



Pragmatic Considerations in Identification and Management of Cognitively Impaired Inmates

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Purpose and Goals for this Presentation

- ❖ To present the rationale for attending to the cognitive capabilities of the incarcerated.
- ❖ To offer a structure and set of tools that can help identify and define cognitive impairment
- ❖ To suggest methods of managing cognitive impairment both during & post incarceration

Two Inmates

❖ Manuel:

- Age 51
- 142 arrests since 1984, nearly all 647f
- One near fatal head injury at age 26
- Meets criteria for dementia diagnosis

❖ Bret

- Age 44
- 103 arrests since 1984, nearly all 647f
- Six head injuries with loss of consciousness, once with loss of consciousness for 4 days.
- Chronic affective symptoms and behavior problems

So What Is Cognitive Impairment?

- ❖ Cognitive Impairment (CI)
- ❖ Head Injury (HI)
- ❖ Traumatic Brain Injury (TBI)
- ❖ Acquired Brain Injury (ABI)
- ❖ Dementia
- ❖ Congenital Brain Disorder

These are related but not synonymous terms

TBI Defined

- Traumatic Brain Injury is an insult to the brain caused by an external physical force.
 - *Surface blows from fists or blunt objects*
 - *Jolts from motor vehicle accidents or falls*
 - *Penetration of the skull by bullets or other objects*
- Not all blows or jolts to the head result in TBI.
- TBI is a medical term, Head Injury is a more general term that may or may not result in TBI
- Severity of a TBI may range from
 - 'mild', with a brief change in mental status or consciousness,
 - to 'severe', associated with an extended period of unconsciousness or amnesia after the injury.

Acquired Brain Injury Defined

- Acquired Brain Injury is an insult to the brain that has occurred at some time following birth. It may result from:
 - TBI
 - Stroke/CVA
 - Anoxia and hypoxia
 - Infection of the brain
 - Tumors

Dementia

- A specific medical (DSM) diagnosis that requires:
 - Memory Impairment
 - Impairment in at least one other cognitive area
 - Significant impairment in social or occupational functioning that is a decline from previous abilities
- Dementia can be of different types and etiologies and generally is divided into:
 - progressive dementias, such as Alzheimer's, Picks, Due to HIV, Substance-Induced Persisting Dementia
 - and non progressive, such as Due to Head Trauma, Vascular (when due to single event), etc.

“Developmental” Cognitive Disorders

- Developmental cognitive disabilities occur
 - When mental impairment is
 - Manifested before the age of
 - 22 (Federal standard) or
 - 18 (for DSM and in CA [Lanterman act])
 - and is likely to continue indefinitely, with
 - “substantial” “adaptational” or “functional” limitations (e.g., self-care, language, self-direction)
 - most common DSM dx is Mental Retardation
 - Estimated to be 4-10% of those incarcerated

Cognitive Impairment

- A more general term focusing on abilities rather than etiology or specific diagnosis
- Involves deficits in the ability to perceive, think, concentrate, formulate ideas, reason and remember.
- Requires demonstrable deficiencies which may follow from one or more antecedent conditions, such as TBI, progressive dementias, Learning Disabilities, stroke, etc.

Some Manifestations of Cognitive Impairment

- Attention & Sustained Concentration Deficits
 - Reduced acquisition of information
 - Increased distractibility
- Language & Comprehension Deficits
 - expressive and/or receptive deficits
- Visual & Spatial Deficits
- Nonspecific Slowed Mental Processing
- Memory & Learning Deficits
- Frontal Signs & Executive Function Deficits

Executive Function

- ❖ Includes abstract reasoning, formation of goals, concept formation, planning and initiation of purposeful actions, self-monitoring, self-awareness, third person perspective, frustration tolerance, impulse control, inhibition, cognitive flexibility and the ability to shift cues.

Frontal & Executive Impairments

Frontal Behaviors:

- Bland Indifference
- Unwarranted Optimism
- Elaborated Verbiage
- Motor Impersistence
- Inability to generate and sustain activity
- Perseveration

Executive Functions:

- Volition/initiation/inhibition
- Planning/sequencing
- Prioritization
- Self Monitoring
- Purposeful Exploration
- Concept Formation
- Cognitive Flexibility
- Organization
- Search Strategies
- Social Perspective Taking

Executive Function & Capacity

- Measures of Executive Function are superior to measures of global functioning (e.g. MMSE & Clin. Dementia Rating Scale) in determining financial and medical decision making (Bassett 1999)
- The best predictor of ability to live independently
- Those who have sustained TBI often show impairment in executive functioning (Miller, 1999, Vermeiren, 2002)
- Alcoholics as a group show impaired executive functioning which remains during early abstinence (Zinn 2004)

Why Does Identification and Management of Cognitive Impairment Matter in a Correctional Setting ? (1)

A. Because CI is common—yet frequently is

- overlooked due to
 - CI persons often having little or no awareness of their own deficits and changes in ability (Flashman 1998)
 - a lack of staff expertise in identification
 - inadequate administrative commitment to identification
 - the dearth of research on CI jail inmates
- misidentified because of its co-occurrence (bi-directional comorbidity) with mental illness, substance abuse and antisocial behavior

TBI Prevalence In Correctional Populations

Population	TBI Prevalence	Source
General Population	2-12% 8.5%	Missouri and Kentucky Reports Silver (2001)
Prison Diversion / Probation	50%	Sarapata (1998)
Jail Inmates	87%	Slaughter (2003)
Forensic Psychiatric Hospital	22%	Martell (1992)
General Prisoners	25% 36% 86%	Morell (1998) Templer (1992) Barnfield (1998)

Co-occurrence of TBI with SA

- TBI is associated with SA both as a contributing and complicating factor (Boyle, 1991).
- Those with a history of TBI are significantly more likely to have problems with SA compared to persons without (Silver, 2001, Moore, 1994)
 - Blood alcohol is reported in 1/2 of brain injury victims (Kraus, 1989)
 - Up to 2/3^{rds} of brain injury cases have histories of substance abuse before the injury (Corrigan, 1995)
 - Prior drug use can contribute to severity of TBI
- High prevalence of SA among TBI suggests that SA^{ers} may be at high risk of TBI and vice versa
- Substance Abuse can present with signs that mimic nearly any other medical and/or mental disorder.

Cognitive Impairments Associated with SA

- Studies assessing the effect of SA on cognitive functioning have identified performance decrements in multiple domains including:
 - Abstract Reasoning (e.g., Goldman 1983)
 - Concept Formation (e.g. Beatty, 1995)
 - Visuo-spatial skills (e.g. Strickland 1993)
 - Learning acquisition (e.g. Ardila 1991)
 - Short-term memory (e.g., O'Malley 1992)
 - General executive dysfunction (Zinn 2002)

Co-occurrence with Mental Illness

- Depression & Anxiety are common in those who have had TBI—in one study (Fann 1995):
 - 26% had current major depression
 - 28% reported first onset major depressive episode following TBI
 - 24% had current generalized anxiety disorder
- Bipolar symptoms, including dysphoria, irritability, and impulsive aggression may emerge post TBI. In the absence of pre-injury symptoms, the most appropriate diagnosis is Mood Disorder Secondary to a General Medical Condition, Mixed Type (Kim 2002)
- 32% of jailed schizophrenics displayed CI using the Luria Neuropsychological Battery with impairment status also related to adult history of violence (Adams 1990)

Co-occurrence with Behavior Problems (1)

- Changes in personality and impulse control often accompany CI after brain injury and together may lead to problem behaviors.
- Up to 2/3^{rds} of TBI victims, regardless of severity of injury, develop significant changes in character traits that cause difficulty with interpersonal relationships

(Prigatano, 1992)

Co-occurrence with Behavior Problems (2)

- Example of Phineas Gage
- Diagnosis = Personality Change Secondary to a General Medical Condition:
 - Aggressive type: predominantly aggressive behavior
 - Disinhibited type: primarily disinhibition and sexual indiscretions
 - Labile type: primarily affective lability, which may include verbal outbursts

Occurrence in Special Correctional Populations: Elderly

- Approximately 11% of the prison population is over the age of 50
- In CA prisoners over the age of 40 increased from 15% in 1994 to 23% in 1999
- An aging general population, mandatory sentencing and 3-strikes laws result in more incarcerated older persons
- Inmates & Prisoners often present with health needs (including neurological) similar to those 10-11.5 years beyond their chronological age (Fazel, 2001)
- Older jail inmates often have had more years of SA, poor nutrition, and opportunity for multiple TBI

Occurrence in Special Correctional Populations: Females

- Increasing female incarcerations; most rapidly growing population (Greenfield, 1999)
- 350% increase in geriatric female prisoners (Williams, 2006)
- High prevalence of substance abuse / dependence in every correctional sample of females
- Women dependent on alcohol suffer physical/neurological consequences sooner than men (Schukit, 1995)
- Incarcerated women are more likely to be IV drug users than incarcerated men (Hammett, 1999), which is linked to greater physical/neurological consequences.
- TBI is common in victims of domestic violence
- HIV is more prevalent in incarcerated women than men, and combined HIV/TBI results in greater total symptoms

Why Does Identification and Management of CI Matter in a Correctional Setting (2)

- B. Because CI can affect successful adaptation to incarceration
 - CI can reduce the ability to perceive, remember or understand situations that could lead to disciplinary violations or inmate violence
 - One prison study (Merbitz 1995) found persons on a Segregation Unit with a reported history of HI were involved in almost twice as many disciplinary violations as an equal number with no history of HI

Consequences of Specific Deficits I

- Attention: may make it difficult to focus on directions given or to complete a required task giving the impression of defiance
- Memory: can make it difficult to understand or remember rules or directions which may lead to disciplinary actions
- Slowed verbal and physical responses: may be interpreted as uncooperative behavior by officers or other inmates

Consequences of Specific Deficits II

- Disinhibited or impulsive behavior: often follows TBI and may provoke other inmates or correctional staff and prompt use of physical force.
- Comprehension and Language deficits: may result in impaired social and legal understanding
- Deficits in self awareness, self monitoring and insight: often results in the inability to be aware of one's own cognitive and functional impairment

Why Does Identification and Management of CI Matter in a Correctional Setting (3)

- C. Because identification and management of CI is becoming a legal and professional responsibility
 - Correctional Facilities are increasingly expected to provide services to assist the offender adapt to incarceration and maximize post-release community reintegration
 - For example, Clark v California, 1998 led to the “Clark Plan” for identifying DD prisoners and providing them with programs
 - Courts already are ruling ADA applies to the incarcerated DD and other forms of CI are sure to follow

Why Does Identification and Management of C I Matter in a Correctional Setting (4)

- D. Identification is essential to pre- and post release risk management — *deliberate indifference is not defensible management*

Why Does CI Matter in a Correctional Setting (5)

E. Because CI can affect recidivism

- 83% of felons with reported history of HI reported a HI preceded their first encounter with law enforcement (Sarapata 1998)
- Sometimes CI results from treatable conditions, and functioning may be restored or declines halted.
 - Neurosyphilis,
 - Metabolic disorders
 - Medication side effects
- More often CI does not resolve with time or treatment, indefinitely remaining a risk factor for future legal violations
- Level of executive functioning has been found to discriminate recidivists from non recidivists (Valliant, 2003)

Example: **TBI & Domestic Violence**

- One study found a prior history of TBI was more highly correlated with domestic battering than any other psychosocial, medical, or psychiatric variable measured (Cohen et al., 1999)
- Men with a history of brain injury are six times more likely to engage in spousal aggression (Westby & Ferraro, 1999)
- 93% of a group of batterers sustained TBI prior to their first episode of domestic violence (Westby & Ferraro, 1999)

So How Do We Identify CI ?

Screening for TBI is recommended as a means to improve inmate safety and management (Schofield, 2006)

- Pre-or early arrest identification
- Correctional Officer Identification & Reporting
- Health Services Staff Identification
 - Behavioral assessment
 - Questionnaires and Inventories
 - Screening Tests for Cognitive Impairment
 - Tests of Functional/Academic abilities
 - Neuropsychological Instruments
- Use Neuropsychologists for Referral or Consultation

Neuropsychological Screens

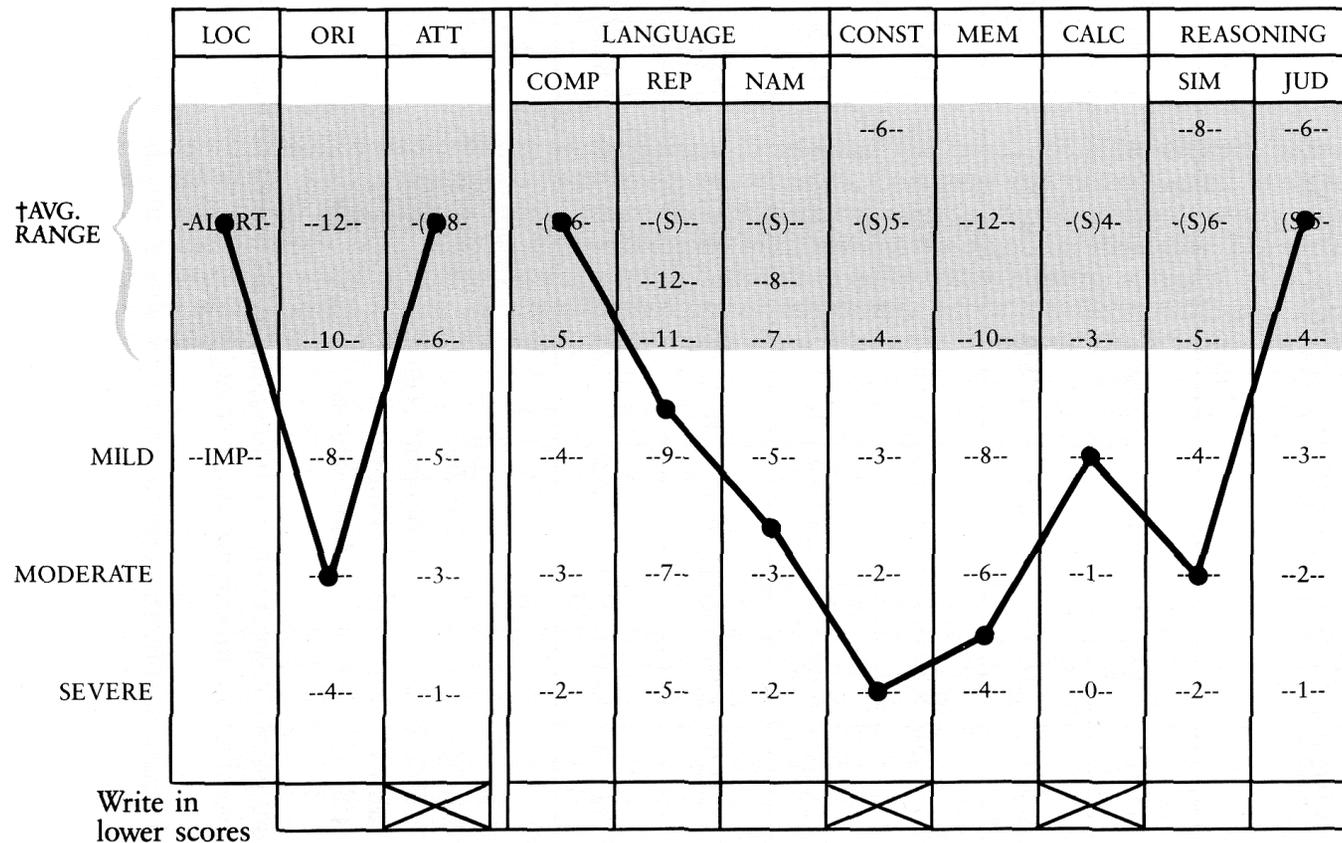
- Mini Mental State Examination (MMSE)
- Cognistat (NCSE)
- Vision Independent Cognitive Screen (VICS)
- R-BANS

❖ Limitations of Cognitive Screens

- Restricted in breadth and depth
- Lack of Jail and Prison Normative Data
- Over-interpretation of findings
- Premature closure and over-reliance on findings

Cognistat Profile

COGNITIVE STATUS PROFILE

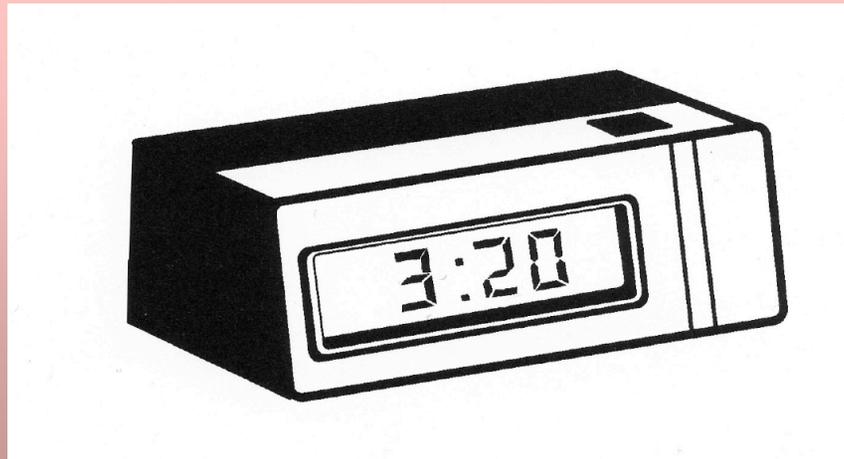


Measures of Functional/Academic Abilities

- K-FAST
 - WRAT-3
 - Vineland Adaptive Behavior Scale
 - Independent Living Scales (ILS)
- ❖ Importance of assessing functional abilities and daily skills

K-Fast example

- In order to catch a bus at three-twenty, Gloria is told to be at the bus station at least 30 minutes before departure time. What is the latest time she should arrive at the bus station?



Neuropsychological Measures (1)

- Overall/Global abilities
 - WAIS-III
 - BETA 3
- Memory & Learning
 - CVLT-II
 - WMS (especially stories and faces)
 - Fuld & VICS
 - Rey Complex Figure/Bender Memory
 - VICB Block Construction

Fuld/VICS Memory for Objects



Neuropsychological Measures (2)

- Executive

- Zoo Test (planning)
- Wisconsin Card Sorting (cognitive flexibility)
- H-R Category (concept formation)
- D-KEFS Card Sorting (concept formation)
- VICB Block Sorting (concept formation)
- Tower Tests (planning)
- Clock Drawing (spatial planning)
- Luria #223 (prediction-self monitoring)
- D-KEFS Stroop (complex inhibition)
- Lezak Tinker Toy task (initiation)

Zoo Test

Zoo Map Test Version 2

Rules

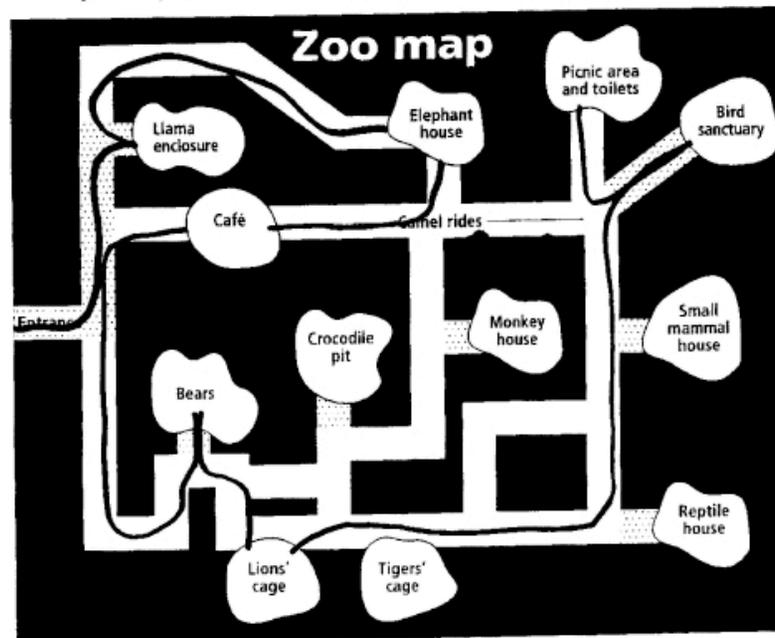
Imagine that you are going to visit a zoo.

Your task is to visit the following animals in the order indicated:

- 1 from the **Entrance** visit the **Llama enclosure**
- 2 from the **Llama enclosure** visit the **Elephant house**
- 3 after visiting the **Elephants** go to the **Café** for refreshments
- 4 from the **Café** go to see the **Bears**
- 5 visit the **Lions** after the **Bears**
- 6 from the **Lions** make your way to the **Bird sanctuary**
- 7 finally, finish your visit with a picnic.

When planning your route the following rules must be obeyed:

- start at the **entrance** and finish with a **picnic**
- you may use the **shaded paths as many times as you like** but the **unshaded ones only once**
- you may take only **one Camel ride**.



Assessing Effort & Motivation

- Response bias & motivation should always be considered, and must be assessed when the assessment may be utilized for legal decision making
- “poor effort on testing not only has some effect on neuropsychological test scores, but it can easily override the effects of most other variables”
(Green 2003)
- Effort has a greater effect on test scores than severe brain injury in compensation claimants
(Green, Rohling, Lees-Haley & Allen 2001)

Assessing Legitimacy of CI

- Attention: Rey 15
 - Memory: CVLT-II, TOMM
 - General Cognitive: Validity Indicator Profile [VIP]
 - Symptom Presentation: Structured Inventory of Malingered Symptomatology [SIMS] (psychosis, neurological, amnesic, low intelligence, affective disorder)
-
- ❖ Separating out other factors
 - Sensory
 - Language/Cultural
 - Level of formal education

OK, We Have Identified CI, Now What Do We Do?

- Advantages of the Correctional Environment
 - Highly structured, consistent routine where all basic needs are provided
- Realistic Individual Accommodations
 - Often achieved through Jail Classification
 - Staff Awareness and application of training
 - Special Housing (Sheltered Living Unit, [SLU])
 - “Life Skills” - social and functional skills training
 - Special Needs Plans and Behavior Management
 - Multidisciplinary Management Agreement
 - Targeted behavior intervention (e.g. hygiene)
- Recognize and Treat Co-occurring Disorders
- Post-Release Planning and Placement

Jail Intake Processing:

Identification and Early Management of the Cognitively Impaired Inmate

- Intake Booking Review
- Arresting Agency Questionnaire
- Medical Clearance or Refusal
- Processing / ROR
- Classification Interview

Role of Inmate Classification

Inmate classification is the jail's system of assessing *risks* and *needs* of each inmate for purposes of determining...

- housing assignment
- supervision requirements
- services needed
- program participation

Inmate Housing & Maintenance:

Addressing the special needs, management challenges, and victim potential of the CI

- General Housing Units
- Administrative Segregation Units
- Medical Housing “Sheltered Living” Units (SLU)
- Inmate Management Plans
 - Safety Management Plans
 - Behavior Management Plans
 - Special Needs Plans
- Life Skills Program

General Strategies for Managing & Housing the CI

- Limit cell mate and housing changes--try to achieve a consistent environment
- Simplify the environment
 - e.g. “rec” alone or in a small group, may be preferable
 - The environment needs to be reduced and restricted to what the inmate can appropriately and consistently respond to, and the staff can safely and consistently control.
- Provide orienting information
 - Clocks & Calendars
 - Access to information on current events
- Provide opportunity for the CI inmate to spend some time engaged in a meaningful or productive activity

Achieving Joint Ownership and Collaboration

❖ A good working relationship between Forensic Mental Health, Correctional Health, Classification Officers and Facility Administration is essential to multidisciplinary management and requires:

- Ongoing formal and informal collaboration
- Administrative Interest and Support
- Policies and Procedures
- Title 15 Compliance or adequate rationale for waiver
- Achieving Line Staff “buy-in”
- Staff Training
 - STC
 - Inmate Management Specialist

Officer Training: P.O.S.T. C.I.T.

- Peace Officer's Standards and Trainings
- Critical Incident Training for First Responders in Law Enforcement
- 40 Hour Training Program
- Joint Instruction by the Health Department-Forensic Mental Health-Sheriff
- In House Training by Jail's FMH Staff

General Guidelines for Inmate Behavior Management

- ❖ **Effective management requires an integration of behavioral, motivational, correctional and rehabilitation techniques**
 - Establish and convey necessary and realistic expectations for behavior
 - Model and Coach expected/desired behavior if necessary

CIIC

- Clear expectations and consequences
- ImmEDIATE consequences
- Inescapable consequences
- Consistent expectations & consequences

Employ “point cards” as a means to inform, remind, structure, document and monitor correctional expectations

IMP POINT CARD

Safety Management Plan / Behavior Management Plan / Special Needs Plan (circle)

Inmate _____ S.O. ID# _____ Date _____

Day Shift		
Level and Stage at Beginning of Shift		
<u>Behavior</u>	<u>Points</u>	<u>Officer's Signature</u>
	2 if performed without prompt 1 if performed after one prompt 0 if not performed as above	
Up for count at door	Comments:	
Bed made at count	Comments:	
Inmate displays proper hygiene (clean body and hair, hair groomed, good oral hygiene)	Comments:	
Inmate remains appropriately dressed, with clothing neat, clean, and worn as designed	Comments:	
Room remains neat with contents organized	Comments:	
Inmate returns to cell when requested (e.g., at end of rec. time or visit)	Comments:	
Inmate displays courtesy towards staff and other inmates (no shouting, loud singing, banging, taunting, threatening)	Comments:	
Intercom is used for only necessary communications	Comments:	
<i>Shift Total</i>		
Level and Stage at End of Shift		
<p><i>* Inmate must obtain at least 14 points during each shift (28 points per day) to move up to next Stage if at Level One</i></p> <p><i>* Inmate must obtain at least 14 points during each Shift (28 points per day) to remain at Level Two</i></p> <p><i>* Inmate must obtain at least 16 points during each Shift (32 points per day) for the days to count towards advancing from Level Two to Level Three</i></p> <p>Failure to obtain necessary points may result in demotion to a lower Level or Stage</p> <p><u>Any behavior that threatens, causes, or is intended to cause Self Harm or Harm to Others will result in no advancement of status for that day and may result in a reduction in Stage or Level</u></p>		

Examples of Specific Strategies to Accommodate CI: Attention

- Ask the person to repeat what you have said in order to confirm that they have heard and understood your directions
- Encourage and assist the person to break down difficult (for them) tasks into groups of a few steps.
- Allow extra time for the task to be done.
- Reduce environmental distractions

Examples of Specific Strategies to Accommodate CI : Memory

- Rules or directions should be explained in small groups or steps, repeating as necessary
- Perform or ask inmate to perform those actions that are called for; persons often remember what they see or do better than what they hear.
- When possible, have the person write down or draw out what they are expected to recall.

Pharmacologic Considerations (1)

- Those with prior TBI often have heightened sensitivity to medication side effects (Silver, 1997)
 - Sedating or anticholinergic medications may lead to increased cognitive impairment in those with TBI (Kim 2002)
 - Conventional antipsychotics may impair cognition for those with TBI (Stanislav 1997)
- The use of one or more mood stabilizers should be considered when affective or behavioral problems do not respond to usual treatments
 - When aggression is present (Kim 2002)
 - Lamotrigine associated with more rapid rehabilitative progress (Showalter 2000) and has demonstrated efficacy with both mania and bipolar depression (e.g., Bowden 1999)

Pharmacologic Considerations (2)

- Atypical antipsychotics may prove helpful when there are manic symptoms such as reduced sleep, or paranoid ideation (Kim 2002)
- Risperdone and olanzapine have reduced agitation and aggression in persons with dementia (e.g.Katz 1999)
- SSRIs have proven helpful in reducing aggressive behaviors in those with TBI (Kim 2001) and when agitation accompanys Alzheimer's Disease (Pollock 1997)

Managing Co-Occurring Disorders

- Traditional SA Programs often are not effective for Offenders with CI
 - Recognition and accommodation for CI is essential for effective treatment
 - Cognitive impairment detracts from understanding and processing information resulting
 - Disinhibition and poor impulse control affects compliance and social interaction
 - Reduced cognitive ability has been associated with reduced motivation in SA treatment (Blume 1999)
 - Confrontational approaches used in SA treatment are not well tolerated with higher drop out rates among those with cognitive impairment (Telchner 2002)

What Happens When it is Time for Release?

Post-Release Planning and Placement

- Emphasis on management through environment (structured support) since remediation (cure) of specific cognitive impairments is usually limited
 - Neurological and Psychiatric Disorders may reduce the individual's capacity for self control and require expanded external controls upon return to the community.
 - Public mental health systems often lack awareness and expertise in management of CI-related disorders
- Coordination with criminal justice system and county adult & aging services
- Dementia Conservatorships

Inmate Release & Re-entry

- Preparation for Release
- 5150 WI
- Professional Responsibility
- Liability Concerns
- Coordination with Probation
- CBO's Bed Placement and Treatment
- After-Care and Follow-up

Challenges to Community Re-entry

- Difficulties with inmate follow through on re-entry plans (e.g., keeping appointments, taking meds)
- Need for assistance to access community-based services
- Difficulties for the impaired in engaging with social networks to assist with re-entry. Aggression, agitation, and other socially unacceptable behaviors associated with CI often has alienated usual support givers (such as family) and caretakers
- Lack of stable & supportive housing. Structured day treatment or residential programs for the CI, while often desirable, are insufficient in number and difficult to gain placement in.
- Lack of Probation and Parole officers with training and experience working with the CI

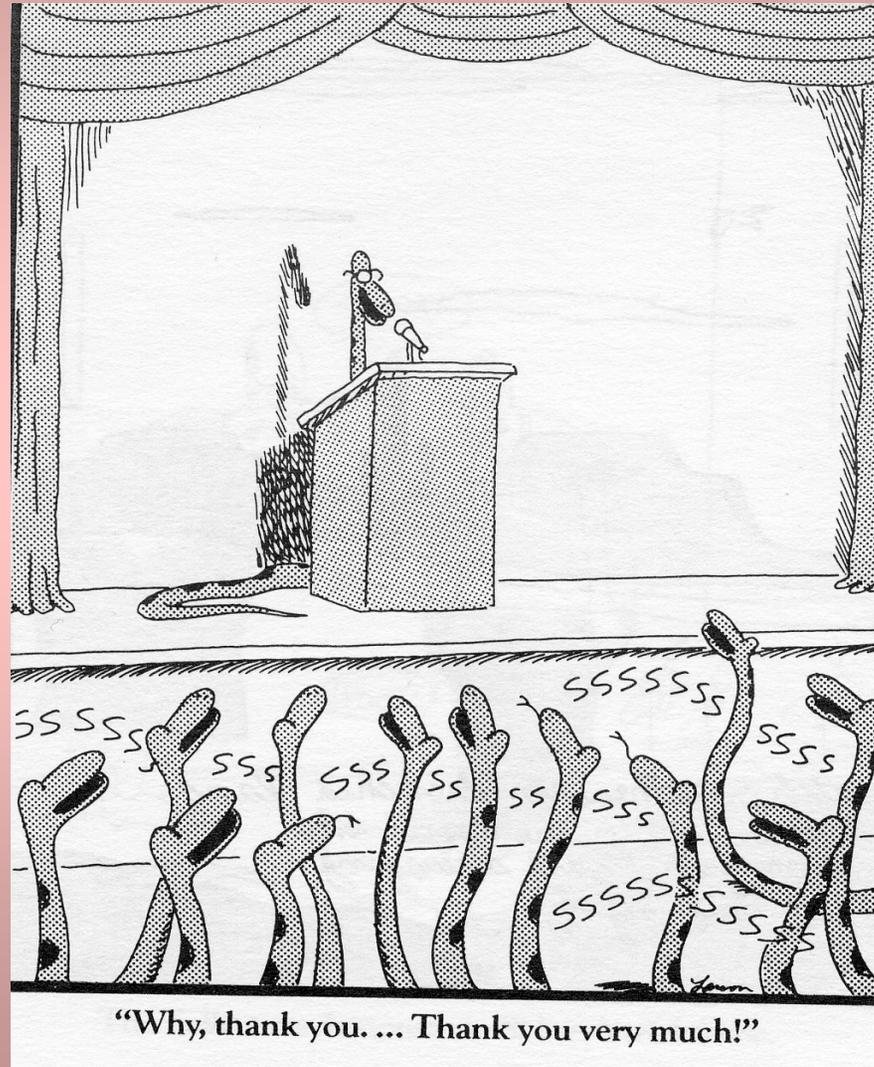
Realistic Standards for Success

- ❖ The importance of realistic definitions of success both during and after incarceration
- ❖ The case of “Jane Seaside”

Questions?



The End





Pragmatic Considerations in Identification and Management of Cognitively Impaired Inmates

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