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A bivariate probit analysis of child passenger's sitting behaviour and restraint use in motor vehicle

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ABSTRACT

Motor vehicle injuries are a leading cause of death among children worldwide, though many of these deaths are preventable. Buckling young children in age- and size-appropriate car seats, booster seats, or seat belts and also seating them in appropriate position can lead to a significant reduction of serious and fatal injuries. This study investigated sitting behaviour and restraint use among child passengers through cross-sectional observational surveys conducted in Kumasi, Ghana. A bivariate probit model was developed for simultaneous determination of the contributing factors influencing child passenger's sitting behaviour and restraint use. The results showed that 26% of the child passengers observed were occupying the front seat and the prevalence rate of restraint use was 4.5%. The developed bivariate probit model clearly highlights the existence of interrelationship between child passenger's sitting position and restraint use. The key factors simultaneously influencing child passenger's sitting position and restraint use include vehicle type, driver's gender, driver's belt use, child's age, and the presence of other child or adult passenger. Furthermore, time of day and day of week also influence child passenger sitting behaviour but not their restraint use. These findings provide insight for better understanding of child transporting practices and the contributing factors influencing their sitting behaviour and restraint use. The findings also highlight the need for policy makers to design effective countermeasures to promote rear sitting and restraint use among child passengers.

1. Introduction

Road traffic crash fatality among child passengers is on the rise in Ghana (Agyeman et al., 2017). According to statistics from the National Road Traffic Crash Database at the Building and Road Research Institute, Kumasi-Ghana, a total of 141 child passengers (aged 12 years and below) were killed and another 711 were injured over the period 2014–2016 (Agyeman et al., 2017). It is believed that some of these young lives could have been saved if the children were appropriately restrained. For young children who are occupants of vehicles, the main risk factor is the lack or improper use of a restraint (WHO, 2008). An unrestrained baby or child can be thrown forward with a force 30–60 times its body weight and could slam into the driver or front passenger in a 50 km/h collision (Hallbauer et al., 2011). When used correctly, child restraint use can reduce the risk of death and serious injury in toddlers and infants (Lennon et al., 2008; NHTSA, 2009; Garces et al., 2016). The use of child restraints has been documented to reduce infant and toddlers (aged 1–4 years) death due to road traffic crashes by 71% and 54%, respectively (NHTSA, 2009), whilst the risk of serious injuries among children (aged 4–7 years) also reduces by 59% (Durbin et al., 2003). Children should be strapped in appropriate restraints based on their age, weight or height. Child Safety Seat Advocates recommend infant and convertible safety seats for children under the age of 4 and booster seats for children aged 4 until they fit in a seat belt which is usually at the age of 8 or 9 (Winston and Durbin, 1999; Snowdon et al., 2008).

In addition to restraint use, child sitting position has also been determined to have an effect on injury severity in the event of crash. For children, studies have established that sitting in the rear seat of a vehicle is about 35% safer than sitting in the front seat, in the event of a crash (Halman et al., 2002; Lardelli-Claret et al., 2006). Effective measures to protect children, therefore, include using age-appropriate restraints and being seated in the rear of the vehicle (Hallbauer et al., 2011).

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Notwithstanding the advantages in using restraint and sitting children in the rear seat, many parents in Ghana frequently drive with their children without sitting and restraining them appropriately, even though it is mandatory to do so. The Road Traffic Act of 2004, Act 683 (Republic of Ghana, 2004) makes it mandatory for motorists not to drive children (aged 5 years and below) in the front seat but use the appropriate equipment to restraint them in the rear. Again, it is the responsibility of the driver to ensure that children between the ages of 5 and 18 years who are sitting on the front/rear seat of the vehicles is properly belted. The existing literature suggests that there is a low rate of child restraint use in Ghana (Ogunleye-Adetona et al., 2018). However, there have been no credible data on the rate of child restraint use and sitting position for trend analysis and for monitoring and evaluation purposes.

Although existing studies in other countries have examine the sitting behaviour and restraint use among child passengers and have found common risk factors for these variables (Greenspan et al., 2010; Hallbauer et al., 2011; Pan et al., 2011), other studies have also found a significant relationship between the two variables (Edgerton et al., 2002; Barss et al., 2008; Lennon et al., 2008). If the interrelationship between child's restraint use and sitting position is due to unobservable characteristics of the driver and the child passenger, then using univariate model for such analysis my produce bias estimates (Green 2003). Currently, there is limited studies that describe the interrelationship between child passenger's sitting behaviour and restraint use and their related contributing factors using a robust statistical modelling technique. This study fills in the gap by developing a bivariate probit model for simultaneous determination of those factors influencing child passenger's sitting behaviour and restraint use in the study area. The modelling approach used is based on the premise that the child passenger restraint use is endogenously related to their sitting position.

2. Material and methods

2.1. Data description

The data used in this study were obtained through cross-sectional observational surveys conducted in the Kumasi Metropolis, second largest and second most populous city in Ghana. The surveys sought to determine the extent to which child passengers were being positioned at the front seat and being restrained as well as the characteristics associated with these child passengers.

To select the survey sites or locations, the Kumasi city was divided into four zones: northern, southern, eastern and western. Within each zone, all possible locations for the survey were identified based on the following criteria: the site is safe for the observers; the site is frequently used by vehicle users with child passengers (e.g. school areas); the site is in areas where drivers slowed or stopped (e.g. junctions, signalized intersection) to allow observations. A total of 20 sites (five from each zone) were randomly selected from all the possible sites meeting the criteria. The surveys were conducted over a four week period starting from 5th of February to 2nd March, 2018. During the survey, two research assistants were employed to serve as data collectors. Prior to the surveys, the data collectors were taken through a series of training for three days. The training covered how to record the needed data and also how to estimate the ages of the child passenger and the driver based on their appearance. The degree of consensus between observers on various variables were measured. Interobserver agreement on all variables with the exception of age group was 100 percent, but consensus on age group was still in excess of 95 percent.

At each location, observations were made at two different times: Morning (7:00–8:30am) and Afternoon (3:30–5:00pm) to account for variations in child passengers sitting behaviour and restraint use at different time periods. For each vehicle, the data collectors (research assistants) recorded the characteristics of the child passenger and the driver using a pro-forma data collection checklist. Data were recorded on a vehicle with at least one child passenger. Data recorded include child passenger's sitting position (front or rear seat), restraint use status (restrained or not-restrained), gender (male or female) and estimated age group (0–5, or 6–12 years). In addition, data on vehicle type (saloon car or other), driver's gender, driver's estimated age (< 40 or $> = 40$ years), driver's seat belt use status (belted or not-belted), presence of other child passenger(s) (yes or no), presence of other adult passenger (s) (yes or no) and day of the week (Monday, Tuesday, Wednesday, Thursday or Friday) were collected. For vehicles with more than one child passenger, data were recorded for the youngest child. The incorrect or inappropriate use of the restraint was not considered in this current study. Any child passenger with some kind of restraint (i.e. infant/convertible seat, booster seat or adult seat belt) was taken as having been restrained. A child is defined in this study as anyone aged 12 years and below. Overall, 4577 vehicles with at least one child passenger were observed.

2.2. Bivariate probit modelling

In this study, the bivariate probit modelling approach is employed where the probability of a child passenger found occupying the front seat and probability of the same child being restrained are jointly estimated given the independent variables (Greene, 2003). The bivariate probit model accounts for the possible correlation within the two binary dependent variables due to unobserved factors (Greene, 2003). The two binary dependents variables are the sitting position (front/rear seat) and restraint usage (use/not use). The bivariate probit model is generically defined as:

$$y_{1i}^{*} = \beta_1 X_{1i} + \varepsilon_{1i}$$
$$y_{2i}^{*} = \beta_2 X_{2i} + \varepsilon_{2i} \quad (1)$$

where y_{1i}^{*} and y_{2i}^{*} represent latent variables (unobserved); X_{1i} and X_{2i} are vectors of explanatory variables; β_1 and β_2 represent vectors of estimable model parameters; and ε_{1i} and ε_{2i} are the residuals associated with the model. The residuals ε_{1i} and ε_{2i} are assumed to follow a bivariate normal distribution with mean vector 0 and correlation matrix with components being variances 1 and correlation coefficient ρ, which also serves as a correlation measure for the two binary variables:

$$\begin{bmatrix} \varepsilon_{1i} \\ \varepsilon_{2i} \end{bmatrix} \sim N\left(\begin{bmatrix} 0 \\ 0 \end{bmatrix}, \begin{bmatrix} 1 & \rho \\ \rho & 1 \end{bmatrix} \right)$$

The latent variable y_{1i}^{*} represents the propensity for a driver to position a child passenger at the front seat whilst y_{2i}^{*} represents the propensity for a driver to restrain a child passenger. These two latent variables are not measured directly. The observed dependent variables y_1 and y_2 relate to the latent variable y_{1i}^{*} and y_{2i}^{*} which are e unobserved by the measurement model:

$$y_1 = \begin{cases} 1\ , & \text{if } y_1^{*} > 0 \\ 0\ , & \text{Otherwise} \end{cases} \quad \text{and} \quad y_2 = \begin{cases} 1\ , & \text{if } y_2^{*} > 0 \\ 0\ , & \text{Otherwise} \end{cases} \quad (2)$$

The parameters of the bivariate probit model are estimated using the full information maximum likelihood procedure (Greene, 2003). If the estimated value of ρ is significantly different from zero, then the two random components of the model are correlated. On the other hand, if the value of ρ is not significantly different from zero, then the bivariate probit reduces to two separate probit models. All the statistical analysis were carried out using Stata version 13 (StataCorp, 2013). A quantitative interpretation of the model parameters can be done using the marginal effect (Greene, 2003; Gkritza, 2009). The marginal effect is a measure of the instantaneous effect that a change in a particular explanatory variable has on the predicted probability of the dependent variable, when the other covariates are held constant. Since all the independent variables considered in this study are binary, then the marginal effect measure discrete change

Table 1
Percentage distribution of front siting behaviour and restraint use among child passengers classified by other measured variables.

Variable	Total Sample	% of total	Front seated (%)	Restrained (%)
Overall	4577	100	26.0	4.5
Vehicle Type				
Car	3497	76.4	25.4	4.7
Other (e.g. SUV)	1080	23.6	28.0	4.2
Driver's Gender				
Male	3458	75.6	27.6	3.5
Female	1119	24.4	21.2	7.8
Driver's Age				
Less than 40 years	2095	45.8	27.8	4.3
40 years and above	2482	54.2	24.5	4.8
Driver's Belt use				
Yes	1938	42.3	24.2	8.3
No	2639	57.7	27.4	1.8
Child's Gender				
Male	2673	58.4	25.5	4.2
Female	1904	41.6	26.8	5.1
Child's Age				
0 – 5 years	2550	55.7	27.0	5.1
6 – 12 years	2027	44.3	24.9	3.9
Siting position				
Front seat	1192	26.0	–	3.4
Rear seat	3385	74.0	–	7.7
Other child passenger present				
Yes	2380	52.0	19.8	3.3
No	2197	48.0	32.8	5.9
Adult passenger present				
Yes	1805	39.4	23.9	2.7
No	2772	60.6	27.4	5.8
Time of Day				
Morning	2609	57.0	27.7	5.0
Afternoon	1968	43.0	23.9	4.0
Day of Week				
Monday	924	20.2	27.9	4.8
Tuesday	983	21.5	29.9	5.6
Wednesday	1019	22.3	26.1	4.4
Thursday	965	21.0	22.4	4.3
Friday	686	15.0	23.0	3.4

3. Results

The various recorded characteristics associated with each vehicle, the driver and child passenger(s) are summarized in a percentage distribution in Table 1. In all, a total of 4577 child passengers were observed and records taken (Table 1). Majority of these children (76%) were observed in saloon cars whilst the remaining children were observed in other types of vehicles such as SUV/4WDs and pickups. About 58% of these children were male and 56% of them were within the ages of 0–5 years. Twenty-six percent (26%) of the child passengers were found in the front seat and the prevalence rate of restraint use was 4.5%. Most of the drivers (58%) travelling with these children were not belted, 76% of the drivers were male and 54% were above the age of 40 years. Among the male drivers, 28% of their child passengers occupied the front seat and only 4% were restraint whilst 21% of the children travelling with female drivers were in the front seat and 8% were restraint.

The contributing factors simultaneously influencing child passenger sitting behaviour and restraint use were determined by the bivariate probit model (1). The parameters of the model and the goodness-of-fit statistics are presented in Table 2 whilst the marginal effect for each explanatory variable are presented in Table 3. The fitted model was found to be satisfactory compared to the null model (model with constant term only) based on the p-value of the likelihood ratio test. The p-value of the Wald test suggest the significance of the bivariate probit model specification as oppose to univariate probit model for each independent variable. The results from the model suggested that restraint use and front sitting behaviour of child passengers are significantly (p-value < 0.001) and positively correlated ($\rho = 0.26$). This result indicates the presence of common unobservable factors that affect child passengers sitting behaviour and restraint use is also an indication that child passengers sitting at the front seat were more likely to be restrained, and vice versa. During model specification, interaction effects were not investigated since there was no conceptual motivation and policy-relevance for including them in the model. In addition, the interaction effect was not considered because of the difficulty in their interpretation.

The bivariate probit model revealed that the likelihood for a child passenger to be positioned in the front seat increased by 3% and the likelihood to be restrained decreased by 2% when riding in non-saloon cars (Table 3). However, the former was marginally significant. Female drivers were 6% less likely to position child passenger in the front seat and 2% more likely to restrain them. Belted drivers were found to be 4% less likely to position child passenger at the front seat and 6% more likely to restrain them. Similarly, young children (0–5 years) were 4% more likely to be positioned at the front seat and 1% more likely to be restrained compared with those above 5 years. The presence of other child (or children) in the vehicle significantly decrease the likelihood of positioning any other child in the front by 14% and also reduces the likelihood of restraining the child by 3%. Similarly the presence of adult passenger in the vehicle significantly decrease the likelihood of positioning child passenger in the front by 6% and reduces the likelihood of restraining by 2%. Child passengers were found to be 4% more likely to be positioned in the front seat in the morning than afternoon.

4. Discussions

In this study, a bivariate probit model is developed to analyse child passenger sitting behaviour and restraint use in Kumasi, Ghana. The study especially explored the interrelationship between the child passenger sitting behaviour and restraint use and their contributing factors. The results of the study indicated that the prevalence rate of front sitting behaviour and restraint use among child passenger were 26% and 4.5%, respectively. Although the rate at which child passenger sits at the front seat of a vehicle was low in the city, it was considered to be high compared to the situations in other countries (Barss et al., 2008; Routley et al., 2008). In the case of restraint use, the rate was far too low compared to the reported rates in other countries (de Oliveira et al., 2009) and this calls for the urgent attention of policy makers. For the proportion of child passengers using restraints, not everyone will be protected as required in the case of a crash. This is because incorrect or inappropriate installation of restraint systems such as loose harness straps and loose vehicle seat-belt attachment to the system, has been established to be high even in the developed countries (Decina and Lococo, 2005; Cooley and Coren, 2011).

The developed bivariate probit model suggests that there exists a positive relationship between front sitting behaviour and restraint use among child passengers. This means that, child passengers occupying the front seat were more likely to be restrained compared to child passenger occupying the rear seat. The model also suggests that child passengers travelling with vehicles such as SUV/4WD increase their probability of occupying the front seat and decrease their probability of being restrained compared to the users of saloon cars. However, the effect of vehicle type on child passenger's front sitting behaviour was marginally significant (10%). This result could be explained by the fact that users of heavy vehicles perceived themselves to be safer (Goetzke and Islam, 2015) thereby ignoring the usefulness of sitting child passenger at the rear seat and restraining them.

With respect to driver's gender, it was found that female drivers were less likely to position child passenger at the front seat and were more likely to restrain them. However, the age of the driver was found not to be a significant contributor to child passenger sitting behaviour and restraint use. This result is consistent with the existing findings on child safety practices (Ebel et al., 2003; Greenberg-Seth et al., 2004; de

Table 2
Parameters and 95% confidence interval (CI) of the estimated probit models for restraint use and rear siting position.

	Front Seated			Restraint Use		
Variable	Beta	*P*-value	95% CI	Beta	*P*-value	95% CI
Vehicle Type (*Ref: Saloon car*)						
Other (e.g. SUV)	0.089	0.072	−0.001, 0.185	−0.202	0.016	−0.367, -0.037
Driver's Gender (*Ref: Male*)						
Female	−0.194	< 0.001	−0.296, -0.091	0.168	0.031	0.016, 0.321
Drivers' Age (*Ref: ≥ 40*)						
Less than 40	0.061	0.152	−0.022, 0.143	−0.018	0.808	−0.160, 0.125
Driver's Belt use (*Ref: No*)						
Yes	−0.115	0.010	−0.203, -0.027	0.657	< 0.001	0.506, 0.809
Child's Gender (*Ref: Male*)						
Female	0.037	0.373	−0.044, 0.118	0.050	0.477	−0.087, 0.187
Child's Age (*Ref:* 6–12)						
0 – 5 years	0.115	0.006	0.033, 0.196	0.161	0.024	0.021, 0.301
Other Child Present (*Ref: No*)						
Yes	−0.434	< 0.001	−0.515, -0.354	−0.336	< 0.001	−0.473, -0.199
Other Adult Present (*Ref: No*)						
Yes	−0.199	< 0.001	−0.284, -0.115	−0.298	< 0.001	−0.450, -0.146
Time of Day (*Ref: Afternoon*)						
Morning	0.121	0.004	0.038, 0.204	0.043	0.548	−0.098, 0.185
Day of Week (*Ref: Monday*)						
Tuesday	0.070	0.257	−0.051, 0.192	0.092	0.367	−0.108, 0.293
Wednesday	−0.062	0.318	−0.183, 0.059	−0.028	0.789	−0.236, 0.180
Thursday	−0.198	0.002	−0.323, -0.073	−0.054	0.616	−0.265, 0.157
Friday	−0.153	0.029	−0.290, -0.016	−0.125	0.313	−0.368, 0.118
Constant	−0.400	< 0.001	−0.36, -0.265	−1.940	< 0.001	−2.181, -1.680
ρ	0.256	< 0.001	0.166, 0.345			
Goodness of fit statistics						
Number of observations	4577					
Log-likelihood at convergence	−3278					
Log-likelihood at intercept only						
Wald (x^2)	326					
P-value of Wald test	< 0.001					

Significance levels: $^{***}p < 0.001$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table 3
Marginal effects (ME) associated with all the explanatory variables considered in the probit model and their 95% confidence interval (CI).

	Front Seated		Restraint Use	
Variable	ME	95% CI	ME	95% CI
Vehicle Type (*Ref: Saloon car*)				
Other (e.g. SUV)	0.028	−0.003, 0.059	−0.016	−0.029, -0.004
Driver's Gender (*Ref: Male*)				
Female	−0.059	−0.089, -0.029	0.015	0.001, 0.030
Drivers' Age (*Ref: ≥ 40*)				
Less than 40	0.019	−0.007, 0.045	−0.002	−0.014, 0.011
Driver's Belt use (*Ref: No*)				
Yes	−0.036	−0.063, -0.009	0.058	0.044, 0.071
Child's Gender (*Ref: Male*)				
Female	0.012	−0.014, 0.037	0.004	−0.008, 0.016
Child's Age (*Ref:* 6–12)				
0 – 5 years	0.036	0.010, 0.061	0.014	0.002, 0.026
Other Child Present (*Ref: No*)				
Yes	−0.137	−0.163, -0.112	−0.029	−0.042, -0.017
Other Adult Present (*Ref: No*)				
Yes	−0.061	−0.087, -0.036	−0.024	−0.036, -0.013
Time of Day (*Ref: Afternoon*)				
Morning	0.038	0.012, 0.063	0.004	−0.008, 0.016
Day of Week (*Ref: Monday*)				
Tuesday	0.023	−0.017, 0.063	0.009	−0.010, 0.028
Wednesday	−0.020	−0.059, 0.019	−0.002	−0.021, 0.016
Thursday	−0.061	−0.099, -0.022	−0.005	−0.023, 0.013
Friday	−0.047	−0.090, -0.005	−0.010	−0.029, 0.009

Oliveira et al., 2009) and could be attributed to the fact that females are usually safety conscious and they are more likely to comply with safety laws and regulations.

Driver's belt use was one of the important variables that influences child passenger's sitting behaviour and restraint use. That is, seat belted drivers were associated with low probability to position child passenger at the front seat and were more likely to restrain the child. This results is as expected since belted drivers may be considered as persons who are already aware of the importance of good safety practices thereby ensuring that their child passengers are not endangered. This findings is in congruence with findings in the existing literature (Ferguson et al., 2000; de Oliveira et al., 2009; Pan et al., 2011).

The gender of the child passenger was found not to be a significant factor contributing to their sitting behaviour and restrained use. This may mean that parents take the safety of their boy and girl child equally important. However, child passenger's age significantly influences their sitting position and restraint use. That is, child passengers of below 6 years were more likely to be seated at the front and more likely to be restrained compared to child passenger of age 6 and above. The results are consistent with the existing recent literature (Pan et al., 2011). In another setting, the result contradict other studies (Ferguson et al., 2000; Greenberg-Seth et al., 2004) that documented that children aged 7–12 were less likely to be seated at the rear seat compared to younger children. This differences may be due to various reasons such as the strength of road safety enforcement, the level of safety education, individual behaviour. Pan et al. (2011) also argue that higher use of child safety seat in a country is likely to influence sitting behaviour among child age groups. Although children aged 5 years and below are, by law, not to drive in the front seat in Ghana (Republic of Ghana, 2004), there is laxity when it comes to enforcing this law. This study found 27.0% of children aged 5 years and below riding in the front seat.

The presence of other child (or children) in the vehicle significantly influences the position of any other child and the use of a restraint device. When there is more than one child passenger, drivers were less likely to position any of them at the front seat and were less likely to restrain the younger once. This results is in agreement with existing

findings (Pan et al., 2011) and may be partly explained by the lack of space and extra restraint devices to accommodate more than one child passenger at the front. Hence, they are more likely to be seated at the rear seat. On the other hand, they were less likely to be restrained particularly when they cannot be accommodated by the available seat space.

The presence of other adult passenger significantly decreases the likelihood of a child passenger to be seated at the front seat and also decreases the likelihood of the child to be restrained, a finding which is consistent with a previous study (Pan et al., 2011). Pan et al. (2011) recounted the effect of the presence of an adult passenger on unrestraint child passenger and attributed it mainly to the common practice of child being carried on the lap of the adult passenger. This is also a common behaviour in Ghana whenever an adult passenger is travelling with young children.

The likelihood for a child passenger to be positioned at the front seat was significantly high in the morning compared to afternoon and more likely to be restrained during morning. However, the differences in their restraint use during morning and afternoon were not statistically significant at 10% level. These results may be explained by the fact that parents are always in hurry to get to work on time during the morning thereby not given much attention to safety issues during that period.

Compared to Mondays, child passengers were less likely to be placed at the front seat and also less likely to be restrained during Wednesday through Friday. However, the results for the restraint use were not significant at 10%. Although the reason for these results are not completely clear, it may partly be explained by the fact that parents are always in hurry during Mondays or Tuesdays compared to other days of the week.

4.1. Limitations

Although the study has provided insight for the understanding of child safety practices, it also has some level of shortfalls which needs to be considered when interpreting the results. For instance, incorrect or inappropriate use of the restraint among child passengers was not considered in this current study. Although inappropriate use of restraint could cause additional injuries to the child passenger, any child passenger with some kind of restraint was taken as having been restrained. If age appropriate use of restraint was to be considered, then it is expected that the rate of restraint use would have been lower than what was reported. In addition, the ages of both the driver and child passenger were estimated based on their appearance, hence, the accuracy of such information may not be fully guaranteed. Considered the restricted sample size, time-frame and survey locations, the findings from the study cannot be generalized for Kumasi or elsewhere in Ghana. Despite of these limitations, the findings from the study serve as a reference point for developing more comprehensive research ideas.

5. Conclusions and policy direction

The study provides important information regarding child passenger safety practices. Such information are necessary to support and direct policies and programs intended to increase better road safety practices. The findings of the study establish strong evidence that child safety practices concerning motor vehicle movements need urgent attention. The commission in charge of road safety and other stakeholders should design effective counter measures and intervention programs to minimize the situation. The authorities should design educational campaign to educate the public on the need to appropriately position child passengers on the rear seat and appropriately restrain them (Cooley and Coren, 2011). Inappropriate use of a restraint device/car safety seat can cause injuries to the child (Snowdon et al., 2008), so the designed campaigns should also capture the need to use appropriate restraint device according to the child's age and weight. In addition, drivers violating the road safety regulations, particularly against children should be prosecuted to deter others from repeating it. The availability and affordability of child seats and booster cushions will also help to improve child safety in vehicle (Hallbauer et al., 2011).

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