



# Child Development Research Unit



2013 NEWSLETTER!

## Greetings and THANKS from Dr. Morrongiello and staff!

This newsletter reports research findings from projects completed at the Child Development Research Unit. Our staff and students are very grateful for the time and effort you have given to participate in our research. Our projects have involved a wide range of activities over a long period of time, and all have been very successful in advancing our understanding of issues related to child health and safety. Because of the large number of participants needed to ensure that our findings are reliable and apply generally to children and families, it sometimes takes quite a while to complete our research. Thank you so much for your patience in waiting to receive the results of the project in which you and/or your family participated.

I hope you enjoy the newsletter and that the findings we report demonstrate to you the value of the research that you are helping us to complete. Without your efforts and support our research would not be possible! If you know of any other families with children who may be interested in research, please pass the newsletter along to them and encourage them to contact us to find out more about getting involved. We are ALWAYS in need of families who wish to participate!

Again, thank you for your participation and support!

Sincerely,

Dr. Barbara Morrongiello

Director of the CDRU

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ENCOURAGE A FRIEND TO CALL US TODAY!

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<http://www.uoguelph.ca/~cdru/>

# IN THIS NEWSLETTER

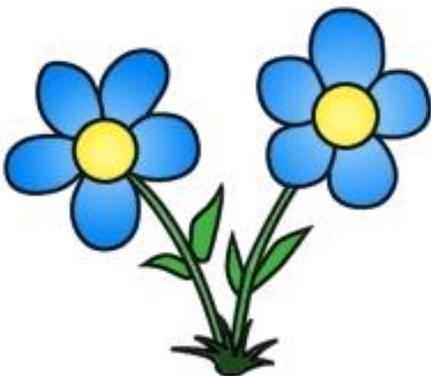
## Recently Completed Projects

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## Recently Completed Projects

### Unintentional Injury Risk in School-age Children: Inter-relations between Parent and Child Factors

Parents of school-age children have the difficult task of balancing keeping their child safe with allowing their child independence to play with friends without adult supervision.

This study found that the parent and child factors that influence the likelihood of injury are inter-related. Specifically, a child's *consistency* in risk-taking was related to a mother's *accuracy* in predicting the child's risk-taking behaviours. And the mother's accuracy scores, in turn, related to the rate of unintentional injury for their school-age children.

Parents who had children who were *inconsistent* in risk taking (i.e., sometimes the child would take risks and other times not) often were overly cautious and assumed that their children *would* take risks. This enhanced parents' safety practices, thereby reducing children's risk of injury.

Surprisingly, when children were very *consistent* in risk taking, parents were often optimistic that the child could manage risk taking without getting hurt. This reduced the likelihood of parents implementing safety precautions, thereby increasing children's injury risk.

#### What Features of Images Influence Parents' Reactions to Safety Messages?



This study was designed to find out more about parents' perceptions of images that accompany written safety messages. Historically, there has been much debate about whether or not these

images should show negative injury consequences, such as a child crying. In this study, mothers of young children were presented with two types of images: One that showed an injury outcome and expressions of fear or upset on the child's face, and the other that showed the risk behaviour by the child (e.g., running on stairs) but no consequence.

Results revealed that it is important to show injury consequences. Mothers rated the injury consequence images as a better fit to the safety messages, better at communicating danger, and more eye-catching and emotionally arousing. Thus, showing injury consequences is important when developing child safety messages for parents.

#### Mothers' Teaching of Safety Rules for Child Injury Prevention

In this study, mothers reported on the home-safety rules they have tried to teach their toddlers.

Results indicated that parents create more safety rules as children age. Safety rules were usually developed *in reaction* to the child doing something that could lead to injury or asking something that indicated the child was not aware of an important safety issue.

To teach safety rules, mothers tried restating rules often, explaining the safety issue, and showing children how to behave safely. As children got older, mothers used a 'fear eliciting' approach sometimes, so children would learn what injuries could occur if they did not follow the safety rule.

Mothers reported that children were not always compliant with rules. Sometimes children did not understand the safety issue but other times they understood but still chose not to comply.



Overall, it seems that repetition and persistence are important for teaching young children safety rules. Because it takes a while for children to understand the safety issue and they are not always compliant with rules, it is important that parents continue to supervise closely as they work on teaching children about safety. Teaching is not a good substitute for supervising when children are very young.

### **Assessing the Effectiveness of the CDRU's *Supervising for Home Safety* program**

We know that active supervision by parents works to prevent injuries to children, but parents do not always supervise closely. In this study, the CDRU developed a program called *Supervising for Home Safety*, and examined its effectiveness for improving parent supervision practices.

Parents were randomly divided into two groups: One group watched the program's safety video designed to improve supervision, and the other watched a video targeting healthy eating habits and physical activity. Parent supervision was assessed before and after watching the home supervision and healthy eating videos.



Results indicated that parents who viewed the program's safety video improved their supervision at home, while the healthy lifestyle group did not. Also, these improvements in supervision persisted.

We are very excited to report that this year the *Supervising for Home Safety* program is going to be delivered at some Early Years Centers in our area so

more parents can learn techniques to improve their home supervision practices and decrease children's risk of injury.

### **Examining the Effectiveness of Storybooks for Teaching Safety to Children**

While it is crucial that parents learn about effective safety practices, children also need to learn about these. Making up rules is one way to teach children about safety, but another way is through storybooks. In this project, the CDRU designed a storybook called 'Careful Puppy Saves the Day' and examined its effectiveness in teaching children about home hazards and safety issues.

For four weeks, mothers and their 3-5 year-old children read the Careful Puppy storybook.

Measures of children's knowledge of home hazards were taken before and after reading the storybook.

Results showed that children who read the Careful Puppy storybook learned a lot about safety! They were able to identify more hazards in photos and they showed fewer risky behaviours, compared to children who read a different storybook. It is clear that the Careful Puppy storybook is a fun and effective way to teach young children about safety.



### **The Impact of Instruction on the Supervision Practices of Older Siblings**

Younger siblings are more likely to become injured when being supervised by an older sibling than a parent. This study sought to determine whether explicitly instructing older siblings to supervise their

younger siblings and prevent specific risky behaviours improves their supervision practices.



Results confirmed that older siblings who were *explicitly told* to supervise and prevent risky behaviours were more proactive and watchful in their supervision than those who

were not explicitly instructed. They also were more likely to call attention to hazards and tell younger siblings not to touch these. Finally, compared to non-instructed older siblings, explicitly instructed older siblings were more likely to take action and physically prevent their younger siblings from interacting with hazards. Thus, one simple way to improve sibling supervision and reduce injury to younger children is to explicitly tell older siblings that they are in charge and to identify for them particular hazards the younger child should not touch.

### Current Projects

***Please Inquire about Participation!***

#### **How Do Sibling Interactions in the Home Change Over Time?**

We know that siblings' interactions toward one another are related to child injury rates, but what is it specifically about these interactions that link to injuries for children? The aim of this study is to learn more about how siblings get along and interact in the home, and how these things change over time. To learn about this, we would ask you and your children to fill out some questionnaires about different types of sibling interactions. Then we would visit you a few

times over 6 months to record half an hour of your children interacting together in the home.

**PARTICIPANTS NEEDED:** Older siblings aged 6 - 10 who have a younger sibling aged 2.5 - 5 are needed. This study involves one lab visit and 3 home visits over a period of 6 months; each visit is about 1 hour long. Please contact us to participate and help us learn more about sibling interactions in the home.

#### **Can We Teach Older Siblings to Become Better Supervisors of Young Children?**

Research shows that younger siblings take more risks and are less compliant when supervised by an older sibling than a parent. Sibling supervisors often respond to risk taking using the same strategies as mothers, but they are less watchful and often model risk taking for younger siblings. This study will determine whether we can actually teach older siblings to be better supervisors by having them complete an online training program over several weeks.



**PARTICIPANTS NEEDED:** Older siblings aged 7 - 10 who have a younger sibling aged 2.5 - 5 are needed. This study involves two lab visits over a period of 6-8 weeks. Contact us about this great opportunity to participate and have your child learn how to be a better supervisor of their younger sibling.

## Helping Children Learn to Cross Streets Safely

In this project with school-age children (ages 7-12) the CDRU is using virtual reality technology to simulate highly realistic traffic conditions. Participating children wear a 3D headset and decide when it is safe to cross the virtual street under different traffic conditions. When children fail to accurately estimate the distance or speed of approaching virtual cars, they are likely to 'get hit', at which time an ambulance siren sounds, and the trial restarts to give them the opportunity to try again and learn how to cross more safely.



By examining when children 'get hit' we can identify traffic conditions they have difficulties with and use the virtual reality system to teach them how to cross more safely in risky traffic conditions. Being hit by cars when crossing streets is a major cause of injury for school-age children, and this unique program (the only of its kind in Canada!) will provide insight into how children can learn to avoid such injuries.

PARTICIPANTS NEEDED: Please contact us about having your child (7-12 years) participate. Children have great fun with this!

## How Do Emotional Factors Influence Children's Risk-taking during Play?

Whether children take or avoid injury-risk play behaviours depends on a combination of many factors. The present study is testing the idea that

children are more likely to take risks when they are emotionally aroused and focused on fun, which is a common situation when with peers. Indeed, this may be why being with peers actually *increases* children's risk of injury!

In this study with 7-10 year olds, we will compare children's risky play decisions (e.g., while running an obstacle course) when they are in a neutral mood and when they are in a really excited mood.

PARTICIPANTS NEEDED: Please contact us to have your child (7-10 years) participate. Children enjoy running our indoor obstacle course!

## How Do Parent Safety Practices Change as Infants Learn to Walk?

In this new research project we're interested in how safety practices change as children become more mobile and start walking. We are in need of infants who haven't started walking yet, but can sit up on their own. This study involves four visits to participants' homes over about a six month period. During the visits we will talk to parents about their home safety practices and the infant's motor development. Parents will also help us by filling out some diary sheets when their child gets injured in the home.

This study will help us to develop useful guidelines for parents about how to prevent injury to their child as the child starts walking and climbing.

PARTICIPANTS NEEDED: Please contact us about participating if you have a baby who is not yet walking on their own!

