

Effects of multifaceted socioeconomic failures on mental health in children: A case report

Alice Doong, DO | Kara Hunter, MD | St. Mary Mercy Hospital, Livonia, MI | Wayne State University, Detroit, MI | Hawthorn Center, Northville, MI

INTRODUCTION

- Socioeconomic determinants and medical stressors have largely been associated with mental health persisting into adulthood (1).
- Social stressors and home environment are often found with lower SES (4), and are found to have a negative impact on mental health, starting as young as 18 months (2,3)
- Interaction between multiple factors place a greater risk in a child population and are not as studied in lower SES groups (4).
- This case illustrates the potential negative effects of socioeconomic factors and failed interventions on mental health in a child/adolescent.

CASE

- 14 year old African-American, ward of the state, girl who presented from residential facility for aggressive and self-injurious behaviors, in the setting of failed outpatient management.

Social History:

-Ward of the State
-Found by authorities living at home with her siblings in a home with feces and elevated lead levels
-Tried at multiple residential facilities with behavioral issues

Family History

Unknown

Medical History

COVID19
Iron deficiency anemia
Obesity

Developmental:

-Largely unknown
-Mother reportedly used substances and alcohol during pregnancy.
-Delayed schooling

Past Medication Trials

aripripazole
sertraline
benzotropine
atomoxetine
guanfacine-no effect
haloperidol-Galactorrhea
Attempted to initiate clozapine-
low neutrophils, WBC

Prior to Admission Medications:

haloperidol 1 mg TID
valproic acid ER 1250 mg QHS
clonazepam 1 mg TID
quetiapine 200 mg qAM
quetiapine 200 mg noon
quetiapine 400 mg nightly
melatonin 10 mg nightly

Medications:

haloperidol 1 mg TID
haloperidol 1 mg at 7 pm
valproic acid ER 1250 mg QHS
clonazepam 1 mg TID
quetiapine 400 mg nightly
melatonin 10 mg nightly

Past Psych History:

-Suffered from emotional and physical trauma.
-Multiple attempts at self harm including sticking sharps in undergarments, tying clothes around herself
-Several prior residential placements and inpatient hospitalizations
-Past diagnoses include:
PTSD
ADHD
Catatonia, Excited type
Intellectual disability
Learning disability

CASE PRESENTATION

- Mental Status Exam
 - Patient was guarded, and avoidant. Minimally reactive to conversation. Poor concentration was noted as well as poor insight and judgment
- Labs: Lipid, CMP, CBC, PRL WNL. Valproic acid level 97.2
- Diagnosis:
 - Post-traumatic stress disorder, chronic
 - Attention deficit hyperactivity disorder combined type
 - Intellectual Disability, mild
 - Disinhibited social engagement disorder, rule out
 - Mixed receptive and expressive language disorder, rule out
 - Specific learning disability, reading (by history)
 - Specific learning disability, mathematics (by history)
- Upon initial hospitalization, patient required multiple seclusions and restraints for aggressive behaviors, largely prompted by conflict with peers and authority figures. She then displayed regressive behaviors with ADLs

DISCUSSION

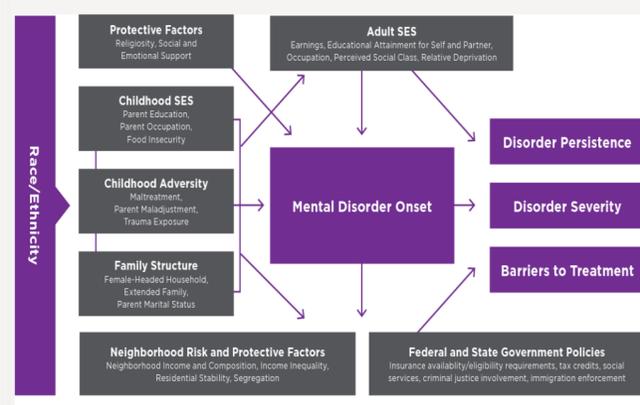


CONCLUSION

- Complex interactions between socioeconomic variables have a large impact on mental health in a child and adolescent population.
- Such effects can lead to increases in behavioral disturbances and aggression, particularly in response to failed social interactions (5).
- Child and adolescents in a lower socioeconomic class who experience physical and emotional trauma are at a much higher risk for mental health complications, with few supporting resources available (4).
- Advancement through socioeconomic indicators such as household income, parental education, and social support can reduce the mental health burden in child and adolescent population (4).
- Child and adolescents who are exposed to multiple childhood adverse experiences are likely at risk for abnormalities in enduring stress related biological systems, including inflammation and metabolic markers, resulting in mental health burden (7).
- Interventions and reduction of social inequality through initiatives and policies can help address mental health concerns

References

- Reiss, F., et al. (2019). Socioeconomic status, stressful life situations and mental health problems in children and adolescents: Results of the German BELLA cohort-study. *PLoS one*, 14 (3), e02137700.
- Kahr, N., et al. (2019). Developmental and mental health characteristics of children exposed to psychosocial adversity and stressors at the age of 18-months: Findings from a population-based cohort study. *Infant Behavioral Development*, 57, 101319.
- Boe, T., et al. (2012). Socioeconomic status and children's mental health: results from the Bergen Child Study. *Soc Psychiatry Psychiatric Epidemiology*, 47 (10), 1557-1566.
- Membride, H. (2016). Mental health: early intervention and prevention in children and young people. *British Journal of Nursing*, 25 (10), 552-557.
- Beeson, CML, Brittain, H., et al. (2020). The Temporal Precedence of Peer Rejection, Rejection Sensitivity, Depression and Aggression Across Adolescence. *Child Psychiatry Hum Dev*, 51, 781-791.
- Alegria, M., Green, J., et al. (2015). Disparities in child and adolescent mental health and mental health services in the US. New York, NY: William T Grant Foundation.
- Danese, A., Moffitt, TE, et al. (2009). Adverse Childhood Experiences and Adult Risk Factors for Age-Related Disease: Depression, Inflammation, and Clustering of Metabolic Risk Markers. *Arch Pediatr Adolesc Med*, 163 (12), 1135-1143.



Alegria, M., et al. (2015).

