The Role of Coping and Temperament in the Adjustment of Children with Cancer

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Introduction

Annually, more than 12,000 children under the age of 20 are diagnosed with cancer in the United States. This is a time of significant stress for the child and parent. Some children may experience symptoms of anxiety and depression during the first year of treatment, but limited research has examined factors that identify which children are at greatest risk. Coping strategies, temperament characteristics and medical factors may all play important roles.

Coping is defined as conscious, volitional efforts to regulate emotion, cognition, behavior, physiology and the environment in response to stressful events. Within coping exists engagement coping (primary coping and secondary control) and disengagement coping. Primary coping aims at changing the stressor or one's emotional response, while secondary coping involves efforts to adapt to the stressor or one's emotional response. Both engagement coping strategies are associated with fewer symptoms of depression and anxiety. However, disengagement coping is associated with more internalizing symptoms.

Temperament also has been connected to anxiety and depression. Positive affect (PA) refers to pleasurable engagement with the environment and the extent an individual feels enthusiastic, alert, and receptive to award. Negative affectivity (NA) is a tendency towards discomfort, fear, anger and sadness. Effortful control (EC) is the ability to focus or shift attention and activate or inhibit behaviors.

Although evidence exists that the role of coping and temperament are related in the adjustment of children exposed to stress, few studies have evaluated both variables simultaneously. In this study, researchers examined the extent to which stress, coping, positive affect, negative affect and effortful control accounted for differences in the adjustment of children with cancer.

Key Findings from Study

- Cancer-related stress was associated positively with symptoms of depression in children.
- Negative affectivity was positively associated with symptoms of anxiety and depression.
- Primary control coping moderated the association between negative affectivity and depression.
- Primary and secondary control coping mediated the association between negative affectivity and depression.
- Research partially supported this integrated approach to examine how illness-specific stress and coping processes and temperament account for variability in anxiety and depression for children with cancer.

Research Method

- Research subjects initially were identified through a
 cancer registry at a large children's hospital. Eligibility
 requirements included: 5- to 17-years-old, in the first year
 of a new diagnosis or relapse, and English speaking.
- Participants included 75 mothers, who reported about their children with cancer. Diagnoses included: leukemias, lymphomas, brain tumors and other solid tumors.
- Research measures included a demographic measure, medical data, cancer-specific stress and coping (Pediatric Cancer Version of the Responses to Stress Questionnaire), anxiety and depression (Child Behavior Checklist) and temperament (Children's Behavior Questionnaire-Very Short Form or Early Adolescent Temperament Questionnaire-Revised).

For more information, please contact the Center for Biobehavioral Health in The Research Institute at Nationwide Children's Hospital at 614-722-3182 www.NationwideChildrens.org/Research

* Miller KS, Vannatta K. Compas BE, Vasey M, McGoron KD, Salley CG, Gerhardt CA. The role of coping and temperament in the adjustment of children with cancer. J Pediatr Psychol, 2009.

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