Shenzhen Longhua Children Cohort Study

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In the past decades, China has experienced rapid economic development and society changes that cause serious problems in childhood.

- Mental health problems
- Behavioral problems
- Social disadaptability
Background

**Externalizing problems**
- Hyperactivity
- Disruptive
- Aggressive
- Attention Deficiency
- Hard-to-Manage
- Oppositional Defiant disorder

**Internalizing problems**
- Anxious
- Depression
- Social Withdrawal
- Fear
- Low Self-Esteem
- Poor Social Skills
Background

Prevalence of behavioral problems among childhood in China

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conghua</td>
<td>37.23%</td>
</tr>
<tr>
<td>Yinchuan</td>
<td>36.97%</td>
</tr>
<tr>
<td>Lanzhou</td>
<td>31.64%</td>
</tr>
<tr>
<td>Cennan</td>
<td>25.4%</td>
</tr>
<tr>
<td>Nanning</td>
<td>24.80%</td>
</tr>
<tr>
<td>Changsha</td>
<td>20.4%</td>
</tr>
<tr>
<td>Zibo</td>
<td>9.9%</td>
</tr>
<tr>
<td>Foshan</td>
<td>9.5%</td>
</tr>
<tr>
<td>Beijing</td>
<td>18.24%</td>
</tr>
<tr>
<td>Shenyang</td>
<td>18.81%</td>
</tr>
<tr>
<td>Wuhan</td>
<td>16.7%</td>
</tr>
<tr>
<td>Guiyang</td>
<td>5.2%-16.77%</td>
</tr>
<tr>
<td>Zhongshan</td>
<td>14.5%</td>
</tr>
<tr>
<td>Yanji</td>
<td>13.36%</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>12.52~13.15%</td>
</tr>
<tr>
<td>Chongqing</td>
<td>11.56%</td>
</tr>
<tr>
<td>Guangzhou</td>
<td>11.4%</td>
</tr>
<tr>
<td>Shanghai</td>
<td>11%</td>
</tr>
<tr>
<td>Nanjing</td>
<td>9.2%</td>
</tr>
<tr>
<td>Shanghai</td>
<td>8.66%~9.14%</td>
</tr>
<tr>
<td>Shenzhen</td>
<td>8.08%</td>
</tr>
<tr>
<td>Urumchi</td>
<td>7.61%</td>
</tr>
<tr>
<td>Lishui</td>
<td>6.65%</td>
</tr>
<tr>
<td>Zhanjiang</td>
<td>8%</td>
</tr>
<tr>
<td>Hangzhou</td>
<td>7.9%</td>
</tr>
<tr>
<td>Uygur of Urumchi</td>
<td>4.0%</td>
</tr>
</tbody>
</table>
These problems in childhood can persist and lead to negative outcomes in adolescence and adulthood.

For Children:
- **Health**: Psychiatric Disorders, Drug and Alcohol abuse, Poor healthy behaviors, Hospitalization and Mortality
- **School performance**: School Drop-out, Educational Attainment
- **Social performance**: Unemployment, Family Breakdown, Antisocial and Criminal behavior

For Family:
- **Mental load**
- **Disease burden** on health, social, education and legal services

For Society:
- **Crime rate**
- **Disease burden on** of primary care services (for example, doctor, hospital, therapist)
Background

Bronfenbrenner  Bio-Psycho-Social-Ecological Systems Theory
Individual level

1. Genetic Factor
2. Pregnancy, prenatal and birth situation
3. Developmental history
4. History of Disease
5. Temperament
Microsystem - direct interaction or setting

Family
1. Parenting Behaviors
2. Family Environment
3. Socio-demographic factors

Schools or Kindergarten
1. Physical Surroundings
2. Human Environment
Mesosystem

- Interconnections between the microsystems
  Interaction between family and school (teachers)
Chronosystem

- Changes in persons or environments over time:
  Points of Transition like entering school, working, get marriage et al
Objective

1. To Investigate the **prevalence** of preschool children mental health, behavior problems and social disadaptability in Longhua, Shenzhen.

2. To explore effects of exposure of early life stage on preschool children mental health, behavior problems and social disadaptability in Longhua, Shenzhen.
Methods

**Study Design:** longitudinal study

**Study Field:** 148 Kindergartens in Longhua, Shenzhen

**Participants:** all children aged 2.5-3yrs, all kindergarten teachers, all children’s Parents
Measure Tools

- General information of child and their family
- Family Environment Scale-Chinese Version
- Cornners Parent Rating Scale
- General Condition Questionnaire of Preschool teachers
- Myers-Briggs Type Indicator (MBTI)
Measure Tools

1. The general information of child

(1) Demographics of child
(2) Preparation before Pregnancy
(3) Pregnancy Situation
(4) Born situations
(5) Early experiences of infancy life course
(6) Sociodemographic factors of parents
2. Family Environment Scale - Chinese Version (FES-CV)

with 90 items and 10 subscales

- Cohesion
- Conflict
- Achievement Orientation
- Active-Recreational Orientation
- Organization
- Expressiveness
- Independence
- Intellectual-Cultural Orientation
- Moral-Religious
- Control
3. The Conners’ Parent Rating Scale (CPRS) with 48 items

- Conduct Problem
- Learning problem
- Anxiety
- Impulsive/Hyperactive behaviour
- Psychosomatic feelings
- ADHD index
4. The general information of Kindergarten and teachers:

(1) School Features
(2) Class Features
(3) Teacher’s Demographic Information
(4) Teacher’s personality
Follow up

We will follow up those children from 3 to 16 years old and focus on:

1. Physical health
2. Common childhood diseases
3. Mental health
4. Myopia
5. Obesity
6. Smoking behaviors
7. Internet Addiction
8. School performances
9. Social adaptability
Thank You!