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Factors associated with parental safe road behaviour as a pedestrian with young children in metropolitan New South Wales, Australia

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Abstract

A cross-sectional population-based randomised telephone survey of parents with children aged between 5 and 12 years was conducted to investigate factors associated with safe road behaviour of parents as pedestrians with their young children in Sydney metropolitan and near by cities in New South Wales, Australia. Parental perception of the road environment as hazardous associated significantly with their safe road behaviour as pedestrian while with their children. This held true even after adjusting for the non-English speaking background and the age of the child. Knowledge of road rules, on the other hand, was not associated with parental safe road behaviour. The results of this study suggested that parental safe road behaviour require much attention in future research and in programme development. The perception of the road environment is a very important factor in motivating safe road behaviour. This should be taken into consideration in designing road safety campaigns.

Keywords: Childhood injury; Pedestrian; Parental modelling; Risk perception; Road behaviour

1. Introduction

Pedestrian injuries have long been recognised as a major hazard to the health of children in most developed countries including Australia (Social Development Committee, 1998). In the 93/94 financial year, among the 1259 paediatric road-related injuries in New South Wales, Australia, there were 431 (34.2%) children aged between 0 and 14 years admitted to hospitals due to pedestrian injuries (NSW Health Department, 1996). According to the most recent information on all paediatric deaths in NSW, injuries to pedestrians was one of the major causes of road-related deaths among children aged 0–14 years from 1996 to 1998 (NSW Trauma Death Registry, 1995). Of the total 128 road-related paediatric deaths, 37 (28.9%) were due to pedestrian accidents. In terms of the costs of injury, pedestrian injuries incur a high social cost. The most recent costs estimation of pedestrian injuries in urban and rural environments in Australia are $89 000 and $104 000 per case, respectively (Andreassen, 1992a,b).

In the search for the risk factors of paediatric injuries, parental factors have been identified as an important aspect for investigation since children are normally in the care of their parents (Ozanne-Smith, 1992). However, a search in the literature, both in Australia and overseas, has revealed that parental factors for childhood injuries have not been receiving much attention. Most of the early studies on parental knowledge and attitudes of child safety were conducted in North America (Rivara et al., 1989; Eichelberger and Gotschall, 1990; Dunne et al., 1992; Hu et al., 1996).

A national survey conducted in the USA reported that parents are well informed about automobile occupant safety, but have little knowledge of pedestrian, bicycle, burns and drowning hazards (Eichelberger and Gotschall, 1990). The study also found that parents from low socio-economic status (SES) have a more limited understanding of child safety as compared with the higher SES group. A recent telephone survey in Canada also showed that parents knew injuries were

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the leading health problem. However, they have limited understanding of the major causes of injury (Hu et al., 1996).

As for the attitude towards road danger, results of a study by Rivara et al. (1989) indicated that most parents (94%) did not believe 5–6 years old children should cross streets alone. However, 1/3 of parents allowed kinder-aged children to cross a residential street alone and allowed first grade children to walk to school alone (Rivara et al., 1989). Nearly all parents reported having taught their children to cross streets and 40% of parents of kinder-aged children thought that children of that age should be taught to cross busy streets without traffic lights (Rivara et al., 1989). Eichelberger and Gotschall (1990) also found that 1/3 of the survey parents thought the risk of their children being kidnapped was greater than that of car accidents. About half (51%) of the parents indicated that they are least prepared to deal with pedestrian injuries. Another study by the Rivara group demonstrated that parents overestimate the street crossing abilities of their children (Dunne et al., 1992).

In the area of parental supervision, few studies can be found overseas (Arnberg, 1979; Rothengatter, 1981; Thackray and Dueker, 1983; Pless et al., 1989; Roberts et al., 1996). A Netherlands study reported that 69% of 5 year old and nearly all 6 year old children walked to school without an adult (Rothengatter, 1981). A study in the United States also indicated 78% of children aged less than 5 played near a street without adult supervision (Thackray and Dueker, 1983). A Canadian case-control study found that children with poor parental supervision are nearly three times more likely to be injured as a pedestrian as compared to those with good supervision (Pless et al., 1989). A recent survey by Roberts et al. (1996) in New Zealand also indicated that the majority (68%) of 6 year old school children walked to school without being accompanied by an adult and 86.2% of 9 year olds were also not accompanied.

As for the parental modelling of safe behaviour as a pedestrian, there is no published Australian information on this particular aspect of childhood road injury research. This indicates that the parental aspect of childhood pedestrian injuries has been neglected in our setting. The aim of this exploratory study is to investigate factors associated with parental safe road behaviour as a pedestrian with their young children.

2. Methods

2.1. Definition of metropolitan areas in NSW

For this survey, metropolitan areas in NSW were defined as the urban areas within Sydney metropolitan and two nearby cities, Newcastle and Wollongong. These areas conformed to the statistical districts used by the Australian Bureau of Statistics (ABS). According to the population distribution of children between 5 and 14 years old within NSW, the majority has resided within these areas (Australian Bureau of Statistics, 1995).

2.2. The sample

A stratified random sample was selected from the three metropolitan areas defined as above. The stratification of the sample is according to the population distribution of children between 5 and 14 years old residing in these three areas (Australian Bureau of Statistics, 1995). Sample size calculation was conducted by using SamplePower software program (Borenstein et al., 1997). Results indicated a sample size of 1250 would have enough power (80%) to detect a significant association between the dependent variable and a set of maximally ten predictor variables with correlation coefficients of 0.5, at the significant α level of 0.05.

The sample was selected by telephone contact method of a random digit dial. The contact telephone numbers were generated based on the following procedures: (1) the post codes of target study areas were selected; (2) all the corresponding prefix telephone numbers, i.e. the first four digits, within these post codes were identified from the electronic white pages; (3) a stratified listing of prefixes according to the distribution of telephones within each post code was generated in order to have a proper representation from each post code; (4) a randomly generated suffix, i.e. the last four digits, was then applied to the prefix numbers; (5) the resulting list of numbers was then cross checked with the business listing to eliminate unwanted business numbers.

During the interview, the 'index child' methodology was used to identify the child of interest. The parent or the primary care giver to be interviewed was asked to nominate a child in the household with his/her date of birth closest to the date of interview. The age of the nominated child would then be used as the reference age for all questions asked during the interview. This was to ensure a random sampling of responses from the parents with children of different ages.

2.3. Measuring instrument

The questionnaire used in this survey was modified from the questionnaire used in the Canadian Emergency Health Services Research Project commissioned by the Ontario Ministry of Health (Hu et al., 1996). The questionnaire included questions on behaviour, knowledge and perception.

The parental safe road behaviour as pedestrians while they were with their children was assessed by frequency based questions asking how often parents or care givers practice several road behaviours. Detailed questions were presented in Table 1. Respondent was asked to indicate how often he/she performs those behaviours on a five point Likert scale ranging from 1 (never) to 5 (always). A total score, with a possible range from 6 to 30, was calculated as an indicator of the parental modelling of safe behaviour. A low score represented the parent or care giver exhibits safe road behaviour as a pedestrian while he/she accompanies a child very infrequently, and a high score indicated otherwise.

Knowledge of general road rules, regulations and safe practices was determined by the number scored correctly on those knowledge questions. These questions were designed to assess the understanding of parents or care givers on some general rules, regulations and safe practices as a pedestrian. As shown in Table 1, most questions asked were related to well publicised concepts, such as 'What should you do, when the red DON'T WALK light is flashing?' These were multiple choice questions with only one correct answer to each. A total score, with a possible range from 0 to 5, was used as an indicator of how well the respondent masters these pedestrian road safety concepts. Again, a low score represented an inadequate mastery of the concepts, whereas a high score indicated otherwise.

Table 1
Major components of the survey questionnaire

The Parental Safe Road Behaviour Questions
When crossing a road with your *x* year old child, how often do you use a pedestrian crossing if there is one in sight?
When crossing a road at pedestrian lights with your *x* year old child, how often do you cross without waiting for the green walk light?
When crossing a main road with you child NOT at a pedestrian crossing, how often do you hold his/her hand?
When crossing a main road with your child NOT at a pedestrian crossing, how often do you quickly cross the road moving between on-coming cars?
When crossing a street with your child, how often do you show or tell him/her how to cross a street safely?
How often do you walk your child to school from home or from the place you drop him/her off?
The Parental Pedestrian Safety Knowledge Questions
What should you do, when the red DON'T WALK light is flashing?
What should you do, while walking on the road, where there is no footpath or verge?
What should you do to pick up your child at the bus stop, when he/she is coming home on a school bus?
What is the most common way that a young child will be hit by a motor vehicle as a pedestrian?
What should you do, when you are trying to cross the road at a pedestrian crossing while there is a motor vehicle approaching?
The Parental Road Environment Risk Perception Questions
How dangerous do you think the following situations are for your *x* year old child when he/she is without an adult?
Crossing a local street
Crossing at a pedestrian crossing on a main road
Walking across the neighbour's drive way
Walking on a road from in between parked cars
Walking along the edge of the footpath near the road
Crossing at pedestrian lights

Parental perception of different road environments and situations was assessed by a four point risk perception scale. Parents or care givers were asked to assess how dangerous they perceived those road environments and situations to be, and rated them on a scale ranging from 1 (not at all dangerous) to 4 (very dangerous). Details of the scale were also presented in Table 1. As with the previous two scales, the total score (ranged from 6 to 24) was calculated to determine the degree of road risk perception of parents or care givers.

Information on possible confounders such as previous pedestrian related injuries in the family, and some demographic information of the surveyed family were also collected. The questionnaire had been piloted for its face validity and correct phraseology with a small sample of random telephone interviews within the target areas before it was used in the survey.

2.4. Data collection

The survey was conducted in November and December 1998 by professionally trained telephone interviewers. All interviews were conducted according to a standard written protocol in order to minimise the interviewers' bias. A minimum of six call attempts were used to make contact with the household. Once the contact was made, the household was screened for its suitability to be recruited by using the selection criteria that there was a child aged from 4 to 12 years residing in the household. The primary care giver of the child was then asked to be interviewed. Once permission to be interviewed was gained, the interviewer proceeded with the survey. For those call attempts responded by an answering machine, a message was left to inform parents of the interview and to invite parents to call the study staff on a toll-free number. This was to increase the response rate by making contacts with households which use the answering machine as a means to screen telephone calls. The response rate of the survey was calculated to be 77% as a ratio of the completed interviews to all successful contacts including refusals, completed and incomplete interviews.

2.5. Data analysis

To establish that the sample was presentative and unbiased, comparisons between the sample and population on some available official demographic informa-

tion (Australian Bureau of Statistics, 1995), as well as a comparison of the average age of the 'index child' across their sibling order were conducted. A two stages analysis strategy was then employed in analysing the data. First, the associations between the self-reported parental safe road behaviour and the independent variables of interest including parental risk perception, pedestrian safe knowledge, previous injury and other demographic variables were examined by analysing the data univariately. These examinations were conducted either by applying correctional analyses for continuous independent variables, or the Analysis of Variances (ANOVA) for discrete independent variables. This was to identify the possible factors that might associate with the parental safe road behaviour. Second, the identified factors were then subjected to multiple linear regression analyses to further elucidate their associations with the self-reported parental safe road behaviour. The stepwise backward elimination procedures were employed in the analyses with each variable of interest being entered last to adjust for the effect of other significant variables. Due to the exploratory nature of this study, no second order nor any higher order interaction terms of the independent variables was included in the analyses.

3. Results

3.1. The sample

A total of 1525 interviews were conducted and details of the sample were summarised in Table 2. The majority (78.6%) of the respondents were females, either the mother or stepmother of the 'index child' (76.2%). Nearly 70% (69.4%) was Australian, and 18% spoke a language other than English at home. For those country of origin other than Australia, the average length of stay was 18.7 years (SD = 10.9 years). The average age of the respondents was 37.8 years (SD = 6.8 years), and the majority (83.0%) were married or in a defacto relationship. More than one quarter (27.2%) attained an educational level of university or higher degrees. More than 60% were employed in either full time (34.2%) or part time (27.9%) employment. There was an equal representation of sexes of the index child (male = 49.8%; female = 50.2%), and a nearly even distribution of ages (Table 2) with an average age of 7.9 year (SD = 2.5 years). The majority (83.0%) of respondents reported that no member in the household having been injured. Of the 258 (16.9%) reported injuries to household members, more than two thirds ($n = 178$, 69.0%) were childhood injuries.

Comparisons between the sample and some available official population demographics indicated that there is no significant difference between the two (regional household distributions: $\chi^2 = 4.9$, d.f. = 2, $P > 0.05$; non-English speaking: $\chi^2 = 2.8$, d.f. = 1, $P > 0.05$). Results on the comparisons of the average age of the 'index child' across their sibling order also suggested no significant difference amongst various order groups ($F(2,1522) = 2.96$, $P > 0.05$).

3.2. Univariate relationship between parental safe road behaviour and other variables of interest

The descriptive statistics in Table 2 indicated a near normal distribution for both parental risk perception scores and their road safety knowledge scores. The distribution of the parental safe road behaviour scores was slightly skewed towards the left, suggesting that parents tended to respond positively towards the questions (mean = 24.2, SD = 2.47). However, further analyses on the median (med. = 25.0) of the scores indicated that only 50% of the respondents report to exhibit safe road behaviour in front of their children 'most of the time' and 'always'.

As shown in Table 3, there was a significant correlation between the parental safe road behaviour as a pedestrian while accompanying their children and the their risk perception of the road environment ($r = 0.35$, $P < 0.05$). However, parents' knowledge of road safety was not associated with their safe road behaviour ($r = 0.002$, $P = 0.94$). A negative but significant correlation had been observed between the age of the 'index child' and the parental safe road behaviour ($r = -0.36$, $P < 0.05$), which suggested that parents of the older children exhibit less safe road behaviour while they were with their children. Parents from an non-English speaking background (NESB) scored significantly higher on their safe road behaviour than those who were not ($F(1,1516) = 10.11$, $P < 0.05$). Interestingly, parents who previously had experienced an injury in the household reported significantly less safe road behaviour as a pedestrian while they were with their children ($F(1,1517) = 10.12$, $P < 0.05$).

3.3. Results of the multiple linear regression

Multiple linear regression analyses were conducted by regressing the parental safe road behaviour on the possible explanatory variables identified in the univariate analyses (Table 3). On the whole, the results obtained from the multiple linear regression were in agreement with those obtained from the univariate analyses. As shown in Table 4, the final model was significant ($F(3,1504) = 120.49$, $P < 0.001$) with an adjusted R-square value of 0.192. This suggested that nearly 20% of the variance of the parental safe road behaviour could be explained by the three factors: NESB, age of the index child and parental risk perception. Parents from NESB tended to exhibit more safe

Table 2
Demographics and other characteristics of the sample ($N = 1525$)

Characteristics	Frequency (%)	Characteristics	Frequency (%)		
Region		*Living environment*			
Sydney	1014 (66.5)	Highway	11 (0.7)		
Newcastle	305 (20.0)	Main road	102 (6.7)		
Wollongong	206 (13.5)	Busy local street	421 (27.6)		
		Quiet local street	615 (40.3)		
Sex of respondent		Cul-de-sac	363 (23.8)		
Female	1198 (78.6)	Other	13 (0.9)		
Male	327 (21.4)				
		Age of 'index child'			
Age group of respondent		4	172 (11.3)		
16–19	10 (0.7)	5	185 (12.1)		
20–29	124 (8.1)	6	153 (10.0)		
30–39	818 (53.6)	7	171 (11.2)		
40–49	505 (33.1)	8 (mean = 7.9, SD = 2.5)	186 (12.2)		
50–59	54 (3.5)	9	158 (10.4)		
60–69	9 (0.6)	10	204 (13.4)		
70+	1 (0.1)	11	161 (10.6)		
Missing	4 (0.4)	12	134 (8.8)		
		Missing	1 (0.1)		
Country of origin					
Australia	1059 (69.4)	*Sex of 'index child'*			
Other	460 (30.2)	Male	760 (49.8)		
Missing	6 (0.4)	Female	765 (50.2)		
Non-English speaking		*Sibling order*			
No	1248 (81.8)	Single child	766 (50.2)		
Yes	274 (18.0)	1st child	358 (23.5)		
Missing	3 (0.2)	2nd child or higher	401 (26.3)		
Marital status		*Respondent/child relationship*			
Married/de facto	1265 (83.0)	Mother/stepmother	1162 (76.2)		
Separated/divorced	164 (10.8)	Father/stepfather	318 (20.9)		
Single	89 (5.8)	Grandparent	17 (1.1)		
Missing	7 (0.5)	Other relative	21 (1.4)		
		Not directly related	7 (0.5)		
Education					
School certificate	499 (32.7)	*Previous injury in household*			
High school certificate	276 (18.1)	No	1265 (83.0)		
Trade certificate	75 (4.9)	Yes	258 (16.9)		
Technical diploma	251 (16.5)	Missing	2 (.01)		
University or higher degree	415 (27.2)		Mean	SD	Skew
Employment status		*Variables of Interest*			
Full time	521 (34.2)	Safe road behaviour	24.20	2.47	−1.14
Part time	425 (27.9)	Risk perception	19.13	3.88	−0.18
Unemployed	574 (37.6)	Road safety knowledge	3.3	0.79	−0.38
Missing	5 (0.3)				

road behaviour as pedestrian with their children. Parents who had perceived the road environment as hazardous also scored higher in their self-reported safe road behaviour. However, parents of older children tended to be more relaxed in modelling safe road behaviour in front of their children. Further analyses on the change of the R-square value by fitting the parental risk perception last to the model indicated that nearly 6% of the variance of the parental safe road behaviour could be explained by the parental risk perception alone. This suggested parental risk perception is a significant factor associated with their safe road behaviour even after adjusting for the age of their children and the NESB status.

4. Discussion

The importance of the parental role modelling and its effects on the behaviour of their children have long been recognised and studied (Nordquist & McEvoy, 1983; Parry & Reich, 1984; Roberts, 1984; Sallis et al.,

Table 3
Associations between parental safe road behaviour and other independent variables

	Parental safe road behaviour	
	Mean (SD)	Significance
Variables of interest		
Parental road risk perception	19.13 (3.88)	$r = 0.360$, $P < 0.05$
Road safety knowledge	3.3 (0.79)	$r = 0.002$, $P = 0.94$
Other demographic variables		
Region		
Sydney	24.25 (2.45)	
Wollongong	24.20 (2.38)	
New Castle	24.04 (2.58)	$F(2,1518) = 0.784$, $P = 0.46$
Sex of respondent		
Female	24.25 (2.41)	
Male	24. 01 (2.65)	$F(1,1519) = 2.64$, $P = 0.11$
Non-English speaking		
No	24.11 (2.48)	
Yes	24.63 (2.32)	$F(1,1516) = 10.11$, $P < 0.05$
Marital status		
Married/defacto	24.27 (2.39)	
Separated/divorced/widowed	23.95 (2.75)	
Single	23.82 (2.89)	$F(2,1517) = 2.17$, $P = 0.09$
Education		
School Certificate	24.39 (2.49)	
High School Certificate	24.28 (2.34)	
Trade Certificate	23.85 (2.73)	
Technical Diploma	23.96 (2.56)	
University or higher degree	24.21 (2.45)	$F(4,1507) = 1.73$, $P = 0.14$
Employment		
Full time	24.18 (2.53)	
Part time	24.05 (2.39)	
Unemployed	24.33 (2.46)	$F(2,1517) = 1.11$, $P = 0.34$
Living environment		
Highway	23.64 (2.87)	
Main road	24.28 (2.51)	
Busy local street	24.46 (2.24)	
Quiet local street	25.15 (2.58)	
Cul-de-sac	24.02 (2.44)	
Other	22.83 (3.59)	$F(5,1514) = 2.24$, $P = 0.05$
Sex of index child		
Female	24.27 (2.30)	
Male	24.13 (2.62)	$F(1,1519) = 1.22$, $P = 0.27$
Sibling order		
Single child	24.17 (2.63)	
1st child	24.14 (2.44)	
2nd or above child	24.30 (2.15)	$F(2,1518) = 0.51$, $P = 0.61$
Previous injury		
No	24.29 (2.4)	
Yes	23.76 (2.69)	$F(1,1517) = 10.12$, $P < 0.05$
Age of index child (continuous variable)		$r = -0.36$, $P < 0.05$

1988; Schopler, 1993). As the review of the injury literature suggests, this particular aspect of research has been neglected. The study is an attempt to address the lack of information in this area of childhood injury research.

The results clearly indicate that parents do not exhibit safe road behaviour adequately in front of their children. Only 50% of the surveyed parents reported to have practiced safe road behaviour 'most of the time' and 'always'. Given that there will be a 'social desirability' factor involved in the self-reported behaviour of the parents, the actual safe road behaviour will be substantially less than what has been found.

The results also indicate parental perception of the road environment is a significant factor associated with their safe road behaviour while they are with their children. This holds true even after adjusting for the NESB status and the age of their children. These results are consistent with the phenomenon observed in researches across other disciplines (Kivikink et al., 1986; Moulton et al., 1987; Briscoe, 1991). From a theoretical perspective, the finding of this study renders support to the well-studied model of health behaviour, the Health Belief Model (HBM, Ajzen and Fishbein, 1980). According to the HBM, individual would not make the decision to undertake a health action aimed at avoiding a specific disease threat unless he/she is ready to act. Readiness to act is suggested to be a function of the individual's perception (Adler et al., 1992). When one perceives the adverse consequence of certain situations, he/she will be motivated to commit in taking some health actions in avoiding those situations. Translating the result of this study to the model, parents are unlikely to perform safe road modelling behaviour in front of their young children unless they themselves perceive the road environments as dangerous and hazardous.

On the contrary, the parental knowledge of pedestrian rules and regulations is not associated with their actual behaviour. This result is also consistent with those obtained in other areas of injury research, such as driver education (Sampson & Watkins, 1975; Manders and Rennie, 1984; Wynne-Jones and Hurst, 1984).

Based on the finding from studies on evaluating driver education programmes, increase in the knowledge of driving is not associated with any actual change in driving behaviour (Sampson and Watkins, 1975; Manders and Rennie, 1984). The result of this study is certainly a good demonstration of the differences between the 'ought' and 'is' of human behaviour.

An interesting finding of this study is parents from NESB are more likely to exhibit safe road modelling behaviour. This holds true even after adjusting for the age of their children. This is probably due to general concerns of those parents from NESB in all aspects of their children's life including how they get on the road. Although the aim of this study is not to investigate the relationships between perception, behaviour and injury outcome, the associations between perception, parental modelling behaviour and previous pedestrian injury in the household is also worth noting. The results, in general, seem to suggest that the injury outcome is somewhat related to the hazardous perception and safe modelling behaviour of the parents. This is certainly a very important area that requires a more in depth study.

Methodologically, a cross-sectional survey is not an ideal design for studying causal relationship between the study and outcome variable (Schlesselman, 1982). However, it can be used to provide indicative measures on the potential relationship between the dependent variable and other variables of interest. In this study adequate precautions have been taken to minimize selection bias of subjects. The stratified randomisation procedures have been put in place to obtain a representative and an unbiased sample from the target population. These have been supported by the results obtained from the comparisons between the sample and the population, as well as comparison within the sample. The use of a standardised interview protocol and script is also essential to reduce any interviewers' bias. One shortcoming of the study is that a lower than expected response rate of 77% has been achieved. Unfortunately, no basic demographic information has been collected on the refused and incompleted interviews. Thus no comparison between the respondents and non-respondents can be conducted to ascertain the definitive representativness of the sample. Another shortcoming of the study is that the self-reported behaviour may not reflect the actual behaviour of the respondent in a telephone survey. In this study, there is not attempt to investigate the truthfulness of the respondents by means of any 'hidden' questions, such as a lie scale. This problem may only be overcome by employing behavioural observation of parents and children on the road prior to interviewing the parents.

Parental role modelling is fundamental in the growth and development of their children. Imitation is an important mechanism in young children's learning how to behave (Roberts, 1984). The kind of behavioural modelling provided by parents affects the behaviour of their children. Thus, for children to behave properly on the road as a pedestrian, it is essential for their parents to demonstrate the proper behaviour in front of their young children. The result of this study indicates perception of the road environment is one of the major factors associated with parental safe road behaviour. Improvement on the road perception would be helpful in improving parental safe road behaviour. The implication of these results on the road safety campaigns is that much effort is required to improve parental safe road behaviour as modelling behaviour in front of their children, and such campaigns should target the perception of parents, particularly parents with young children.

Table 4
Results of the multiple linear regression analyses

	B	SE (B)	Std. β	T	Significance
Model with all univariately significant factors entered					
Constant	22.40	0.40		55.78	0.000
NESB	0.48	0.15	0.07	3.21	0.001
Age of index child	−0.19	0.02	−0.26	−10.41	0.000
Previous injury	−0.18	0.15	−0.02	−1.02	0.306
Risk perception	0.17	0.02	0.26	10.17	0.000
Overall significance of the model: $F(4,1503) = 90.64,\ P < 0.001,\ R^2 = 0.194,\ R^2$ adj $= 0.192$					
Model with only significant factors retained					
Constant	22.35	0.40		56.06	0.000
NESB	0.49	0.15	0.08	3.29	0.001
Age of index child	−0.19	0.02	−0.26	−10.47	0.000
Risk perception	0.17	0.02	0.26	10.29	0.000
Overall significance of the model: $F(3,1504) = 120.49,\ P < 0.001,\ R^2 = 0.194,\ R^2$ adj $= 0.192$					

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