


Child Development

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Outline:

- Scope of the Problem
- Why Support Early Intervention?
- Screening
- Recommendations
- Implementation
- A Closer Look at Our Clinic
- Summary Statement

Scope of the Problem:

- One child out of six in your practice has a developmental disability [1]
- The prevalence of delays in young children is at least 10% [2]
 - Only 2.3% of children ages birth to three are receiving services
 - Nearly four out of five potentially eligible children did not participate
 - Most kids who would qualify for services are not identified before school entry

Scope of the Problem:

- Range of disabilities [3]
 - Speech and language 6%
 - Learning disabilities 8%
 - ADD 7%
 - Mental retardation 1-2%
 - Cerebral palsy 0.2%
 - Autism spectrum disorders 0.5%

Scope of the Problem:

- We aren't great at identifying children at young ages and we tend to miss milder cases [4,5,6,7]
 - Median age of diagnosis: [8]
 - Cerebral palsy - 11 months
 - Mental retardation / global developmental delays – 27 months
 - Communication disorders – 32 months
- Physicians tend to diagnose rare, but serious conditions – Down syndrome, cerebral palsy [5]
- Only 19% of milder conditions are identified by physicians and usually close to school age [5]

Scope of the Problem:

- When parent's are concerned, we don't always listen promptly [9]
 - Parents reported concern - 23 months
 - Assessment - 38 months
 - Global developmental delays - 19 months
 - Assessment - 35 months
 - Speech and language - 27 months and an
 - Assessment - 43 months
- This means that most parents had concerns during the second year of life, but diagnostic assessments were not completed until the child was 3 ½ to 4 years of age!

Who Cares About Early Intervention?

- Individuals with Disabilities Education Act (IDEA) is a federal law that requires you to refer children to early intervention services when you suspect a developmental disability [10]
- Any child with a developmental delay is at higher risk for additional delays
 - Consider a complete assessment not just an evaluation for the condition identified [11]
- Early intervention works!

Who Cares About Early Intervention?

- Utah State University collected more than 2,000 articles addressing the effectiveness of early intervention [12]
 - Typically obtained effects are of the magnitude of eight points on an IQ test
 - Equivalent to one year's worth of reading gain at the second grade
 - Or the movement from the 10th to the 22nd percentile on a test of motor functioning

Who Cares About Early Intervention?

- Studies keep proving the benefits of early identification on child health outcomes [13,14,15,16]
 - The early literature focused on children with risk factors such as prematurity, low birth weight, and low socioeconomic status
 - Improvement in IQ
 - Higher academic achievement
 - Decreased criminal behavior
 - More likely to be employed
 - More likely to earn higher incomes

Who Cares About Early Intervention?

- Effective in improving outcomes for children who are increased risk for developmental delays [17,18]
- The catch is that to benefit from early identification, children with developmental delays must be identified at a young age! [17,18]

Screening:

- Definitions [19]
 - Surveillance
 - Process of recognizing children who may be at risk of developmental delays
 - This is what we are doing!
 - Screening
 - Standardized tools to identify kids at risk for developmental delays
 - Evaluation
 - Complex process aimed at identifying specific developmental disorders that are affecting a child

Screening:

- How should we screen?
 - Clinical judgment
 - 30% of children with developmental delays [20]
 - Formal developmental screens
 - Sensitivity and specificity of 70-80% [20]
 - 15-20% of doctors use a formalized developmental instrument [21]

Screening:

- Are false positives a problem? [22]
 - 512 children that were identified on developmental screens, but were not diagnosed with a disability
 - Scored substantially lower than their peers in intelligence, language, and academic achievement
 - The three best predictors for school success!
 - Although these kids did not qualify for special education, they may benefit from other services

Screening:

- Stats
 - Clinical judgment
 - Identifies 30% of children with delays
 - We tend to identify children with more severe delays at an older age
 - Denver II
 - Published without data on validity, sensitivity, and specificity
 - Relied on the significance of children falling outside of the normal range as an evidence for delay
 - Ages & Stages
 - Sensitivity: 72%
 - Specificity 86%
 - Ranging from 81% at 16 months to 92% at 36 months

Screening:

- Denver II
 - Direct observation and parental report
 - 20 minutes
 - Gross motor, fine motor & adaptive, language, personal & social
 - 2,000 children from Colorado diversified in terms of age, place of residence, ethnic background, maternal education
- Ages & Stages
 - Relies on parental report
 - 10-20 minutes, scored in 1-5 minutes
 - Communication, gross motor, fine motor, problem solving, personal social, overall section that covers general parental concern
 - 2,000 children from diverse ethnic and socioeconomic backgrounds

Recommendations: [19]

- Developmental surveillance should be incorporated at every well child visit
 - Concerns raised during surveillance should be promptly addressed with standardized screening tests
- Standardized screening tests should be administered regularly at the 9, 18, 30 (or 24) month visit
- The early identification of developmental problems should lead to further developmental and medical evaluation, diagnosis, and treatment
 - Including a referral to early intervention services

Implementation:

- Chart review to look at developmental screening and referral practices at our clinic
- Continue surveillance

Implementation:

- Formal screening using Ages & Stages at 9, 18, and 24 months, as well as any time parent's voice developmental concerns
 - Cost to residency to obtain Ages & Stages is approximately \$200
 - Educate front desk, nursing, and billing
 - Team meeting to familiarize all medical staff with the implementation and scoring
 - Schedule patient 15 minutes early for appointment time with doctor
 - Post referral information
 - North Dakota
 - Under 3 – #795-3000
 - Over 3 – #746-2230
 - Minnesota
 - Birth to Five – #800-728-5420

Implementation:

- Follow-up with a chart review to evaluate how this project has changes our screening and referral practices

A Closer Look at Our Clinic:

- Chart review
 - April 2007 – April 2008
 - Residency Clinic
 - Ages Birth to Five
 - 301 random charts
 - Three charts excluded
 - At the three year appointment, the family stated a family friend made a referral to Infant Development
 - Transferred from another state with referral to early intervention services
 - Involved in speech therapy

A Closer Look at Our Clinic:

- Let's look at the data

A Closer Look at Our Clinic:

- What do our numbers tell us?
 - We are great at doing developmental surveillance at every well child visit!
 - 100% of charts documented developmental surveillance
 - We do not refer to early intervention services
 - 0% of patients were referred to early intervention services
 - 3.4% of patients were referred for direct services
 - We do “watchful waiting”
 - 6% of charts stated concern, but no formal developmental screen was completed and no referral was made
 - We are best at identifying speech concerns
 - Half of the patients we referred for services was due to speech delays

Summary:

- One child out of six in your practice has a developmental disability!

Summary:

- Individuals with Disabilities Education Act (IDEA) is a federal law that requires you to refer children to early intervention services when you suspect a developmental disability

Summary:

- Any child with a developmental delay is at higher risk for additional delays, therefore, clinicians should consider a complete assessment not just an evaluation for the condition identified

Summary:

- Early intervention works!

Summary:

- Anybody can make a referral to early intervention services
 - In North Dakota, call #795-3000 for children under 3 and #746-2230 for children over 3
 - In Minnesota, call # 800-728-5420 for children birth to five

Summary:

- We can implement formal developmental screening at our clinic
 - 9, 18, and 24 months and anytime a parents states concern regarding development