Integrated Behavioral Health in Pediatric Primary Care

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Presentation Content:

- **Concepts**, logic, and principles of integrated behavioral health care.
- Describe of a “**model**” of Pediatric integrative BH efforts.
- Practical **strategies** for collaborations between behavioral health providers and Pediatric primary health care physicians.
- **Discussion** including: contingency analysis, successes, mistakes made, and recommendations for future behavioral health providers interested in integrated care.
UNMC – Munroe-Meyer Institute
The Future of Pediatric Mental Health Services is in:

Integrated Behavioral Health Care
Why Integrated BH in Primary Care?

CMHC system is in Crisis
- Funding Shortages and Cutbacks
- Fewer adequately trained BH professionals
- Reductions in Service Reimbursements

Affordable Care Act – Projections:
- Emphasis on Access to Care
- Medical Home Concept
- PC Gatekeeper Function
Integrated BH Care is IN!!!

- 2012 APA Presidential Address: “Increasing Psychology’s Role in Health Research and Health Care”
- SAMHSA/HRSA Center for Integrated Health Solutions
- National Center for Integrated Behavioral Health Care Policy - GWU
- Focus of the Bureau of Primary Care and Community Health Centers
State-Designated Mental Health Shortage Area Psychiatry and Mental Health
Nebraska - 2007

Legend
- Whole County
- Partial County *
- 25 Mile Radius

* Areas within a 25-mile radius of Lincoln or Omaha are not eligible by definition.

Addressing Adult and Geriatric Behavior Issues in Primary Care

- Anxiety and Depression MOST common BUT often present as physical symptoms

- 4 or 5 patients typically seen per hour by Primary Care Physicians (deGruy, 1997).

- Family Medicine Physicians receive approximately 1-2 months of Psychiatry/behavioral rotations during their residencies

- Fewer qualified BH professionals or psychiatric facilities to which to refer

- Hospital ERs and jails frequently turn into the local “Mental Health ward”
Most Common Reasons for Adult Primary Care Visits

Top 10 reasons why patients obtained primary care in 2009

- diabetes
- hypertension
- stomach pain
- cough
- throat symptoms
- knee pain
- back pain
- fever
- vision problems
- headache

• These accounted for ~1/3 of all U.S. primary care visits
Addressing Pediatric Behavior Issues

• Parents most often bring their children with behavior problems to primary care physicians first (Wildman, Stancin, Golden, & Yerkey, 2007).

• Up to 25% of all Pediatric visits are for specific behavioral health concerns (Lavigne, Gibbons, Arend, et al, 1999; Williams, Klinepeter, Palmes et al, 2004, Cooper, et al, 2006).

• During 50% to 80% of child health care visits, parents or physicians raise concerns of behavioral or psychosocial issues (Sharp, Pantell, Murphy, & Lewis, 1992).
Addressing Pediatric Behavior Issues

**Problem:** Shortage of Trained Peds BH Specialists

- Significant MH professions shortages exist in 2/3 of U.S., particularly in rural areas (HRSA, 2009)
- Appointments for Child Psychiatry or Psychology or LMHP can take weeks or even months
- Patient follow-through with BH referrals = 46% for children and 25% for adults (Briggs-Gowan, 2000; Strosahl, 2006)
- Movement towards “population-based” care: Short-term, brief intervention (Strosahl, 2007)
Differences between Adult and Pediatric Integrated BH

- Patient is the Child AND the Parent(s)
- Initial Goal - be reinforcing to Family/Kid
- Time with Parent ≥ time with Child or Adolescent
- Convincing Parent it’s not all IN the child
- Application of Evidence-based Protocols
- Influencing Parents to alter THEIR behavior
- Goal: Increasing positive relationships
Differences in Therapy Approaches in Pediatric Integrated BH

- Employs Medical Model Approach
- Prescriptive in Nature
- Short-term Therapy Emphasis
- Protocol Driven
- Families come looking for Dx
- Families come for Tx directions
- Provider becomes the “Behavior Doc” for the Family and child
Addressing Pediatric Health Issues

ECONOMICS of Primary Care Physicians:

- “Carve-out” of BH in health insurance plans
- Separate licensure for BH providers
- More intensive time requirements for BH patients
- Lower or No reimbursement for BH services for physicians
A “New” Model for Delivering Pediatric Behavioral Health Care
One Solution: Integrated Behavioral Health in Primary Care

• Defined as
  – Provision of BH care within a primary health care setting
  – Integration of behavioral and physical health care services
  – Preventive and first line interventions for common behavioral/mental health problems presenting in primary care practices
Integrated Behavioral Health in Primary Care

• David Lambert (Rural Health Research Center, USM) : “Integration of behavioral health care into primary care is a concept that is frequently discussed and seldom implemented.”
Why Pediatric Integrated Care?

Primary Care Pediatricians are “de facto” first line mental health providers!!!

- 60% of all care mental health visits occur in Primary Care settings (Magill & Garrett, 1988)
- 25% pediatric PC visits include behavioral health concerns (Cooper, Valleley, Polaha, Begeny, Evans, 2006)
- Pediatricians rank behavior as most common problem (over otitis) (Arndorfer, Allen, & Aljazireh, 1999)
- Pediatricians receive one month of Developmental and Behavioral Peds training during their residencies!!!
Behavioral Problems Presenting in Pediatric Primary Care

- Non-compliance
- Excessive Tantrums
- Elimination Disorders
  - Enuresis
  - Encopresis
- ADHD
  - Inattentive
  - Hyperactive/Impulsive
  - Combined
- Sleep Disorders
- Learning Disabilities
- School Behavior Problems & Refusal
- Developmental Delays
- Depression
- Anxiety
- Relationship Problems
BH Treatment in Pediatric Primary Care

80-85% BH Tx in PC

10-15% Referral & Community Tx

5% Specialty Care
Community Training in Integrated Behavioral Health in Primary Care - GPE Grant 2004-2013

Mission

• Attract, Recruit, Train, Place and Retain Behavioral Health Providers in Primary Care Practices (Pediatric and Family Medicine)

• Provide “Learning Through Service” & Modeling Opportunities - Provision of Behavioral Health in underserved areas

• Training for Physicians in Community Settings

• Research and Program Evaluation

• Model Dissemination and Replication
Integration of Behavioral Health into Pediatric Practice

• Advantages for Pediatricians:
  – Physicians have a “ready” referral source
  – Docs can triage most “needy” patients/hand off
  – Coordinated care is possible
  – Patients are seen “in” the practice
  – Saves Physician time
  – Patients receive more units of service
  – 15-20% MORE PRIMARY PRACTICE PRODUCTIVITY!
Columbus Community Hospital
Integration of Behavioral Health into Primary Care

• Advantages for Patients/Families:
  – Comfort in receiving MH care in your doctor’s office
  – Reduced “stigmatization”
  – Coordinated physical and MH care
  – Reduced usage of inappropriate medical visits (medical cost offset)
  – Travel for patients/families is reduced
  – Ongoing services are available
Integration of Behavioral Health into Primary Care

- Advantages to MH Practitioners:
  - Consistent referral stream
  - Coordination of psychotropic medication and behavior therapy approaches is possible
  - Reduced/shared practice overhead
  - Physician availability for consultations regarding medical conditions affecting behavior
  - Community acceptance
  - NHSC Loan Repayment
Hastings Health Clinic
Integrated Pediatric Behavioral Health Training Program

- Internship/Post-doc Training in community primary care settings
- Interdisciplinary Rotations with physicians, nurses, PTs, OTs, speech therapists, etc.
- Community Rotations in underserved areas w/ docs, nurses, etc.
- Participation in Developmental Clinics for cerebral palsy, spina bifida, genetics, neurobehavioral disorders, etc.
- Education in Referral and Telehealth Application
- Education in the “Business” of MH practice
Business Costs - Practicing Psychology

- Rent
- Reception
- Authorizations, Scheduling & Reminders
- Reporting – Dictation and Transcription
- Accounting: Billings & Collections
- Licensure and Continuing Education
- Phone Systems & Answering Service
- Computer and Supplies & EHR
- Office Materials & Furnishings
- Testing Materials
- Insurance-Prof Liability/Health/Premises/
- SSI – 7.65% PLUS 7.65%
- Retirement
- Vacation coverage
Behavioral Health Clinics in Underserved Areas

Kearney Physicians Clinic

Columbus Pediatrics Staff

Crawford Medical Clinic
The Integrated Behavioral Health Model

- Dissemination Locations:
  - Meridian, Mississippi (Private Practice)
  - Iowa City, Iowa (Private Practice)
  - Danville, Pennsylvania (Geisinger Health Systems)
  - Johnson City, Tennessee (ETSU)
  - Greenville, NC (Eastern Carolina University)
  - Ann Arbor, Michigan (University of Michigan Children's Hospital)
The Integrated Behavioral Health Model

Components:
- Location, Location, Location: In the primary care practice
- Frequent contacts re: referrals with physicians and nurses
- Cross-training sessions within the practice and the community
- Relationships with community schools, courts, agencies, other providers
- Provision of dx assessment info and clinical data for physicians (e.g., ADHD diagnostic protocols)
Physicians Use of Supported Empirically ADHD Assessment

<table>
<thead>
<tr>
<th>Measure</th>
<th>% Present Pre-Protocol (N=76)</th>
<th>% Present First Year After Training (N=28)</th>
<th>% Present Third Year After Training (N=26)</th>
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<tbody>
<tr>
<td>CBCL/Parent BASC</td>
<td>1%</td>
<td>93%</td>
<td>93%</td>
</tr>
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<td>TRF/Teacher BASC</td>
<td>0%</td>
<td>88%</td>
<td>93%</td>
</tr>
<tr>
<td>CPRS-R:S</td>
<td>1%</td>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td>CTRS-R:S</td>
<td>1%</td>
<td>93%</td>
<td>88%</td>
</tr>
<tr>
<td>Parent ADHD-IV</td>
<td>3%</td>
<td>88%</td>
<td>93%</td>
</tr>
<tr>
<td>Teacher ADHD-IV</td>
<td>1%</td>
<td>88%</td>
<td>93%</td>
</tr>
<tr>
<td>ECBI</td>
<td>3%</td>
<td>93%</td>
<td>88%</td>
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</table>
GPE Behavioral Health Outreach Training Outcomes

Attract, Recruit, Train, Place & Retain BH Providers

- 71% trainees work in Primary Care after graduation
- 54% work in Underserved areas
- Increased retention through monthly meetings via teleconferencing to decrease isolation
- Utilize UNMC resources as referral and telehealth back-up
- Goal – BH provider in every Nebraska town with a population of 5,000+
- Goal – Disseminate and Replicate to other States
Integrated Behavioral Health

• Administrative Issues:
  – MH services need to be viewed as “value added” to the primary care practice – not a “burden”
  – Licensing, credentialing, paneling, pre-authorizations, billing, collections - independent from rural office - at first
  – Space and staff imposition minimal
  – Goal is to establish the “importance” of available MH services to physicians and their practices
  – Goal is to demonstrate effectiveness & cost-benefit
Integrated Behavioral Health Necessities:

- Interested Primary Care partner
- Willingness to participate in an education program for trainees
- Space (Physicians’ days off!!!)
- Referrals available (Clinical experience is that 3 Pediatricians or 5 Family Medicine physicians needed to support one BH professional)
- Administrative supports that can eventually be shifted to the practice
Integrated Behavioral Health Necessities

• Dedicated faculty/preceptors

• Students/graduates interested in integrated practice

• Fiscal support for faculty and trainees

• Revenue support for travel/billing/required equipment and supplies
Part Two: Why Not Integrated Care?

Barriers and Potential Solutions
WHY NOT???, Barriers to Integrated Primary Care

- Few MH training programs have an interdisciplinary primary care focus
- MH training programs not located in university medical centers
- Scarcity of MH professionals interested in primary care practice
WHY NOT???, Barriers to Integrated Primary Care

- “Carve out” MH insurance programs interfere with integration
- Physicians have established BH referrals
- “Resistance” from office/nursing staff
How to make it Work!!!

- Physicians’ Contingency Analysis:
  What are the “negative forces” Acting on Doctors?
  -- Expenses (50%+ for private physicians)
  -- Keeping Office Staff Happy
  -- Keeping Nurses Happy
  -- Space
  -- Waiting Room Time for Patients
  -- INCOME
How to make it Work!!!

• Physicians’ Contingencies - “positive motivators”
  -- More Time for Patient Care
  -- Patient Affordability
  -- Patient Access
  -- Patient Satisfaction with Care
  -- Reluctance to Manage Psychotropics
  -- INCOME
How to make it Work!!!

- Financial Management Issues:
  -- Psychology Licensure (Provisional vs Independent Practitioner)
  -- National (EPPP) and State Exams
  -- Time to Complete and Turn Around applications for “paneling” with Medicaid/Insurance
How to make it Work!!

- Credentialing/Paneling Issues:
  -- Medicaid/Medicare/SCHIP (usually State-contracted to a private agency – Value Options, Magellan, etc)
  -- Type of Managed Care Contract:
    - Independent Practice
    - Group Practice
    - Organizational Contract
Complete Children’s Health Care - Lincoln
How to make it Work!!

- Credentialing/Paneling Issues (cont’d):
  -- Private Insurance Companies (e.g. BCBS, Aetna, Humana)
  -- Sub-Contracted BH Companies (e.g., United Behavioral Health, Magellan, MHNet, Coventry, Cigna BH)
  -- Be wary that “type” and amount of coverages differ from same insured!! Have patients check!
How to make it Work!!!

- Billing Issues:
  -- Contracted amounts will vary (e.g., FT #90847 ranges from $84 to $169 in NE)
  -- Check out the “mix” of carriers at each primary care practice site
  -- Expect a no-show/default rate of at least 15-20%
  -- Electronic bills are the standard – May wish to hire a company to do the billing
How to make it Work!!!

- Collection Issues:
  -- Expect a collection rate significantly lower than billables (e.g., 62% at MMI)
  -- Expect complaints about deductibles
  -- Let patients know about sending delinquent bills to collection agencies
  -- Have a system for collecting co-payments
  -- Expect a 6% to 10% charge on net collections if hiring a billing/collections firm
Part Three: Research Findings on: Integrated Pediatric Behavioral Health Care
Study #1: The Impact of Behavioral Health Care Services on Medical Utilization

Study: Examine the effects of integrated BH care on medical utilization rates in children

- Ss = 151 children with externalizing disorders (103 males and 48 females)
- Mean = 4.94 BH sessions conducted in Pediatric Clinics
- Data = Medical visits (from patient records) one year pre- and post- BH intervention
- Reliability (20% of cases) = 89.8%
- Data analyzed using Paired t-tests
Pre- vs Post- Behavioral Health Impact on Medical Utilization

Figure 1

<table>
<thead>
<tr>
<th></th>
<th>Office Visits</th>
<th>Prescriptions</th>
<th>OTC Meds</th>
<th>Psychotropics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre BH</td>
<td>4.87</td>
<td>3.04</td>
<td>0.98</td>
<td>0.56</td>
</tr>
<tr>
<td>Post BH</td>
<td>3.48</td>
<td>2.31</td>
<td>0.66</td>
<td>0.62</td>
</tr>
</tbody>
</table>
Study 2: Attendance at Initial Behavioral Health Appointments in Integrated Care

Background:

- Physicians are the most common referral sources for BH services (Amaddeo, et al, 2001)
- Follow-through for BH services is poor, especially in rural areas (Boyer, et al, 1998)
- Estimates of follow-through are 25-46% (Strosahl, 2002, Briggs-Gowan, 2000)
- Integrated care may improve referral compliance (Mechanic, 2003)
Referrals for Behavioral Health

(Strosahl, 2002)

Figure 2

- No Follow Through: 50%
- Other (Pastor/Friend/MD): 25%
- MH Professional: 25%
Referral and Follow Through to In-House BH Resources

Figure 3

BH Appointment Follow Through

- Strosahl
- Briggs-Gowan
- Clinic A
- Clinic B
- Clinic C
- Overall BH Clinics
Study 3: “Running Out of Time” – Physician Management of BH Concerns

Background:
- Pediatricians ranked behavioral concerns as the most common problems in PC practice (Arndorfer, et al, 1999)
- MDs have tight schedules, little fiscal motivation, and gaps in training in BH (Perrin & Stancin, 2002; Wolraich, 1999)
- One-third to one-half of BH concerns receive no intervention or referral to MH providers (Horwitz, 1992) In rural, there are few MH services to which to refer
Study #3: “Running Out of Time” – Physician Management of BH Concerns

Study: Examine how rural primary care physicians respond to behavioral health concerns

- 302 pediatric visits were observed (male=174 and female=128)
- Two private, free-standing clinics in rural Nebraska
- Three pediatricians were male, four female
- Behavioral Health services available in practices
- Four categories of PC visits: acute, chronic, well-child, and psychological consultation
- Reliability for 25% of cases = 82% to 97%
# RESULTS: “Running Out of Time” – Physician Management of BH Concerns

<table>
<thead>
<tr>
<th>Table 3a</th>
<th>% Visit Type</th>
<th>Visit Length (minutes)</th>
<th>% Visits Behavioral Concern Raised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>54.6%</td>
<td>10.36</td>
<td>12.1%</td>
</tr>
<tr>
<td>Well-Child</td>
<td>30.8%</td>
<td>15.63</td>
<td>22.6%</td>
</tr>
<tr>
<td>Chronic</td>
<td>5.6%</td>
<td>11.44</td>
<td>18.8%</td>
</tr>
<tr>
<td>Psych Consult</td>
<td>8.9%</td>
<td>19.38</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>14.20</td>
<td>23.6%</td>
</tr>
<tr>
<td></td>
<td>Minutes when NO Behavioral Concern Raised</td>
<td>Minutes when Behavioral Concern Raised</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$M$ (SD)</td>
<td>$M$ (SD)</td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>9.45 (4.873)</td>
<td>16.9 * (9.754)</td>
<td></td>
</tr>
<tr>
<td>Well-Child</td>
<td>15.26 (6.405)</td>
<td>16.9 (7.615)</td>
<td></td>
</tr>
<tr>
<td>Chronic</td>
<td>11.38 (3.841)</td>
<td>10.0 (0.0)</td>
<td></td>
</tr>
<tr>
<td>Psych Consult</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11.34‡</td>
<td>16.53**‡</td>
<td></td>
</tr>
</tbody>
</table>
Study #4: Duration and Direct Cost of Behavioral Health Concerns in Pediatric Primary Care

- This study expanded previous research by calculating duration, costs and reimbursement rates associated with the various types of behavioral problems presenting in primary care pediatric practice.
Method

Participants and Setting

• Three pediatricians.
  – 12.33 average years of experience.
  – 31%, 34%, and 33% of observations.
• Integrated Behavioral Health Clinic for past 11 years.
• “Convenience sample” of 230 children.
• Data collected over 8 months.
• Average age of children = 7.01 years (range = 1 week to 17.25 years).
• 55% male, 45% female patients.
• 84% were Caucasian, 14% were Hispanic.
• Majority of patients were accompanied to the visit by their mother (76%).
Method

Procedure

• Observed physicians as they entered and exited exam room.
• Recorded the starting and stopping time (length of the visit)
• Immediately following the visit, patient’s chart was reviewed.
  – Information collected included:
    • Patient’s age, sex, and ethnicity.
    • Who accompanied the patient to the visit.
    • DSM diagnoses.
    • Psychiatric medications prescribed.
    • Type of concerns – Medical only, Behavioral only, or Medical and Behavioral.
    • Type of visit.
    • Insurance.
    • Billing Codes.
    • Charges.
Columbus Pediatric Clinic
Results

• Total number of minutes per visit, on average:
  Concerns                                      Type of Visit
  – Medical Only = 8.16                        – Behavioral/Psych= 19.13
  – Medical & Behavioral= 16.31                – Well-child= 10.00
  – Behavioral Only= 19.90                    – Acute= 8.93
                                                    – Chronic= 10.00
Table 1. Time Spent in Pediatric Primary Care Visits

<table>
<thead>
<tr>
<th>% Visit Type</th>
<th>Minutes when Behavioral Concern Raised M (SD)</th>
<th>Minutes when NO Behavioral Concern Raised M (SD)</th>
<th>Average Difference in Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>16.18 (5.56)</td>
<td>6.97 (2.87)</td>
<td>9.21</td>
</tr>
<tr>
<td>Well-Child</td>
<td>20.25 (13.79)</td>
<td>9.32 (4.85)</td>
<td>10.93</td>
</tr>
<tr>
<td>Chronic</td>
<td>‡</td>
<td>10.00 (8.88)</td>
<td>NA</td>
</tr>
<tr>
<td>Psych Consult</td>
<td>19.13 (8.49)</td>
<td>‡</td>
<td>NA</td>
</tr>
<tr>
<td>Average</td>
<td>18.69 (8.31)</td>
<td>8.16 (4.23)</td>
<td>10.53</td>
</tr>
</tbody>
</table>

‡Not included due to no occurrences
have been passed down from one generation to the next, and additional information about the culture/dominant culture (Barlow & Waller, 2001). Research regarding these topics have found that most Native American children grow up in a multigenerational household and are exposed to traditional valuesprehensive strategies and family characteristics used in the Midwest United States.

Families who were involved in this study had a range of participants, and the sample included Native American parents and their children. The participants consisted of 17% of the participants who were from rural areas, 14% from suburban areas, and 19% from urban areas.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Caregiver Relation</th>
<th>Caregiver Tribal Affiliation</th>
<th>Target Child Age</th>
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<tbody>
<tr>
<td>Biological Parent</td>
<td>Apache</td>
<td>Mean</td>
</tr>
<tr>
<td>Step-Parent</td>
<td>Blackfoot</td>
<td>8.45</td>
</tr>
<tr>
<td>Other</td>
<td>Cherokee</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>Cheyenne River Sioux</td>
<td>2.00</td>
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<tr>
<td></td>
<td>Chickasaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chocotaw</td>
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<tr>
<td></td>
<td>Cherokee, Creek</td>
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<td></td>
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<tr>
<td></td>
<td>Cree, Cherokee</td>
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<tr>
<td></td>
<td>Chickasaw</td>
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</tr>
<tr>
<td></td>
<td>Iowa, Chippewa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Okla, Sac &amp; Fox</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Navajo</td>
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<tr>
<td></td>
<td>Naavo, Pawnee</td>
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<td></td>
<td>Opalga Sioux</td>
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<tr>
<td></td>
<td>Omaha</td>
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<tr>
<td></td>
<td>Pawnee</td>
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<tr>
<td></td>
<td>United Keetoosa</td>
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</tr>
<tr>
<td></td>
<td>Winnebago, Omaha</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Winnebago, Sioux</td>
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<td></td>
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<table>
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<tr>
<th>Caregiver Gender</th>
<th>Target Child Gender</th>
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<tr>
<td>Female</td>
<td>Mean</td>
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<tr>
<td>Male</td>
<td>SD</td>
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<td>57.4</td>
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<table>
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<tr>
<th>Caregiver Marital</th>
<th>Monthly Family Income</th>
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<tr>
<td>Married</td>
<td>Less than $600</td>
</tr>
<tr>
<td>Divorced</td>
<td>$600-$1000</td>
</tr>
<tr>
<td>Separated</td>
<td>$1000-$1500</td>
</tr>
<tr>
<td>Single</td>
<td>$1501-2000</td>
</tr>
<tr>
<td>Widowed</td>
<td>$2001-2500</td>
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<tr>
<td>Living with Partner</td>
<td>over $2500</td>
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<table>
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<tr>
<th>Community of Residence</th>
<th>Mean</th>
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<td>Urban</td>
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</table>

Table 2. Standardized Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
<th>Z</th>
<th>PSS-Family Total</th>
<th>Mean</th>
<th>SD</th>
</tr>
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<tbody>
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<td>PS Total 1983</td>
<td>3.17</td>
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<tr>
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<td>34.97</td>
<td>.9728</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RESULTS

Initial data analysis focused on descriptive information regarding the background and values of the participating families. Review of the NAPS responses indicated that the majority of families, one or both parents were primarily responsible for childrearing. However, in most cases, a significant role in childrearing was also shared with extended family members. These family members included grandparents, great-grandparents, step-parents, aunts, uncles, cousins, and older siblings.

Confidence in parenting was high, with most reporting they made good decisions regarding these topics have found that most Native American children grow up in a multigenerational household and are exposed to traditional values comprehensive strategies and family characteristics used in the Midwest United States.

Families who were involved in this study had a range of participants, and the sample included Native American parents and their children. The participants consisted of 17% of the participants who were from rural areas, 14% from suburban areas, and 19% from urban areas.

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th>Caregiver Relation</th>
<th>Caregiver Tribal Affiliation</th>
<th>Target Child Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Parent</td>
<td>Apache</td>
<td>Mean</td>
</tr>
<tr>
<td>Step-Parent</td>
<td>Blackfoot</td>
<td>8.45</td>
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<tr>
<td>Other</td>
<td>Cherokee</td>
<td>SD</td>
</tr>
<tr>
<td></td>
<td>Cheyenne River Sioux</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>Chickasaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chocotaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cherokee, Creek</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chocotaw</td>
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</tr>
<tr>
<td></td>
<td>Cree, Cherokee</td>
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<tr>
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<td>Chickasaw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iowa, Chippewa</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Okla, Sac &amp; Fox</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Navajo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naavo, Pawnee</td>
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<td></td>
<td>Opalga Sioux</td>
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<td>Omaha</td>
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<td></td>
<td>Pawnee</td>
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<tr>
<td></td>
<td>United Keetoosa</td>
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</tr>
<tr>
<td></td>
<td>Winnebago, Omaha</td>
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</tr>
<tr>
<td></td>
<td>Winnebago, Sioux</td>
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<td></td>
<td>Winnebago, Sioux</td>
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<table>
<thead>
<tr>
<th>Caregiver Gender</th>
<th>Target Child Gender</th>
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<tr>
<td>Female</td>
<td>Mean</td>
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<tr>
<td></td>
<td>42.6</td>
</tr>
<tr>
<td>Male</td>
<td>SD</td>
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<tr>
<td></td>
<td>57.4</td>
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<table>
<thead>
<tr>
<th>Caregiver Marital</th>
<th>Monthly Family Income</th>
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</thead>
<tbody>
<tr>
<td>Married</td>
<td>Less than $600</td>
</tr>
<tr>
<td>Divorced</td>
<td>$600-$1000</td>
</tr>
<tr>
<td>Separated</td>
<td>$1000-$1500</td>
</tr>
<tr>
<td>Single</td>
<td>$1501-2000</td>
</tr>
<tr>
<td>Widowed</td>
<td>$2001-2500</td>
</tr>
<tr>
<td>Living with Partner</td>
<td>over $2500</td>
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</table>

<table>
<thead>
<tr>
<th>Community of Residence</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>Rural</td>
<td>30.9</td>
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<tr>
<td>Urban</td>
<td>23.4</td>
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<table>
<thead>
<tr>
<th>Completed Bachelor's</th>
<th>Mean</th>
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</thead>
<tbody>
<tr>
<td>United Keetoosa</td>
<td>42.5</td>
</tr>
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<td></td>
</tr>
</tbody>
</table>
Table 2. Reimbursements per Minute of Pediatric Primary Care Visits

<table>
<thead>
<tr>
<th>% Visit Type</th>
<th>Reimbursement Rate when NO Behavioral Concern Raised M (SD)</th>
<th>Reimbursement Rate when Behavioral Concern Raised M (SD)</th>
<th>Average Difference in Reimbursements per Minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>35% $16.68 (21.35)</td>
<td>$5.89 (2.53)</td>
<td>$10.79</td>
</tr>
<tr>
<td>Well-Child</td>
<td>28% $20.17 (15.42)</td>
<td>$9.34 (4.36)</td>
<td>$10.83</td>
</tr>
<tr>
<td>Chronic</td>
<td>1% $7.37 (4.55)</td>
<td>‡</td>
<td>NA</td>
</tr>
<tr>
<td>Psych Consult</td>
<td>36% ‡</td>
<td>$5.02 (6.01)</td>
<td>NA</td>
</tr>
<tr>
<td>Average</td>
<td>$18.12 (18.56)</td>
<td>$5.53 (15.57)</td>
<td>$12.59</td>
</tr>
</tbody>
</table>

‡Not included due to no occurrences
Conclusions You Can Use

1. Significant percentages of patients present with BH concern- Estimates: Kids 18-25%; Adults up to 70%
2. Patients with BH concerns utilize significantly more medical services when BH care not available (40%)
3. Follow through with referral for BH services is less than 50% but is 81% when BH is integrated in PC
4. Primary Care Visits for BH concerns require significantly more time from physicians (46% more when BH concerns are primary reason for visit)
5. Physicians can be more efficient, can save time and money and provide more services when BH providers are present.
Contact Information

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Director, Psychology Department at Munroe-Meyer Institute (MMI) and Professor, Dept of Pediatrics

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Omaha Nebraska 68198-5450

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E-mail: jevans@unmc.edu


References


Related References


CURRENT PERSPECTIVES ON
PRIMARY NOCTURNAL ENURESIS

Dr. Joseph Evans
NOCTURNAL ENURESIS


1. Repeated voiding of urine during the day or night into bed or clothes.
2. CA of 5 years, MA of 4 years
3. 2 accidents/month, 5 – 6 years
   1 accident/month, >6 years
4. Not due to a physical disorder
Bed-wetting has been reported to occur in as many as 5 to 7 million children in the United States
<table>
<thead>
<tr>
<th>Age</th>
<th>Males</th>
<th>Females</th>
<th>Age</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>25%</td>
<td>15%</td>
<td>11</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>7</td>
<td>18%</td>
<td>14%</td>
<td>12</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>8</td>
<td>19%</td>
<td>14%</td>
<td>13</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>9</td>
<td>17%</td>
<td>11%</td>
<td>14</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>10</td>
<td>13%</td>
<td>9%</td>
<td>15</td>
<td>5%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*The National Health Examination Survey*
PRACTICAL IMPLICATIONS AND IMPACT OF PNE

General parental disapproval

- Behavior contrary to parental expectation
- Interpreted as sign of immaturity and developmental delay
- Considered to reflect poorly on parental competency
- Increase parental household work load
- A leading cause of child abuse

PRACTICAL IMPLICATIONS AND IMPACT OF PNE (contd)

- Reduces parent/child interaction
- Sibling/peer conflicts
  - Fosters sibling teasing and aggression
  - Leads to fear of detection
  - Limits social interaction (eg. Overnights, camping, etc.)
  - Limits Learning opportunities
EFFECTS OF PNE ON SELF-ESTEEM

- Self esteem threatened by:
  - Parental disapproval
  - Sibling teasing
  - Peer detection and teasing
  - Repeated failure
  - Leads to sense of isolation
EFFECTS OF PNE ON SELF-ESTEEM

- Influence of poor self-esteem on childhood problems:
  - Complicates a variety of common problems
  - Represents another problem to be addressed
“Prolonged mishandling of enuresis (bed-wetting) can harm a child’s self-concept. Reassurance alone is a disservice. Families with an enuretic child deserve information and treatment.”

Barton D. Schmitt, MD
PRIMARY NOCTURNAL ENURESIS

- Small functional bladder capacity
- Enuresis alarms are treatment of choice (when wet, an alarm goes off and wakes the child)
PSYCHOSOCIAL ISSUES OF PRIMARY NOCTURNAL ENURESIS

- Enuresis is a common problem and not typically a sign of underlying disturbance.
- Children and other family members should be informed that enuresis is not the child’s fault.
- Children do not typically wet the bed because they are lazy, obstinate, or rebellious.
TEXAS

Boy’s toilet training results in charges

ARLINGTON—A woman and her boyfriend are charged with mutilating her 4-year-old son’s genitals during toilet training.

The injuries forced doctors to amputate part of the boy’s penis, and he has had to undergo reconstructive surgery, police said.

Authorities contend the couple tied a string around the boy’s penis to keep him from wetting his pants, and left it there for 10 to 14 days.

Gangrene developed, and accumulating urine had to escape through a rupture in the side of the penis, Dr. Leah Lamb testified at a custody hearing.

Felony charges of injury to a child were filed against Angela Christine Thornton, 24, and Jesus Manuel Hernandez, 36.

W401
Bed-Wetting: A Common Problem

Nocturnal Enuresis (%)

Age (years)

ENURESIS
CATAGORIZATION

- Nocturnal vs. Diurnal Enuresis
- Primary vs. Secondary Enuresis
- Complicated vs. Uncomplicated
TWO CATEGORIES FOR BED-WETTING

- **PRIMARY**
  - Nighttime dryness never achieved for an extended period of time

- **SECONDARY**
  - Nighttime dryness achieved for more than 6 months before bed-wetting began
SOME CAUSES OF COMPLICATED BED-WETTING

- Urinary Tract infection
- Pediatric Unstable Bladder or Detrusor Hyperreflexia
- Ectopic (displaced) ureter
- Diabetes Mellitus
MOST BED-WETTING CASES ARE UNCOMPLICATED
FACTORS ASSOCIATED WITH UNCOMPLICATED BED-WETTING

- Small functional bladder capacity
- Child fails to waken when bladder is full
- Genetics
What Causes Children to Wet the Bed?
Heredity Plays a Role

% Children with enuresis

- Both parents enuretic: 77%
- One parent enuretic: 44%
- Neither parent enuretic: 15%

Parental History

OTHER POSSIBLE CAUSES OF BED-WETTING

- Inability to delay urination
- Large intake of fluids in evening
- Not awakening
- Lack of nighttime increase in ADH secretion
- Small bladder capacity
HISTORICAL THERAPIES
19TH CENTURY

- Encopresis and social hazard
  - Ergot injected into ischiorectal fossa
  - Strychnine, belladona, and chloral hydrate used
  - Devices for positioning of patient
  - Urethra cauterized with silver nitrate
  - Intravaginal balloons inflated to compress the bladder neck
  - Collodian poured into prepuce hermetically sealing it and Penile bandages used
  - Electricity – Nye – Enuresis resulted in patient’s body completing circuit
DISORDERS OF CHARACTER

Persistent Enuresis
Juvenile Delinquency
and Psychopathic Personality

JOSEPH J. MICHAELS, M.D.
Boston, Massachusetts

CHARLES C THOMAS • PUBLISHER
Springfield • Illinois • U.S.A.
Enuresis is a symptom of a personality disorder (psychogenic enuresis)

- 3 causations
  - Immature bladder control as a result of parental training
  - Child wishes to remain in irresponsible state of infancy
  - Subconscious resentment against parents
- Treatment consisted of treating underlying problem
“The enuresis is viewed as a desire for regression, a bid for attention, an active plea for help, a stated resentment to parents, a masturbatory equivalent, a clinging to infancy, an expression of anger and resentment...the enuretic is upset of sibling rivalry or feelings that he is an unwanted child or that he may be castrated. Enuresis is thought, too, to demonstrate an unwillingness to grow up and a need to deny strength.”

PNE is a behavioral problem encompassing behavioral, developmental and physiological features.

TREATMENTS FOR BED-WETTING

I. BEHAVIOR THERAPY

II. MEDICATIONS
TREATMENT

- Pharmacological therapy
- Motivational therapy
- Conditioning therapy
- Psychotherapy
- Hypnotherapy
15% of bed-wetting children outgrow the problem each year.
PHARMACOLOGIC THERAPY

- Impramine
- Ditropan
- Desmopressin
DITROPAN

- Anti-Cholinergic
  - Reduces uninhibited bladder contractions
  - Beneficial in day time frequency of enuresis
  - No more effective than placebo in nocturnal enuresis
  - Side effects: dry mouth, facial flushing and blurry vision
TRICYCLIC ANTIDEPRESSANTS

- Antidepressant effect
  - No evidence that depression plays significant role in most enuretic children
  - Antidepressant action delayed
  - Antienuretic effect immediate
TRICYCLIC ANTIDEPRESSANTS

- Anticholinergic/antispasmodic effects
  - Weak peripheral anticholinergic/antispasmodic effects
  - Complex effect on sympathetic input to bladder
  - Other “pure” anticholinergic or antispasmodic drugs ineffective

- Alteration of ADH secretion
TRICYCLIC ANTIDEPRESSANTS

- Alternation of sleep/arousal
  - Decrease REM sleep
  - No relationship between sleep stage and enuresis
  - Antienuretic effect independent of effect on sleep stage
IMPRAMINE – SIDE EFFECTS

- Uncommon with low dose
  - Anxiety
  - Insomnia
  - Adverse personality changes
  - Loss of appetite

- Overdose from excess ingestion

- Toxicity secondary to overdose – potentially fatal cardiac arrhythmias, conduction blocks, hypotension, respiratory complications, convulsions.
DDAVP NASAL SPRAY TREATMENT

- Significant improvement in several double-blind randomized trials
- Decreased in mean frequency of wet nights ranging from 10% to 90% in 18 published control trials
- Complete dryness achieved in 10% to 40% (average 25%)
- Side effects minimal
- Relapse rate high after short-term treatment
- Response may be dose related
PHARMACOTHERAPY: SUMMARY

- Response to pharmacotherapy: rapid onset
- All agents associated with high relapse rates following short-term treatment
- Response rates similar for imipramine and DDAVP in double-blind studies
- Imipramine less expensive; DDAVP fewer side effects, less toxicity
- Anticholinergics (oxybutynin) may be beneficial in children with daytime frequency/enuresis
BEHAVIOR THERAPY

- Bed-Wetting Alarm
- Self-monitoring
- Motivational System
BEHAVIORAL INTERVENTIONS

- Most widely researched
- Assume nighttime continence can be acquired
- Do not assume there are no other problems
- Assume behavior is a function of antecedents and consequences and that they affect future behavior
- Require that a general foundation of behavior management is already in place
- Require change on part of parent
INCENTIVE SYSTEMS

- Motivate behavior
- Task analysis
  - Several steps to allow contact with incentive
  - Effort required must be reasonable
- Identify functional incentives with attainable goals
  – grab bag, connect dots for reward
- Specify target behavior
- Establish contingent relationships
- Present incentive immediately after response
INAPPROPRIATE PARENTAL ATTEMPTS TO “HELP” CHILDREN WHO WET THE BED

- Displaying wet sheets
- Making the child wash sheets
- Punishing child
- Withdrawing privileges
MOTIVATIONAL THERAPY

- Active role
- Reassurance
- Positive reinforcement
- Symptom removal
- Follow-up

- 70% marked improvement
- 25% cure rate
BEHAVIORAL INTERVENTIONS
COMMON COMPONENTS

- Alarm
  - Combine with other interventions

- Retention-control training

- Waking schedules

- Self-monitoring
  - Should be used in any kind of behavioral intervention
  - Effective when combined with pharmacotherapy

- Incentive system
REVIEW OF PROCEDURAL POINTS

- Incentive systems:
  - Provide for compliance
  - Must be daily
  - Must be kept fresh
  - Provide incentives for compliance
REVIEW OF PROCEDURAL POINTS

- Keeping score
  - It is imperative that accurate records be kept
REVIEW OF PROCEDURAL POINTS

- Self-Monitoring
  - Have the child record the data each morning
REVIEW OF PROCEDURAL POINTS

- Have the child take responsibility for clean-up chores
ALARMS

- Possible embarrassment
- “Rolling Over” pulls it off
- May not wake child
- May not wake in time to avoid a wet bed
- Wakes other family members
MOST FAILURES RESULT FROM:

- Not using the alarm long enough
- Children not waking
- Insufficient motivation
REVIEW OF PROCEDURAL POINTS

- Alarms
  - Check the:
    - Batteries
    - Clips
    - T-shirt
    - Underwear
REVIEW OF PROCEDURAL POINTS

- Awakening schedules
- Fluid restrictions
- Bladder retention training
- Start-stop-start
- Over-learning
WHAT IS TO BE DONE:
A REVIEW OF THE PERTINENT PROCEDURAL POINTS

- Enuresis alarms
  - Wet stop
  - Sleep dry
  - Ny-tone
  - Potty pager
IMIPRAMINE VS THE ALARM

- Cure rates (Wagner, 1982)
  - Alarms 83%
  - Impramine 33%

- Relapse rates
  - Alarms 50%
  - Impramine 100%
Improvement rates: (Wille, 1986)
- Alarms 86%
- Desmopression 70%

Relapse rates:
- Alarms 5%
- Desmopression 100%
ENURESIS ALARMS VS. DRUG TREATMENT

- Alarms are harmless
- New alarms higher cure rate 72% (Relapse 10%)
- Demospresson (DDAVP) 70% relapse
CONCLUSIONS

- Incontinence (particularly enuresis) may be addressed through a number of effective treatments and, therefore, children need not and should not go untreated.

- Treatment of incontinence does not obviate the necessity of evaluating the patient’s total situation and targeting additional individual and familial difficulties as needed.