

## **News Release**

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### **Educational materials increase knowledge and behaviours linked to preventing shaken baby syndrome, new research shows**

*Education program now being implemented across U.S. and Canada*

**(Vancouver, BC; Seattle, WA; Ogden, UT – March 2, 2009)** – Two new studies in Canada and the United States show that educational materials aimed at preventing shaken baby syndrome increased knowledge of new mothers about infant crying, which is the number one trigger for people abusing babies by shaking them. The materials also influenced mothers to warn babysitters about shaken baby syndrome and advise them on strategies for coping when infants cry inconsolably. The study of mothers in Seattle, Washington is published in the March 2<sup>nd</sup> issue of *Pediatrics* and the study of mothers in Vancouver, British Columbia is also published March 2<sup>nd</sup> in an early online issue of *The Canadian Medical Association Journal*.

Each year in British Columbia, between five to 15 children will suffer a traumatic brain injury from shaking and require hospitalization. One in four will die as a result of their injuries. Of those who survive, approximately 80 per cent will suffer brain injury, blindness and deafness, fractures, paralysis, cognitive and learning disabilities, and cerebral palsy.

“Changing knowledge is a critical first step in changing behaviour, and this is important public health work because the results show it’s possible to change people’s ideas about crying.” says Dr. Ronald Barr, the lead author of both studies. Dr. Barr is head of community child health at the Child & Family Research Institute and professor of pediatrics in the Faculty of Medicine at the University of British Columbia. Dr. Barr is a Canada Research Chair in Community Child Health Research.

“Most new parents aren’t aware that it’s normal to feel frustrated by infant crying and that some newborns will cry for up to five hours a day,” says Dr. Barr.

Both studies were randomized controlled trials testing “The Period of PURPLE Crying” educational program, which consisted of a 12-minute educational DVD and an 11-page information booklet. Mothers completed a diary during the infants’ fifth week and a telephone interview two months after birth.

In Vancouver, 1279 women participated in the study between March 2005 and November 2006. Half received infant safety materials and half received the PURPLE materials from their home visitor nurses within two weeks of the baby’s birth. Women who received the PURPLE materials also scored higher (5.4 per cent) in knowledge about crying. They were 13 per cent more likely to share information with caregivers about coping with the frustration of inconsolable crying, 12.9 per cent more likely to share information about the dangers of shaking, and 7.6 per cent more likely to share information about crying.

The Seattle study involved 2738 women. Half the women enrolled in the study received the PURPLE materials while half received information on infant safety. Materials were provided to new mothers in prenatal classes, maternity wards, and pediatrician offices in Seattle, Washington between December 2004 and October 2006.

The Seattle results showed that mothers who received the PURPLE materials scored six per cent higher in knowledge about crying and one per cent higher in knowledge about shaking. They were six per cent more likely to share information with caregivers about strategies for coping with the frustration of infant crying, and seven per cent more likely to warn caregivers about the dangers of shaking an infant.

Dr. Barr and Ms. Marilyn Barr, Executive Director of the National Center on Shaken Baby Syndrome in Utah collaborated on the Vancouver study. For the Seattle study, they also partnered with Dr. Frederick Rivara of the Harborview Injury Prevention and Research Center at the University of Washington in Seattle. The National Center on Shaken Baby Syndrome in Ogden, Utah, developed the PURPLE materials, which are available to institutions for US\$2.00 per family.

“As crying starts within two weeks of birth, it’s imperative that new parents receive information and learn coping strategies early,” says Dr. Barr. “The incidence of infant crying peaks at two months and the incidence of shaken baby syndrome follows closely by peaking at three months.”

The PURPLE materials teach parents that crying is normal and frustrating for caregivers, and that the following features are typical:

- Peak pattern, where crying increases, peaks during the second month, then declines
- Unexpected timing of prolonged crying
- Resistance to soothing
- Pain-like look on the face
- Long crying bouts
- Evening and late afternoon clustering

To cope with crying, parents are advised to do the following:

- Increase “carry, comfort, walk, and talk” behaviours with the baby.
- If the crying is very frustrating and the parent or caregiver needs a break, then place the baby in a safe place and walk away for 5-10 minutes.
- Never shake or hurt a baby.

In British Columbia, the Ministry of Children and Family Development funded implementation of “The Period of PURPLE Crying” materials across the province, which is the first in Canada to do so. The Prevent Shaken Baby Syndrome BC at BC Children’s Hospital, an agency of the Provincial Health Services Authority, implemented the program.

The Vancouver study was supported by the British Columbia Ministry of Children and Family Development, BC Children’s Hospital, the Human Early Learning Partnership, and the Child & Family Research Institute. The Seattle study was supported by the Doris Duke Charitable Foundation and the George S. and Dolores Dore Eccles Foundation.

The Child & Family Research Institute (CFRI) conducts discovery research, clinical investigation, and applied health research to benefit the health of children and families. It is the largest research institute of its kind in Western Canada. CFRI works in close partnership with BC Children’s Hospital and Sunny Hill Health Centre for Children, and BC Women’s Hospital & Health Centre, agencies of the Provincial Health Services Authority; BC Children’s Hospital Foundation; the University of British Columbia and Simon Fraser University. For more information, visit [www.cfri.ca](http://www.cfri.ca).

The Harborview Injury Prevention and Research Center is one of the nation’s leading institutions dedicated to injury research, and is affiliated with Harborview Medical Center and the University of Washington.

The National Center on Shaken Baby Syndrome develops and tests prevention programs for organizations in North America and provides international training on shaken baby syndrome. “The Period of PURPLE Crying Program” is available through the National Center: [www.dontshake.org](http://www.dontshake.org).

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