Neurodiversity and Mental Health: Serving Children Better

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Acknowledging that we gather today on First Peoples' ancestral lands, understanding and committing to the ongoing work of truth and reconciliation

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Overview

1. Premises
2. Neurodiversity and children's mental health
   - Prevalence of anxiety, attention-deficit/hyperactivity disorder (ADHD), behaviour disorders and depression in children with autism spectrum and fetal alcohol spectrum disorders (ASD and FASD) and intellectual disability
3. Serving children better
   - Mental health interventions that work for anxiety, ADHD, behaviour disorders and depression
4. Policy and practice implications

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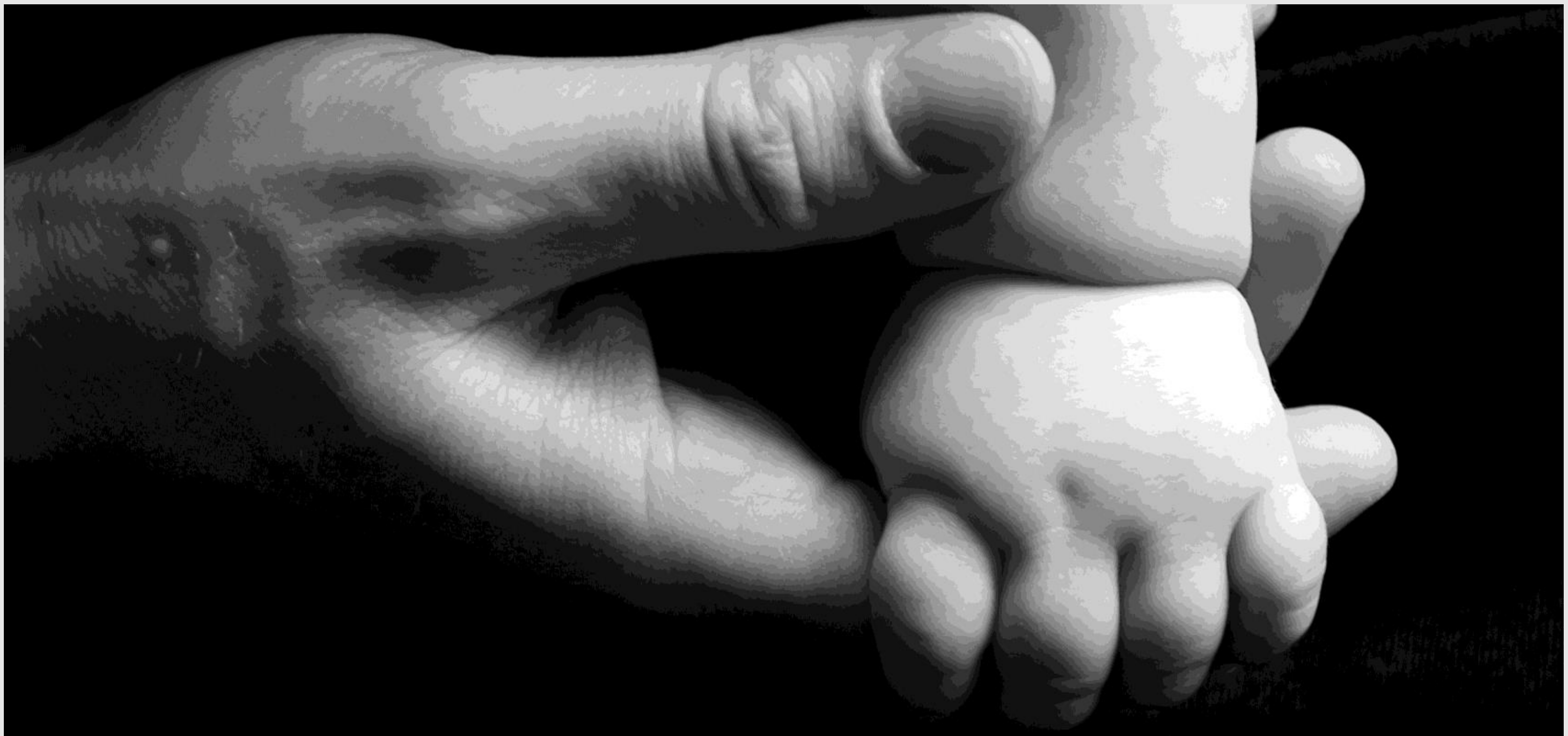
1. Premises



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Premises

- "Childhood" — birth to age 18 years
- Research knowledge
  - Mental disorder prevalence
    - Evidence from epidemiological surveys using representative, population-based samples and rigorous diagnostic measures
  - Intervention effectiveness
    - Evidence of child benefit from randomized controlled trials (RCTs)
- Personal, practice and policy knowledge
  - Experiences of children, families, practitioners, policymakers and communities

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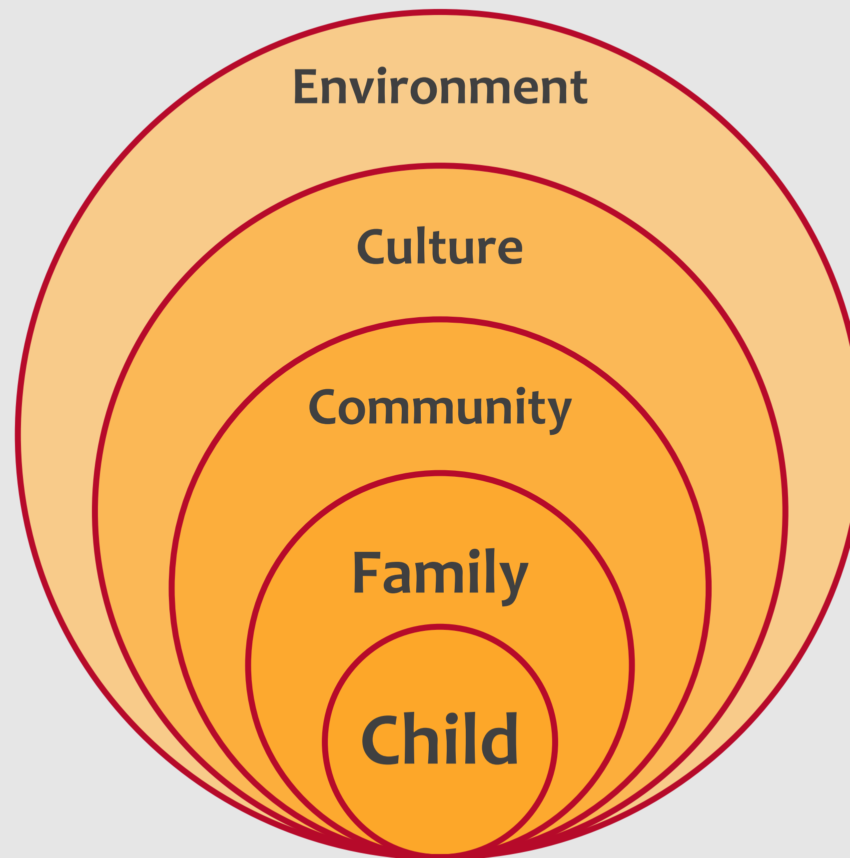
Child Development in Relationships



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"Disability"

Long-term impairments which
— in interaction with various social barriers —
may hinder full and effective participation in society
on an equal basis with others.

(United Nations 2010)

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"Creating Capabilities"

What is each person able to do and to be?

(Nussbaum 2011)

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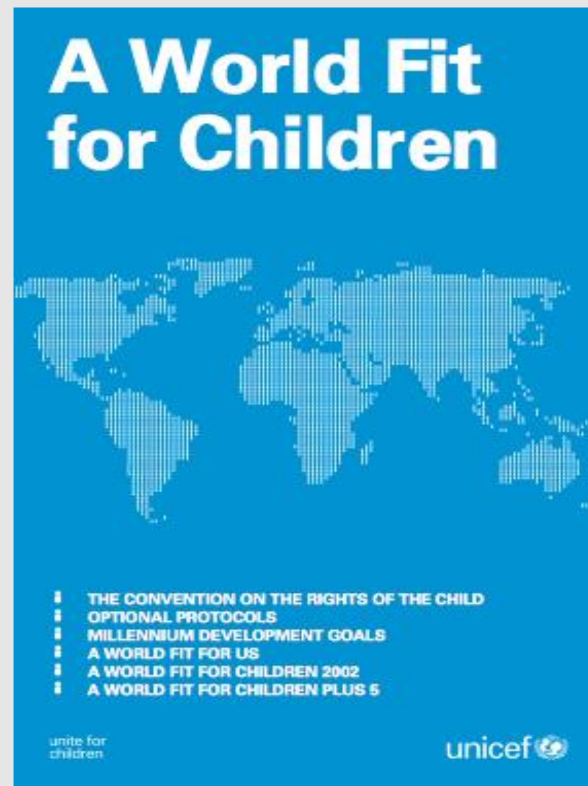
Honouring Children's Rights

- *UN Convention on the Rights of the Child* (1989)
  - All children have rights to safety and nurturing and opportunities to flourish and contribute and participate
  - All children are a shared, collective responsibility



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Policymaking as collective ethical decision-making — for the one and the many

(Greenhalgh 2006, Daly 1994, Waddell 2020 [photos])

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2. Neurodiversity and Children's Mental Health

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Examples of Neurodiversity

- ASD (0.4%)
  - Persistent struggles with social communications and interactions; restricted, repetitive behaviours, interests; impaired functioning; intellectual disability may also occur
- FASD (0.8%)
  - Persistent struggles with neurocognitive functioning, self-regulation and adaptive functioning
- Intellectual disability (1.2%)
  - Impairment in general cognitive abilities affecting adaptive functioning in conceptual, social and practical domains

(Schwartz 2023)

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What Contributes to Neurodiversity?

- ASD
  - Genetic and environment influences, research is ongoing
- FASD
  - Prenatal alcohol exposure
- Intellectual disability
  - Genetic and environment influences, research is ongoing
    - Genetic syndromes, e.g., Down, Fragile X syndromes
    - Prenatal infections, e.g., cytomegalovirus
    - Perinatal trauma e.g., resulting in cerebral palsy

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Neurodiversity on the Rise

- Global prevalence has remained steady in recent decades, but substantially increases for children in low-middle-income countries and North America
- In the US, greater increases in higher-income groups, but socio-economically disadvantaged children still experienced 1.5 X greater disability rates
- Diagnostic changes, reduced stigma, willingness to insist on services may influence reported increases

(Olusanya 2018, Halfon 2012, Houtrow, 2014)

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Social Disparities

We appear to have made no progress in reducing socioeconomic disparities in disability over the past half century.

(Halfon 2012)

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What is Mental Health?

- Social and emotional wellbeing
  - Resources for living and learning
  - Essential for *all* children to flourish and reach their potential
  - Enabling resilience in the face of adversity
  - Crucial alongside physical, cognitive and spiritual wellbeing
  - Yet potent threats persist

(e.g., World Health Organization 2020, Erskine 2015)

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Mental Disorders Start Early

Early childhood *Birth → 6 years*	**Middle childhood** *7 → 12 years*	**Adolescence** *13 → 18 years*
Prenatal Substance Exposures	Most Anxiety Disorders	Substance Use Disorders
Learning Difficulties	Conduct Disorder	Major Depressive Disorder
ASD	Obsessive-Compulsive Disorder	Bipolar Disorder
ADHD	Posttraumatic Stress Disorder	Eating Disorders
Oppositional-Defiant Disorder		Schizophrenia

(e.g., Thapar 2015, Uhlhaas 2023)

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Childhood Mental Disorders are Common

Disorder	Prevalence (%)	Age (y)	Estimated Population Affected (#) BC	Canada
Anxiety	5.2	4–18	39,900	325,100
ADHD	3.7	4–18	28,400	231,300
Oppositional-Defiant Disorder	3.3	4–18	25,300	206,300
Substance Use Disorder	2.3	12–18	8,500	68,000
Major Depression	1.3	4–18	10,000	81,300
Conduct Disorder	1.3	4–18	10,000	81,300
ASD	0.4	4–18	3,100	25,000
Obsessive-Compulsive Disorder	0.3	4–18	2,300	18,800
Bipolar Disorder	0.3	12–18	1,100	8,900
Eating Disorders	0.2	12–18	700	5,900
Posttraumatic Stress Disorder	0.1	4–18	800	6,300
Schizophrenia	0.1	12– 18	400	3,000
Any Disorder	**12.7**	**4–18**	**97,600**	**794,100**

(Barican 2022)

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Service Shortfalls are Stark

- Only 44% of young people with mental disorders receive "any" services for these conditions
  - Nearly 55,000 with disorders in BC who therefore need treatment — but are *not* being served

(Barican 2022)

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Consequences are Profound

- For individual children and families
  - Distress, interrupted development, social exclusion, financial costs for families
- For society
  - Mental disorders a leading cause of child disability globally
  - Most disorders persist unnecessarily into adulthood
  - Costs estimated to exceed $76B annually in Canada (2023 CAD)

(e.g., WHO various, Erskine 2015, Polanczyk 2015, Lim 2008)

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Exposing Canada's ugly mental-health secret

ANDRÉ PICARD

The Globe and Mail
Published Sunday, Oct. 13 2013, 5:00 PM EDT

Imagine that you have a child who is suicidal, suffering from depression, severe anxiety, an eating disorder, a drug addiction or another mental-health problem. What do you do?

Canadian parents face this every day. The well-to-do pay. The middle-class scrape something. And those without the means wait or do without care.

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And Needs Have Increased Since C19

- Significant increases in anxiety and depression, but not substance use
- Greater impact if socioeconomic disadvantage, fewer supports, family members had C19

(Schwartz 2023)

Neurodiversity and Childhood Mental Disorders

Disorder	Autism Spectrum Disorder	Fetal Alcohol Spectrum Disorder	Intellectual Disability	General Population
Any anxiety disorder	8X higher	Not measured	Not higher	5.2%
ADHD	9X higher	14X higher	2X higher	3.7%
Behaviour Disorders	4X higher	4X higher	4X higher	1.3–3.3%
Major Depressive Disorder	8X higher	28X higher	2X higher	1.3%

Notes: Data come from a systematic review of epidemiological surveys covering children aged 18 years or younger from high-income countries who had ASD, FASD or ID and the mental health conditions noted

(Schwartz 2023)

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Why Might Rates Be Higher?

- Coping with increased social adversity
  - Family socioeconomic disadvantage for many
  - Supports not being provided according to needs
  - Stigma, isolation
  - Increased stress for parents, children, siblings

(e.g., Marmot 2010, Emerson 2008, Halfon, 2012, Marquis 2019)

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3. Serving Children Better

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What Works for Children Who Are Neurodiverse?

- For children with ASD
  - 12 studies on treating anxiety using child and parent cognitive-behavioural therapy (CBT), all showing success
- For children with FASD
  - Three studies on improving self-regulation using child and parent training, all showing some success
  - One study on improving child social skills using child and parent training, showing success

(Schwartz 2023)

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What Works for Children Who Are Neurodiverse?

- For children with intellectual disabilities
  - One study on treating anxiety using child cognitive training, showing success
  - One study on child attention training, showing success
  - Three studies on improving child behaviour using parent training, all showing some success

(Schwartz 2023)

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Adapting What Works for All Children

Disorder	Prevalence (%)	Age (years)	Effective Interventions	
			Prevention	Treatment
Anxiety	5.2	4–18	✓	✓
ADHD	3.7	4–18	✓	✓
Oppositional-Defiant Disorder	3.3	4–18	✓	✓
Substance Use Disorder	2.3	12–18	✓	✓
Major Depression	1.3	4–18	✓	✓
Conduct Disorder	1.3	4–18	✓	✓
Autism Spectrum Disorder	0.4	4–18		✓
Obsessive-Compulsive Disorder	0.3	4–18		✓
Bipolar Disorder	0.3	12–18		✓
Eating Disorders	0.2	12–18	✓	✓
Posttraumatic Stress Disorder	0.1	4–18	✓	✓
Schizophrenia	0.1	12– 18		✓
Any Disorder	**12.7**	**4–18**	**Most**	**All**

(Schwartz 2020)

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Treating Anxiety

- **Psychosocial**
  - CBT
    - Typically, 10–16 sessions, often involving both parents and children
    - Elements include educating children and families, coaching children to reduce physical symptoms of anxiety, teaching children to challenge unrealistic thoughts or fears and helping children practice new skills
- **Medication**
  - Only if CBT is not enough, e.g., fluoxetine, which can have few side effects with careful dosing and monitoring

(Schwartz 2020)

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Treating Behaviour Disorders

- **Psychosocial**
  - Parent training and multi-component programs including parent and child CBT and social skills training
- **Medication**
  - Only as a last resort when parenting programs are not enough, antipsychotics, e.g., risperidone
  - Antipsychotics are over-prescribed and can have serious cardiovascular and endocrine side effects for children

(Schwartz 2020)

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Treating ADHD

- **Psychosocial**
  - Child behaviour therapy
    - Structured approach to establish routines, teach coping skills, e.g., staying organized, sitting at the front of the class to reduce distractions, using lists and calendars
  - Parent and teacher training
    - Encourage routines, consistency and supportive approaches for the child
- **Medication**
  - Stimulants, e.g., methylphenidate, which can have few side effects with careful dosing and monitoring

(Schwartz 2020)

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Treating Depression

- **Psychosocial**
  - CBT
  - Interpersonal psychotherapy (IPT)
    - Structured approach to help children solve problems with relationships or life transitions
    - Sessions over 16 or more weeks with homework, practice and coaching
- **Medication**
  - Only when CBT or IPT are not enough, i.e., fluoxetine, which can have few side effects with careful dosing and monitoring

(Schwartz 2020)

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4. Policy and Practice Implications

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Still Left Out:

Children and youth with disabilities in B.C.

November 2023

REPRESENTATIVE FOR CHILDREN AND YOUTH

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Learning from Children with Autism

You have to advocate for your child until they can advocate for themselves.

There's a backlash. People resent that so much money's being spent on autism. What about kids with other mental health or developmental disorders? Well, we should be trying to do more for all.

(Shepherd 2015)

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For All Children Who Are Neurodiverse

- Provide comprehensive and timely supports and resources — according to the needs
- Coordinate health and social care to reduce child and family burdens
- Offer timely and effective treatments for all children who have mental disorders
- Build and sustain welcoming communities who celebrate all children
- Support children and families across the lifespan

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Daily Mail .com

'It was a wonderful moment': Mother of severely autistic boy tells how she was moved to tears by a birthday party invitation given to her son

SIMON FRASER UNIVERSITY ENGAGING THE WORLD

Pitching in: B.C. couple spotlights Registered Disability Savings Plan

PAUL WALDIE > EUROPE CORRESPONDENT

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Thank You!

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