**Background**

- Spending the first years of life in institutional care (e.g. orphanages) threatens healthy development for numerous reasons.
- Lack of physical stimulation in early infancy was cited as a factor that may contribute to the 30% mortality rate of institutionalized children (Spitz, 1945, 1946).
- The absence of caregiver-child relationship and frequent contact that most institutionalized children face is a major source of harm and neglect (Johnson, Browne & Hamilton-Giachritsis, 2006).
- Adolescents who were subject to institutional rearing show higher levels of behavioral symptoms on the domains of externalizing (e.g. conduct problems), internalizing (e.g. depression, anxiety) and ADHD (e.g. attention, hyperactivity) (Wiik, Loman, Van Ryzin, Armstrong, Essex, Pollak & Gunnar, 2010).

**Purpose**

This study seeks to replicate and extend the findings of Wiik et al. (2010) demonstrating similar SES.

**Methodology**

- **Participants**
  - Consisted of 44 males and 56 females.
  - Children must have spent 70-100% of their pre-adoption time in institutions in order to be included (M=96%, SD=7%) Adoption age ranged from 5.5-45 months (M=16.3, SD= 9.4).
  - PI children adopted from Eastern Europe/India, Latin America and Asia.

- **Procedure**
  - Parent/youth questionnaire reports were completed and delivered to the lab.
  - PI children adopted from Eastern Europe/India, Latin America and Asia.

- **Measures**
  - The MacArthur Health and Behavior Questionnaire- HBQ was used to measure behavior.

- **Data Analysis**
  - ANOVA test used to compare group differences.
  - Scales were standardized for figures, below, so that parent and child data appear on a common scale.

**Current Study**

**Participants**

- Consisted of 44 males and 56 females.
- Children must have spent 70-100% of their pre-adoption time in institutions in order to be included (M=96%, SD=7%).
- PI children adopted from Eastern Europe/India, Latin America and Asia.

**Procedure**

- Parent/youth questionnaire reports were completed and delivered to the lab.
- PI children adopted from Eastern Europe/India, Latin America and Asia.

**Measures**

- The MacArthur Health and Behavior Questionnaire- HBQ was used to measure behavior.

**Data Analysis**

- ANOVA test used to compare group differences.
- Scales were standardized for figures, below, so that parent and child data appear on a common scale.

**Results**

**Discussion**

**Interpretation of results**

- A main effect for groups via parent report was found for an increase in both externalizing and internalizing symptoms among PI kids, with the child report showing similar trends.
- Both parent and child reported group main effects were found for an increase in ADHD symptoms in PI kids, with a significant sex difference and a group by sex interaction, with girls showing a large group difference.

**Strengths**

- HBQ (strong psychometric properties).
- Intending to avoid under-reporting and over-reporting due to sole measure through parent-report, a self-report was distributed.
- Controlled for the possible confounding variable of socioeconomic status (SES) by selecting families demonstrating similar SES.

**Limitations**

- Samples of PI kids adopted from different regions.

**Future Implications**

**Changes in institutional care**

- Increase in staff within institutions.
- Increase in resources.

**Increased awareness of adoptive parents**

- Importance of relationships and contact.
- Understanding of critical periods.
- Knowledge of pre-adoption background and risks associated with institutionalization.

**Early interventions**

- Therapeutic
- Support
- Caregiver-Child support system

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