

## **Associations Between Girls' Anxiety and Depressive Symptoms, Mothers' Depressive Symptoms and Girls' Pubertal Development**

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**Background:** Early onset of puberty among females is a risk factor for numerous short-term negative outcomes in adolescence, such as early sexual intercourse and mental health problems, and long-term health outcomes in adulthood, such as breast cancer. In addition to biological and hereditary factors, several studies have confirmed that psychosocial factors put girls at risk for early puberty. Specifically, childhood internalizing problems (depression) and familial stressors (maternal depression) contribute to pubertal timing. A reciprocal relationship may exist whereby child mental health contributes to risk for early puberty, and in turn early puberty subsequently puts young girls at risk for poor mental health. Descriptive data for Tanner staging and psychological symptomatology in a sample of young girls is valuable given the dearth of literature in this area.

**Objective:** The proposed study provides an opportunity to assess associations between child internalizing symptoms, maternal depression, and puberty while adjusting for hereditary factors (mother's menarche) and physiological factors (child's BMI). Towards this aim, the study utilizes baseline CYGNET data to examine relations between child and maternal psychological symptoms and girls' timing of puberty.

**Methods:** The CYGNET study includes a sample of 444 6-7-year-old girls from diverse backgrounds in the Bay Area. The ethnic breakdown is approximately 32% White; 28% Latina; 19% Black; 7% Asian; 1% American Indian; 13% Multiracial\*. Of these girls, about 17% have entered puberty as indicated by either Tanner Stage 2 for breast (8%) or pubic hair development (10%)\*. The percentage of young girls having entered puberty in our study is significantly higher than our initial projections of 10% for 7-8-year-old girls based on national data. Logistic regression analyses will be conducted to assess associations between girls' depressive and anxiety symptoms (using the BASC-2), maternal depression (using the CES-D), and pubertal onset (yes/no), while controlling for mother's age at menarche and girls' BMI.

**Results:** Descriptive statistics will be presented for the total sample and by ethnicity for psychological symptomatology and Tanner staging. Results from logistic regression analyses will be presented.

**Conclusions:** By seeking to identify modifiable psychological correlates of early puberty, the current research may have significant clinical implications for the health of young girls in the short-term and women's health in the long-term. As these data are examined over time, they will provide insight into putative causal pathways and thereby illuminate psychological targets for intervention as a guide to physicians and other clinicians.

\*Based on a subsample of N=375.