

Article

A Study on the Direction of Disaster Prevention Design for Creating Child-Friendly Urban Environments

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Abstract: This study aimed to investigate the direction of disaster prevention design for creating a child-friendly urban environment. It emphasized the validity and necessity of disaster prevention design that considers the safety and rights of children and concluded that it should be recognized as an important task by urban residents, urban planning experts, and government officials.

The research employed methods such as literature review, analysis of child risks, analysis of urban facilities, and solicitation of child participation and opinions. Through the literature review, the study analyzed existing research and theoretical backgrounds to establish the rationale for creating a child-friendly urban environment. The analysis of risks faced by children in urban settings and the identification of inappropriate design elements in current urban facilities revealed design elements that can meet the needs and characteristics of children as well as areas requiring improvement. Additionally, through the participation and solicitation of opinions from children, the study explored the necessity of disaster prevention design and potential approaches.

As a result, this study was able to present the direction of disaster prevention design for creating a child-friendly urban environment. It is expected to contribute to ensuring the safe growth and rights of children, supporting a happy urban life, and achieving a sustainable and child-friendly urban environment in the future. **Keywords:** Disaster Prevention Design; Child-Friendly; Urban Environments; Design

1. Introduction

The development of modern urbanization and industrialization has brought about revolutionary changes in urban living, greatly impacting the living environment of children in cities. Cities are spaces where diverse cultural, economic, and social factors intersect, providing children with platforms for growth and opportunities, but they can also pose risks and challenges. In particular, children are more vulnerable to potential hazards that can arise in cities due to their immature cognition and behavioral capacity.

Creating a city environment that considers the safety and convenience of children has emerged as an important task in contemporary society. To foster child-friendly urban environments, the design and components of various urban facilities, such as residential areas, school districts, parks, and playgrounds, need to be considered in a way that meets the characteristics and needs of children. Consequently, Disaster Prevention Design can serve as a key strategy to ensure the safety of children and enhance their quality of life in the city.

The aim of this study is to present the direction of disaster prevention design for creating a child-friendly urban environment. To achieve this, an analysis will be conducted on the risks children face in traditional urban environments and the inappropriate design elements of urban facilities. The study will investigate the principles and case studies of disaster prevention design that consider the safety and convenience of children. Furthermore, it will explore disaster prevention design strategies to address the urban risks faced by children in the current urban environment, and propose effective implementation approaches for disaster prevention design through the involvement and perspectives of children.

This paper aims to provide a theoretical foundation for the creation of a child-friendly urban environment, emphasizing the importance of disaster prevention design that considers the safety and convenience of children to urban residents, planners, and government officials. Through this, it is anticipated that support for the safe growth and happy urban living of children can be provided, contributing to the realization of a sustainable and child-friendly urban environment in the future.

2. Materials and Methods

The following research methods are proposed to investigate the direction of disaster prevention design for creating child-friendly urban environments in this paper

Literature review: Conduct a comprehensive review of literature related to creating child-friendly urban environments, including previous studies and theoretical background. Enhance understanding of existing research on disaster prevention design and the characteristics and needs of children.

Child risk analysis: Analyze the risks faced by children in traditional urban environments. Collect and analyze information on child risks in urban settings through accident statistics, case studies, interviews, and other methods.

Urban facility analysis: Analyze the design and components of various urban facilities such as residential areas, schools, parks, and playgrounds. Identify design elements that can meet the characteristics and needs of children and identify inappropriate design factors in current urban facilities.

Child participation and opinion gathering: Validate the feasibility and effectiveness of disaster prevention design through the participation and opinions of children. Use methods such as surveys, interviews, and focus groups to understand the demands and desires of children and propose disaster prevention designs that reflect their perspectives.

Analysis and interpretation of results: Conduct a comprehensive analysis and interpretation of collected data and results. Validate the research objectives and hypotheses and derive the direction of disaster prevention design for creating child-friendly urban environments..

3. Conclusions

The purpose of this study was to explore the direction of disaster prevention design for creating a child-friendly urban environment. The study emphasized the importance and necessity of disaster prevention design that considers the safety and rights of children, highlighting it as a crucial task for urban residents, urban planning experts, and government officials.

Through a literature review, the analysis of existing research and theoretical background revealed that various studies have been conducted on the creation of child-friendly urban environments. This helped establish the significance and direction of disaster prevention design.

Furthermore, an analysis was conducted on the risks faced by children in urban environments and the inappropriate design elements of current urban facilities. This analysis identified design elements that can meet the characteristics and needs of children, as well as areas that require improvement.

The study also explored the importance and implementation strategies of disaster prevention design through the participation and inclusion of children's opinions. It was confirmed that disaster prevention design, which reflects the perspectives and demands of children, is a key strategy to support their safe growth and happy urban living.

By comprehensively analyzing and interpreting these research findings, the study was able to present the direction of disaster prevention design for creating a child-friendly urban environment. It is expected that by emphasizing the importance of disaster prevention design that considers the safety and convenience of children and by providing its direction, this study will contribute to supporting the safe growth and happy urban living of children, and to the realization of a sustainable and child-friendly urban environment in the future.

References

1. Youngjun Kim, Hwangwoo Noh.(2021).A Study on the Disaster Prevention Design Of School Zone.JOURNAL OF THE KOREA CONTENTS ASSOCIATION,21(5),868-876.