

Inside Family Life



**MULTIPLE LAYERS OF INFLUENCE ON CHILDREN'S
HEALTH AND WELLBEING**

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Basic Assumption



- **Children's health is rarely, if ever, the result of a single factor**

Changes Across Time



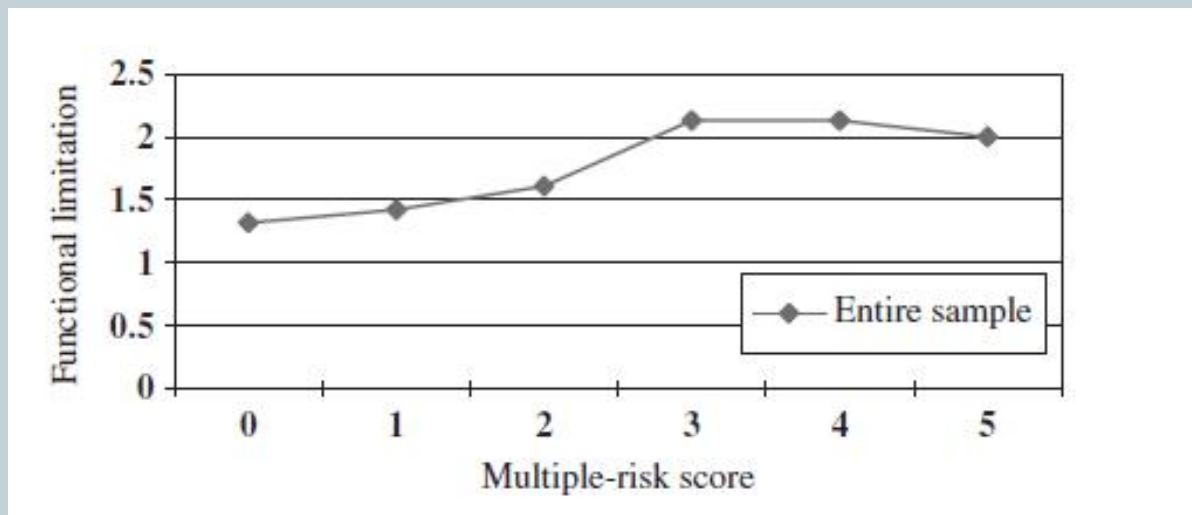
Embedded in Socio-Cultural Context



Social Ecological Model



Cultural Risk and Asthma Morbidity



Risk Index

- Poverty
- Neighborhood Disadvantage
- Perceived Discrimination
- Cultural Stress

Koinis-Mitchell, D., McQuaid, E., Seifer, R., Esteban, C., Kopel, S., Canino, G., et al., (2007). Multiple urban and Asthma-related risks and their association with children's asthma morbidity. *Journal of Pediatric Psychology*, 32, 582-595.

Multiple Risk and Allostatic Load

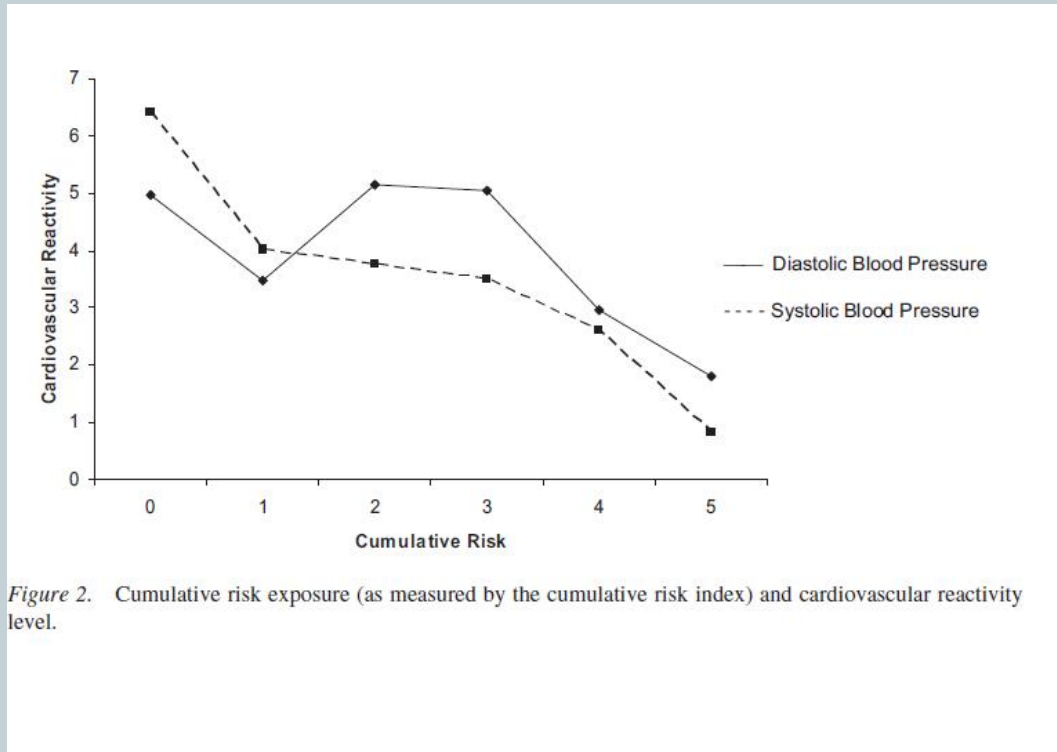


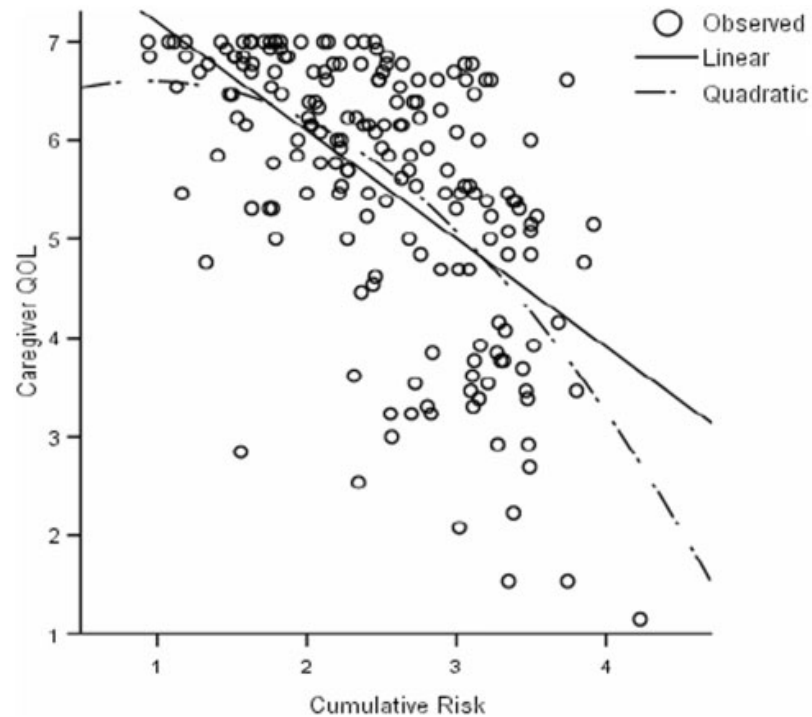
Figure 2. Cumulative risk exposure (as measured by the cumulative risk index) and cardiovascular reactivity level.

Risk Index

- Crowding
- Housing Problems
- Family Separation
- Family Turmoil
- Violence
- Poverty Line
- Single Parent
- Maternal High School Dropout

Evans, G. W., Kim, P., Ting, A. H., Teshler, H. B., & Shannis, D. (2007). Cumulative risk, maternal responsiveness, and allostatic load among young adolescents. *Developmental Psychology, 43*, 341-351.

Cumulative Risk and Caregiver QOL



Risk Index

- Family Burden
- Family Stress
- Child QOL
- Asthma Severity
- Household SES

Everhart, R. S., Fiese, B. H., & Smyth, J. M. (2008). A cumulative risk model predicting caregiver quality of life in pediatric asthma. *Journal of Pediatric Psychology*, 33, 809-818

Limitations of Cumulative Risk Approach



- To date, provides little insight into family process variables that contribute to children's health**
- Captures less of the dynamic transactions across time**
- Typically focus on one disease state at a time**

Family Health



- **Household production of health**
- **Daily activities aimed at supporting healthy child development, preventing disease, recovering from illness, and communicating with healthcare providers**
- **Routines created to support daily eating, sleeping, and activity of family members**

Theoretical Framework



- **Family health is sustained through**
 - i planning
 - i open and direct communication
 - i a sense of order and routines
 - i belief that challenges in everyday life are manageable
- **Family health is compromised when**
 - i planning is absent or thwarted
 - i routines are disrupted
 - i communication is strained
 - i everyday life challenges consume available personal energy

Measurement



- **Self Report of Daily Routines**
- **Daily Diary Reports of Routines**
- **Narratives of Family Life**
- **Direct Observation of Routines**

Family Life and Asthma Projects



- **Four studies conducted across two sites- Upstate N.Y and Denver, CO**
- **~400 families with a child with persistent asthma**
- **Children between 5 and 12 years of age**
- **53% Non-Hispanic White, 47% Non-White Non-Latino (31% African American, 13% Other-typically mixed ethnicity), .5% Asian-American, 3% Hispanic**
- **58% two or more adults in household**
- **30% mothers have High School education or less**

Three Questions



- **Are routines associated with children’s health and wellbeing?**
- **Are different aspects of routines associated with different health outcomes?**
- **How can the production of household health inform the study health co-morbidities?**

Primary Health Outcomes



– Asthma Symptoms

- i Lung Functioning-Spirometry
- i Functional Severity-Parent and Child Report
- i Nighttime Waking- Daily Diary

– Quality of Life

- i Daily Activities
- i Emotional

– Co-Morbidities

- i Anxiety Disorders- DISC (Child)
- i Obesity-BMI

What Asthma Feels Like



Why Asthma?



- **Most common chronic childhood illness**
- **Over 5 million school-aged youth**

- **In a classroom of 30 children, about 3 are likely to have asthma.**
- **Asthma is one of the leading causes of school absenteeism. Over 12.8 million school days missed each year due to asthma.**

- **The estimated cost of treating asthma in those under 18 is \$3.2 billion per year**

- **Co-morbidities include anxiety, sleep disturbance and overweight conditions**

Household Health Routines



- **Take your medicine twice a day**
- **Avoid environmental allergens**
- **Engage in daily physical activity**
- **Get a good's night sleep**

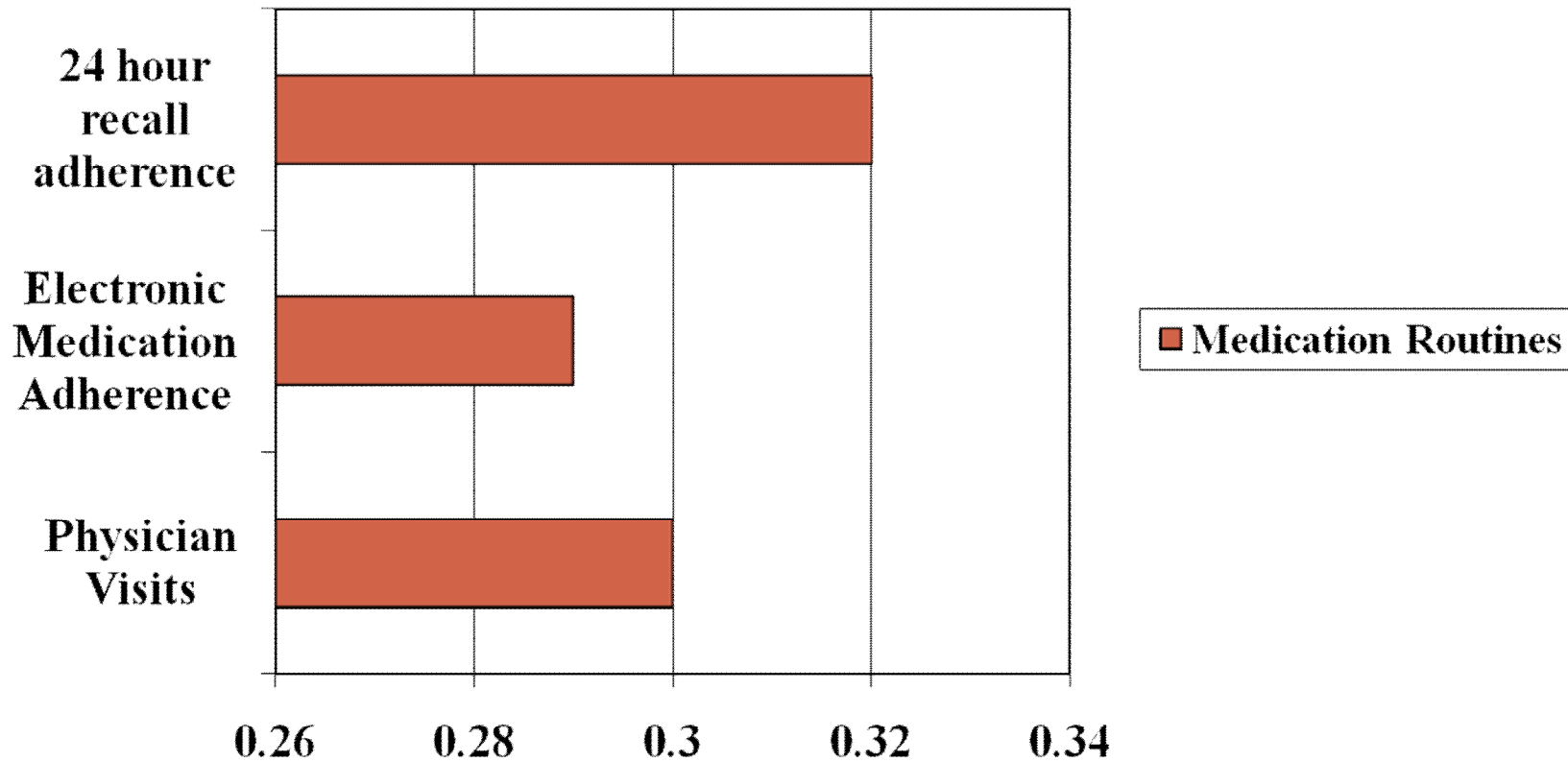
More same than different?

- Juggle home and work
- Move
- Experience job loss
- Have babies
- Get divorced
- Care for elders

- Experience domestic violence
- Have psychiatric illnesses
- Have suicidal ideation
- Involved in gang killings
- Their children die

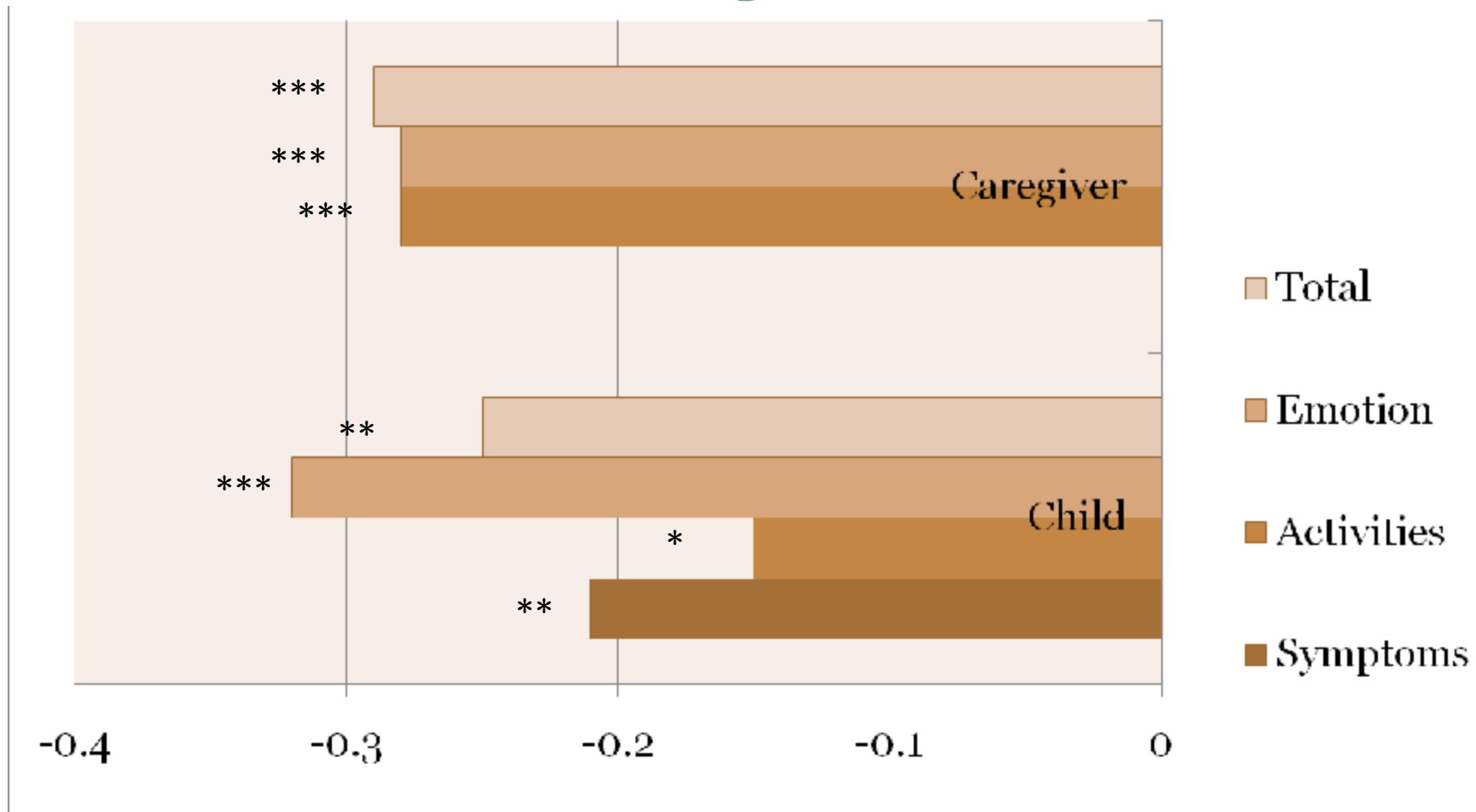


Did you Take Your Medicine?



Fiese, B. H., Wamboldt, F. S., & Anbar, R. D. (2005). Family Asthma Management Routines: Connections to medical adherence and quality of life. *Journal of Pediatrics*, 146, 171-176.

Routine Burden in Relation to Quality of Life



* $p < .05$; ** $p < .01$; *** $p < .001$



How Did You Sleep?

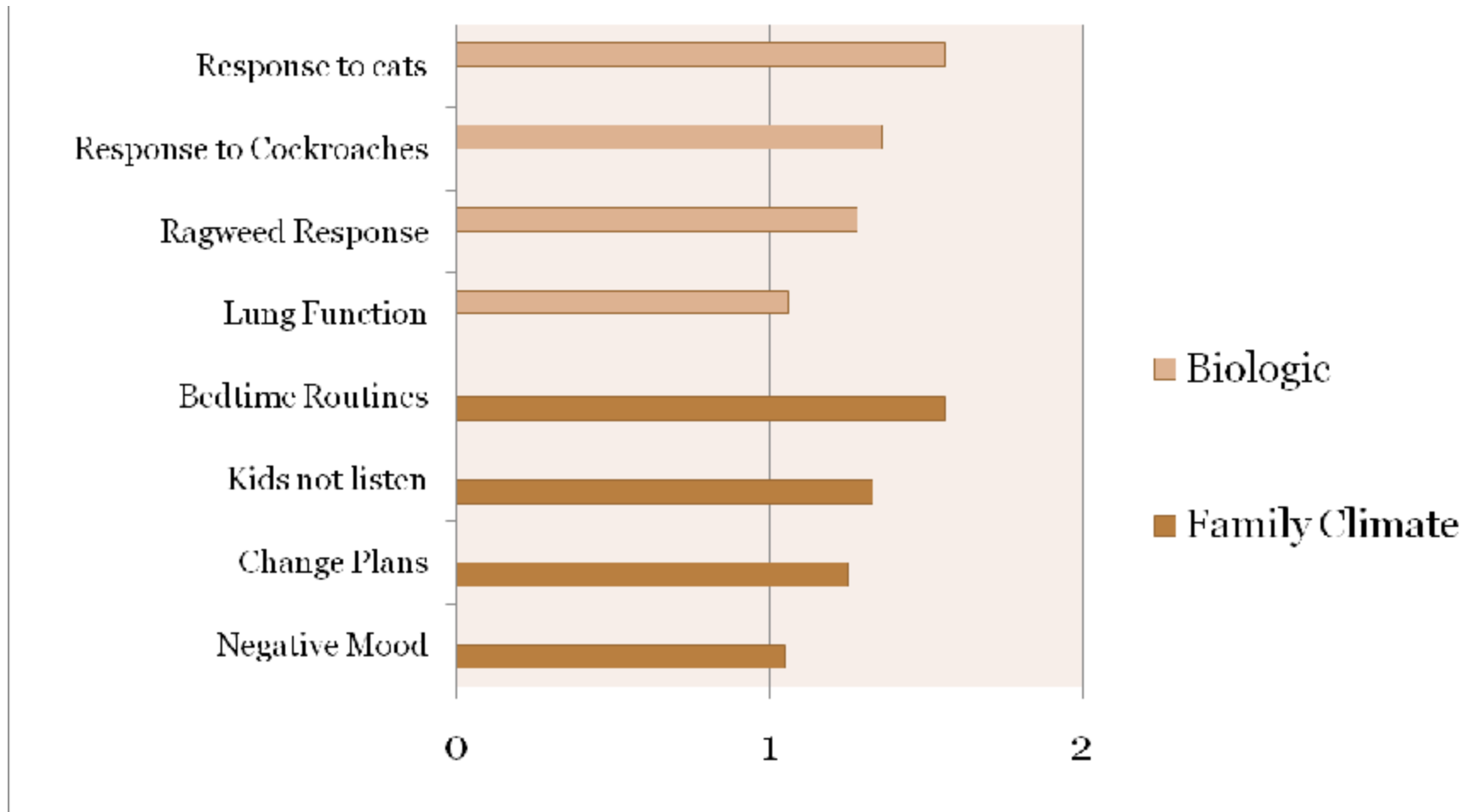


Caregiver Negative Mood	1.05
Parent Hassle- Kids Not Listening	1.33
Parent Hassle-Change Plans	1.25
Family Routines-Bedtime	1.56

Odds Ratios predicting nighttime waking

Fiese, B. H., Winter, M. A., Sliwinski, M., & Anbar, R. (2007). Nighttime waking in children with asthma: An exploratory study of daily fluctuations in family climate. *Journal of Family Psychology, 21*, 95-103.

Biologic and Family Climate Odds Ratios Predicting Nighttime Waking



What Does It Mean?



– Asthma Impact Interview

- i Tell me the story about when your child was diagnosed and how asthma has affected you and your family. We don't want to hear the story you tell your pediatrician but the one you would tell a friend or neighbor over a cup of coffee.

– Three Styles Identified

i Reactive

- ÷ Anxiety leads family to action. Family has not established clear and consistent strategies.

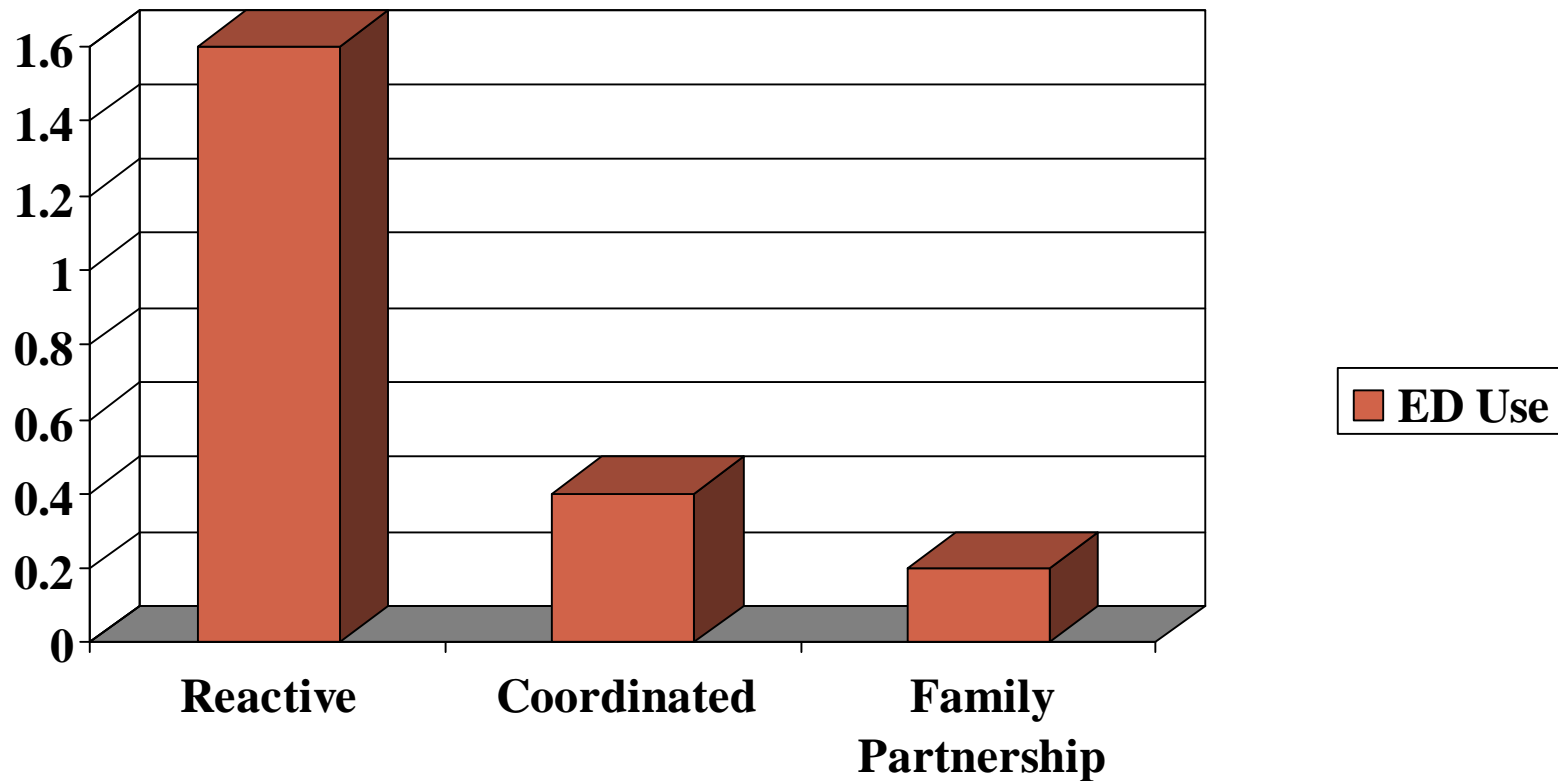
i Coordinated Care

- ÷ There is one right way to handle all situations. Typically one or two people are responsible for carrying out doctor's orders.

i Family Partnerships

- ÷ Plans are based on multiple sources of information. Shared philosophy in working together. Multiple family members involved in planning.

Emergency Room Use One Year Following Interview



Fiese, B. H., & Wamboldt, F. S. (2003). Tales of pediatric asthma management: Family based strategies related to medical adherence and health care utilization. *Journal of Pediatrics*, 143, 457-62.

Reactive Example



Well we more or less suspected that she had asthma for a while. And I guess you know I noticed more that she complained about feeling tight in her chest or whatever, and she was doing some wheezing. But I come from a family where my mother was a hypochondriac. I know from my own experience that kids make up stuff when they don't want to go to school. I just chose to ignore it. One night she was upset about something. I think we had an argument or something and she was crying. It was late at night. It was 10:00 at night and I was very angry with her and she was complaining about this tightness in her chest and she needed to get to the doctor and of course I thought it was a way to get my attention and I was ignoring her but she kept insisting so as angry as I was I loaded her into the car in the middle of the night we went to the emergency room.

Thus Far



- **More organized households and less burden**
 - i Better Medical Adherence
 - i Better Sleep (fewer symptoms)
 - i Less Emergent Care
 - i Better Quality of Life for Children and Caregivers
- **Does Not Address Co-Morbid or Physiological Features**

Separation Anxiety



- **Most commonly diagnosed anxiety disorder in preadolescent children**
- **Potential link between physiological sensation of anxiety and asthma symptoms (e.g., shallow breathing, glottic closure)**
- **Children with asthma show greater rates of separation anxiety than children without asthma (32% vs. 13%)**

Separation Anxiety and Family Interaction



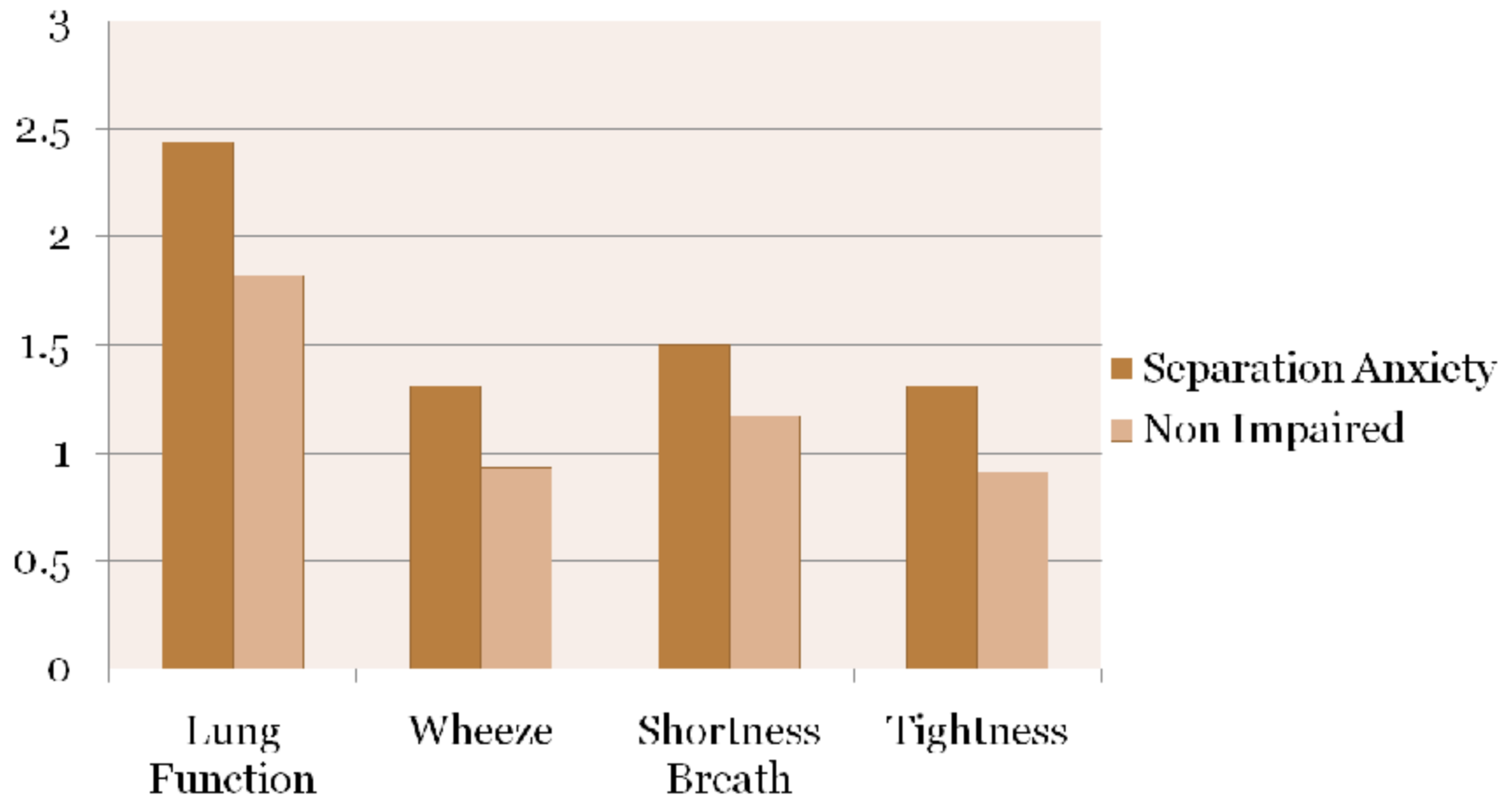
Family
Interaction

Symptom
Severity

Separation
Anxiety

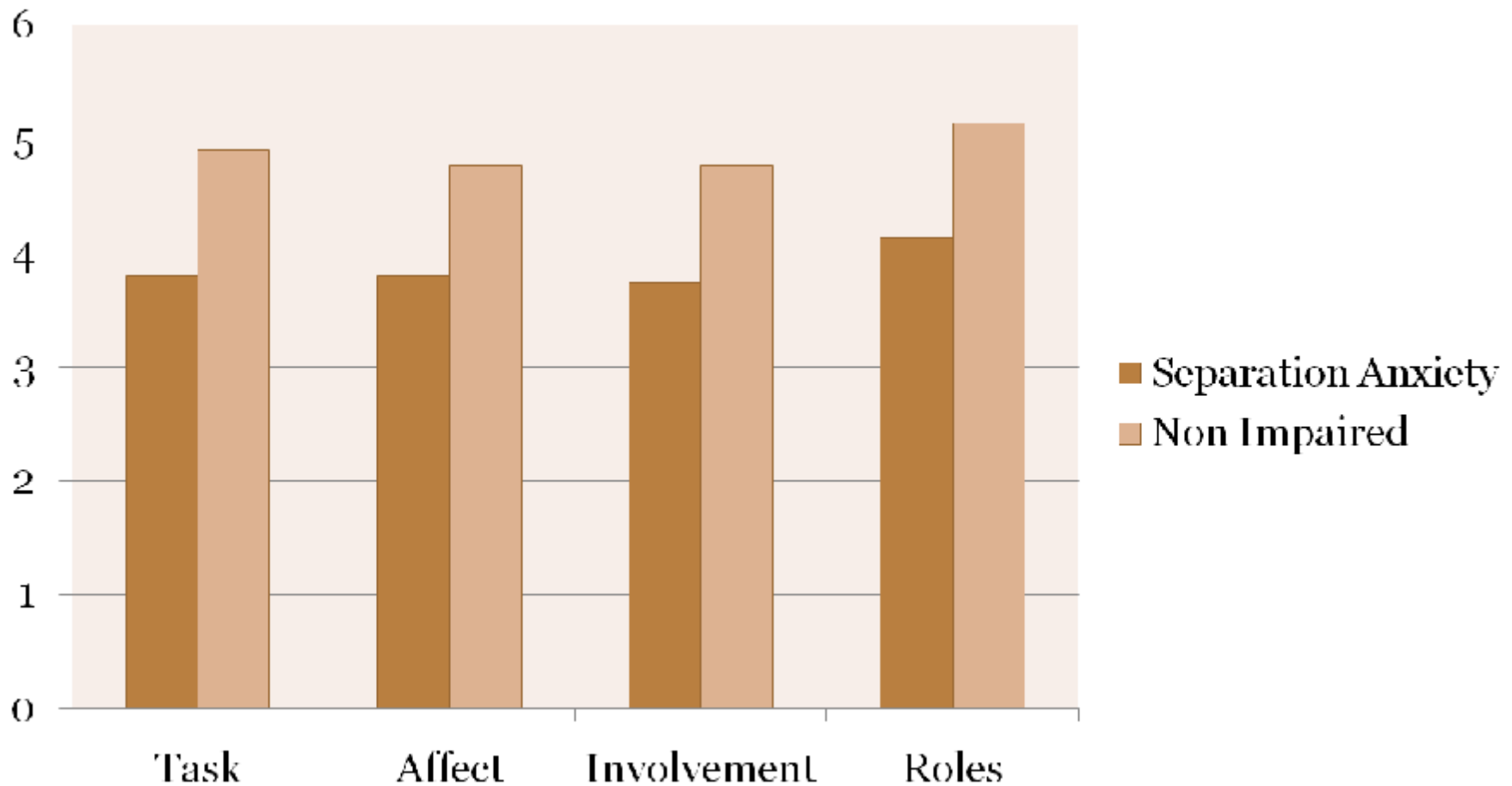


Asthma Symptoms and Separation Anxiety

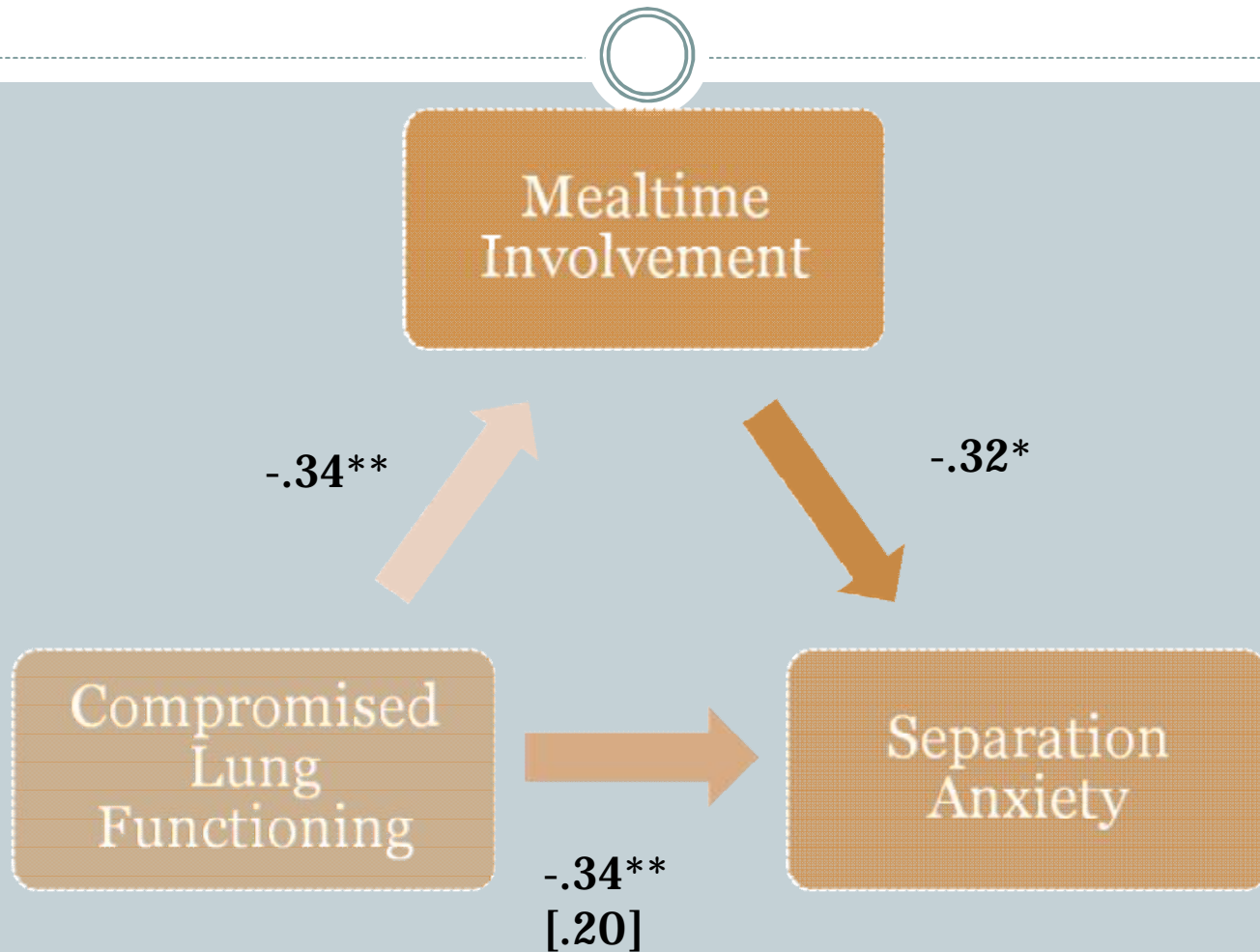


Fiese, B. H., Winter, M. A., Wamboldt, F. S., Anbar, R.D., & Wamboldt, M. Z. (2010). Do Family Mealtime Interactions Mediate the Association Between Asthma Symptoms and Separation Anxiety?, *Journal of Child Psychology and Psychiatry*, 51, 144-151.

Family Interaction and Separation Anxiety

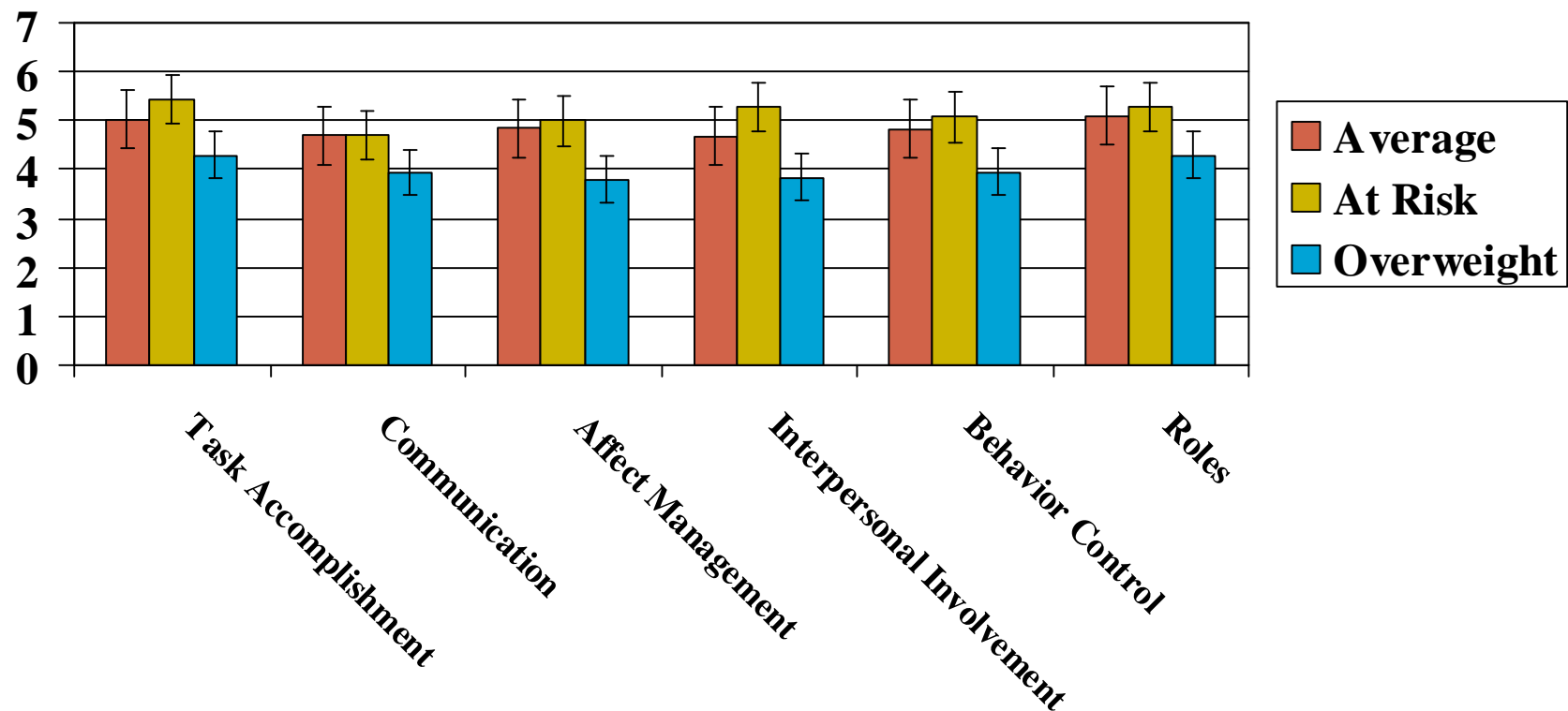


Separation Anxiety and Family Interaction



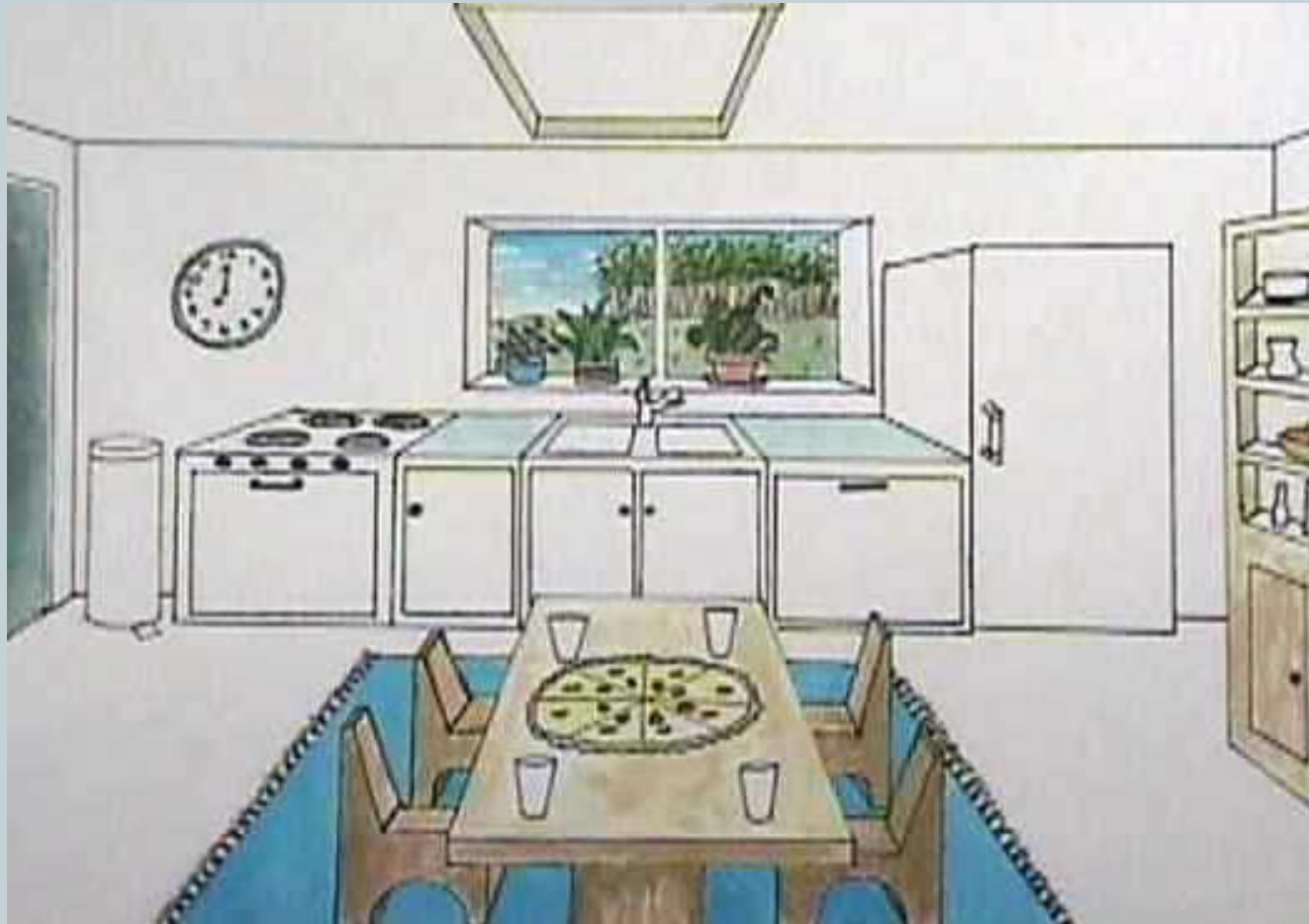
$z = 1.75, p < .05$

Mealtime Interactions and Children at Risk for Overweight Conditions

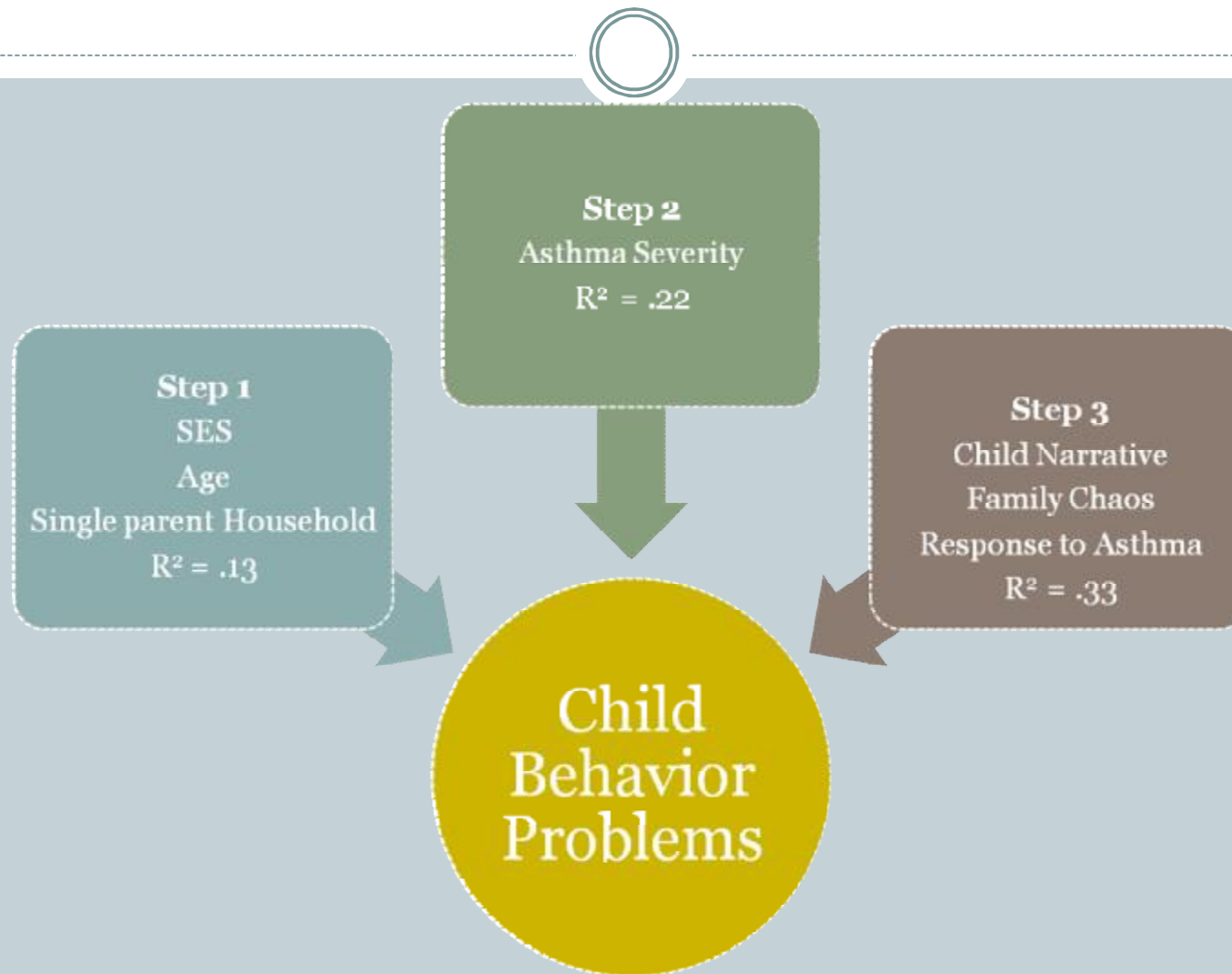


Jacobs, M. P., & Fiese, B. H. (2007). Family mealtime interactions and overweight children with asthma: Potential for compounded risks? *Journal of Pediatric Psychology*.

A Child's View

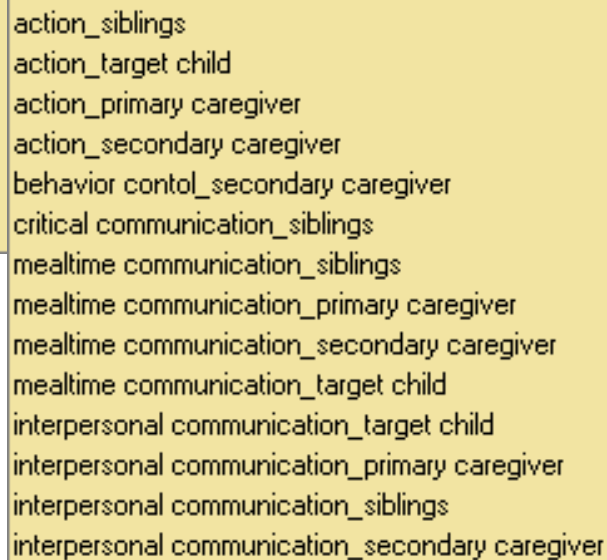
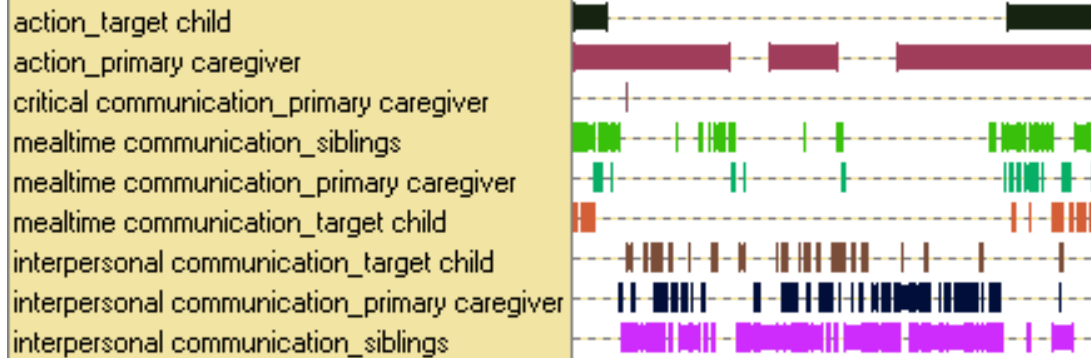


Children's Narratives of Family Organization

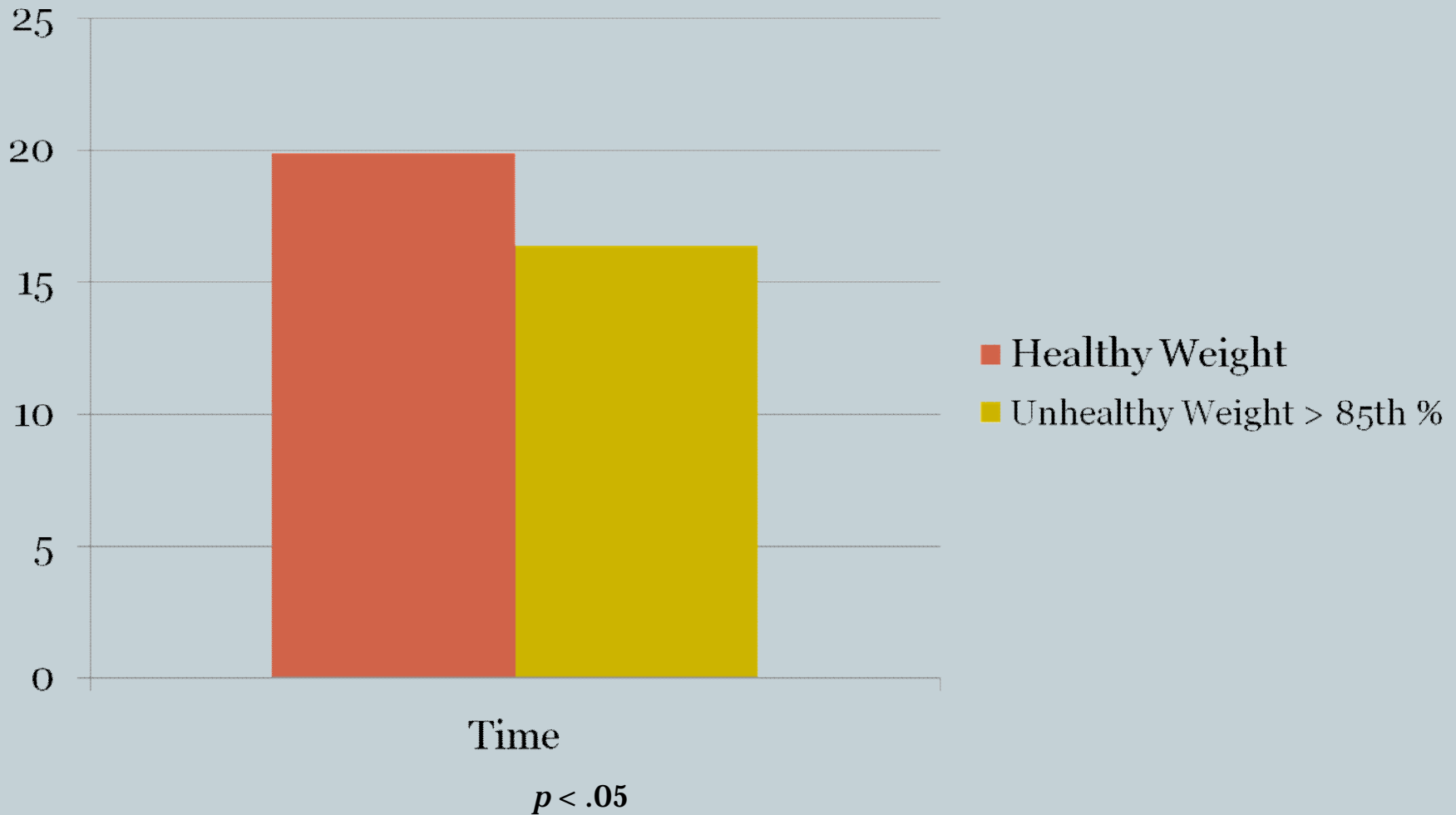


Spagnola, M. & Fiese, B. H. (2010). Preschoolers with asthma: Narratives of family functioning predict behavior problems. *Family Process, 49*, 74-91.

Family Meal TIME

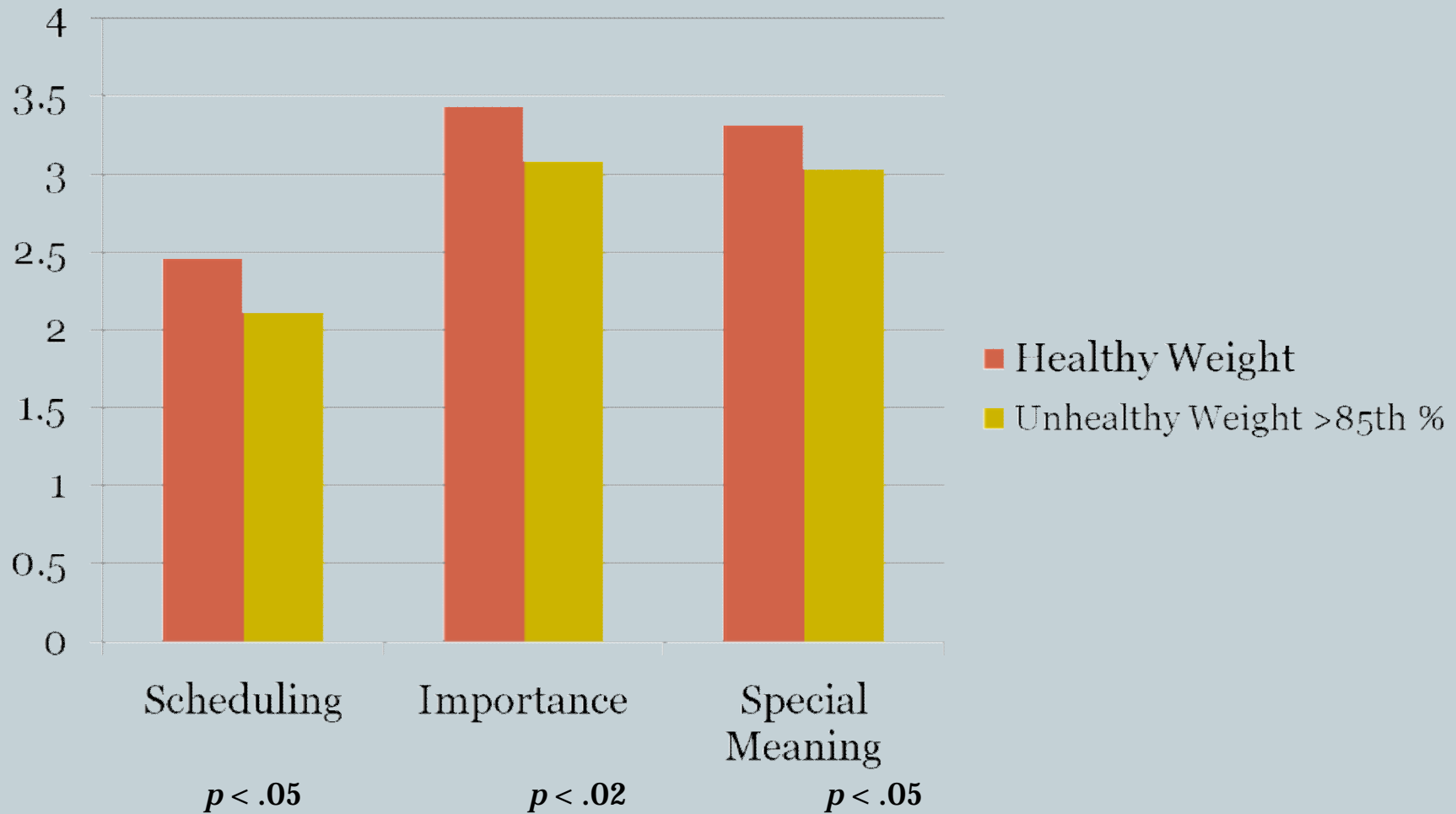


Time Spent At Meal



Fiese, B. H., Hammons, A., Grigsby-Toussaint, D. (2010). Family mealtimes a contextual approach to understanding childhood obesity.

Report of Mealtime Quality





Cumulative Risk Indicators

% Neighborhood Poverty

% Childhood Poverty

Less than 12 minutes @ meal

Lower quartile positive communication

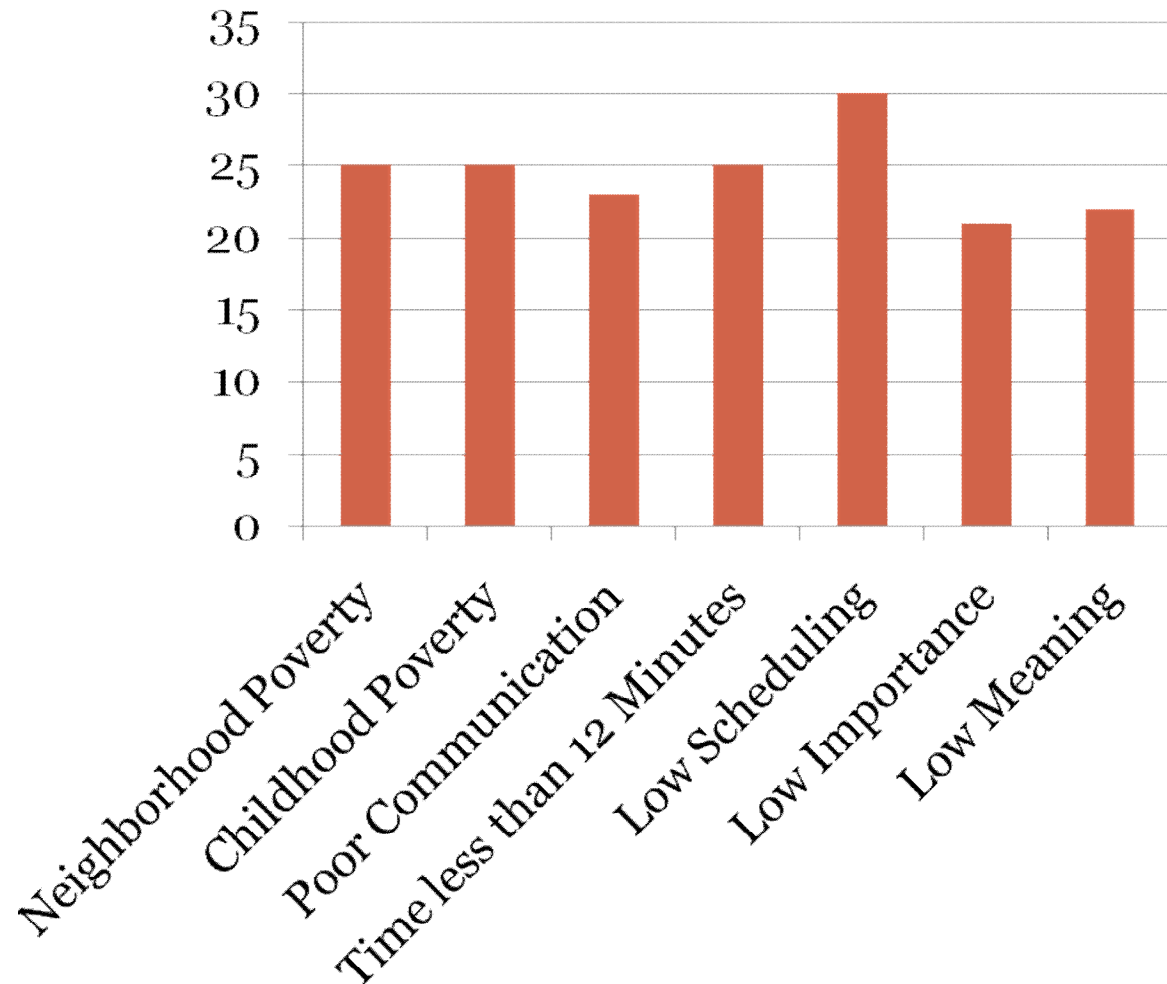
Lower quartile scheduling

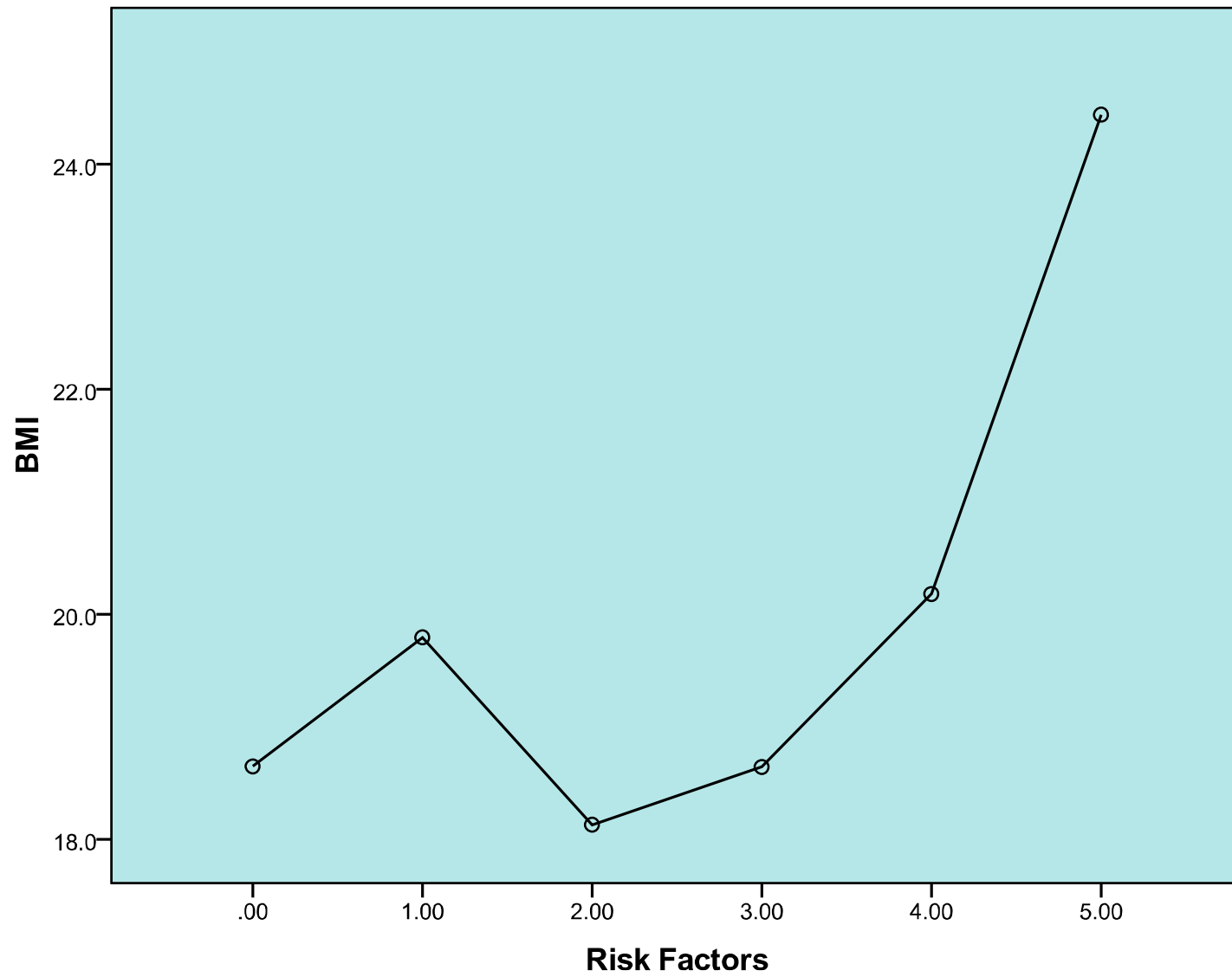
Lower quartile mealtime importance

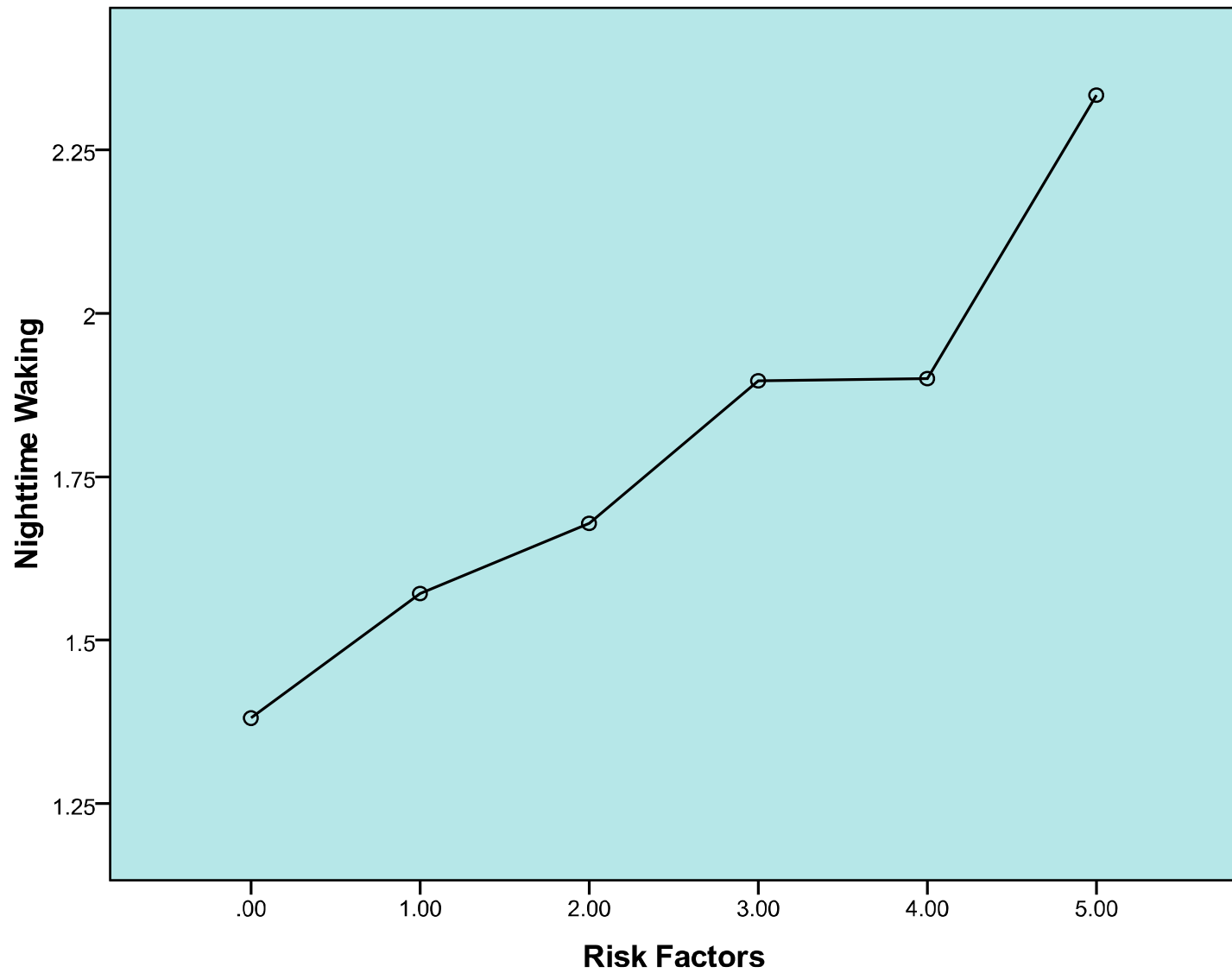
Lower quartile mealtime meaning

Families had 0-6 risk factors

Percent







Summary



Practice

- Medication Adherence
- Sleep Routines
- Time spent in meals

Meaning & Connections

- Quality of Life
- Lung Functioning
- Weight Status
- Behavior Problems
- Health Care Utilization

Healthy Family Routines



Practice

Preserve Time
Assign Roles
Plan Ahead

Connections

Positive
Communication
Genuine
Involvement
Family Time Is
Important

Translation



– **Intervention**

- i Backpack Program-Primary Care Based Tailored Intervention To Promote Medical Adherence Through Family Routines
- i Abriendo Caminos-Cooking, Family Mealtime and Folk Dancing Program for Spanish speaking families

– **Public Service Announcements**

- i “Mealtime Minutes”

Some Method Challenges



– Time

- i Resources to Transcribe, Code, and Analyze Observations and Narratives
- i Means something different to families across cultures, SES, and life stage

– Age

- i Extremely difficult to capture “ages” in the family unit as a whole

– Family size

- i Not static- there are multiple players in a family including neighbors, cousins, uncles, aunts, grandparents, babysitters

– Disease status

- i Exclusionary and inclusionary criteria may mask the real world
- i Need to account for co-morbidities

Conclusions



- **Focus on the household production of health and daily routines holds promise in explaining health symptoms**
- **Mechanism may be through physiological pathways and mediating role of family interaction**
- **Greater attention needs to be paid to co-morbidities of children's health conditions**
- **The emotional commitment to routines may be as important as the stated practice**
- **Preserving time, planning, and positive communication appear to be key elements to healthy routines**

Thank You



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