in creating a screening tool utilizing negative/unrealistic parental descriptors in conjunction with other predictive factors to identify infants at increased risk for physical abuse.

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Appendix A

Example calculations of word agreement measure for the assessment of interrater reliability. Valence agreement measure calculations are the same, with valences attached to the words, e.g. “curious” with positive valence becomes “curious-positive”, “curious” with neutral valence becomes “curious-neutral”, etc

Example 1. Perfect Agreement.			
Coder 1	**Coder 2**	**Coder 3**	**Coder 4**
crier	crier	crier	crier
curious	curious	curious	curious
fussy	fussy	fussy	fussy

Unique Words	Observed Count	Maximum Count
crier	4	4
curious	4	4
fussy	4	4
Totals:	12	12
	Raw Agreement	12/12 = 1.00
	Rescaled Agreement	4/3*(1.00 – 0.25) =**1.00**

Example 2. Perfect Disagreement.			
Coder 1	**Coder 2**	**Coder 3**	**Coder 4**
silly	dramatic	wild	bonkers
	crazy		kooky

Unique Words	Observed Count	Maximum Count
silly	1	4
dramatic	1	4
crazy	1	4
wild	1	4
bonkers	1	4
kooky	1	4
Totals:	6	24
	Raw Agreement	6/24 = 0.25
	Rescaled Agreement	4/3*(0.25 – 0.25) = **0.00**

Example 3. Intermediate.			
Coder 1	**Coder 2**	**Coder 3**	**Coder 4**
happy	happy	happy	happy
sweet	sweet	cute	cute
alert	odd	alert	hungry
curious	hungry		

Unique Words	Observed Count	Maximum Count
happy	4	4
sweet	2	4
cute	2	4
alert	2	4
odd	1	4
hungry	2	4
curious	1	4

Unique Words	Observed Count	Maximum Count
Totals:	14	28
	Raw Agreement	14/28 = 0.50
	Rescaled Agreement	4/3*(0.50 – 0.25) = **0.33**

Appendix B

Negative and developmentally unrealistic descriptors provided by parents of infants twelve months of age and younger in cases of accidental and abusive injury, listed by number of abuse cases in descending order. Values are counts (% of n)

Descriptor	Abuse Cases(n= 38)	Accident Cases(n=147)	Total Cases(n=185)
Fussy	6 (16%)	3 (2%)	9 (5%)
Crying/Crier	4 (11%)	2 (1%)	6 (3%)
Must “get their way”	2 (5%)	5 (3%)	7 (4%)
Needy	2 (5%)	0	2 (1%)
Spoiled	1 (3%)	4 (3%)	5 (3%)
Impatient	1 (3%)	2 (1%)	3 (2%)
Demanding	1 (3%)	1 (1%)	2 (1%)
Drama-queen	1 (3%)	0	1 (1%)
(Has a) Temper	1 (3%)	0	1 (1%)
Not receptive	1 (3%)	0	1 (1%)
Whines	1 (3%)	0	1 (1%)
Zombie (to the world)	1 (3%)	0	1 (1%)
Stubborn	0	9 (6%)	9 (5%)
Ornery	0	3 (2%)	3 (2%)
Picky	0	3 (2%)	3 (2%)
Dramatic	0	2 (1%)	2 (1%)
Mean	0	2 (1%)	2 (1%)
Sassy	0	2 (1%)	2 (1%)
Temperamental	0	2 (1%)	2 (1%)
Angry	0	1 (1%)	1 (1%)
Bites	0	1 (1%)	1 (1%)
Grumpy	0	1 (1%)	1 (1%)
Hits	0	1 (1%)	1 (1%)
Loud	0	1 (1%)	1 (1%)
Mad	0	1 (1%)	1 (1%)
Mischievous	0	1 (1%)	1 (1%)
Noisy	0	1 (1%)	1 (1%)

Descriptor	Abuse Cases(n= 38)	Accident Cases(n=147)	Total Cases(n=185)
Standoff-ish	0	1 (1%)	1 (1%)
Yells (thinks he can yell at everybody)	0	1 (1%)	1 (1%)
Upset	0	1 (1%)	1 (1%)

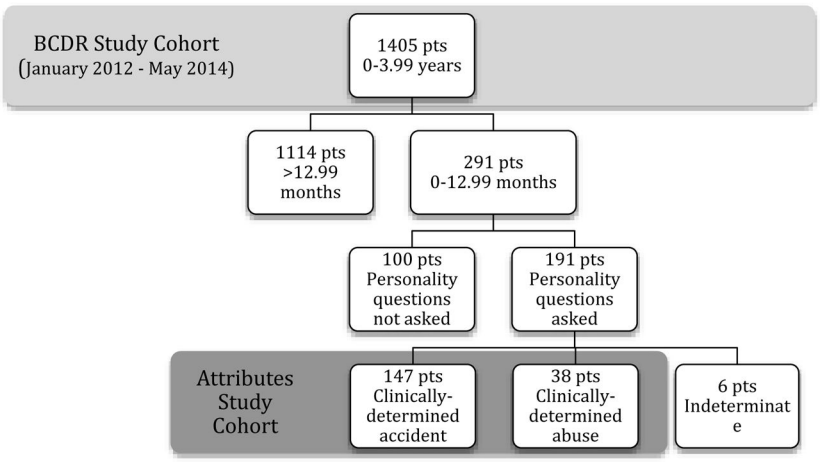

Figure 1.
Flow diagram of Attributes Study Cohort

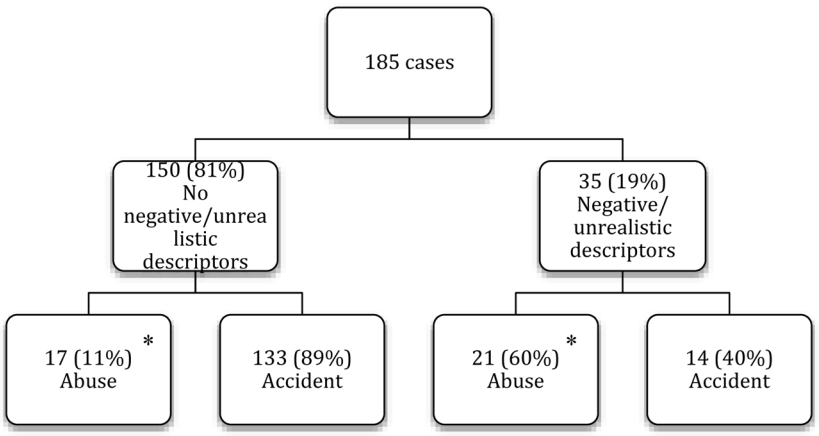

Figure 2.
Abuse vs. accident in the context of parental descriptors of children 0–12 months of age.

A

B

Figure 3.

Descriptors from all 185 cases scaled according to frequency of use as a percentage after excluding the word “happy,” classified according to outcome of accident (A) vs abuse (B). Gray text indicates positive/neutral words, while black text indicates negative/unrealistic words.

Table 1

Example responses to personality questions provided by parents of infants, with descriptors identified by a single coder and their corresponding valence assignments in addition to overall descriptor counts for each subject.

Subject ID	Interview Data		Descriptor Coding by a Single Coder		Descriptor Counts			
	Describe your child's personality	List three words that describe your child	Descriptor	Valence Assignment	Positive	Neutral	Negative/Unrealistic	Total
1	"Mother describes her as a drama-queen. Mother notes that the patient wants to be [fed] and/or cared for right away and if the patient does not receive the care right away then she will start to cry more intensely."	drama-queen, demanding, impatient	Drama-queen	Negative/Unrealistic	0	0	3	3
			Demanding	Negative/Unrealistic				
			Impatient	Negative/Unrealistic				
2	"The pt is temperamental, impatient, and hyperactive. The pt is happy and very curious and inquisitive."	smart, inquisitive, active	Temperamental	Negative/Unrealistic	4	2	2	8
			Impatient	Negative/Unrealistic				
			Hyperactive	Neutral				
			Happy	Positive				
			Curious	Positive				
			Inquisitive	Positive				
			Smart	Positive				
			Active	Neutral				
3	"She is easygoing and happy. She is pretty patient. She is always smiling."	happy, beautiful, pleasant	Easygoing	Positive	6	0	0	6
			Happy	Positive				
			Patient	Positive				
			Smiling	Positive				
			Beautiful	Positive				
			Pleasant	Positive				

Table 2

Demographic characteristics of cases. Values are counts (%).

Age	
0–6 months	123 (66%)
7–12 months	62 (34%)
Gender	
Male	97 (52%)
Female	88 (48%)
Insurance Type	
Private	105 (57%)
Public	77 (42%)
Other/Unknown	3 (2%)
Race	
White	150 (81%)
Black or African American	13 (7%)
Asian	7 (4%)
Multiple	9 (5%)
Unknown	6 (3%)
Ethnicity	
Non-Hispanic	129 (70%)
Hispanic	54 (19%)
Middle Eastern	1 (1%)
Unknown	1 (1%)

Table 3

Reliability statistics for rater coding of child descriptors. For per case word counts, values are Kendall coefficients with 95% confidence intervals. For summary word and valence agreement statistics, values are median [IQR].

Intrarater	Word Counts				Word Agreement	Valence Agreement
	Positive	Negative	Neutral	Total		
1	0.91	0.73	0.54	0.91	1.0	0.85
	(0.87, 0.93)	(0.61, 0.81)	(0.43, 0.64)	(0.87, 0.94)	[0.83, 1.0]	[0.60, 1.0]
2	0.90	0.67	0.79	0.86	0.83	0.67
	(0.82, 0.94)	(0.54, 0.77)	(0.72, 0.84)	(0.77, 0.92)	[0.59, 1.0]	[0.50, 1.0]
3	0.91	0.59	0.80	0.94	1.0	1.0
	(0.87, 0.94)	(0.43, 0.71)	(0.73, 0.85)	(0.90, 0.96)	[1.0, 1.0]	[0.57, 1.0]
4	0.90	0.59	0.79	0.92	1.0	0.88
	(0.84, 0.94)	(0.44, 0.72)	(0.70, 0.86)	(0.87, 0.95)	[0.88, 1.0]	[0.60, 1.0]
Interrater	0.84	0.79	0.60	0.87	0.83	0.53
	(0.78, 0.89)	(0.70, 0.86)	(0.50, 0.69)	(0.80, 0.92)	[0.68, 1.0]	[0.43, 0.67]