A Framework for the Design of Inclusive Community-Based Early Intervention Programs

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Early Intervention Issues to Consider

Diversity and Complexity of Vulnerable Groups
Conceptual Framework: Theory of Change
Evidence Framework: Intervention Science
Diversity and Complexity of Intervention Approaches
Community Implementation: Implementation Science
Diversity and Complexity of Vulnerable Groups

Categorical

Environmental Risk

Biological Risk

Developmental Delay

Autism Spectrum Disorder

(Guralnick, 2019a)
Environmental Risk

- Financial instability (food insecurity)
- Parent mental health
- Stimulating environment (language)
- Parent-child relationship
- Material resources
- Parent self-efficacy
- Community resources
Biological Risk

- Preterm birth
- Hypoxic ischemic encephalopathy
- Infection
- Birth trauma
- Known genetic risk (family risk)
Developmental Delay

- Cognitive
- Language
- Motor
- Social-emotional
- Sensory-perceptual
Autism Spectrum Disorder

• Reciprocal social behavior
• Repetitive behavior/restricted interests
• Communication concerns/relationships
The Early Intervention Process

Categorical Vulnerability

- Assessments
- Establishing Relationships with Families

Initiate Problem-Solving

- Family Narrative
- Child Development Goals and Priorities
Initiating Problem Solving: Establish Child Development Goals

Family Narrative
• Participating in family activities and routines
• Exploring the environment independently and gaining information
• Communicating for social purposes
• Playing independently and constructively
• Developing self-help skills
• Playing jointly with others and in a productive manner
• Communicating needs clearly
• Engaging in efforts with others to solve problems and acquire knowledge
• Responding to requests to start, stop or modify activities

—Guralnick 2020

Considerations: Child developmental level, behavioral patterns, special interests; other child characteristics affecting Family Patterns of Interaction
Developmental Systems Approach: An Introduction

(modified from Guralnick, 2019a)
Early Intervention Issues to Consider

Diversity and Complexity of Vulnerable Groups

**Conceptual Framework: Theory of Change**

Evidence Framework: Intervention Science

Diversity and Complexity of Intervention Approaches

Community Implementation: Implementation Science
Role of Early Intervention: Support High Quality Family Patterns of Interaction

Family Patterns of Interaction

Parent-Child Transactions
- Discourse framework
- Instructional partnership
- Socioemotional connectedness

Family Orchestrated Child Experiences
- Parent’s social network
- Peer network
- Stimulating environment
- Child care
- Community activities
- Preschool program
- Focus on special interests and needs

Health and Safety Provided by Family
- Protection from violence
- Preventative health
- Environmental hazards
Conceptual Framework: Theory of Change

Developmental Mechanisms Promoting Child Development

• Parent-child transactions
• Family orchestrated child experiences
• Child health and safety

(Guralnick, 2005, 2019a)
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- Health and Safety Provided by Family
  - Protection from violence
  - Preventative health
  - Environmental hazards

Family Resources

Stressors

adjourn

 moderate

Child Social and Cognitive Competence
Family Patterns of Interaction

Child Social and Cognitive Competence

Family Resources

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Stressors

adjust moderate
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Child Social and Cognitive Competence

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Family Resources

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Child Social and Cognitive Competence

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Health and Safety Provided by Family
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- Environmental hazards

Family Resources

Stressors
- adjust
- moderate
Effects of Stressors

Child Social and Cognitive Competence

Family Patterns of Interaction

Parent-Child Transactions

Discourse framework
- Expansions, modeling, contingent responding

Instructional Partnership
- Scaffolding; zone of proximal development

Socioemotional connectedness
- Secure attachment
Engaging caregivers as allies in the treatment of children does not mean an intervention meant “to correct bad parenting” or to somehow correct something that parents are not doing right. The causative disruption of the child-caregiver unit of development is the instantiation of the child’s genetic risk.

—Klin et al, 2020, p. 1183
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Initiating Problem Solving: Establish Child Development Goals and Priorities

Family Narrative

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- **Communicating for social purposes**
- Playing independently and constructively
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—Guralnick 2020
Considerations for Intervention Design

- Child developmental level
- Behavioral patterns
- Special interests
- Review family narrative and related information
- Identify specific objectives, activities, and contexts (relationship based)
- Objectives and activities are designed to enhance the quality of Family Patterns of Interaction
- Basis for IFSPs and IEPs: Child goals and priorities with focus on Family Patterns of Interaction
Evidence Framework: Intervention Science

- Characterization of Vulnerable Groups
- Observational Studies of Interactions Longer-Term Associations
- Developmental Resources Organizational Process
- School/Child Care/Home/Community/Laboratory
- Focused Comprehensive Theory of Change Manualized
- Early Intervention
- Randomized Clinical Trials Focused Comprehensive
- Early Trials
- Intervention Targets

Practice Applications?

Single Subject Designs Small-Scale Trials

(Guralnick, 2019b)
Early Intervention Characterization of Vulnerable Groups

Observational Studies of Interactions

Parent-Child Language Input and Exchanges

Discourse Framework

Maternal Responsivity - Contingencies - Follow-in - Elaboration - Balanced interactions

Early Trials

Intervention Targets

Randomized Clinical Trials Focused Comprehensive

Single Subject Designs Small-Scale Trials

Practice Applications?
Further Considerations
Family Risk: Protective Factors and Stressors

Child Social and Cognitive Competence

Family Patterns of Interaction

Environmental Risk

Stressors

Family Resources

Personal Characteristics of Parents
- Mental and physical health
- Problem-solving ability
- Attitudes and cognitive readiness

Material Resources
- Coping style
- Perceived confidence and competence
- Financial resources
- Social support

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Principles

Relationships  Continuity  Comprehensiveness
Summary of Evidence Framework: Intervention Science

- Strong support for overall effectiveness
- Diverse Interventions for child goals based on Family Narrative: Varying degrees of confidence
- Issues of terminology, discipline, level of specificity, theory of change

Potential for integration across categorical groups within a common framework
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Diversity and Complexity of Intervention Approaches

- Environmental Risk
- Developmental Delay
- Biological Risk
- Autism Spectrum Disorder
Environmental Risk

Biological Risk

Developmental Delay

Autism Spectrum Disorder
Environmental Risk

PALS Program
Carolina Curriculum
My Baby & Me
Nurse-Family Partnership
Creative Curriculum
Educare
REDI
Chicago School Readers Project
Tools of the Mind
Getting Ready
Parents-as-Teachers
Biological Risk

Infant Health and Development
Neonatal Individualized
    Developmental Care
Massage Therapy
Kangaroo Care
Mother-Infant Transaction Program
Avon Premature Infant Project
PALS I & II
Biological Risk
Developmental Delay

Routines-Based Intervention
Prelinguistic Milieu Therapy
Enhanced Milieu Therapy
Responsive Teaching
Hanen Program
AEPS
Carolina Curriculum
Developmental Delay
Autism Spectrum Disorder

- Play and Language for Autistic Youngsters
- Preschool Autism Communication Trial
- Pivotal Response Training
- TEACCH
- LEAP
- Joint Attention, Symbolic Play, Engagement and Regulation
- Early Start Denver Model
- Applied Behavior Analysis
- Picture Exchange Communication System
Autism Spectrum Disorder
Evidence-Based Strategies

Play and Language for Autistic Youngsters
Joint Attention, Symbolic Play, Engagement and Regulation
Preschool Autism Communication Trial
Parents-as-Teachers
Responsive Teaching
Nurse-Family Partnership
Educare
REDI
Chicago School Readers Project
Responsive Teaching
Enhanced Milieu Therapy
Picture Exchange Communication System
Applied Behavior Analysis
Pivotal Response Training
TEACCH
Early Start Denver Model
Avon Premature Infant Project
Kangaroo Care
Neonatal Individualized Developmental Care
PALS Program
Infant Health and Development
Massage Therapy
Creative Curriculum
Mother-Infant Transaction Program
Milieu Therapy
Routines-Based Intervention
Hanen Program
Evidence-Based Strategies

Community Based Programs

- Enhanced Milieu Therapy
- Kangaroo Care
- Massage Therapy
- Milieu Therapy
- Hanen Program
- Joint Attention, Symbolic Play, Engagement and Regulation
- Carolina Curriculum
- My Baby & Me
- Preschool Autism Communication Trial
- Play and Language for Autistic Youngsters
- Pivotal Response Training
- REDI
- Chicago School Readers Project
- Mother-Infant Transaction Program
- Getting Ready
- Prelinguistic Milieu Therapy
- Teacher
- Responsive Teaching
- Parents-as-Teachers
- Neonatal Individualized Developmental Care
- Avon Premature Infant Project
- Educare
- Applied Behavior Analysis
- Responsive Routines-Based Intervention
- Picture Exchange Communication System
- TEACCH
- Developmental Mechanisms Conceptual Framework
- Family Patterns of Interaction
- Evidence-Based Strategies
Evidence-Based Strategies

Community Based Programs

Developmental Mechanisms
Conceptual Framework
Family Patterns of Interaction

Enhanced Milieu Therapy
Hanen Program
Joint Attention, Symbolic Play, Engagement and Regulation
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Responsive Teaching
Preschool Autism Communication Trial
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Prelinguistic Milieu Therapy

Massage Therapy
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Neonatal Individualized Developmental Care
Tools of the Mind
Nurse-Family Partnership
Avon Premature Infant Project
Educare
Developed Behavior Analysis
Routines-Based Intervention

Parents-as-Teachers
PALS Program
TEACCH
Responsive Teaching
Kangaroo Care
Picture Exchange Communication System
Play and Language for Autistic Youngsters
Contributions of Categorical and Etiologic Information

- Evidence-based curricula and strategies
- Fine-tune problem-solving through developmental resources and organizational processes
- Consider etiologic-specific information
  - Level of the child
  - Level of Family Patterns of Interaction
  - Level of family resources
- Investment in support and advocacy groups

**Key Point:** Conceptual and evidence frameworks apply to all children and families
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Categorical Pipeline of Research to Enhance Community-Based Early Intervention Programs

Community Implementation: Implementation Science

Efficacy Studies → Effectiveness Studies → Implementation Research

Hybrid Designs

Improved processes, outcomes

(Curran et al, 2012)
Core Implementation Components

Consulting & Coaching ➔ Staff Performance Evaluation ➔ Decision Support Data Systems
Preservice Training ➔ Integrated & Compensatory ➔ Facilitative Administrative Supports
Recruitment and Selection ➔ Systems Interventions ➔ (Fixsen et al., 2009)
Implementing A Comprehensive and Inclusive Community-Based System

Conceptual Framework

Evidence Framework

What to Implement

Implementation Science Framework: How

Developmental Science

Intervention Science
Implementing A Comprehensive and Inclusive Community-Based System

Developmental Science

Conceptual Framework

Evidence Framework

Where to Implement

Implementation Science Framework: **How**

Intervention Science
Universal and Comprehensive Early Childhood System

Same developmental mechanisms: Irrespective of categorical or etiologic diagnosis
Recognizes contributions of categorical and etiologic diagnoses
• Draws on evidence-based curricula and strategies
• Fine-tunes problem-solving through developmental resources and organizational processes
• Provides overall anticipatory guidance
• Engages support networks and advocacy groups

Follows parent goals and expectations: Family Narrative
Supports inclusion, belonging, interdependence
Optimal Family Patterns of Interaction: Provides support for families to fulfill their aspirations and provide tools for children to carry out their interpersonal goals: The essence of Early Intervention
Future of Comprehensive Early Childhood Systems

- Developmental Science
- Intervention Science
- Implementation Science

Community-Based Programs

Human Rights