

**I. Research Title: Survey on the Reproductive and Child-Rearing Situations of Patients with Severe Mental Disorders**

**II. Summary of the Research Plan**

**1. Background**

The intergenerational impact of severe mental illness constitutes a critical public health challenge. In Australia, 23.3% of children have at least one parent with mental illness [1], while China's national registry currently documents over 6 million cases of severe mental disorders, with 60% of affected individuals being married or previously married. This suggests a substantial population of children raised by parents with mental illness nationwide.

Existing evidence demonstrates that parental mental disorders exert multidimensional burdens across social, familial, and psychological domains [2]. Developmental outcomes for these children show increased vulnerability to both physical and mental health complications compared to peers [2]. Adolescence represents a particularly critical period, as emerging psychosocial engagement coincides with heightened risk for psychological distress [3]. Comparative studies indicate these children exhibit poorer coping strategies, lower self-esteem, and greater internalizing/externalizing behaviors than controls [4], underscoring their need for targeted support systems.

The transition to adulthood presents additional challenges, as this developmental stage coincides with typical onset periods for mental disorders. Longitudinal data reveal alarmingly high heritability risks (41-77%) among offspring of affected parents [2]. Adult children of depressed parents demonstrate elevated rates of depressive symptomatology, somatic complaints, stress reactivity [5], and functional impairment [6,7].

Despite these documented risks, China lacks systematic data regarding family formation

patterns and child-rearing circumstances among mentally ill populations. This epidemiological survey will establish foundational data to inform national mental health service planning and policy development.

## **2. Research Objectives**

This multicenter study aims to:

Characterize reproductive histories, child-rearing practices, and socioeconomic conditions among patients with severe mental disorders;

Identify demographic and clinical correlates of family formation patterns;

Provide empirical evidence to guide mental health service policy formulation.

## **3. Methodology**

### **3.1 Study Design:**

Multicenter cross-sectional survey

### **3.2 Study Population:**

Registered patients (N=100,000-200,000) aged 18-60 years with:

Diagnoses of schizophrenia, bipolar disorder, paranoid disorder, schizoaffective disorder, epilepsy-related mental disorders, or intellectual disability with mental disorders;

Documented reproductive history (including live births, miscarriages, or preterm deliveries);

Residence in 10 representative regions (Shenyang, Changchun, Wuhan, Zigong, Mianyang, Suzhou, Beijing Haidian/Fangshan, Taiyuan, Xiamen).

### **3.3 Data Collection:**

Electronic medical record extraction from national mental health registry

Community-based assessments via 686 Program network:

Household visits/telephone interviews conducted by trained mental health workers;

Structured questionnaire covering:

Marital/reproductive history,

Child developmental status,

Household socioeconomic indicators.

#### **4. Data Analysis**

##### **4.1 Statistical Approach:**

Primary analysis: Descriptive statistics (SPSS 24.0)

Continuous variables: Mean (SD) or median (IQR) as appropriate

Categorical variables: Frequency distributions (%)

##### **4.2 Data Management:**

Secure EDC system with role-based access

AES-256 encryption for all electronic records

#### **5. Ethical Protections**

##### **5.1 Confidentiality Measures:**

De-identified data storage,

Restricted access to research team members,

Publication protocols excluding identifiable information.

##### **5.2 Participant Safeguards:**

Voluntary participation with withdrawal option,

Dedicated research contacts for concerns,

Referral pathways for requested support services.

### **5.3 Special Population Protections:**

- Dual consent process for minor participants (assent + guardian consent),
- Age-appropriate communication protocols.

## **III. Participant Recruitment**

### **Sample Size:**

100,000-200,000 eligible households nationwide.

### **Timeline:**

Projected commencement: February 2021

### **Procedures:**

- Registry-based identification via national mental health management system;
- Community outreach through 686 Program infrastructure.

### **Inclusion Criteria**

Patients diagnosed with schizophrenia, bipolar disorder, paranoid disorder, schizoaffective disorder, epilepsy-related mental disorders, or mental retardation with associated mental disorders, who are registered in the severe mental disorder management system, aged 18-60 years, and have a history of childbirth (including miscarriage, preterm birth, and full-term birth).

### **Exclusion Criteria**

Those who do not agree to participate in the survey.

## **IV. Risk-Benefit Assessment**

### **Potential Benefits:**

- Contribution to evidence-based policy development.
- Foundation for future intervention studies.

**Potential Risks:**

Minimal psychological discomfort during survey.

**Mitigation:**

Real-time withdrawal option,

Embedded support service referrals.

**Risk-Benefit Conclusion:**

Study procedures present minimal risk with significant potential to advance mental health service equity for vulnerable families.

**Reference:**

- [1] MAYBERY D J, REUPERT A E, PATRICK K, et al. Prevalence of parental mental illness in Australian families[J]. *BJPsych Bulletin*, 2009,33(1): 22.
- [2] HOSMAN C M H, van DOESUM K T M, van SANTVOORT F. Prevention of emotional problems and psychiatric risks in children of parents with a mental illness in the Netherlands: I. The scientific basis to a comprehensive approach[J]. *Australian e-Journal for the Advancement of Mental Health*, 2009,8(3): 250-263.
- [3] GRABER J A. Internalizing problems during adolescence[J]. *Handbook of adolescent psychology*, 2004,2: 587-626.
- [4] Van LOON L M A, Van De VEN M O M, Van DOESUM K T M, et al. Factors Promoting Mental Health of Adolescents Who Have a Parent with Mental Illness: A Longitudinal Study[J]. *Child & Youth Care Forum*, 2015,44(6): 777-799.
- [5] TIMKO C, CRONKITE R C, SWINDLE R, et al. Functioning status of adult children of

depressed parents: a 23-year follow-up[J]. Psychological Medicine, 2008,38(3

): 343-353.

[6] WEISSMAN M M, WICKRAMARATNE P, NOMURA Y, et al. Offspring of depressed parents: 20 years later[J]. American Journal of Psychiatry, 2006,163(6): 1001-1008.

[7] WEISSMAN M M, WICKRAMARATNE P, GAMEROFF M J, et al. Offspring of Depressed Parents: 30 Years Later[J]. American Journal of Psychiatry, 2016,173(10): 1024-1032.