

Qualitative and quantitative research methods: public issue of preventing childre...

[Literature](#), [Russian Literature](#)



David Houston, E. Richardson, and Grant Neeley (2001) conducted a study entitled, “ The Effectiveness of Child Safety Seat Laws in the Fifty States.” The title of the article clearly reflected the purpose of this study. It was also clear in the scope of the study in terms of identifying the population, which were the fifty states in the country. The study was a quantitative study because it sought to measure an effect through a fixed instrument of data analysis.

The study evaluated the impact of child safety car seat laws in the fifty states of America. It was based on the fact that injuries were identified to be the leading cause of death among the children in the country due to motor vehicle accidents. The need to reduce risk of injuries to young passengers was addressed through child safety seats. Previous studies revealed that these car seats were able to reduce the rate of child fatalities by 71 percent.

The potential it held in saving the lives of young children paved the way for the implementation of the child passenger protection legislation law (Houston et al., 2001). By 1985, every state in the country had implemented a law for children to be placed in child safety seats with different age limits. However, despite the fact that legislation existed for years there had been limited research to reflect effectiveness of these laws. Houston and his colleagues (2001) conducted this study in order to address this research gap.

Through a pooled time series analysis, the authors hypothesized that the implementation of the laws that mandated the use of child safety seat would reflect significant improvements in the safety of the motor vehicle passengers that were covered by the statute. They expected the results to

show that legislation decreased the fatality rates that were observed for children that were ages zero to five years old. The general assumption was the exclusion of fatality rates of children that were not covered by the said provision.

According to Houston and his colleagues (2001), the implementation of status resulted in the reduction of the number of motor vehicle fatalities. The broader the range of ages that were included in the provision was further associated with rate of reduction in the fatalities. However, the policies were not correlated to the decline in fatalities for accidents of children ages 6-10. The study revealed that child safety seat laws were effective tools for the increase of safety for children passengers of motor vehicles (Houston et al., 2001). The authors of the study recommended for the statutes to expand their coverage and presented Massachusetts to serve as a model for the other states.

Burnham, J. (1996). Why did the infants and toddlers die? Shifts in Americans' ideas of responsibility for accidents - from blaming Mom to engineering. *Journal of Social History* (29) 4, pp. 817+.

John Burnham (1996) wrote the article " Why Did the Infants and Toddlers Die? Shifts in Americans' Ideas of Responsibility for Accidents - From Blaming Mom to Engineering." The article was aptly titled as such and hinted that research design that was to be used. It did not represent a study that would measure an effect, instead the title showed an analysis for ideas

regarding responsibilities in accidents. The title itself suggested that the research design was descriptive and qualitative in its approach.

At the turn of the twentieth century, producers of different commodities were held liable for injuries as a standard under the American litigation system. This was done to provide general distributive justice and holding large corporations responsible for their product's safety hazards (Burnham, 1996). The paper was designed to reveal why the manufacturers were placed in a position wherein they were responsible for the accidents that were related to their products. The paper did not have a hypothesis to test since it was a qualitative research and was presented in a narrative manner.

The author reviewed different perspectives by which society held over time concerning who must be held responsible when it came to accidents involving children and toddlers. The article was in the form of a discourse analysis for the different arguments and ideologies that brought legislation to hold product producers accountable for the injuries that might be related to their products.

Burnham (1996) reviewed the views of society over time to mark the shift in the view of the public for the death and injuries that children and toddlers acquired. He presented that the attempt to collect damages after people were injured was created from a modernist perspective that needed to place control over the relationship between people and things. Safety was associated with the control of things and the people in order to prevent accidents. This placed extra efforts on the companies that produced

products to make sure they have considered every thought possible as to how their products could cause harm.

Burnham (1996) presented the progression of this legislation since the producers of commodities were not always held responsible because of the absence of modernist approaches. He presented the past perceptions that were held in this issue to present and explore the shift in perspective in the late twentieth century. The author identified the shifts through tracing ideas about the deaths and injuries of very young children; those that were under five or six years old. Included in the analysis of discourse was the search for the answer to the question of who was responsible for infants and small children since they could not take responsibility for themselves.

The conclusion of the study revealed that the ideas of why infants and toddlers were injured were drawn from what the mass media offered. However, the author presented that the ideas of future attempts to prevent accidents were not clear but presented that prevention and control had some level of validity because of the decrease in the reported injuries that young children experienced. There was also hint concerning the decrease in the responsibility of parents for their children's safety because of the increase in responsibility on the manufacturers' part.

Section 2

Quantitative Methodology, Sampling and Validity

Houston and his colleagues (2001) used a pooled time series analysis under a quantitative method to study the impact of laws that were mandated for the use of child safety seats. It was used in order to measure the effectiveness of such laws in decreasing the fatality rates of the young children passengers of motor vehicles. The pooled time series analysis gathered the experience of the fifty states and covered a longer time period, as well as included other factors such as traffic safety policies to improve the validity of the study.

Sayrs (1989) described the pooled time series analysis as one of the most specialized form of analysis because it focused on specific and special problems, in this case the effectiveness of the safety car seat laws. The data were gathered in a time series as a set of cross-sectional observations based on multiple variables at multiple points in time. In Houston and his colleagues' (2001) study, they assumed a fixed effects model.

This model had the coefficients for the independent variables that were assumed to be constant across cross-sections and each cross section had unique intercept. Two statistic tests were used such as the F-test that compared OLS regression on the entire sample versus the fixed effects model. The second statistical test was the random effects model that assumed unique parameters for the independent variables.

The data that was collected was from the year 1975 to 1994. The dependent variable was the children fatality rate, which was calculated by the number of fatalities per billion vehicle miles traveled. There were separate models

that were created for the fatality rates of the age groups 0-5 years old and 6-11 years of age. There was no specific sampling method that was specified. Only the time frame and ages by which sample data was based on were specified.

In order to ensure the validity and reliability of the study, Houston and his colleagues (2001) used the F-Test and the Hausman specification test to indicate the fixed effects model. The authors guaranteed that the graphical analysis of the residuals of each model did not translate to any problems with autocorrelation.

The employment of the comparison group of 6-11 years old functioned to control history threats in the research. The age cohort served as a form of comparison for the young children's exposure to motor vehicle in terms of traveling patterns and body structure (Houston et al., 2001). There were also other variables that were added according to how they affected traffic safety; they were used as control variables. The introduction of control variables was used in fatality rates studies that involved motor vehicle passengers.

Qualitative Methodology, Sampling and Validity

Burham (1996) employed a discourse analysis of that represented the discourse shifts concerning the bearer of responsibility when it came to injuries or death of small children. The discourse analysis was a qualitative research design because of the exploratory nature of this method. The discourse analysis was capable of providing answers to problems or inquiries

based on both scientific approaches and epistemological assumptions. It was an methodological approach of thinking about a problem through the deconstruction of a text or an interpretation of a problem. The descriptive approach was because the study's objective was to discover a trend or a theory regarding the issue of accident accountability for young children.

Burnham (1996) used statements that were made by different opinion leaders and professionals in the field of public policy and social issues. The discourse that came from these professionals was labeled " how to manage the child's body" (Burnham, 1996). The printed sources that Burnham (1996) analyzed were the data that was used to gain unstated and explicit assumptions regarding the issue of child safety and accident prevention.

Burnham (1996) noted that it was difficult to find material on accidents where it may reasonably. Most of the time, publication materials that discussed technological innovation would suppress any discussion relating to possible accidental injuries. The same topic also did not appear in publications that discussed about the proper care of infants and toddlers. Legislation was observed to provide little clarity in terms of the questions of responsibility for the children because most cases produced no patterns as to when the parents were held liable for their child' safety and when they were not. Historians were also observed to be inattentive to the responsibility of family and the community for the physical well being of children and toddlers.

The data gathering method in qualitative research were in the form of questions that would allow the research room to grow and allow other areas to be included if necessary. Texts based on a broad sampling approach which included data that talked about the topic. Most of the time, qualitative research depended little on literature reviews. However, this article used secondary data to represent the different shifts in ideology concerning accident responsibility and young children.

The author described the relationship of technology and accident prevention through its progression in a chronological manner. He started with the earliest conceptions of private and unavoidable accidents. Burnham (1996) started from the perceptions of Americans in 1607, as historians recorded this time wherein people held a resignation for tragic deaths of young children. The author moved into the 19th century texts and discussed how proper upbringing was promoted but child rearing remained a private issue for the family. Burnham (1996) also included texts from the progressive era wherein safety became a public concern. Then, the author spoke of a time wherein safety writers spoke of the home and the negligent parents to be responsible for the children's injuries or deaths. The middle of the 20th century was reflected to shift away from blaming the parents and the discourse continue on into the different eras wherein the blame was transferred on the manufacturers of commodities and their standards for safety prevention.

When it came to validity, the author presented a wide range of analysis based on the progression of the transition of blame from non-existent, to the

parents and to the manufacturers of the commodities. This was done through a careful chronology in the shifts that were observed over the years. Everything was based on secondary literature that represented the historians and social advocates' views on child-rearing and safety issues.

Section 3

Houston and his colleagues (2001) hypothesized that the child safety seat reduced the fatality rates of young children. It was important for them to note the significance of proving this hypothesis through presenting the research gap that existed regarding the effectiveness of legislation of decreasing the risk for children passengers in vehicular accidents. However, the hypothesis was limited in the presentation of the control variables, such as traffic rules and others. While the study focused on the effect of the legislation, it also needed to give fair attention on the selection of the control variables and their connection to the study.

Since the fatality rate was only reduced and not completely eliminated, it was also important to analyze the extent of the remaining percentage of fatalities were related to safety child seats. This would reflect areas wherein the legislation missed out or concerns that were left uncovered. If the researchers analyzed the fatality rates according to their causes, it would show if child car seats addressed problems that were beyond following traffic rules and factors that were included in the existing control variables. In short, it would answer the question, " what else is wrong with the system?"

or “ how can legislators do to make the law better?” In a way, these inquiries could extend or expound on the effectiveness of the legislation.

There was also no specific attention that was given to the impact of the differences legislative policies had in the reduction of fatality rates. The authors pointed out that the states had different provisions that advocated the use of child safety seats. This would reveal why and how some states had different provisions than that of others when it came to child seat laws. The method that could have been employed could be a cross-section analysis of the different states’ fatality rates according to the independent variables of the differences in the provision.

Qualitative research approaches did not have a hypothesis to begin with because these studies were meant to produce one as an outcome. While Burnham (1996) pointed out that strategic attempts to prevent accidents for infants and toddlers were still unclear, he presented the finding that this group was better protected today than they were over the decades that were reviewed in his study. He related the improvement in child and infant care to the increase in attention for control and accident prevention. However, there was little that explanations presented on the relationship accident prevention to this decrease based on a 21st century perspective. The hypothesis also needed to delve deeper by presenting a theoretical conception of the modernist approach and its relationship to the effectiveness of accident prevention strategies.

Based on the research, he presented the hypothesis that the modernist approaches to preventing accidents by placing control on the liability for manufacturers was effective because of the decrease in fatalities and injuries that young children incur. The hypothesis of the research was based on a review of secondary research. Since there were no primary sources that were offered in this study, it could provide problems for the research's validity and reliability.

Other methods of analysis could have included a focus group discussions and descriptive surveys as to the pulse of parents, as well as companies with regards to the current perception of responsibility. Since the author had already stated that there were limited sources that talked about accident prevention, this study could have contributed significantly if primary sources were utilized. Most of the data that were gathered were from the texts that the media provided for, primary sources could have been gathered through focus group discussions and surveys.

Since legal standards were said to be unclear in providing guidance for responsibility, it would have been significant to consider the basis for the existing legal provisions for child negligence and accident prevention. The laws were created based on a need. It would have been critical to consider the progression of the laws. This would have presented the impact of shifts in perspectives of responsibility into the solutions of the legislation have for these problems through socio-legal research approaches.

Section 4

Quantitative versus Qualitative

Quantitative and qualitative research methods were different approaches to a study's method. A quantitative research was described to utilize a deductive method, while a qualitative method used an inductive one. Even the starting point of these methods was different. The quantitative research was used to test hypotheses and theories and qualitative methods were used to discover them.

The objective of a quantitative research is to explain or to prove. It was usually utilized explain a cause and effect relationship. This design is specific and narrow in nature. It follows a certain standard by which statistical and fixed instruments were used. Data were collected through precise measurements such as rating scales and other quantifiable data. In order to ensure the validity of the research, the authors usually stayed as objective as possible by separating themselves from any personal observations. They usually relied on the statistical instruments to achieve the objective of the research.

On the other hand, the qualitative approach required the researcher to become immersed in the subject in such a way that the research becomes an instrument of data collection as well. A qualitative research employed an exploratory approach. It did not have a fixed theory or hypothesis in place because it offered to discover, instead of to prove something. The nature of such research was broad because of its flexibility to discover new things. Usually, interviews, observations and discourses were used as data collection

tools. It was appropriate to use this study when variables are yet unknown and there was little evidence from literature that was available.

Methodological Analysis

Houston and his colleagues (2001) employed a quantitative approach to their study. They used statistical tools that correlated data over a time series to gauge the effect of the child safety seat legislation on the rate of fatality of the young children. The researchers' objective was to measure the effect of the law and they appropriately used the quantitative method in order to measure this. However, there were other areas in this issue that could be addressed if they employed a qualitative method.

This issue could be analyzed through a presentation of trends in car safety and child rearing over the years. A descriptive analysis of the creation of the child safety car seat law would present a better idea of what it was about and how it came to be. It would offer descriptions that would explain and support the differences in the provisions of the fifty states in regards to the implementation of this law.

In line with this, the effectiveness of the law could also be further explored through focus group discussion or case studies of the families that experienced child fatalities that were related to the absence or the presence of child safety car seats. This would provide a description of the existing problem regarding the legislation and could provide suggestions as to how it could be remedied and improved. This was something that could create

theories and hypotheses as to why there were still families that experienced fatalities that were related to this issue despite its reported effectiveness.

Burnham (1996) employed a qualitative study that was aimed to reflect on the shifts in the perspectives on the responsibility associated with children fatalities and injuries. He created a discourse on the literature regarding this issue throughout the years. While this study presented valuable points that described the shifts in the trends, there needed to be quantifiable data for him to conclude that the regulation laws that were placed on manufacturers of commodities were effective in decreasing fatality rate.

A study that would analyze the effectiveness of this law, similar to what Houston did with a pooled time series analysis would evaluate whether safety regulation laws as well as family laws that protected the safety of children and infants were effective. This would reveal a cross-analysis in the time these laws were implemented and the time wherein there were no laws that looked into the deaths of the children.

It was also important to conduct a study that would evaluate the laws according to the level of responsibility the manufacturers had gained since they were implemented. This could be done through an analysis of the laws and the changes that were observed in the standards of quality that were presented through the media and through the corporate image of the company.

Since a hypothesis was already gathered from Burnham's (1996) study regarding the impact of these laws and perspectives in the improvement of

child rearing and accident prevention strategies, it was time to implement a research that would evaluate these laws. It was important to point out whether it were laws that punished parent negligence laws that provided manufacturer responsibility that brought about this decrease in child injury and fatality cases. A quantitative approach could measure the effectiveness and correlation of each with this finding.

Section 5

Public policy issues involved a certain level of subjectivity because there were different parties that were involved in every issue. These issues sought to protect one party from another, and vice versa. Since authors were humans and they held their own views, there would remain a level of subjectivity in their work.

Houston and his colleagues (2001) presented a study that related the child safety seats law in fifty different states to impact the reduction in fatalities amongst the children that were six years old or younger. The assumptions of this research were based on the fact that these laws impacted this reduction, considering a number of other factors that served as control variables. This research presented the role of the car safety seat in the prevention of fatalities. The assumption was if the child was in a car seat, it was unlikely that the child would be injured or would die in case of a vehicular accident.

However, there were opposing views as to the causes of child fatalities. The number one view that could be presented involved the negligence of parents. More than the car seats, it was the parents' responsibility to keep

their children safe. It was their negligence and disregard for their children's safety could have prevented these accidents, even if their children were not in car seats. When it came to accident prevention, the blame should not be placed in the absence of car seats, nor should it be because of the ineffectiveness of the law regarding them, rather it needed to be on the part of the parents.

Burham (1996) presented the shift in the blame for children accidents and fatalities. The tone of the discourse he had presented involved the question as to why manufacturers of commodities were held responsible for such accidents. The author was inclined to present that the perspectives dwelled on keeping the issue private or blaming the companies that produced the products. The discussion also heavily involved why the blame on the parents has shifted to the manufacturers when it needed to be about parental concerns. Opposing groups would criticize this and present that it was valid that each company should maintain the quality of their products. Laws and standards existed in order to maintain a high level of control on accident prevention.

The modernist approach did involve employing a high level of control but it was not about trying to control one's fate as the author mentioned. It was about the perspective of preparedness. Since manufacturers produced these products, they needed to ensure their quality. They should be able to include the welfare of the consumers' in the design of the production. In the same way, the shift to engineering responsibilities of the blame for children accidents did not entirely mean that the parents were not held responsible

anymore. The author did not find a pattern in legislation because the blame for responsibility should not be exclusive for any party for a pattern to exist. Rather, responsibility needed to be examined in a court of law that protects the children from both the negligence of the parents and the manufacturers alike.

References

Burnham, J. (1996). Why did the infants and toddlers die? Shifts in Americans' ideas of responsibility for accidents - from blaming Mom to engineering. *Journal of Social History* (29) 4, pp. 817+.

Houston, D., Lilliard, R., and Neeley, G. (2001). The effectiveness of child safety seat laws in the fifty states. *Policy Studies Review* 18 (1), p. 163.

Sayrs, L. (1989). Pooled time series analysis . *QASS 70* . Retrieved on July 14, 2009, from <http://faculty.chass.ncsu.edu/garson/PA765/time.htm>.