Clinical Research & Comprehensive Care for Individuals with Severe Problem Behavior

Neurobehavioral Unit
Kennedy Krieger Institute
Neurobehavioral Services

Patient Population & Services
Description of Patients

- 16-bed inpatient hospital
- Diverse patient population
  - Patients served are between 3-21 yrs old
  - Males and females
  - Size
  - Diagnosis
  - Adaptive functioning/skill deficits
  - Communicative abilities
  - Behavioral problems
# Topographies of Problem Behavior

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIB</strong></td>
<td>• head banging, head hitting</td>
<td>• eye poking</td>
</tr>
<tr>
<td></td>
<td>• self biting</td>
<td>• self scratching</td>
</tr>
<tr>
<td></td>
<td>• pulling out own hair</td>
<td>• lip/tongue biting</td>
</tr>
<tr>
<td></td>
<td>• skin picking</td>
<td>• knee to face, knee to chin</td>
</tr>
<tr>
<td></td>
<td>• face slapping</td>
<td>• tooth/nail self-extraction</td>
</tr>
<tr>
<td><strong>Aggression</strong></td>
<td>• punching/hitting/kicking</td>
<td>• biting</td>
</tr>
<tr>
<td></td>
<td>• hair pulling</td>
<td>• head butting/charging</td>
</tr>
<tr>
<td></td>
<td>• scratching/pinching</td>
<td>• choking</td>
</tr>
<tr>
<td><strong>Disruption</strong></td>
<td>• throwing objects</td>
<td>• screaming</td>
</tr>
<tr>
<td></td>
<td>• breaking/ripping items</td>
<td>• breaking windows, doors</td>
</tr>
<tr>
<td></td>
<td>• knocking over/throw furniture</td>
<td>• spitting</td>
</tr>
<tr>
<td><strong>Pica</strong></td>
<td>• rocks, dirt, miracle grow</td>
<td>• oil, pens, toothbrush, paper towels</td>
</tr>
<tr>
<td></td>
<td>• feces, painted wood, glass</td>
<td>• metal, metal spiral from notebook</td>
</tr>
<tr>
<td></td>
<td>• cloth, cleaning agents, soap</td>
<td></td>
</tr>
<tr>
<td><strong>Other PB</strong></td>
<td>• elopement</td>
<td>• jumping out of windows/off decks</td>
</tr>
<tr>
<td></td>
<td>• fecal smearing</td>
<td>• rumination/vomiting</td>
</tr>
<tr>
<td></td>
<td>• disrobing</td>
<td>• refuse medical procedures</td>
</tr>
<tr>
<td></td>
<td>• inappropriate sexual behavior</td>
<td>• inserting objects into electrical outlets</td>
</tr>
<tr>
<td></td>
<td>• dropping</td>
<td>• spitting</td>
</tr>
</tbody>
</table>
Nature of Problem Behavior

- Rick Factors
  - Level of Intellectual Disability
  - Expressive and/or Receptive Language Deficits
  - Diagnosis of Autism
  - Sensory Impairment
  - History (duration) of problem behavior

(McClintock and Oliver, 2003)
Patients Served

- Individuals served exhibit severe problem behavior
  - Persistent display of behavior/s that produces injury to self or others and subsequently impairs functioning
- Severe Behavior Disorders are characterized by
  - Injury to self and others
  - Limited participation in home, school and/or community settings
  - Resistance to treatment
  - Restrictive interventions and placement
  - Excessive use of medication
Common Diagnoses

- Developmental Disabilities
  - Intellectual Disability
  - Autism Spectrum Disorders

- Medical Conditions
  - Seizure Disorders
  - Feeding Issues
  - Allergies
  - Asthma
  - Visual/Hearing Impairment
  - Respiratory Problems

- Mental Health Diagnoses
  - ADHD
  - OCD
  - Mood Disorders
NBU Referrals by State
Neurobehavioral Continuum of Care

Initial Evaluation
• Interdisciplinary Evaluation
• Discuss behavioral, medical and family needs
to determine appropriate services

[Diagram showing the neurobehavioral continuum of care with a box labeled 'Initial Evaluation' and its components]
Neurobehavioral Continuum of Care

Initial Evaluation
• Interdisciplinary Evaluation
• Discuss behavioral, medical and family needs to determine appropriate services

Outpatient Services
• Consultation
• Day Treatment
• Intensive Outpatient
Neurobehavioral Continuum of Care

Initial Evaluation
• Interdisciplinary Evaluation
• Discuss behavioral, medical and family needs to determine appropriate services

Inpatient Services
• Interdisciplinary care
• 24 hr data collection
• Behavioral management
• 3.5 hours of behavioral services
• High staffing ratio: 1:1 or more

Outpatient Services
• Consultation
• Day Treatment
• Intensive Outpatient
Neurobehavioral Continuum of Care

Initial Evaluation
- Interdisciplinary Evaluation
- Discuss behavioral, medical and family needs to determine appropriate services

Inpatient Services
- Interdisciplinary care
- 24 hr data collection & behavioral management
- 3.5 hours of behavioral services
- High staffing ratio: 1:1 or more

Outpatient Services
- Consultation
- Day Treatment
- Intensive Outpatient

Referral
- Direct families to local or most appropriate services
Neurobehavioral Continuum of Care

Initial Evaluation
• Interdisciplinary Evaluation
• Discuss behavioral, medical and family needs to determine appropriate services

Outpatient Services
• Consultation
• Day Treatment
• Intensive Outpatient

Inpatient Services
• Interdisciplinary care
• 24 hr data collection & behavioral management
• 3.5 hours of behavioral services
• High staffing ratio: 1:1 or more

Follow Up
• Provided by Outpatient services
• Monitor behavior, conduct training and make necessary modifications
• Continued contact with interdisciplinary team

Referral
• Direct families to local or most appropriate services
Neurobehavioral Unit Services: Interdisciplinary Team

- Behavioral Psychology Team
  - Assessments
    - Functional analysis
    - Preference assessments
  - Treatment
    - Develop and evaluate interventions
  - Generalization & Training
    - Treatment generalization (home, school, & community)
    - Staff and caregiver training
Applied Behavior Analysis Model

https://www.kennedykrieger.org/patient-care/centers-and-programs/neurobehavioral-unit-nbu/applied-behavior-analysis/scientific-support-for-applied-behavior-analysis
Applied Behavior Analysis

- **Applied Behavior Analysis** (ABA) - systematic process of studying, understanding and modifying observable behavior through manipulation of environment.

- Principles have been shown to be effective to treat a variety of clinically and socially significant issues (e.g., education, rehabilitation, safety, etc.).

- Uses an experimental approach to manipulate the environment.

- Tracks changes in behavior to understand and manipulate the relationship between behavior and environment.
  - Behavior – any observable and measurable act (a response).
  - Environment
    - Antecedent – stimulus/event that precedes a target behavior
    - Consequence – the response provided following the behavior.
Primary Goals of IP Admission

- Achieve at least an 80% reduction in the rate of problem behavior
- Train parents to implement treatment with at least 90% accuracy
- Maintain treatment gains at 3 and 6 months post-discharge
Research and Academia

- Faculty members work as case managers but also pursue research endeavors to further advance the field of Applied Behavior Analysis and Developmental Disabilities

- Opportunity for graduate students to work closely with case managers to pursue research interests

- Several faculty members are current or former members of the *Journal of Applied Behavior Analysis* editorial board
Interested in Joining our Team?
The Student Population

- Professional working environment
- Large percentage of CA staff are students from local colleges and universities
- Every student is offered the opportunity to bring in their school schedule for us to accommodate
- In addition to other local colleges, we’ve hired 22 UMBC students in the last year
Common Majors

- Biology
- Psychology
- Pre-Med
- Social Work
- Business
- History
- Early Childhood Education
- Speech-Language
- Sociology
- Nursing
- Chemistry
- Family and Human Services
Tuition Assistance Program

- Students can receive up to $10,500 (tax-free funds) per calendar year towards an Undergraduate, Graduate or Doctorate degree
  - Tuition reimbursement is pro-rated for part-time staff
  - Additional tuition is available but must be taxed
- Employees must complete their six-month initial evaluation period and work 16 or more hours per week to be eligible
- Academic Advising is available for employees to meet with an expert to get a customized education plan that will help meet their goals
Other Benefits

- Medical and Dental coverage
- 401K retirement plan
- Life insurance
- Paid leave (Sick/Vacation/Free Days)
- Other – MTA passes, computer purchase program, discounted cell phones, Live Near Your Work

(Cost of benefits based upon # of hours worked per week)
Pay

- Degreed Employee (BA/S)
  - $14.76/hour
- Non-Degreed Employee
  - $14.26/hour
- Shift Differentials for weekends and overnight shifts
Clinical Assistant Position
Clinical Assistant (CA) Overview

- Entry-level direct care position in the field of Applied Behavior Analysis
  - 120-140+ full and part-time individuals
  - Provide 1:1 staffing outside of behavior therapy sessions

- Provides valuable information to therapy team regarding behavior maintenance, daily care and treatment feasibility
CA Job Duties

- Patient Safety
- Staff Safety
- Implement Protocols
- Toileting
- Meals/Feeding
- Bathing
- Academics
- Patient Engagement
- Scheduled Activities

+ Data Collection
Details of CA Duties

- **Protocol Implementation**
  - Each patient has a book which includes protocols relevant to his/her individual care and how to respond to and manage his/her problem behavior.
  - Clinical Assistants must adhere to protocols as written as closely as possible and communicate any concerns.

- **Patient Safety**
  - Clinical Assistant staff work to keep patients safe during their admission.
  - Trained in blocking techniques to reduce risk of injury from problem behavior.
CA Duties Continued

- **Daily Schedule**
  - Within the protocol book, there is an individualized schedule that outlines the various activities throughout the day.
  - The schedule includes a combination of academics, group activities, outings and structured leisure time.

- **Data Collection**
  - Track data on total number of problem behavior throughout the day, including type of behavior, time of behavior, antecedent to behavior, etc.
# Data Collection – Data Sheets

<table>
<thead>
<tr>
<th>Time</th>
<th>Staff</th>
<th>Time</th>
<th>Staff</th>
<th>Time</th>
<th>Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00</td>
<td>W</td>
<td>8:00</td>
<td>W</td>
<td>4:00</td>
<td>W</td>
</tr>
<tr>
<td>12:30</td>
<td>W</td>
<td>8:30</td>
<td>W</td>
<td>4:30</td>
<td>W</td>
</tr>
<tr>
<td>1:00</td>
<td>W</td>
<td>9:00</td>
<td>W</td>
<td>5:00</td>
<td>W</td>
</tr>
<tr>
<td>1:30</td>
<td>W</td>
<td>9:30</td>
<td>W</td>
<td>5:30</td>
<td>W</td>
</tr>
<tr>
<td>2:00</td>
<td>W</td>
<td>10:00</td>
<td>W</td>
<td>6:00</td>
<td>W</td>
</tr>
<tr>
<td>2:30</td>
<td>W</td>
<td>10:30</td>
<td>W</td>
<td>6:30</td>
<td>W</td>
</tr>
<tr>
<td>3:00</td>
<td>W</td>
<td>11:00</td>
<td>W</td>
<td>7:00</td>
<td>W</td>
</tr>
<tr>
<td>3:30</td>
<td>W</td>
<td>11:30</td>
<td>W</td>
<td>7:30</td>
<td>W</td>
</tr>
<tr>
<td>4:00</td>
<td>W</td>
<td>12:00</td>
<td>W</td>
<td>8:00</td>
<td>W</td>
</tr>
<tr>
<td>4:30</td>
<td>W</td>
<td>12:30</td>
<td>W</td>
<td>8:30</td>
<td>W</td>
</tr>
<tr>
<td>5:00</td>
<td>W</td>
<td>1:00</td>
<td>W</td>
<td>9:00</td>
<td>W</td>
</tr>
<tr>
<td>5:30</td>
<td>W</td>
<td>1:30</td>
<td>W</td>
<td>9:30</td>
<td>W</td>
</tr>
<tr>
<td>6:00</td>
<td>W</td>
<td>2:00</td>
<td>W</td>
<td>10:00</td>
<td>W</td>
</tr>
<tr>
<td>6:30</td>
<td>W</td>
<td>2:30</td>
<td>W</td>
<td>10:30</td>
<td>W</td>
</tr>
<tr>
<td>7:00</td>
<td>W</td>
<td>3:00</td>
<td>W</td>
<td>11:00</td>
<td>W</td>
</tr>
<tr>
<td>7:30</td>
<td>W</td>
<td>3:30</td>
<td>W</td>
<td>11:30</td>
<td>W</td>
</tr>
</tbody>
</table>

W = awake      S = asleep

Baseline Sleep - Primary

Patient:

Check your break slip for bedtime.

Time Asleep: ____________

Time Awake: ____________
# Data Collection – Data Sheets

<table>
<thead>
<tr>
<th>Time</th>
<th>SIB</th>
<th>AGG</th>
<th>DIS</th>
<th>Bitting Others</th>
<th>Tantrum</th>
<th>Staff Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>midnight – 12:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:30 – 1:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:00 – 1:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:30 – 2:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:00 – 2:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:30 – 3:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:00 – 3:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:30 – 4:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 – 4:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:30 – 5:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00 – 5:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:30 – 6:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:00 – 6:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6:30 – 7:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:00 – 7:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7:30 – 8:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:00 – 8:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8:30 – 9:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00 – 9:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:30 – 10:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00 – 10:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00 – 11:30</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:30 – noon</td>
<td>Y</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Unit Data – AM**

**Patient:**

**Self-Injurious Behavior (SIB):** Bitting self on any part of body, hitting any part of his head and/or face, scratching self, hitting any part of body from a distance of 6” or more.

**Aggression:** Grabbing, pushing, hitting, punching, pinching, scratching, kicking, head butting, pulling hair, throwing items within 2 feet of a person.

**Disruption:** Ripping, dumping, breaking, swiping, kicking items/surfaces, writing on surfaces, throwing objects (not within 2 feet of a person).

**Tantrum:** Screaming, crying, and/or whining for 30 seconds or more.
Shifts Available

- **Day shift:** 7 a.m. – 3:30 p.m.
- **Evening shift:** 3 p.m. – 11:30 p.m.
- **Night shift:** 11 p.m. – 9:30 a.m.
- **Full-Time:** 40 hours per week
- **Part-Time:** 16, 20, and 24 hours per week
The training schedule is not flexible.
2 ½ weeks long

<table>
<thead>
<tr>
<th></th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HR Orientation</strong></td>
<td>Monday and Tuesday 8 a.m. – 4:30 p.m.</td>
</tr>
<tr>
<td><strong>Classroom Training</strong></td>
<td>Wednesday through Monday 8:30 a.m. – 5 p.m.</td>
</tr>
<tr>
<td><strong>Hands-on Training</strong></td>
<td>Tuesday through Tuesday Day or Evening</td>
</tr>
</tbody>
</table>
Promotion Opportunities

- Many opportunities for advancement with the Behavior Psychology Department as well as the entire Institute.
  - CAII, BDS, CS, Case Manager (Faculty)
  - Unit Administration
  - SLP
  - OT
  - PT
  - Special Education
  - Social Work
  - Nursing
Our COVID-19 Response

- **Social Distancing** - Enforced throughout the Institute
- **Mask and Face Shield Use for Patient Care** - KKI will supply you with a mask and face shield
- **KKI Screening** - Staff will be double-screened daily for any COVID-related symptoms upon entrance to the building and again by the department
- **Temperature Checks** - Performed at the front entrance of the 707 building
- **Universal Testing** - Done with all potential inpatients prior to them being admitted to the hospital
- **COVID-19 Hotline**
How to Apply

- Go to: www.kennedykrieger.org/careers
- Keyword search “Clinical Assistant”
- Hit “apply for this job” and fill out an application online
- Encourage students to reach out to recruiters via email to express their interest after submitting an application
Questions?