

The Association Between Psychosocial and Demographic Characteristics of the Mother, Child, and Mother-Child Dyad and Unintentional Injury in Young, Low-Income Children

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BACKGROUND: Unintentional injury is the leading cause of death in children over the age of one year old. Children under the age of four have the highest unintentional injury related death rates (13.5 per 100,000), over twice that of children ages 5-14 (6.4 per 100,000). For every death from an injury, there are approximately 18 hospitalizations, 233 emergency department visits, many more visits to medical facilities; and a much larger number of home-treated injuries. Little is known about why, despite injury prevention efforts, young children continue to be injured.

OBJECTIVE: To examine the characteristics of the mother, child, and the mother-child dyad as correlates of child unintentional injury requiring emergency room care. This study tested the hypothesis that the quality of the maternal-child interaction can explain some of the attitude-practice gap in unintentional injury prevention.

STUDY SAMPLE: This study uses data from the National Early Head Start Research and Evaluation Study, 1996-2001 which included a total of 2,977 low-income children age birth to three years old and their pregnant mothers.

MEASURES: Maternal demographic and psychosocial characteristics, child demographic characteristics, and the quality of mother-child interaction during a semi-stressful teaching task were analyzed for association with mother's report of emergency room visits for unintentional injury. This analysis controlled for the presence of home safety devices, mother's propensity to use the ER for non-injury purposes, and known risk factors.

RESULTS: Known risk factors including mother's age and race were confirmed to be significantly associated with unintentional injury. The presence of home safety devices was not significantly associated with unintentional injury risk. Mothers who reported living alone with her children was shown to be a risk factor for unintentional injury compared to those who reported living with a spouse (RR: 1.53, 95% CI: 1.03 to 2.28). There was a significant association between the unintentional injury rates and the child's scores on an observational measure of maternal and child interaction (NCAT subscales: Responsiveness to Caregiver and Clarity of Cues). Specifically higher scores were shown to have a protective effect on injury occurrence (RR: .93, 95% CI: .87, 1.00).

CONCLUSIONS: The results of this study suggest that aspects of characteristics of the mother and child relationship, especially communication during a semi-stressful teaching task, play a role in keeping the young child safe from unintentional injury. Unintentional injury prevention campaigns that encompass not only the traditional approaches to prevention but also seek to improve the quality of the mother-child interaction may be more successful in closing the attitude-practice gap than traditional methods alone.

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