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# Danger in a House: A Toddler's Interaction with Possible Risks

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## Abstract

In Japan, the most frequent causes of children over 1 years old was death by accident. In this paper, we tried to understand what kind of possible dangers there are in a house, and how a toddler recognize them. The result indicated that at least at 15 month, the toddler interacted with various dangerous things in a house.

**Keywords:** toddler, risk perception, everyday activity

## Introduction

In Japan, according to the statistics from 1960 and onward, the most frequent cause of the death of children age between one and nineteen was unexpected accidents. The reasons for this may be

- It is not well understood for children themselves and those who take care of them realize the dangers in various everyday tools and play equipments.
- Although after the accidents happen, the information of them and other know-how's to prevent them are not shared between those who are relevant and responsible.

According to the survey by Morrongiello[1], children only understand less than half of what their parents supposed to have taught them. We see in parks that parents invite their children to play with equipments that are above their physical capability levels. This episode indicate that even parents do not understand the designers' intended level of the play equipments.

In this paper, we describe our first observational study on how a child interact with things in a house, and how the interaction evolves with her development, especially on her perception of dangerous things in a house.

## Method

Daily activities of a baby A was videotaped monthly from 4-month to 15-month. Each recording was done for the whole 24 hours. Videotapes were analyzed especially on which things she touched and what kind of interactions there were in a day. Database was created for all things that she touched in the video.

## Participant

Baby A goes to nursery school on weekdays and stay at her house with her parents on weekends. The house consists of three members, father, mother and baby A. Video recordings were done in holidays when all three members were present.

Data was collected from August 2005 (4 month old) to June 2006 (15 month old).

## Method of Data Collection

Video was recorded by a digital video camera (Sony PC350) and saved to PC encoded to MPEG2. When she was at the bedroom and bathroom, video was taken by another handy camera. From the videotapes recorded, utterances of A, objects of interaction (things, people), kind of interaction were categorized and recorded along the timeline. Here, an incident of interaction is defined as an instance of A's physical contact with a thing or a person. Numbers of such interaction were counted for each 10-minute sections. For each recorded day, one hour and half portion after A's wake up was analyzed.

## Result and Discussion

Number of interaction increased about 10 times in 10-month, 15-month, compare to those in 4-month period. At 10 month, frequencies of interaction were more compared to 15-month, but number of kinds of things of interaction was doubled in 15-month.

A at 4 month, as there were no meaningful utterances, we could not see how she understand dangers. Although, she stayed almost all her time in bed, she touched the fence of her bed, and interacted with things near it, which sometimes caused possible fall from the bed. At 10 month, she could stand up by grasping things around her, she could not step on things, such as boxes. At 15 month, she toddled a bit, and she stepped down slowly and carefully from the bathroom to the corridor, suggesting that she has some knowledge of the danger of the height of the route. Still, she did not seem to have any understanding of artifacts such as an electronic fan, electronic outlets, and others. As for the heat of the food, there was a mention of precaution for hot food such as soup and drinks at mealtime.

It is important for those who take care of toddlers so that there are any dangerous things around them. Still it is also important for us to understand what kids less than two years old recognize various risks and dangers around them. It is common to make the kid's space safe so that there are little risks for them. However, the deprivation of possible risks in a house may result in ignorance of possible dangers outside the safe environment. We are now studying the relationship between exposure to possible risks at the early stage and their development of risk perception at the later stage.

## References

- [1] Morrongiello, B. A., et al.; Don't run with scissors; *Journal of Pediatric psychology*; 26,105-115, (2001).