The North Carolina Psychiatry Access Line (NC-PAL)

A collaboration between NC Department of Health and Human Services, UNC Center for Women's Mood Disorders, and Duke Psychiatry

Funded by the Health Resources and Services Administration (HRSA)

4/7/2021
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Agenda

- Origins and Landscape
- Program Overview
- Pediatric Psychotropic Prescribing in NC
- NC-PAL I/DD
History of NC-PAL

• NC-PAL began in 2017, with funding from Cardinal Innovations, a local Managed Care Organization (MCO), as a two year pilot for a mental health telephone consultation service in six counties.

• In 2018, North Carolina DHHS received two grants from HRSA to expand NC-PAL statewide and integrate a perinatal consultation program (known as NC Maternal Mental Health MATTERS)
Wyoming Example

(1) televideo consults for high-needs children with Medicaid and state Multidisciplinary Team (MDT)/foster care involvement,

(2) remote medication reviews for beyond guidelines prescribing, and

(3) elective community provider telephone-based consults.

Wyoming Example

(1) **229** televideo consults for high needs children with (MDT)/foster care involvement,

(2) **125** remote medication reviews for beyond guidelines prescribing, and

(3) **277** elective community provider telephone-based consults.
Wyoming Example

Key findings

1. 60% of children slated for psychiatric treatment facility admission shifted into alternate placements

2. 52% decrease in number of children using psychotropic doses >150% of FDA max

3. 42% decrease in children <5 with Medicaid coverage on psychotropic medications

Table 2. Cost Analysis for Televideo Multidisciplinary Team Consults

<table>
<thead>
<tr>
<th>CALCULATION</th>
<th>COST</th>
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</thead>
<tbody>
<tr>
<td>Predicted total care costs (141 × $48,085.53)</td>
<td>$6,780,059.73</td>
</tr>
<tr>
<td>Actual care costs (57 × $48,085.53) + (84 × $18,538.48)</td>
<td>$4,298,107.53</td>
</tr>
<tr>
<td>Costs avoided (predicted - actual)</td>
<td>$2,481,952.20</td>
</tr>
<tr>
<td>Operating expenses (for 229 televideo MDT consults and all supporting PAL services)</td>
<td>$881,000</td>
</tr>
<tr>
<td>Net savings (costs avoided - operating expenses)</td>
<td>$1,600,952.20</td>
</tr>
<tr>
<td>Return on investment (net savings/operating expenses)</td>
<td>1.82</td>
</tr>
</tbody>
</table>

Findings reflect outcomes of 141 children being processed into a psychiatric residential treatment facility admission prior to consultation. MDT, multidisciplinary team; PAL, Partnership Access Line.
Findings & Impact

- **Nationally:** These programs have been shown to increase access to mental health care.

- **Massachusetts:** Provider efficacy in managing pediatric behavioral health increased from 8% to 63% among enrolled providers.

- **Wyoming:** Reduction in psychotropic use among Medicaid-insured children.

- **Washington:** Increased outpatient mental health service use for some children.
What is NC-PAL?

**NC-PAL** provides primary care clinicians with support for mental and behavioral health screening, assessment, and treatment of their *pediatric* and *perinatal* patients.

- **Real-time Consultation**
  Provide clinical consultation and referral support via NC-PAL phone line and one-time assessments

- **In-Depth Education**
  Support providers through training and strategies for integrating mental health into primary care practice
NC-PAL Team

- 5 Child and Adolescent Psychiatrists (CAP)
- 7 Perinatal Mental Health Specialists (PMHS)
- 4 Behavioral Health Consultants (BHC)
- 2 Data Specialists
- 5 Program Administrators
TELEPHONE CALLS & ONE-TIME ASSESSMENTS

Real-time Consultation
Provide clinical consultation and referral support via NC-PAL phone line and one-time assessments
The NC-PAL Consultation Model

The Process

- BHC answers call, collects patient information, and determines caller needs
- CAP or PMHS are connected to caller within 30 minutes

- PRESS 1: NC-PAL Child Psychiatry
- PRESS 2: NC-PAL Perinatal Psychiatry

Provider receives resource and referral support for patient
Provider receives consultation related to diagnostic and treatment questions
Patient referred for one-time psychiatric assessment to support care planning
Assessments

Virtual One-time Assessments
- NC-PAL MDs can provide one-time psychiatric assessments through NC-PAL
- Conducted via telehealth during COVID-19
- Allows for a comprehensive assessment of patient needs to support
  - care planning
  - management in the primary care setting
  - referral to specialty care

Complex assessments (I/DD)
- Interdisciplinary team of psychiatrists, psychologists, social workers and neurologists
- Interviews with patient, caregiver, and treatment team to form treatment recommendations
- Patients are identified through NC START and evaluated via telehealth during COVID-19
Satisfaction Across Programs

December 2019 - March 2021
N=276

- Addressed my concerns regarding my patient during the NC-PAL consultation: 97.5%
- My understanding of the needs of patients with behavioral health concerns increased: 71.4%
- Feel more knowledgeable identifying relevant community resources and referrals: 70.2%
- Feel more confident treating patients for behavioral health concerns: 76.3%
- Feel more confident diagnosing patients for behavioral health concerns: 55.7%
- Feel more confident screening patients for behavioral health concerns: 63.1%
- NC-PAL addressed my concerns in a timely manner: 98.9%

- Addressed my concerns regarding my patient during the NC-PAL consultation
- My understanding of the needs of patients with behavioral health concerns increased
- Feel more knowledgeable identifying relevant community resources and referrals
- Feel more confident treating patients for behavioral health concerns
- Feel more confident diagnosing patients for behavioral health concerns
- Feel more confident screening patients for behavioral health concerns
- NC-PAL addressed my concerns in a timely manner.
Reducing Patient’s Immediate Need for a Higher Level of Care

December 2019 - March 2021
N=276

Note: Providers may indicate more than one option for higher level of care
In-Depth Education
Support providers through training and strategies for integrating mental health into primary care practice
Training

• Partnership with the REACH Institute to offer 2 mini-fellowships per year (next in February, 2021)
  o To date: 51 providers from 12 counties

• Piloting a residency curriculum
  o Be ExPeRT = Behavioral Health Expansion in Pediatric Residency Training

• Offering virtual didactic presentations to practices
Resources

In Development:

1. Didactic presentation on screening for mental health during virtual visits
2. AHEC lecture on dyad relationships & mental health
3. Statewide database of behavioral health provides
4. Billing toolkits

NC-PAL Webinars
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam enim mi, efficitur at laoreet quis, Pellentesque feugiat lacus.
View Upcoming Webinars

NC-PAL Newsletters
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Signup for Newsletters

Upcoming Events
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam enim mi, efficitur at laoreet quis, Pellentesque feugiat lacus.
View Upcoming Events

Continuing Education
No-cost, high-quality, mental health training for pediatric primary care providers.
View Continuing Education Programs

Mental Health Care Guides
Practical, easy-to-read manuals for providers on how to recognize, assess and address pediatric mental health issues.
Access Mental Health Care Guides

Screening Forms
Assessments to help determine your client’s mental health needs. Provides resources for the client and you based on scores.
Get Help with Mental Health Assessments
PEDIATRIC PSYCHOTROPIC PRESCRIBING IN NORTH CAROLINA
WORKFORCE OF MEDICATION PRESCRIBERS TO CHILDREN IN NC 5,818

Availability of treating Child Psychiatry providers per 10K enrollees by county.

Availability of treating Adult Psychiatry providers per 10K enrollees by county.

Availability of treating Pediatric providers per 10K enrollees by county.

Availability of treating Family Medicine providers per 10K enrollees by county.

Availability of treating PCP Physician Assistant providers per 10K enrollees by county.

Availability of treating PCP Nurse Practitioner providers per 10K enrollees by county.

Note: Data are not public.
1,022,706 total prescriptions for antidepressants, stimulants, alpha agonists, antipsychotics

103,817 pediatric patients received psychotropic medication (10.6%)
Table 3. Unadjusted and adjusted risk ratios between variables and risk of filling any psychotropic prescription medication.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unadjusted</th>
<th></th>
<th></th>
<th>Adjusted</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Risk Ratio (95% CI)</td>
<td>P-value</td>
<td>Risk Ratio (95% CI)</td>
<td>P-value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian vs. White race</td>
<td>0.22 (0.20, 0.24)</td>
<td>&lt; .001</td>
<td>0.17 (0.16, 0.19)</td>
<td>&lt; .001</td>
<td></td>
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<tr>
<td>Black vs. White race</td>
<td>0.85 (0.83, 0.86)</td>
<td>&lt; .001</td>
<td>0.63 (0.62, 0.64)</td>
<td>&lt; .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native American vs. White race</td>
<td>0.86 (0.82, 0.91)</td>
<td>&lt; .001</td>
<td>0.73 (0.70, 0.78)</td>
<td>&lt; .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific Islander/Hawaiian vs. White race</td>
<td>0.54 (0.45, 0.66)</td>
<td>&lt; .001</td>
<td>0.60 (0.50, 0.73)</td>
<td>&lt; .001</td>
<td></td>
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<tr>
<td>Unreported race vs. White</td>
<td>0.62 (0.57, 0.68)</td>
<td>&lt; .001</td>
<td>0.55 (0.51, 0.61)</td>
<td>&lt; .001</td>
<td></td>
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<tr>
<td>Hispanic/Latinx vs. Not Hispanic/Latinx</td>
<td>0.32 (0.31, 0.32)</td>
<td>&lt; .001</td>
<td>0.26 (0.26, 0.27)</td>
<td>&lt; .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unreported ethnicity vs. Not Hispanic/Latinx</td>
<td>1.32 (1.27, 1.37)</td>
<td>&lt; .001</td>
<td>1.22 (1.17, 1.27)</td>
<td>&lt; .001</td>
<td></td>
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<tr>
<td>Age 0-5 vs. 12-17</td>
<td>0.05 (0.05, 0.06)</td>
<td>&lt; .001</td>
<td>0.05 (0.05, 0.06)</td>
<td>&lt; .001</td>
<td></td>
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<tr>
<td>Age 6-11 vs. 12-17</td>
<td>0.81 (0.80, 0.82)</td>
<td>&lt; .001</td>
<td>0.82 (0.81, 0.84)</td>
<td>&lt; .001</td>
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<tr>
<td>Age 18-21 vs. 12-17</td>
<td>0.92 (0.90, 0.94)</td>
<td>&lt; .001</td>
<td>0.91 (0.89, 0.93)</td>
<td>&lt; .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female vs. Male sex</td>
<td>0.64 (0.63, 0.64)</td>
<td>&lt; .001</td>
<td>0.62 (0.61, 0.63)</td>
<td>&lt; .001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural vs. Urban</td>
<td>1.01 (0.93, 1.10)</td>
<td>.86</td>
<td>0.97 (0.91, 1.02)</td>
<td>.25</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Data are not public and currently undergoing DHHS review.
Provider Level Medication Analysis

- 5,941 providers (50.7% of providers who prescribe to children) prescribed one of four medications to 0-21 year olds
- 61% of providers were Family Medicine, Primary Care PA or NP
- Only 13% of children have a Child Psychiatrist provider
- 50,018 patients received psychotropic medications from Pediatric Providers (48.2%)
  - As compared to Pediatric providers, Family Medicine Providers, primary care PAs and primary care NPs are much more likely to prescribe antipsychotics to children.
  - Also more likely to prescribe antidepressants.
  - Pediatric providers more likely to prescribe stimulants

<table>
<thead>
<tr>
<th>Variable</th>
<th>Antipsychotic Risk Ratio (95% CI)</th>
<th>P-value</th>
<th>Antidepressant Risk Ratio (95% CI)</th>
<th>P-value</th>
<th>Stimulant Risk Ratio (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Medicine vs. Pediatrics</td>
<td>1.48 (1.36, 1.61)</td>
<td>&lt; .001</td>
<td>1.61 (1.54, 1.68)</td>
<td>&lt; .001</td>
<td>0.90 (0.87, 0.93)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>PCP PA vs. Pediatrics</td>
<td>3.41 (3.24, 3.60)</td>
<td>&lt; .001</td>
<td>1.92 (1.85, 1.99)</td>
<td>&lt; .001</td>
<td>0.80 (0.78, 0.82)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>PCP NP vs. Pediatrics</td>
<td>2.74 (2.56, 2.93)</td>
<td>&lt; .001</td>
<td>1.77 (1.69, 1.85)</td>
<td>&lt; .001</td>
<td>0.82 (0.79, 0.85)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

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NC Youth Mental Healthcare Provision by County
NC PAL and DSS Potential Partnerships

Sharing NC PAL with Providers

- Share NC PAL information with primary care providers
  - When doing foster care well child checks
  - When follow-up for behavioral concerns and child does not have psychiatrist and PCP might need input
  - When follow-up after behavioral health hospitalization or ED visit and PCP might need input

- ED providers can call, not currently able to do assessment but could in future.

Direct partnerships potential

- Opportunity to provide direct consultation to DSS staff
- Opportunity to perform complex consultation through televideo for multidisciplinary teams
- Other opportunities??
Contact Information

• **Email:** [ncpal@duke.edu](mailto:ncpal@duke.edu)

• **Phone:** 919-681-2909
  1. Pediatric: extension 1
  2. Perinatal: extension 2

• **Hours:** Monday-Friday 8am-5pm

• Please note, NC-PAL is **not** a crisis line. If you have a patient in crisis, please call 911

• For questions about NC-PAL, please contact Chelsea Swanson [chelsea.swanson@duke.edu](mailto:chelsea.swanson@duke.edu)
Thank You!

NC-PAL is a collaboration between the North Carolina Department of Health and Human Services, Duke’s Department of Psychiatry & Behavioral Sciences and UNC Center for Women’s Mood Disorders.

- The pediatric program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $2,670,000 with 20% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. Government.

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