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**A STUDY ON THE VULNERABILITY OF CHILDREN IN FIREWORK INDUSTRIES IN SIVAKASI**- M.Santhi<sup>1</sup> & P.Sornamugi<sup>2</sup>**ABSTRACT**

The children in the firework industry in Sivakasi is a significant concern that requires immediate attention. This practice violates the fundamental human rights of children and puts their safety and well-being at risk. The ultimate goal is to eliminate child labour in Sivakasi's firework industry and promote all children's well-being. The research method followed is Empirical research. The data is collected through a questionnaire, and the sample frame size is 200. A simple random sampling method was adopted in the study to collect the data. The samples were collected from in and around Sivakasi. The independent variables are Gender, age, educational qualification, and living place. The dependent variables are the reason for children in the fireworks industry. The research used tools like graphs, tables etc. The use of child labour in this industry not only violates human rights but also poses a threat to the safety and well-being of these children. The government must take steps to enforce existing child labour laws and regulations in the firework industry. This includes increasing inspections and penalties for violations and providing support and resources for the rehabilitation and education of children involved in this industry. Overall, the use of child labour in the firework industry in Sivakasi is a complex problem that requires a multi-faceted approach involving government, businesses, and civil society organisations to address. Action must be taken to protect the rights and well-being of children and ensure their access to education and opportunities for a better future.

**Keywords:** Fireworks, Industry, Rights, Children, Regulation and Education.

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## INTRODUCTION

The Sivakasi, an industrial town in Tamil Nadu, houses the world's largest concentration of child labour in its various units. Out of a total population of 100,000 workers in the match and fireworks industries, the child worker population is around 45,000, mainly below the age of 14. A member of the People's Union for Civil Liberties investigated the continuing evil of child labour. The industry has a long history dating back to the early 20th century, and today it produces a wide variety of fireworks ranging from sparklers and fountains to aerial shells and rockets. The industry employs tens of thousands of people working in small family-owned businesses. The manufacturing process is labour-intensive and involves several specialised skills, including chemical mixing, hand-rolling and assembly, and packaging. The Sivakasi fireworks industry has faced several challenges recently, including increased government regulation and safety concerns. In 2012, a significant explosion at a fireworks factory in Sivakasi killed over 40 people and injured many others, leading to calls for stricter safety measures. Despite these challenges, the industry continues to thrive and remains an essential source of employment and revenue for the region. The Vulnerability of Children in firework industries in Sivakasi aims to understand the risks and challenges faced by children who work in the firework industry in Sivakasi, a town located in the state of Tamil Nadu in India, which is known for its large-scale production of fireworks. In September 2012, Sivakasi witnessed an explosion that claimed 54 lives. Between January 2011 and September 2012, at least eight blasts occurred in or near Sivakasi. But Sivakasi remains where it has been because of factory owners' patronage from police and politicians. The government and the fireworks industry seem to think that if things are 'handled' properly, they are unlikely to suffer severe damage. The morning is still dark when company buses pick up sleepy children from the villages around Sivakasi. The daily grind begins once the buses deliver their human cargo at the factory gates. There is a short recess in the afternoon when the children wolf down the curd rice they bring with them from home. Exhausted beyond description, they return home late in the evening. The truth is that every fourth Indian child must go to work for their survival and that of their family. While official sources maintain that the total number of child workers would be in the region of 20 million, independent sources claim that 50 million, if not more, would be a more accurate figure. There's no denying that the Constitution has been betrayed by successive governments at the Centre and in the states in guaranteeing children's rights. Overall, the study aims to provide insights into the vulnerability of children in the firework industry in Sivakasi and to inform policies and practices that can improve their well-

being and protect their rights. Overall, the use of child labour in the firework industry in Sivakasi is a complex problem that requires a multi-faceted approach involving government, businesses, and civil society organisations to address. Action must be taken to protect the rights and well-being of children and ensure their access to education and opportunities for a better future. This paper aims to prevent children from working in the fireworks industry.

### OBJECTIVES

- To identify the age, gender, and socio-economic background of children.
- To assess the working conditions of children in the firework industry.
- To understand the health risks and safety hazards faced by children.
- To prevent the children from fireworks Industries.

### REVIEW OF LITERATURE

- The author says Common sense perception of the issue is that child labour results from poverty. There are also arguments that child labour reinforces poverty. While it is true that most of the working children are drawn from the poorer segments of the population, there are also other demographic factors associated with it. Hence, this paper examines child labour in Tamil Nadu and finds out the general socioeconomic conditions of child labour in the Tuticorin district (**Lohrmann et al., 2023**).
- This paper says Eye burns can cause significant ocular morbidity and miss early detection if unsuspected. The objective was to ascertain the reported causes of burns to the eyes in children. This article shows that children experience eye burns due to many preventable causes. Public education strategies should be implemented to prevent eye burns in children ( **Ratnapalan, 2023**).
- The author explains that the worldwide use of fireworks with their consequent detrimental effect on air quality is widely recognised with elevated ambient air levels of particulate matter and its several metallic components and gases identified in several studies conducted during such events. Implementing global strategies to control fireworks and improve air quality could reduce their likely detrimental effect on human respiratory health in exposed individuals. Still, more targeted research is needed (**Bonti et al., 2023**).

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- This study investigated the relationship between parents' socio-economic status and child labour practices in Micheweni District Zanzibar. This study's main objective was to establish a connection between parents' socio-economic status and child labour practices in Micheweni District, Zanzibar. The study employed a survey method to gather data from 363 respondents, including parents and children. Frequency and percentage counts mean Pearson Product Moment correlation and regression analysis were used for data analyses (**Coutsouvelis et al. 2023**).
- The author says the principal goal of the current study is to assess perchlorate contamination of groundwater and related health risks from the fireworks manufacturing area (Sivakasi) in South India. Seventy-four groundwater samples were gathered and analysed for electrical conductivity (EC), pH, total dissolved solids (TDS), sodium (Na<sup>+</sup>), magnesium (Mg<sup>2+</sup>), calcium (Ca<sup>2+</sup>), potassium (K<sup>+</sup>), sulphate (SO<sub>4</sub><sup>2-</sup>), bicarbonate (HCO<sub>3</sub><sup>-</sup>), chloride (Cl<sup>-</sup>), fluoride (F<sup>-</sup>), nitrate (NO<sub>3</sub><sup>-</sup>), and perchlorate (ClO<sub>4</sub><sup>-</sup>). This study suggests that higher health risks inferred for infants must be cared for with a suitable management plan to recover the water quality to evade significant health problems in the future. (**Karunanidhi et al. 2022**)
- The author says Globalisation should be beneficial in the long term. Developing countries, through increased FDI and better access to world markets, should boost their exports, benefit from advanced techniques and skills, improve productivity, and increase the number of productive jobs in the modern sector of the economy (**Naseem et al., 2020**).
- The Man Made disasters due to accidental explosions in fireworks industries are common in the Sivakasi town of Tamilnadu. With around 450 fireworks factories employing about 40000 direct and 100000 indirect labours, an equal proportion of the unauthorised manufacturing sector controls fireworks products' manufacturing. Hence, an attempt is made to identify the nature of explosion hazards by conducting questionnaire surveys in fireworks industries. The survey was conducted in 77 authorised industries and 16 unauthorised fireworks industrial areas, which aimed at studying the status of the working environment, type of construction and other social factors of fireworks industries (**Sekar.Et al.,2019**)

- The author describes that Although most research related to urban noise exposure refers mainly to transportation noise, epidemiological research has already demonstrated the risks of leisure noise exposure, including fireworks, on children, the youth, and young adults, thus denoting the need for further investigation. Suggested solutions highlight the following safety measures: the use of quiet fireworks, the reduction of music volume at pyro-musical events, changes to the public's position and implementation of public sessions to raise the population's awareness about harmful noise effects, particularly for groups that are more sensitive to noise (**Passet al.,2018**).
- In Nepal, nearly one in every three children aged 5 to 14 are child labourers. The growth of labour-intensive industries and rapid urbanisation have created additional demand for child labour in Nepal. Many children now work in these industries to manufacture carpets, garments and wood products. Hiraoka and Rana highlighted the lack of uniformity in estimating child labour in Nepal. The Nepal Rugmark Foundation was launched to identify the number of children under 14 years working in carpet factories that have signed up for bonding labour (**Birgitta.et,2019**).
- The author says Globalisation should be beneficial in the long term. The author Few problems confronting humanity are as baffling and complex as that of child labour. The most common cause of child labour is poverty. Low-income families depend on their children's income, who may be as young as five years. The lack of access to education compounds this. Most countries have legislation seeking to prevent child labour. In practice, however, these are not always implemented, and many developing countries continue to put their children to work. These include 180% poverty, lack of access to primary and vocational education, cultural acceptance of norms such as apprenticeships and bonded labour, etc. (**Chanda,2017**).

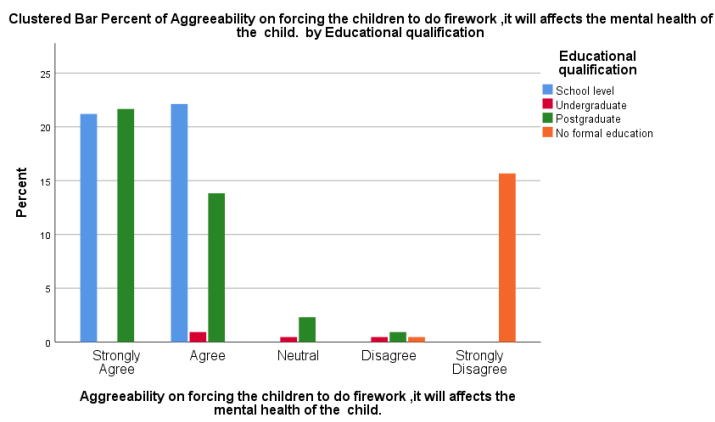
## METHODOLOGY

The research method followed is Empirical research. The data is collected through a questionnaire, and the sample size is 200. A simple random sampling method was adopted in the study to collect the data. The samples were collected from in and around Sivakasi. The independent variables are Gender, age, educational qualification, and living place. The

dependent variables are the reason for children in the fireworks industry. The research used tools like graphs, tables etc.,

**ANALYSIS**

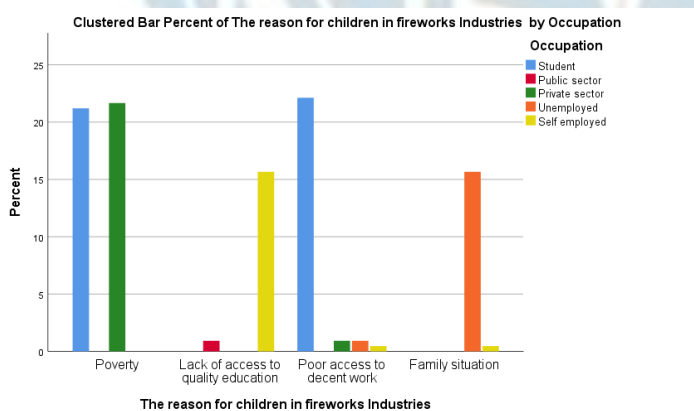
**Figure 1**



**Legend**

The figure shows that educational qualification is compared to forcing children to do fireworks.

**Figure 2**



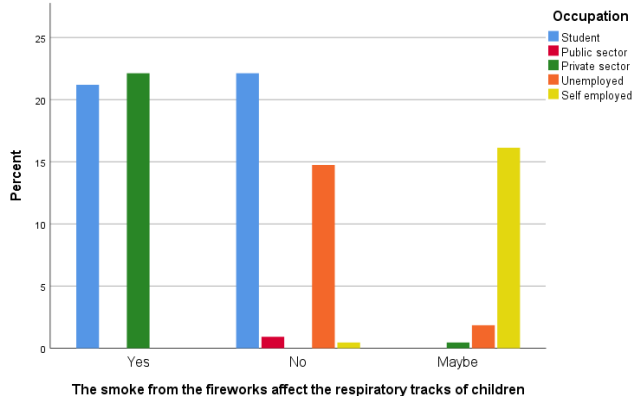
**Legend**

The figure shows that occupation is compared to the reason for children in the fireworks industry.

**Figure 3**

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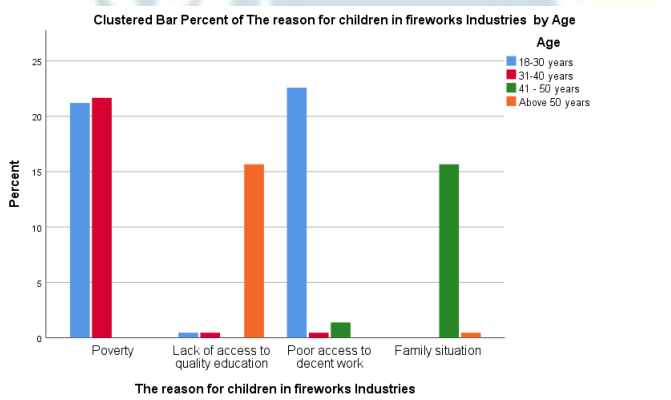
Clustered Bar Percent of The smoke from the fireworks affect the respiratory tracks of children by Occupation



**Legend**

The figure shows that occupation compared to fireworks affects the respiratory tract of children.

**Figure 4**

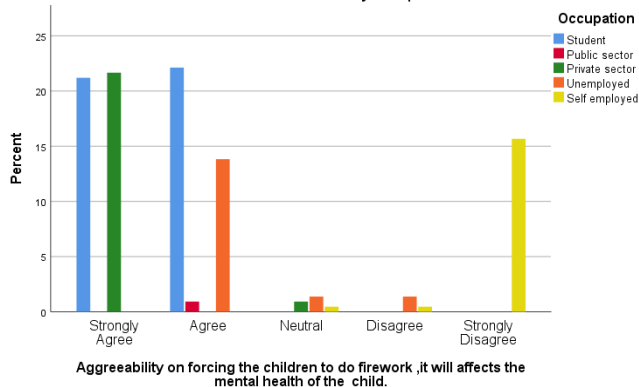


**Legend**

The figure shows that Age is compared to the reason for children in fireworks industries.

**Figure 5**

Clustered Bar Percent of Agreeability on forcing the children to do firework ,it will affects the mental health of the child. by Occupation



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## Legend

The figure clearly shows occupation compared to agreeability of forcing the children.

## RESULTS

The figure shows that school-level students give maximum responses and undergraduate students give minimum answers (**figure 1**). The figure indicates that school-level students give top replies, and the public sector offers minimum responses (**figure 2**). The figure shows that students give maximum answers and public sector people give minimum responses (**figure 3**). The figure shows that ages 18-30 give top replies, and ages 41-50 give minimum responses (**figure 4**). The figure shows that students give maximum answers and public sector people give minimum responses (**figure 5**).

## DISCUSSIONS

The figure clearly shows that most school students agree with this statement. They might think forcing the children to do fireworks affects the mental health of children, and this statement does not support undergraduates. They might not be aware of it (**figure 1**). The figure clearly shows that the maximum number of school students says poverty is the main reason for children working in firework industries, and the public sector says lack of access to quality education is the main reason for children working in firework industries (**figure 2**). The figure shows that the maximum of students supported by this statement might be aware of it, and the public sector gives minimum support; they might not be mindful of it (**figure 3**). The figure shows that aged 18-30 people say poverty is the main reason for children working in firework industries, and the age of 41-50 says family situation is the main reason (**figure 4**). From the figure, the maximum number of school students strongly agree they might be thinking of forcing children it will affect the mental health of children and public sector people give minimum responses that they might be busy with their work (**figure 5**).

## SUGGESTION

I suggest that the government takes steps to enforce existing child labour laws and regulations in the firework industry. This includes increasing inspections and penalties for violations and providing support and resources for the rehabilitation and education of children involved in this industry.



## CONCLUSION

The involvement of children in the firework industry in Sivakasi is a severe issue that requires immediate attention. The use of child labour in this industry not only violates human rights but also poses a threat to the safety and well-being of these children. The government must take steps to enforce existing child labour laws and regulations in the firework industry. This includes increasing inspections and penalties for violations and providing support and resources for the rehabilitation and education of children involved in this industry. Furthermore, businesses in the firework industry must take responsibility for their supply chains and ensure that child labour is not used in any aspect of their operations. This requires increased industry transparency and accountability and collaboration with government agencies and civil society organisations to address this issue. Overall, the use of child labour in the firework industry in Sivakasi is a complex problem that requires a multi-faceted approach involving government, businesses, and civil society organisations to address. Action must be taken to protect the rights and well-being of children and ensure their access to education and opportunities for a better future.

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