

## Update of the Bio-psychosocial Assessment Program for HIV-Infected Children and Youth

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## Outline of Presentation

- ❑ Overview of HIV/AIDS in Youth
- ❑ Bio-psychosocial Assessment Program (BAP)
- ❑ Patient Recruitment and Enrollment
- ❑ BAP Results and Trends
- ❑ Case Illustration
- ❑ Conclusions
- ❑ Questions and Answers

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## Background

- ❑ HIV/AIDS epidemic in NYC is the largest and most complex
- ❑ Bio-psychosocial impact of HIV/AIDS on youth is challenging
- ❑ HIV+ youth are most vulnerable population
  - Lower scores on developmental and cognitive tests
  - Higher rates of depression, anxiety, poor social support, and substance abuse

(Kalichman & Sikkema, 1994; Mellins, et al., 2006; Nozyce et al., 2006)

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## Background (cont.)

- Affected youth have similar difficulties
  - At risk for poor developmental outcomes
  - Mental health and development remain understudied
  - More prone to mental health difficulties
    - Depression, anxiety, substance abuse, and sexually risky behaviors

(Rotheram-Borus, Stein & Lester, 2006)

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## Importance of BAP to supplement Clinical Programs in Medical Setting

- Q. How do you identify and address mental health needs of youth infected and affected with HIV/AIDS in a medical outpatient clinic?
- A. Provide a comprehensive mental health assessment
- To improve overall mental health functioning and medical outcomes

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## Importance of BAP to supplement Clinical Programs in Medical Setting (cont.)

- The Pediatric Infectious Diseases Program at NYU/Bellevue implemented a Bio-psychosocial Assessment Program (BAP)
- Children, youth and young adults
  - Empirically guided and comprehensive mental health program for infected and affected youth
  - Ages 6 – 24 years

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## BAP Quick Overview

GOAL: to provide annual assessments, diagnose and refer youth for mental health services

- Ryan White capacity development supported youth bio-psychosocial needs assessment
- Launched June 2006
- 4 visits to complete the BAP

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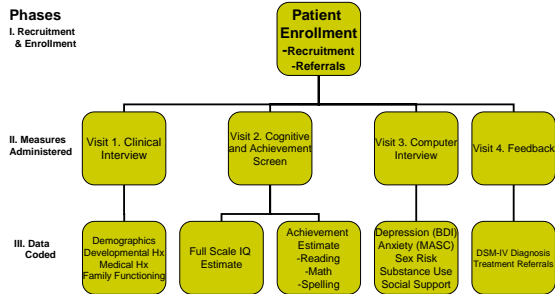
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## BAP Implementation Overview




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Table 1. BAP Update 2008  
Recruitment and Enrolled Patients

BAP effort in PIDC clinic (n=134)	N	Percent of 76 Recruited Pts
Recruited	76	100%
Enrolled	66	87%
Completed Year 1	37	49%
Declined	10	13%

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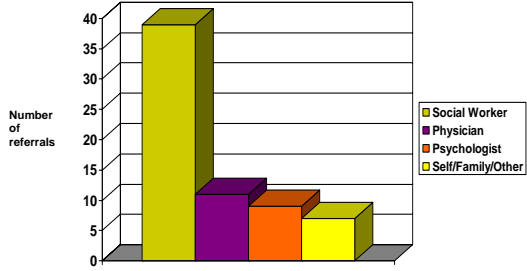
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Figure 1. Referral Sources for BAP Enrollment (n=66)



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Table 2. BAP Update 2008 Demographics of Enrolled (n=66)

Age	Range = 6-24	Mean=14.2	SD=4.0
		<u>N</u>	<u>%</u>
<b>HIV Status</b>	Infected	49	74%
	Affected	17	26%
<b>Gender</b>	Female	31	47%
	Male	35	53%
<b>Ethnicity</b>	African-American	30	48%
	Hispanic	28	44%
	White	4	6%
	Native Amer/ Other	4	2%

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Table 3. BAP – Cognitive and Achievement Functioning (n=66)

Screening Measure	Completed Youth Mean (SD)	Completed Youth Range	Infected Mean	Affected Mean
<b>Full Scale IQ Estimate</b>	<b>93.9 (14.9)</b>	<b>55 – 123</b>	<b>91.5</b>	<b>105.0</b>
Verbal IQ Estimate	95.1 (15.7)	62 – 127	93.5	107.4
Performance IQ Estimate	94.6 (15.5)	56 – 125	92.1	103.6
<b>Reading Estimate</b>	<b>92.7 (19.5)</b>	<b>45 – 129</b>	<b>90.8</b>	<b>107.9</b>
<b>Math Estimate</b>	<b>86.0 (19.8)</b>	<b>45 – 131</b>	<b>83.2</b>	<b>97.4</b>
Spelling Estimate	88.6 (17.6)	45 – 116	86.5	102.3
MMSE (n=35)	27.3 (2.8)	19 - 30	29.9	28.1

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## BAP - Cognitive and Achievement Trends

- In general, cognitive and reading scores were in the average range, but math scores were in the below average range compared to general population.
- Affected patients scored higher than infected.
- Age is significantly negatively correlated with cognitive and achievement scores. This means older children scored more poorly than younger children.

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Table 4. BAP – Psychosocial Trends from Computer Interview

Variables	Mean	SD	Range
Depression BDI	8.7	9.0	0-33
Anxiety MASC (exclude BAI)	45.5	10.3	27-70
Sex Risk Total # partners	2.3	10.4	*0-60
Substance use Current # using	.1	.4	0-2
Social Support	3.7	1.0	1-5

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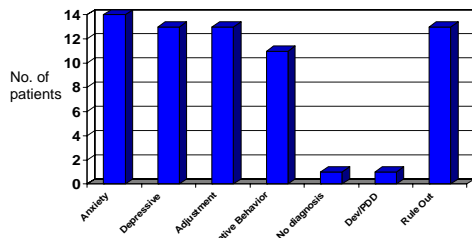
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Figure 2.  
BAP - DSM-IV Primary Diagnoses (n=66\*)



\*Patients completing visit 1 (clinical interview) only were included

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## BAP – Utility for Treatment Planning and Enhancing Patient Care

- Summary Reports
  - Feedback to clients and caregivers
  - Diagnosis and recommendations
  - Academic performance profile
- Multi-disciplinary
  - Provide feedback to Health Care Team at weekly case conference
  - Direct feedback to medical providers
  - Follow up on BAP referrals and treatment

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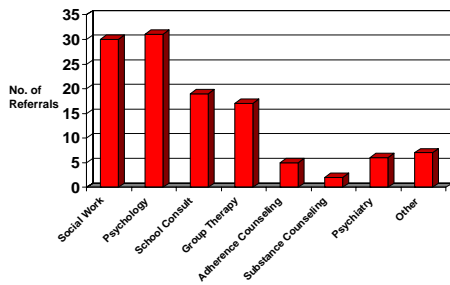
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Figure 3. Treatment Referrals for BAP (n=37)



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## Treatment Programs Developed as a Result of BAP

- Group therapy to provide additional support
- Self-management interventions
- Need for co-located psychiatrist in the clinic
- Linkages with other departments within hospital (e.g., C/L, Pediatric Behavior Clinic)

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## Challenges to BAP implementation

- Physician and staff “buy in”
- Recruitment of the 19 – 24 year olds
- Coordination of appointments with medical/social work
- Declined patients
- Non-compliance (especially with medical visits)

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## Conclusions

- Identifying undetected cognitive and academic delays, depression, anxiety, non-adherence, and psycho-social problems.
- Insuring access to needed interventions and treatment for identified mental health morbidity.
- Increasing awareness of mental health needs and communication among providers on a multi-disciplinary treatment team.

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## Case Example of Importance of Annual Assessment

- 16 y/o male of African-American descent
- HIV+ perinatally infected
- Presenting problems
  - Non-adherence to ART
  - Feeding problems resulting in hospitalization
  - Depressed mood
  - Separation difficulties

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### Case Example of Importance of Annual Assessment

Measure	Year 1 2007	Year 2 2008
FSIQ	96	81
Reading	103	94
Math	89	93

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### Case Example of Importance of Annual Assessment

- Assessed in 2007 and Reassessed in 2008 findings were:
  - Anxiety Disorder (MASC scores in 'at-risk' range)
  - Denied
    - Substance Abuse
    - Sexual activity
  - Poor social supports (i.e., few friends)

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### Case Example of Importance of Annual Assessment

- **Diagnostic Formulation**
  - Axis I: Anxiety Disorder, NOS
  - Axis II: No diagnosis
  - Axis III: HIV infection; r/o HIV-associated neurocognitive disorders
  - Axis IV: Poor social support; non-adherence
- **Recommendations**
  - Comprehensive evaluation to explore change in cognitive ability (e.g., r/o HIV-associated neuro-cognitive disorder (HAND))
  - Psychotherapy to address anxiety disorder (i.e., separation issues)
  - Social work to develop social supports such as group therapy
  - Adherence counselor

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## Clinical Implications of BAP Assessment

- Detected cognitive declines related to HIV disease
- Anxiety disorder (vs. Depressive disorder)
- Annual assessment to monitor cognitive changes due to compliance improvement
- Identification of need for increased social support (i.e., group therapy)

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