Third Annual Mental Health Awareness Conference: *Bridging the Gap between Pediatric Chronic Care and Mental Health*

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CE/CME Financial Disclosure Statement

• I, or an immediate family member including spouse/partner have at present and/or have had within the last 12 months, or anticipate NO financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in context to the design, implementation, presentation, evaluation, etc. of CE/CME activities

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Learning Objectives

• Identify and discuss the common pediatric chronic illnesses encountered in a clinical setting
• Identify and discuss the connection(s) between pediatric chronic illness and mental health issues
• Identify the role of families in the propagation/remit of the dichotomy (chronic physical & mental illness)
• Understand the holistic approaches to maintaining better physical and mental health
What Do We Know?

- 10-20 million U.S. children have chronic health conditions that impart their lives significantly
- Pediatric physical illnesses have become prevalent in recent years
- Children and their families are remarkably resilient in adapting to challenges presented by a physical illness
- >90% of children with sig physical illness are likely to survive into adulthood (advances in healthcare – LE)

The Mental and Emotional Well-Being of Children: A Portrait of States and the Nation: 2007 NSCH (nschdata.org)

<table>
<thead>
<tr>
<th></th>
<th>Alabama (%)</th>
<th>Nationwide (%)</th>
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<tbody>
<tr>
<td>Overall Prevalence (% of children aged 2-17 with &gt;1 emotional, behavioral or developmental conditions)</td>
<td>14.0</td>
<td>11.3</td>
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<td>Prevalence by Age:</td>
<td></td>
<td></td>
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<tr>
<td>Age 6-11 years</td>
<td>18.8</td>
<td>12.1</td>
</tr>
<tr>
<td>Age 12-17 years</td>
<td>14.8</td>
<td>14.9</td>
</tr>
<tr>
<td>Prevalence by Sex:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15.9</td>
<td>14.5</td>
</tr>
<tr>
<td>Female</td>
<td>12.1</td>
<td>7.9</td>
</tr>
<tr>
<td>Mental health treatment or counseling in the past year</td>
<td>46.0</td>
<td>45.6</td>
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</table>
What Do We Still Know?

- Chronic depression by 2020 to be second only to heart disease in the global burden of disease
- Children with chronic physical illnesses have an increased risk of mental health problems
- Rate of emotional d/o in <18y old: 25% (chronic illness) vs. 18% (healthy)
- Psychological adjustment is relatively common in these children
- Children tend to have varying degree of understanding about their illness

{Borowsky, 2003; Chapman et al., 2005}
What is the Role of the Illness to the Child?

- Understanding of the illness: Meaning of illness (prior experience, stage of development, cultural background, spirituality, etc.)
- Emotional Impact on the Child: What is the emotional impact of illness and the response to illness? (temperament, premorbid functioning, previous experiences with stress and coping).
- Responses to illness: May vary from acceptance to anger, depression and anxiety
Children’s Understanding of Illness

• Children’s conceptions of bodies vary widely
• Conception influenced by experiences with illness
• Follow a developmental path that corresponds to Piaget’s stages of cognitive development
Sensorimotor Children (Birth–2 years)

- Preverbal
- Lack of capacity to create narratives to explain their bodily experiences
- Perception of bodies and illness primarily built on sensory experiences
- Lack of formal reasoning
Preoperational Children (2–7 years)

- Able to use words in an attempt to explain their experiences
- Awareness of parts of the body that can be sensed and felt (bones/heart/blood) – can name multiple body parts
- Verbalize concerns about bodily injury (boo-boos)
- Lack of clear understanding of cause and effect
- See events temporally related as causally related
Preoperational Children’s Response to Illness

- Children react to concept of illness as punishment for bad behavior
- Believe that adults could cure them if they wish
- Hospitalization viewed as punishment and as rejection by caregivers (if not present)
Concrete Operational Children (7–11 years)

- Apply concrete logic to their bodily perceptions:
  - bringing about their own illness and punishment for misdeeds
- Concrete logic that allows for only one cause for an effect
- Children attempt to learn factual knowledge about their bodies and illness
- Lack abstract reasoning
Concrete Operational Children’s Response to Illness

• Hospitalization is viewed as threat to bodily control and mastery
• Feeling of inadequacy → rebellion, anger or difficulty to control
• Understanding of illness and reasons for hospitalization → decreased anxiety and guilt
Formal Operational Children (11-18 years)

• Logical

• Ability to utilize high level of abstract reasoning:
  - understand illness, treatment procedures and make planful decisions about contributing to the management of their illness

• Focus more on systems rather than just on simple organs or parts of the body

• Understand multiple causes for an effect (multiple causation of illness)
Formal Operational Children’s Response to Illness

- Egocentricity: belief of invincibility and poor adherence (50% in adolescents)
- Illness seen as a threat to independence → primary coping strategy (denial)
- Regressed behavior, depression or request for AMA
- Conflicts with caregiver over control during treatment are common
- Concerns about peers’ perceptions
Physical illnesses: Biopsychosocial formulation (Social-Ecological Model)
Family: Socio-Ecological Model (SEM)

- They are the legal decision makers for the child
- Children look at parents to understand the world
- Parental reactions to illness and associated treatment that determines the child’s perception of the severity of the illness
- Parental hopelessness, helplessness, anger or absence affects the child’s handling of the physical illness

{Goldman et al., 2011}
Siblings & Peers: SEM

• Siblings significantly impacted by a brother’s or sister’s physical illness and accompanying changes to family functioning: anxiety, sadness and anger
• Physical illness can impact peer relationships: stigmatized, teased at school and distanced from
• Social support is a key component of how children can adjust to illness psychologically
• Children with higher classmate support had lower levels of depression
Community: SEM

• Lack of understanding of the relationship between chronic physical illness and mental health problems

• Disorder of “One man is an island”: Chronic pediatric physical illness occurring in isolation and pediatric mental illness also occurring in isolation

• Believe that one does not influence the other

• Common chronic pediatric medical conditions: Asthma, Cancer, Childhood Obesity, Diabetes, Epilepsy, Renal Disease
Specific Medical Disorder: Asthma

• Most common pediatric chronic illness in the U.S.
• Both prevalence and morbidity are rising despite better pharmacological treatments (comorbid psychiatric problems and increased stress)
• >1/3rd of children with asthma have anxiety disorders
• Comorbid psych d/o → reduce asthma treatment compliance
• Psychiatric problems in both children and parents
• Reducing anxiety and depression → improve asthma care
Specific Medical Disorder: Cancer

- Most common fatal disease of childhood and adolescence
- Can present with anxiety and depressive symptoms
- Cognitive impact of oncological treatments
- 20% of young adult survivors present with PTSD
- Parents of child survivors of cancer reports PTSD symptoms both during and after their kids’ treatment (14% of mothers and 10% of fathers)  \{Kazak et al., 2004\}
Specific Medical Disorder: Childhood Obesity

- Obesity is a chronic disease
- Increase prevalence in the last 20 years in children and adolescents in the U.S.
- Obesity: Body Mass Index (BMI) >95% for age and sex
- Overweight: BMI >85% percentile
- Impact of obesity is both immediate and long-lasting
- >x5 more likely to have impairment in physical functioning
Specific Medical Disorder: Childhood Obesity 2

• Obese child is at higher risk for cardiovascular dx, endocrine dx, pulmonary, and orthopedic problems

• Impact on Self-Esteem:
  - Obesity stigmatizes young children
  - Have moderately lower self-esteem than none-obese peers
  - Have a more negative body image than their peers
  - Obese adolescents less likely to complete college
  - Obese young adults were much less likely to marry
  - Obese women who did marry were more often married to men in lower socioeconomic class

{Bursch et al., 2005}
Specific Medical Disorder: Diabetes Mellitus (DM)

- Juvenile-onset DM affects 1.9 of every 1000 school-age children in the U.S.
- Life-long disease with multiple complications
- Psychological problems can be divided into 3 phases:
  a) Shock at diagnosis;
  b) Initial adaptation period: acceptance of being “different”; adjustment to daily injection of Insulin; self blood glucose monitoring; & changing of nutritional habits
  c) Long-term coping (self-image and family dynamics)
- Psychiatric comorbidity: mood d/o, anxiety, eating d/o
- Assessment for intervention: aggression/school absences, hopelessness or nonadherence to insulin regimen

{Bursch et al., 2011, Pendley et al., 2002}
Specific Medical Disorder: Epilepsy

- 1% prevalence in general population
- Emotional stress can precipitate epileptic seizures in neurologically vulnerable children
- Higher incidence of learning disabilities (reading)
- Neuropsychological deficits if seizures start before age 5:
  - Attention/concentration problem
  - Memory difficulties
  - Complex problem solving loss
Specific Medical Disorder: Epilepsy 2

- Cognitive impairment in epilepsy is due to:
  - Age of onset of epilepsy
  - Duration and frequency of seizures
  - Number and type of anti-epileptic meds used

- Temporal Lobe Epilepsy/Complex Partial Seizures:
  - 30-40% children display psychiatric symptoms
  - Aggression/rage/antisocial behavior/depression/mood lability/suicide/psychosis (especially in dominant temporal lobe)/ADHD
    (American Physician Institute)
Specific Medical Disorder: Renal Disease (RD)

- Each year 20,000 children born with kidney abnormalities
- 4,500 children require dialysis for renal failure
- Pediatric patients with chronic renal failure exhibit more psychiatric adjustment than do healthy children
- 65% of ambulatory peritoneal dialysis patients have anxiety d/o
Specific Medical Disorder: Renal Disease (RD) 2

- Children with ESRD have lower than expected IQs and achievement scores (cognitive deficits)
- Burden for families caring for children with ESRD: disruption of family life, marital strain, parental mental illness
- 64% medication nonadherence rates for pediatric renal transplant patients (invincibility, frustration, school difficulty and difference from others)
Why Should We Do Something?

- Patients with mood disorders and chronic illness suffer poor clinical outcomes and worse quality of life.
- Result in greater health care needs and costs (interventions to these areas -> reduce costs and improve outcome).
- Chronic physical illness has a powerful impact on the rate of mood disorder and anxiety in youth (4-fold increase).
- Chronic illness imposes a lack of independence and control at a critical time of individuation and social pressure.

{Klein-Gitelman et al., 2015}
Why Should We Still Do Something?

• Youth with high rate of chronic behavioral problems and emotional stress have compromised immune functioning → increase risk of physical health problems

• Poverty, family stress, parental psychopathology and exposure to traumatic events → increase risk for both mental health and physical health problems

• High family risk factors, such as, parental substance abuse, child neglect and financial problems → increase risk of comorbid behavioral/medical issues

{Nelson et al., 2011}
Summary of Findings

- Poor clinical outcomes
- Worse quality of life
- Compromised immune functioning -> exacerbation
- 4-fold increase in the rate of mood and anxiety d/o
- Dependency and low self-esteem
- Exacerbation and worsening of physical/mental issues
- High cost of health care
- Financial problems in the family
Why Do We Have a Gap?
GAP

- Non-mental health professionals have reported lack of confidence in screening/diagnosing/treating mental health issues
- Non-mental health providers that are comfortable believe that it is too much of a hassle to screen, diagnose and/or treat (reimbursement not worth the stress)
- Stigma about ones loved one being diagnosed with mental illness (prefers physical illness)
- Physician stigma about mental health issues (rather deal with chronic physical health issues)
Psychological Responses to Illness

- Pediatric heart transplant recipients → 20-24% with significant psychological distress (Todaro et al. 2000)
- Epilepsy patients → more depressed and anxious symptoms than control (Oguz et al. 2002)
- Tonsillectomy patients → 17% had temporal symptoms of depression (Papakostas, 2003)
- Serious pediatric illness → emotional distress in both patient and parent → cannot provide support for their children
Specific Medical Disorder: Cystic Fibrosis (CF)

- Most common inherited chronic disease that affects the lungs and digestive system
- Affect about 30,000 children adults in U.S.
- Affect about 70,000 worldwide
- Many with CF lead remarkably normal lives
- Prevalence of psychiatric disorders appear not to be greater than the prevalence reported in the general population
So, How Can We Bridge the Gap?
Solution 1:

“Seek and U shall find”

Integrated Treatment Approach:

➢ Screening for mental health status of the patient seen in the clinical settings (effective & holistic patient assessment)
Solution 2:

“United We Stand”

Integrated Treatment Approach:

- Interdisciplinary Collaboration (Peds, Med, Surg, ObGyn, Mental Health, etc.)
- Access to mental health Support (Ireland Center/CBH)
Solution 3:

“My people perish for lack of knowledge”

- Address Stigma
- Education & Training:
  - 3rd Annual Mental Health Awareness Conference –
  All the speakers are seasoned and will address the three states of a person: the body, soul and spirit
References


• Chapman, D.P. et al., 2005. The Vital Link Between Chronic Disease and Depressive Disorders.


References


