

COVID-19 in China

Impact on Psychiatric Care & Community Mental Health

Thomas R Kosten MD

Baylor College of Medicine & Peking University

XY Zhang MD, PhD

Chinese National Academy of Sciences
& Peking University

Inpatient Psychiatric Care

- Wuhan Province Psychiatric Hospital: 586 inpts; 258 schizophrenia (SZO)
- **33%** (84) COVID infected SZO vs 5% all other inpts. = **6.5 fold** higher risk
- Infected vs Uninfected SZO inpts.
 - Older (55 vs 51 years) – as in many other studies
 - Female (24% vs 18%) – usually males, but confound by more outside contacts
 - Lighter (137 vs 150 lbs) – opposite usual, but females lighter, few overweight
 - More with medical illnesses (49% vs 27%) – as in many other studies
 - **Fewer smokers** (13% vs 53%) – Nicotine anti-inflammatory, vs tobacco carcinogens
 - **Fewer clozapine RX** (18% vs 32%) – Suppresses immune white blood cells

Substance Relapse & Internet Abuse

- National survey of 6400 Chinese from whole country in February 2020
- Abstinent alcohol abusers == 19% vs 8% relapsed in previous month
- Abstinent tobacco smokers == 25% vs 10% relapsed in previous month
- While USA does not recognize Internet abuse or dependence, it is considered a major problem in Asia, particularly in adolescents, and treatments include residential “boot camps” of 6 months duration
- Internet “dependence” == Baseline rate is 3.2% nationally (1% SZO rate)
 - Rate increased to 4% for a 25% increase in previous month
 - Internet use increased 20-fold among internet abusers in previous month

Adolescent Anxiety & Depression before & after COVID outbreak

- 14,000 adolescents' adjustment surveyed in 5 cities in October 2019, followed by a second survey in January 2020
 - Before and 2 months After the COVID-19 outbreak in Wuhan, China
- 5 cities had low levels of community infection: 0.35% to 1.3%
- Infection rates correlated with anxiety and depression ($r= 0.95$)
- 5 cities Mean rates of Anxiety & Depression SX: 4% to 30%
- COVID infection rates varied by 3.7 fold, while SX varied by 7.5 fold
- What accounts for double the SX rate difference in these adolescents compared to the modest infection rate difference?

Adolescent Risk Exposure to COVID

- Between initial assessment and follow-up overall anxiety & depression **SX dropped** with home confinement & school closure
 - Depression: 51% to 38% of adolescents
 - Anxiety: 39% to 24% of adolescents
- 2% of adolescents had a family member with COVID infection
- With this family exposure risk depression & anxiety **almost doubled**:
 - Depression: 61% (exposure) vs 38% (no exposure risk)
 - Anxiety: 41% (exposure) vs 24% (no exposure risk)
- Protective and risk factors for greater SX of anxiety & depression:
 - Resilience protective: Odds ratio = 0.2 anxiety & 0.5 depression
 - Emotional abuse risk: Odds ratio = 1.1 anxiety & 1.3 depression
 - No siblings risk: Odds ratio = 2.0 anxiety & 2.0 depression

Conclusions: COVID in China

- Smoking does **not protect** against COVID, but nicotine suppresses strong immune symptoms, without suppressing antibody formation
- More asymptomatic infection possible + ultimate COVID immunity
- However, if infected & develop symptoms, smoking impedes your body's ability to effectively fight the infection consequences.
- Should **NOT** make non-smokers nicotine dependent by using nicotine patches to prevent symptomatic COVID infection.
- COVID has increased smoking & alcohol relapse & internet addiction
- Family member with COVID raises Adolescents' anxiety & depression during months of social distancing and confinement at home