

Translating Evidence Based Mental Health Care into an Integrated Medical Home Model in Pediatric Primary Care Settings

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Objectives

- Describe evidence based screening, evaluation and treatment for common mental health disorders for children and adolescents in primary care settings
- Review the development, implementation and outcomes of a DNP capstone intervention project focused on increasing nurse practitioner knowledge and practice of integrated mental health services within primary care settings

Introduction

- Enhancing emotional health and well being in children and adolescents is of utmost importance in improving public health in the United States
- Prevention, early identification, and treatment are public health imperatives

(US Public Health Service, 2000)

Introduction

- Attention Deficit Hyperactivity Disorder (ADHD), depression, and anxiety disorders are the most common disorders that are evaluated and treated in children and adolescents

(AACAP, 2007; March, 2004; Walkup et al, 2008)

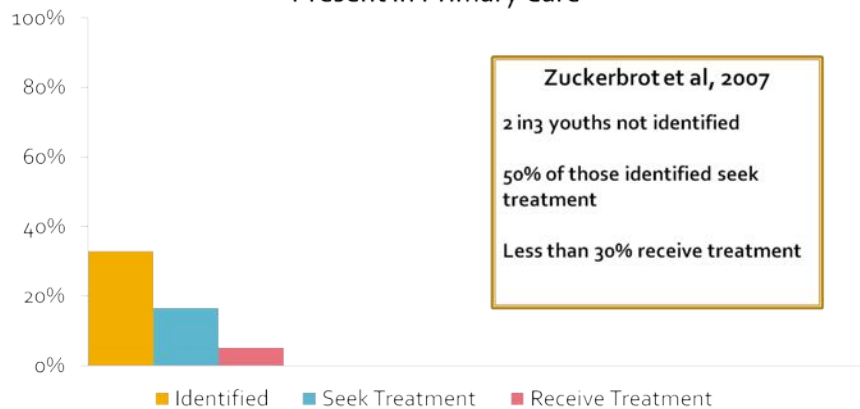
Literature Review

- **80%** of children and adolescents respond to current evidence based treatment interventions for ADHD, anxiety and depressive disorders

(AACAP, 2007; AAP, 2001)

Identification, Diagnosis, and Treatment

Adolescents with Mood / Behavioral Disorders who Present in Primary Care



Literature Review

Barriers to Treatment

- Managed care restrictions, reimbursement constraints (AAP, 2000)
- Inconsistent communication, fragmented services, low number of available and qualified mental health clinicians (Schlesinger & Campo, 2007)
- Inadequate preparation of primary care providers (Wren et al, 2005)

Literature Review

- Primary care clinicians are viewed as part of the solution, but feel inadequately prepared for the role of provider for children with mental health disorders

(Campo et al, 2005; Wren et al, 2005)

Literature Review Professional Guidelines

1. American Academy of Children and Adolescent Psychiatry, 2007
2. American Academy of Pediatrics, 2001
3. GLAD-PC (Jenson et al, 2007)

Literature Review

- Recent research recommends that best practice for treatment of ADHD, depression, and anxiety include medication management and behavioral psychotherapy

(AACAP, 2007; Jensen et al, 2001; Jensen et al, 2007; March et al, 2004; Walkup et al, 2008)

Examples of Diagnostic Aid's

- **ADHD**
 - Vanderbilt (Parent / Child)*
 - Conners (Parent / Child)
- **Anxiety**
 - SCAReD (Parent / Child)*
- **Depression**
 - MFQ (Mood and Feelings Questionnaire)*
 - CDI (Child Depression Inventory)

- Forms are public*
- User friendly
- Sensitivity and Specificity at least 85%
- Assist with diagnosis and follow-up

Literature Review Novel Programs

- Cohabitation
- Facilitated referrals
- Consultation agreements
- NP managed program (Campo et al, 2005)

Position Statement

- Nurse practitioners working in pediatric primary care settings are in a unique position to provide evidence based assessment and management of ADHD, depression, and anxiety disorders for children and adolescents, but this population of providers has not been well utilized or studied.

Theoretical Framework Medical Home Concept

- American Academy of Pediatrics Medical Home Initiatives for Children with Special Needs Project Advisory Committee (2002):
 - Accessible Care
 - Family centered
 - Continuous
 - Comprehensive
 - Coordinated
 - Compassionate
 - Culturally effective
- Emphasis on “caring”

Project Purpose

- Increase primary care nurse practitioner knowledge
- Expand nurse practitioner practice
- Conduct two day intensive workshop
- Provide three month clinical consultation as needed

Research Question

- Will primary care nurse practitioners demonstrate increased knowledge and practice of the evidence based assessment and treatment for ADHD and mild to moderate anxiety and depression in children and adolescents after completing a two day educational workshop?

Pilot Study Development

- Investigators: Sheree Shafer MSN, FNP-BC, PMHCNS-BC and Susan Van Cleve, MSN, CRNP
- Co-investigators: Judith Kaufmann, DrPH, CRNP and Diana Ross, MSN
- Expert panel of clinical consultants
- NAPNAP: CE credits
- NAPNAP: Foundation Grant
- Robert Morris University: IRB approval

Pilot Study Design and Methods

	Pre-workshop	Post-workshop	1 Month	2 Month	3 Month
Know-ledge Test	Pre-test in AM prior to workshop	Post test 1 at conclusion of workshop			Post test 2
Clinical Logs			Send to PI's	Send to PI's	Send to PI's
Practice Survey	Pre-practice survey				Post practice survey

Investigators available for clinical consultation as requested by participants for 3 months post workshop
 Psychiatric and pediatrician clinical consultants review recommendations

Pilot Study Design and Methods

Components of the Practice Survey

1. Current practice: triage, diagnosis, active monitoring, treatment of ADHD, depression, anxiety, & related disorders (response: yes or no)
2. Comfort level: diagnosis, treatment, billing, personal knowledge base and comfort level *
3. Barriers to practice: time constraints, collaborating physician comfort level *

Over all evaluation of experience (workshop and consultation) completed with post survey *

*Responses via a Likert scale

Pilot Study Design and Methods

- Participants attend both days of the intensive workshop
- Participants complete practice logs for three months
- Investigators provide instruction, consultation, support materials, review logs
- Clinical consultants review workshop content, knowledge test and surveys, provide back-up for consultation

Recruitment

- Target population: Pediatric and family nurse practitioners who work in primary care settings and treat children and adolescents
- Goal: 15-20 participants
- Recruitment: Local chapters of pediatric and family nurse practitioner organizations
- Participant benefits: CE credits, increased knowledge, access to consultants

Results Demographics

- 15 NP's recruited, 14 attended two day workshop
- 14 NP's completed three month knowledge post test and practice survey
- 9 PNPs, 5 FNPs with certification
- Mean hours per week: 33.43 Minimum 14
- Years of practice as NP: 14.5 Minimum 4

Paired Sample T-Test Results Knowledge Change

Correlation	t value	df	p value
Pre-test and post test 1	t=-2.675	13	p= .019
Post test 1 and post test 2	t=1.023	12	p=.327

Paired Sample t test Comfort Level & Practice Change

Data from surveys completed prior to intensive workshop and 3 months post workshop

Correlation	t value	df	p value
Comfort level	t=-4.687	10	p= .001
Practice Change *Active monitoring	t=-4.576	22	p= .000

*Instructed in operational definition for "active monitoring" pre-workshop

Results

- Participants' evaluation of experience: 4.83 (range 3-5)
- Mean perception of collaborating physician comfort level decreased from 2.62 to 2.38

Discussion

- The two day workshop was effective for changing NP knowledge and practice over a three month period
- Public diagnostic aids utilized by participants
- Clinical logs were labor intensive
- Support materials need to be more focused
- There were no adverse events reported

Conclusions

- Primary care nurse practitioners demonstrated increased knowledge and practice of the evidence based assessment and treatment for ADHD and mild to moderate anxiety and depression in children and adolescents after completing a two day educational workshop.
- Collaborating physician level of comfort decreased as NP practice increased

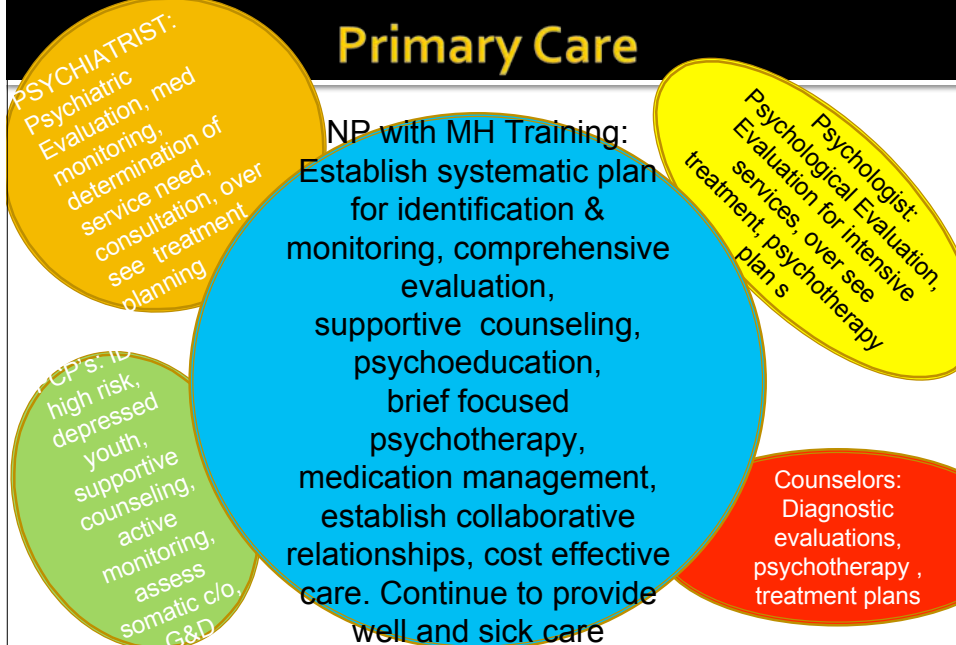
Limitations

- Small number of participants
- Self selected sample
- Tool development
- Operational definition for active monitoring, not for triage, diagnosis, or treatment
- Clinical logs were too time consuming
- Practice change based on recall

Future Research

- Revise knowledge test and surveys
- Continue to analyze results
- Establish monthly consultations with CE credits for participation during three months post workshop
- Invite all primary care providers
- Secure further funding (Fine Foundation)

Enhanced Mental Health Services in Primary Care



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