How Social Exclusion Impacts the Cognitive Development of Students with Intellectual and Developmental Disabilities

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WHAT ARE INTELLECTUAL AND DEVELOPMENTAL DISABILITIES (IDD)?

• “IDDs are differences that are usually present at birth and that uniquely affect the trajectory of the individual’s physical, intellectual, and/or emotional development” (About)

• Wide array of disabilities
  • Autism, down syndrome, ADHD, cerebral palsy, traumatic brain injury.

• Students are often placed into self-contained special education classes

• Students are often socially excluded by peers

WHY STUDY THE IMPACTS OF EXCLUSION?

- Exclusion is everywhere.
  - Classes, social circles, society.
- These cause subliminal messages to be given to the individual
- Powerful, life-long affects on the well-being and development
- Underdiscussed, universal problem amongst schools
This research attempts to signify why discussion of exclusion is essential.

It’s been engrained in our society.

- In Ancient Greece, a baby with a disability meant the Gods were displeased with you (Schur)
- In early 1900s America, asylums and residential treatment centers were created (Schur)
- Teachers view students with disabilities as “challenging” and “obstacles”

CHANGING PERSPECTIVES DURING RESEARCH

• I started off with an ableist, tunnel-vision point of view
• Realized I needed to change the scope of my research
  • People with disabilities are not necessarily affected differently than people without
• Exclusion will affect everyone the same, but what matters is the frequency
• People with disabilities will experience exclusion at a significantly higher rate
FOUNDATIONS OF MY RESEARCH: DISABILITY STUDIES

• Disability Studies: Used to “explore models and theories that examine social, political, cultural, and economic factors that define disability and help determine personal and collective responses to difference”

• Exclusion is frequent
  • 50% of people with an IDD reported they felt lonely
  • 33% of people with an IDD reported they had trouble making friends
  • 25% of people with an IDD reported seeing their family once a year or less
  • 75% of people with IDD reported that the person they confide in the most is a support person who specializes in their disability (Amado)


FOUNDATIONS OF MY RESEARCH: SOCIAL BRAIN HYPOTHESIS

• The brain is incredibly malleable.
• Started off as an evolutionary theory, but can be further applied
  • How are we different from primates?
  • It shows how due to different stimuli, our brain will adapt and change over time
• Short term:
  • Prolonged exposure to exclusion will affect the development of the brain

THE ACADEMIC EFFECTS

• Baumeister (2002) discovered that exclusion can negatively influence test scores
• The burden of exclusion and the fear of being alone prevents the individual from focusing on tasks
• Inhibits brain function by monopolizing important resources
EFFECTS OF OSTRACIZATION IN SCHOOLS

- Hinders a student's basic needs such as *belonging*, self-esteem, control, and meaningfulness
- Lack of relatedness impacts motivation
- Reduces feelings of positive mood
HOW EXCLUSION IMPACTS BRAIN FUNCTION

• Affects the parietal and prefrontal cortex region
  • Parietal Cortex: Maintaining attention
  • Prefrontal Cortex: Self-Control
• Reduces storage capacity, makes it hard to filter out irrelevant information
• Overstimulates the parahippocampal gyrus
  • Supports “proposed psychological processes” (Kiat), AKA predicting other’s behaviors

HOW EXCLUSION IMPACTS BRAIN FUNCTION (CONT.)

• Impacts the anterior cingulate cortex (ACC), posterior cingulate cortex (PCC) and the insula
  • ACC- Controls and manages uncomfortable emotions, can permanently be affected
  • PCC- Regulates the focus of attention and emotional processing
  • Insula- Emotional experience and understanding the feelings of others
• Causes a surplus of oxytocin- Affects emotional reactions, social perception, trust, and cooperative behavior.
• ASIDE: Exclusion has physical affects, as well:
  • It impairs immune system functioning, poor blood pressure regulation, reduces sleep efficiency, increases morbidity and mortality
EFFECTS ON MENTAL HEALTH

- Over-anticipation leads to social anxiety disorders
- Chronic self-isolation
  - Self-fulfilling, negative feedback loops due to anticipation
- Depression
  - Internalization of feelings and symptoms
- Self-harm, suicidal ideation
- These effects on mental health are long-lasting and can last lifetimes.

UTILIZING COVID-19 TO STUDY EFFECTS OF EXCLUSION

• How COVID-19 is impacting young people:
  • Increase in loneliness
  • Hopelessness for the future
  • Increase in anxiety, depression, eating disorders, and addiction

• How COVID-19 is impacting young people with disabilities:
  • Lack of virtual support from school staff
  • Exacerbated achievement gaps between students with and without disabilities
  • “52% of general education students met or exceeded the proficiency standard compared to just 14% of students with disabilities” (DiNapoli)

Here are just a few tips on how to make your school more inclusive.

For teachers:
- “Remember that it is much better to over-plan than to under-plan” (Valle and Connor)
- Utilize Universal Design for Learning (UDL)
- Consider co-taught inclusive classrooms that include students with disabilities
- Differentiate instruction
- Have discussions about disabilities
- Listen.

For principals and school leaders:
- Work with all members of the staff on principles of inclusion
- Engage in challenging conversations, question biases, emphasize the importance of inclusion
- Lessen and/or remove self-contained and separate classes

FINAL PIECES OF ADVICE

• Be prepared to manage the change you make
• Adapting your school for better inclusive principles requires major changes
• Transform archaic school traditions
• There is no model, it depends on the needs of your school
• It will not change in a day, will require generations of support
THANK YOU!