Introduction

Background:

- Growing interest among developmentalists has focused on the interplay between psychological stress and physical health in children.
- In middle childhood, peer relationships represent a developmentally appropriate context for examining short-term physical responses to stress.
- Prior longitudinal work has linked peer problems with subsequent somatic symptoms over the course of months or years (e.g., Reynolds, Juvonen, & Willott, 2003), and at least one study has linked daily experiences of peer victimization with increased negative affect (Rohls & Juvonen, 2006).
- The current study is among the first to examine short-term, daily associations between peer stress and symptoms of upper-respiratory tract infections (URIs), the most common and costly type of infectious disease among children (Prevention Dialogues, 2004).
- We also examine whether child differences in chronic stress at home moderate the day-to-day associations between peer problems and URI symptoms.
- The "Risky Family" model (Repetti, Taylor, & Seeman, 2002) suggests that children growing up in stressful home environments are at risk for a wide range of negative health outcomes, due in part to the cumulative wear-and-tear associated with repeated activation of stress response systems.

Hypotheses:

1. We hypothesized that children who report more URI symptoms on days that they report experiencing more peer problems. We believe this effect will remain significant even after controlling for the number of peer problems and URI symptoms reported the prior day.

2. We predict that the association between daily peer problems and endorsement of URI symptoms will be stronger among children rated as experiencing greater chronic stress in the home environment.

Methods

Participants:

A total of 256 children between the ages of 8 and 10 years (mean age = 9.13 years; 50% female) comprise the current sample. Children and their families were recruited from the greater Los Angeles metropolitan area to take part in a daily diary study on family and health.

Procedure:

As part of an ongoing study of family characteristics, daily stressors, and upper respiratory symptoms, data were collected between the months of October and May ("sick season") across two consecutive years. Chronic home stress was assessed through the UCLA Life-Stress Interview (Child version; administered at baseline). A daily diary tracking version was conducted in participants' homes approximately once-week following the baseline interview. The daily diary phase, during which children completed online surveys each night for 8 weeks, began on the following day following the baseline interview.

Measures:

URI symptomatology: A checklist was used to assess daily experiences of upper-respiratory tract infections such as plugged nose, cough, and sneezing (Hammen & Zayas, 2001). URI symptoms were defined as the response to psychosocial stressors might play a role in the development of longer-term health outcomes.

Results

Multilevel model with chronic stress as a between-person moderator of the relationship between chronic daytime URI symptoms and peer problems, controlling for daily, prior day peer problems and chronic stress.

Discussion

The current study is the first to demonstrate a short-term association between peer stress and symptoms of upper-respiratory tract infections (URIs) in a sample of children assessed daily in their natural environment. It is also one of the first to examine day-to-day peer experiences and physical symptoms (across 56 days) in concert with chronic levels of stress in the home environment.

The results support the hypothesis that children who report more URI symptoms on days that they report experiencing more peer problems. We believe this effect will remain significant even after controlling for the number of peer problems and URI symptoms reported the prior day.

We also examined whether child differences in chronic stress at home moderate the day-to-day associations between peer problems and URI symptoms. We hypothesized that children growing up in stressful home environments are at risk for a wide range of negative health outcomes, due in part to the cumulative wear-and-tear associated with repeated activation of stress response systems.

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