Best Practices for Fellowship Directors: Prevention and Early Intervention

Fellowship Program Director’s Meeting
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Outline/Objectives

• Role of the Addiction Medicine physician in prevention and early intervention
• Collaboration with adolescent medicine, family medicine, general internal medicine, and others
• Curriculum content
• Vision of the future: who, what, where and how regarding trainees
Intervening early in childhood can alter the life course trajectory in a positive direction.

Intervening early in childhood and adolescence can both increase protective factors and reduce risk factors.

Intervening early in childhood and adolescence can have positive long-term effects.

Intervening early can have effects on a wide array of behaviors, even behaviors not specifically targeted by the intervention.

Early childhood interventions can positively affect children’s biological functioning.

Early childhood prevention interventions should target the proximal environments of the child.

Positively affecting a child’s behavior through early intervention can elicit positive behaviors in adult caregivers and in other children, improving the overall social environment.
Substance abuse and other problem behaviors that manifest during adolescence have their roots in the developmental changes that occur earlier—as far back as the prenatal period. While prevention can be effective at any age, it can have particularly strong effects when applied early in a person’s life, when development is most easily shaped and the child’s life is most easily set on a positive course.

Principle 1: Intervening early in childhood can alter the life course trajectory in a positive direction (Kellam et al., 2008; Kitzman et al., 2010)
Drug Addiction is a Developmental Disease that Starts in Adolescence and Childhood

Age at cannabis use disorder as per DSM IV

NIAAA National Epidemiologic Survey on Alcohol and Related Conditions, 2003
The second decade
• Risk factors are qualities of children and their environments that place children at greater risk of later behavioral problems such as substance use; protective factors are qualities that promote successful coping and adaptation and thereby reduce those risks.

• All children have a mix of both.

• Interventions aim to shift the balance toward protective factors.
Prevention Programs Should . . . .
Reduce Risk Factors

- ineffective parenting
- chaotic home environment
- lack of mutual attachments/nurturing
- inappropriate behavior in the classroom
- failure in school performance
- poor social coping skills
- affiliations with deviant peers
- perceptions of approval of drug-using behaviors in the school, peer, and community environments
Prevention Programs Should . . . .

Enhance Protective Factors

- strong family bonds
- parental monitoring
- parental involvement
- success in school performance
- prosocial institutions (e.g. such as family, school, and religious organizations)
- conventional norms about drug use
Shifting the Balance

Reducing the Risks

Strengthening Protective Factors

RESILIENCE
Drinking Alcohol as a Function of Parental Monitoring
9th Graders: 5+ Drinks in a Row

Patterson, et al, Child Development 55: 1299, 1993
Early childhood and adolescent interventions focus on settings and behaviors that may not appear relevant for adjustment later in childhood or in adolescence, but they help set the stage for positive self-regulation and other protective factors that ultimately reduce the risk of drug use.

Principle 3: Intervening early in childhood and adolescence can have positive long-term effects (Degarmo et al., 2009; Shaw et al., 2006)
Adverse Childhood Experiences and Adult Well-Being in a Low-income, Urban Cohort

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*Pediatrics, vol. 137, 4: 2016*

**OBJECTIVE:** This study tests the association between adverse childhood experiences (ACEs) and multidimensional well-being in early adulthood for a low-income, urban cohort, and whether a preschool preventive intervention moderates this association.

**METHODS:** Follow-up data were analyzed for 1202 low-income, minority participants in the Chicago Longitudinal Study, a prospective investigation of the impact of early experiences on life-course well-being. Born between 1979 and 1980 in high-poverty neighborhoods, individuals retrospectively reported ACEs from birth to adolescence, except in cases of child abuse and neglect.

**RESULTS:** Nearly two-thirds of the study sample experienced ≥1 ACEs by age 18. After controlling for demographic factors and early intervention status, individuals reporting ACEs were significantly more likely to exhibit poor outcomes than those with no ACEs. Those with ≥4 ACEs had significantly reduced likelihood of high school graduation (odds ratio [OR] = 0.37; *P* < .001), increased risk for depression (OR = 3.9; *P* < .001), health compromising behaviors (OR = 4.5; *P* < .001), juvenile arrest (OR = 3.1; *P* < .001), and felony charges (OR = 2.8; *P* < .001). They were also less likely to hold skilled jobs (OR = 0.50; *P* = .001) and to go further in school even for adversity measured by age 5.

**CONCLUSIONS:** ACEs consistently predicted a diverse set of adult outcomes in a high-risk, economically disadvantaged sample. Effective and widely available preventive interventions are needed to counteract the long-term consequences of ACEs.
Because behaviors (both positive and negative) are linked to each other, risk factors for substance use may simultaneously put a child at risk for other problems such as mental illness or difficulties at school.

Intervening to prevent one undesirable outcome may have a broad effect, improving the child’s life trajectory in multiple ways.
Evidence of the Benefits of the Good Behavior Game in Elementary School on Young Adult Substance Use and Sexual Behaviors

- Evidence of distal impacts of first-grade universal interventions (15 years later) in young adulthood
- Effects for substance abuse and high risk sexual behavior
- Impact seems to be greatest for males at moderate risk in 1st grade, but exceptions
The benefits of intervention are not limited to behavioral or psychological outcomes—research has shown they can also affect physical health.

For example, one intervention for young children in the foster care system looked at cortisol level, a biological measure of the stress response. Over time, the stress response of children receiving the intervention showed better regulation and became similar to that of youth in the general population.
Principle 6: Early childhood prevention interventions should target the proximal environments of the child (Tolan et al., 2004; Webster-Stratton et al., 2008)

• The family environment is the most important context across all periods of early youth development, and thus parents are a major target of many early childhood and adolescent interventions (Dishion et al., 2008; Fisher et al., 2011).

• As a child grows older, they typically spend more and more time out of the home, perhaps attending day care, then attending school, middle school, high school, etc. (Beets et al., 2009; Conduct Problems Prevention Research Group, 1999; Hawkins et al., 1999; Ialongo et al., 1999; Snyder et al., 2010)

• Interventions for different age groups and targeting different types of problems should focus on the most relevant context(s)—the home, school, or a combination, and yes, even the primary care provider.*
FIGURE 4-1 An ecodevelopmental model of prevention.
SOURCE: Adapted from Weisz, Sandler, et al. (2005).
Principle 7: Positively affecting a child’s behavior through early intervention can elicit positive behaviors in adult caregivers and in other children, improving the overall social environment (Fisher & Stoolmiller, 2008; Shaw 2009)

- Behavioral changes in children and the adults who interact with them can be mutually self-reinforcing.
- Improving the child’s family or school environment can, over time, cause the child’s social behavior to become more positive and healthy (or pro-social); this, in turn, can elicit more positive interactions with others and improve the social environment as a result.
Moderating Risk

How Interventions Work

MODIFIABLE RISK
- Poor attachment
- Early aggression
- Inconsistent/harsh parenting
- Poor classroom management
- Reading problems
- Neighborhood disorganization

MODERATORS
- Age
- Gender
- Race/Ethnicity
- Poverty Level

INTERVENTION
- Parent skills training
- Social skills training
- Classroom management training
- Tutoring
- Community policing

How Interventions Work
High Wire Act

Early Childhood

Late Adulthood

ATOD Abuse Pit
Individual and Interpersonal Risk Factors
(Hawkins and Catalano, 1992)

• Physiological Factors (e.g. genetic risk)
• Family alcohol and drug behavior and attitudes
• Poor and inconsistent family management practices
• Family Conflict
• Low bonding to family
Individual and Interpersonal Risk Factors
(Hawkins and Catalano, 1992)

- Academic failure (in later grades)
- Low commitment to school
- Peer rejection
- Association with drug-using peers
- Alienation and rebelliousness
- Attitudes favorable to ATOD use
- Early onset of ATOD use
Contextual or Environmental Risk Factors

- Laws and norms favorable toward ATOD behavior
- Availability of ATOD
- Extreme economic deprivation
- Neighborhood disorganization
Alcohol Advertising Works
MISTLETOE GETS YOU A KISS. IMAGINE WHAT THIS WILL BRING.
Case History

• 11 year old male with Type I Diabetes
• Multiple hospitalizations for DKA
• Parent and child sent to intensive educational program
• Admissions for new onset seizures and hypoglycemia
• Parental/family history
• The big secret
• The long-term impact
The Role of the Addiction Medicine Specialist

• What is our role?
• What is the curriculum content and related child, adolescent and family competencies that needed to enable us to take on this role?
Family Aspects and Impacts of Substance Use and Addiction

The addiction medicine resident SHOULD be able to:

1. Demonstrate an ability to work with the family as an important part of prevention, intervention, treatment and recovery.

2. Demonstrate the ability to communicate unique problems of children of alcohol and other drug abusing parents.

3. Demonstrate ability to assess children and other family members of persons with addiction or another substance use condition, to determine the psychosocial impact of that condition on their own health status and functioning, in order to refer that affected family member to appropriate disease prevention, health promotion, and therapeutic services.

4. Give special attention to the emotional, perceptive and cognitive dysfunction or distortions present in many persons and families with substance use issues or disorders. Convey the unique resistance, misunderstanding or lack of awareness that may be present in family members and communicate these perceptions to other family members.
Pediatric Competencies: The addiction medicine resident MUST be able to:

1. Provide anticipatory guidance about the impact of and the effects of psychoactive drug use, abuse and addictions to children, adolescents and their families.

2. Guide the child, adolescent and family throughout the treatment process of either the pediatric patient and/or their family member.

3. Identify, for the pediatric patient in addiction treatment, developmentally appropriate treatment goals, potential factors contributing to relapse, and identify strategies to prevent or minimize relapse, and, finally, identify appropriate referrals to or provide to treatment after discharge from treatment.
4. Evaluate the newborn for the effects of substance exposure.

5. Assist the child health specialist in developing an appropriate treatment plan for the newborn exposed to any psychoactive substances (licit or illicit) during gestation.

6. Evaluate and develop a treatment plan for the newborn infant with intoxication and/or potential withdrawal from psychoactive substances (alcohol, sedative hypnotic medications, opioids, stimulants, and nicotine) in the newborn care unit.

7. Use and interpret standardized neonatal abstinence scoring scales for physician and non-physician staff in a newborn care unit.
8. Order and then interpret the results of urine and meconium testing for psychoactive substances in mother and neonate.

9. Utilize non-pharmacological and pharmacological interventions for the treatment of neonatal intoxication and withdrawal from psychoactive substances including initial stabilization and tapering regimens.

10. Assess the mother for substance use disorders when a newborn has potentially been exposed to psychoactive substances during gestation.

11. Demonstrate an understanding of resources for evaluation of the toddler, child, and adolescent exposed to substances during gestation, specifically Fetal Alcohol Spectrum Disorders.
12. Recognize the effects of parental substance use and addiction upon the child and adolescent and identify resources available in the community for children of parents with substance-use disorders.

13. Evaluate and manage the child or adolescent who is intoxicated or withdrawing from psychoactive substances and provide non-pharmacological and pharmacological interventions to stabilize the patient.


15. Communicate with and engage the family of the child and adolescent with substance abuse and addiction during assessment and treatment.
16. Evaluate the effect of child and adolescent developmental status and problems upon the diagnosis of and management of adolescent misuse and addiction.

17. Effectively employ substance use screening tools applicable to the child and adolescent; teach physicians and non-physicians how to utilize screening tools.

18. Demonstrate an understanding of available treatment options including differences in treatment philosophies, modalities, and settings appropriate for children and adolescents.

19. Identify the appropriate treatment resources to meet the needs of the child, adolescent and other affected family members.
Curriculum and Related Child, Adolescent and Family Competencies

• Cross collaboration
  • Pediatrics
  • Neonatology
  • Obstetrics-Gynecology
  • General Internal Medicine
  • Family Medicine
  • Pain Medicine
  • Surgery
  • Emergency Medicine
  • Psychiatry
Curriculum and Related Child, Adolescent and Family Competencies

- AYA outpatient consultation
- AYA outpatient treatment
- AYA outpatient assessment, evaluation, med management

Electives
- NIDA Addiction Research Center
- GIM/Psychiatry Consult Service
- Prevention Research Experience
- Juvenile Justice
- School-based Health-SBIRT

- AYA inpatient hospital consultation
- AYA Inpatient residential treatment
- AYA Inpatient detoxification, dual diagnosis treatment experience
- Center for Addiction in Pregnancy

Electives
- JHH Bayview CD Program (GIM)
- Pain Medicine/Neonatology
- GIM/Psychiatry Consult Service
Core Competencies for Involvement of Health Care Providers in the Care of Children and Adolescents Affected by Substance Abuse—Level I

- Be aware of medical, psychiatric, and behavioral syndromes and symptoms
- Be aware of benefit timely and early intervention
- Be familiar with community resources
- Include appropriate screening for family AOD use
- Determine family resource needs and services being provided
- Communicate appropriate concern and offer information, support and follow-up

Adger, Mcdonald, Wenger. Pediatrics, 103: (103); 1083, 1999
Role of Generalist Health Professionals

- Develop a sense of optimism, responsibility and confidence in clinical skills
- Take advantage of windows of opportunity
- Learn how to intervene and address the issue in a sensitive and caring manner
- Take an active anticipatory role in:
  - guiding patients and families to resources
  - helping to educate patients and their families
  - providing support and validation of concerns
Prevention, Screening, Brief Intervention and Referral to Treatment?

Adapted from *Broadening the Base of Alcohol Treatment* (IOM)

Primary Prevention (Intensive for High Risk)

Brief Intervention

Specialized Treatment

Referral Challenges

Abstinence  Infrequent use  Problem users - Abuse  Dependence  Drug Involvement
We need health professionals who can and will ...

• Routinely conduct screening, brief intervention, and referral
• Identify and assist children, adolescents and family members affected by SUD’s
• Collaborate in community prevention efforts
• Attend to SUD’s appropriately for special populations (age, gender, cultural groups)
The Health and Mental Health Community NEEDS:

Front-Line Health Care and Social Service Professionals Bringing Substance Use Prevention, Early Intervention and Treatment Services to Families and Communities

Family-focused Screening
Brief Intervention
Referral

Indicated Prevention for Children of Parents with SUD's

Community-Based Universal Prevention Programs
Example Evidence Based Prevention Initiatives

- Family Check-Up: Ty Ridenour
- Familias Unidas: Guillermo Prado
- Good Behavior Game: Nicholas Ialongo
- Family Spirit: Alison Barlow
- PROSPER: Richard Spoth, Mark Greenberg
- CTC: J David Hawkins
Vision for Substance Use Prevention & Early Intervention Services

Screening, Intervening and Referring

Assisting Affected Children & Families

Strengthening Community Based Prevention
An Achievable Vision for the Nation

• Pediatric providers prescribe preventive interventions from a tiered menu of proven family focused prevention resources: educational materials, electronic connectivity, workshops and classes, individualized therapeutic sessions, home visits.

• Participating in proven family focused prevention programs through primary care is a shared parental expectation for promoting children’s physical and behavioral health.

Healthy Parenting in Primary Care, 2015

Institute of Medicine And
National Research Council
of the National Academies
A Vision for the Future - Building on our Strengths

Johns Hopkins School of Public Health Prevention Research Center

• Well established center with track record of prevention science research
• Establishment of a collaborative Center of Excellence to support prevention science education, research, mentoring and coursework

Johns Hopkins School of Medicine Department of Pediatrics ADM Fellowship

• Adolescent young adult ADM fellowship program within the Department of Pediatrics with a focus on prevention, early intervention, and treatment for AYA and recovery care for children, adolescents and families
PBIDTRIC PRIMARY CARE & ADOLESCENT MEDICINE
SBIRT: Identify SU, screen for problem concerns

Screen +

More formal assessment/evaluation

Screen -

Universal Prevention

Parents in need of support/referral
Peds/AM feel comfortable talking to parents

Selective Prevention

Screen NEGATIVE, From SU family
At-risk: more health care needs, SU, mental health, other

Recovery support
Education
Program for children & family
Medical Home: f/u & monitoring with 1° care doc
Vision of the future: who, what, where and how regarding trainees

• Recruitment
• Collaboration across disciplines
• Establishment of a workforce who are sensitive to the need to provide quality care to the populations that we serve