Adults with executive dysfunction: challenges and opportunities

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Objectives

1. What?
   1. Define the term “executive dysfunction” as it applies to clinical presentations of affected individuals

2. So what?
   1. Describe manifestations of executive dysfunction that may interfere with quality of life

3. Now what?
   1. List potential strategies for management of executive dysfunction

4. Then what?
   1. What should we be doing for the future to better support individuals with executive dysfunction?
Name this locally well-known destination restaurant
Examples

- How easy is it to find a psychiatric hospital willing to admit a person exhibiting behavioral and psychological symptoms of dementia (BPSD)?

  A. Easy – just a phone call away
  B. Somewhat difficult – might take several phone calls but can usually find a bed
  C. Nearly impossible
• How easy is it to find a psychiatric hospital willing to admit a person exhibiting behavioral problems associated with a developmental disability?

A. Easy – just a phone call away

B. Somewhat difficult – might take several phone calls but can usually find a bed

C. Nearly impossible
NEW YORK (AP) — Nursing homes are increasingly evicting their most challenging residents, advocates for the aged and disabled say, testing protections for some of society’s most vulnerable.

Those targeted for eviction are frequently poor and suffering from dementia, according to residents’ allies. They often put up little fight, their families unsure what to do. Removing them makes room for less labor-intensive and more profitable patients, critics of the tactic say, noting it can be shattering.
Admission of people with dementia to psychiatric hospitals in Japan: factors that can shorten their hospitalizations

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Abstract

Aim: People exhibiting serious behavioural and psychological symptoms of dementia are usually voluntarily or involuntarily committed to psychiatric hospitals for treatment. In Japan, the average hospital stay for individuals with dementia is about 2 years. Ideally, individuals should be discharged once their symptoms have subsided. However, we see cases in Japan where individuals remain institutionalized long after behavioural and psychological symptoms of dementia are no longer apparent. This study will attempt to identify factors contributing to shorter stays in psychiatric hospitals for dementia patients.

Methods: Questionnaires consisting of 17 items were mailed to 121 psychiatric hospitals with dementia treatment wards in western Japan.

Results: Out of 121 hospitals that received the questionnaires, 45 hospitals returned them. The total number of new patient admissions at all 45 hospitals during the month of August 2014 was 1428, including 384 dementia patients (26.8%). The average length of stay in the dementia wards in August 2014 was 482.7 days. Our findings revealed that the rate of discharge after 2 months was 35.4% for the dementia wards. In addition, we found that the average stay in hospitals charging or planning to charge the rehabilitation fee to dementia patients was significantly shorter than in hospitals not charging the rehabilitation fee.

Conclusion: In Japan, dementia patients account for over 25% of new admissions to psychiatric hospitals with dementia wards. The average length of stay in a psychiatric hospital dementia ward is more than 1 year. A discharge after fewer than 2 months is exceedingly rare for those in a dementia ward compared with dementia patients in other wards. If institutions focus on rehabilitation, it may be possible to shorten the stay of dementia patients in psychiatric hospitals.

Key words: dementia, dementia ward, length of stay in psychiatric hospital, psychiatric hospitals, rehabilitation for people with dementia.
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Case presentation

Sarah Pendleton
- 58-year-old divorced woman
- History from the family
Case presentation

George Hammond
- 72-year-old married man
- History from the family
Harlow’s 1848 publication described the formerly diligent Phineas Gage as “irreverent, indulging at times in the grossest profanity, manifesting but little deference for his fellows, impatient of restraint or advice when it conflicts with his desires, obstinate, yet capricious and vacillating, devising many plans of future operation, which are no sooner arranged than they are abandoned in turn for others.”
Executive functioning

Predominately frontal lobe functions

- Organizing
- Sequencing
- Planning
- Abstracting
- Cognitive flexibility
- Problem-solving
- Self monitoring
Why do most 16-year-olds drive like they’re missing a part of their brain?

BECAUSE THEY ARE.

Even bright, mature teenagers sometimes do things that are "stupid." But when that happens, it’s not really their fault. It’s because their brain hasn’t finished developing. The underdeveloped area is called the dorsal lateral prefrontal cortex. It plays a critical role in decision making, problem solving and understanding future consequences of today’s actions. Problem is, it won’t be fully mature until they’re into their 30s.

It’s one reason 16-year-old drivers have crash rates three times higher than 17-year-olds and five times higher than 18-year-olds. Car crashes injure about 300,000 teens a year. And kill nearly 6,000. Is there a way for teens to get their driving experience more safely — giving their brains time to mature as completely as their bodies? Allstate thinks so.

Graduated Driver Licensing (GDL) laws are one approach that’s been proven effective at reducing teen crashes. These laws restrict the more dangerous kinds of driving teens do, such as nighttime driving and driving with teen passengers. Since North Carolina implemented one of the most comprehensive GDL laws in the country, it has seen a 25% decline in crashes involving 16-year-olds.

To find out what the GDL laws are in your state, visit Allstate.com/teen. Help enforce them — and if they aren’t strong enough, ask your legislator to strengthen them.

Let’s help our teenagers not misfire on tomorrow just because they have something missing today.

It’s time to make the world a safer place to drive. That’s Allstate’s stand.
American Family
“Teen Safe” Program
Executive dysfunction

- Impairment of executive function
- Many causes
  - Dementia (especially frontotemporal dementia)
  - Substance use
  - Head trauma
  - Developmental disabilities
  - Mania
  - ADHD
  - Psychosis
- Interferes with
  - Decision-making
  - Planning for the future
  - Anticipating consequences of actions
- Most noticeable initially with more complicated daily tasks
  - Finances
  - Driving
  - Job skills
  - Subtle interpersonal interactions
Executive Dysfunction: a history lesson

History of an elusive disorder
- “New disease entity”: 1967
- “A new clinical syndrome”: 1993
- “Executive Dysfunction Syndrome”: Lyketsos
- Russian expression:
  - “A head without the czar inside.”
Frontotemporal Dementia

A neurodegenerative disorder affecting the frontal and/or temporal lobes of the brain that presents with predominantly behavioral or language disturbance, with relative preservation of memory and spatial skills early in the illness.

The behavioral disturbance is due to executive dysfunction.
Executive function testing

- The Awareness of Social Interference Test (TASIT)
  - Video vignettes
  - Patients with executive dysfunction had marked impairment in recognizing sarcasm and negative emotion
  - Differentiates them from normal controls and AD patients
Unique things about FTD

Leads to long period of diagnostic uncertainty
- May be misdiagnosed as depression or other psychiatric problem
- Or attributed to willful, deliberate misbehavior
Specific personality changes seen in FTD

- Stereotyped obsessional behavior: hoarding, exaggerated interest in gambling, puzzles, etc.
- Appetite changes: preference for same meal repeatedly, “sweet tooth”
- Sexual behavior: libido increase or decrease, unusual sexual interests
Specific personality changes seen in FTD

1. **Disinhibition**: uncharacteristic, often crude, comments, jokes, gestures

2. **Lack of insight**: inability to recognize their own behavioral changes

3. **Lack of empathy**: inability to “read” or care about the emotions of others
   - 1. Similar to autism, Asberger’s syndrome
Examples of obsessional behavior

- Collecting things
  - Inflatable dinghies, surfboards
  - Nails
  - Unmentionables
- Checking strangers’ cars suspensions
Screening for executive dysfunction

1. Clock drawing
2. FAS: list as many words beginning with the letter (F) (A) (S) in one minute as possible
3. Trail making test
Freud’s theory of basic drives

EROS

- Libido
- Building up
- Creative

THANATOS

- Death
- Tearing down
- Destructive
Freud noted that around age 50, “the elasticity of the mental process on which treatment depends is, as a rule, lacking,” adding, “Old people are no longer educable.” (Never mind that he continued working until he died at 83.)
The Dementia That Is Often Misdiagnosed

Frontotemporal dementia, or FTD, can be particularly hard on loved ones

By Kevin Burger  April 9, 2018

Deborah and Todd Dolen
Credit: Courtesy of Deborah Dolen

https://www.nextavenue.org/ftd-dementia-misdiagnosed/
When Things Started Changing

But in 2006, 13 years after they wed, Dolan felt her husband — then 59 — was losing interest in her. He ended his habit of bringing her flowers. He didn’t invite her to his company Christmas party. Moody and distracted, he stopped playing his guitar.

“Todd had been sober for years, but I wondered if he was secretly drinking or having an affair,” said Dolan, who lives in West Des Moines, Iowa. “When I confronted him, he shrugged.”

Despite his indifference, Dolan was unwilling to give up on her marriage or her husband, who had spent much of his career in automobile sales and dealership management. Her search for what was wrong took years of sleuthing and sent her down repeated dead ends, with multiple misdiagnoses.

Although Dolan was a geriatric care manager with a master’s in gerontology, she did not detect a form of dementia that was changing her own spouse in front of her eyes.

“I was active with the Alzheimer’s Association facilitating support groups. I moderated panels at state conventions,” she said. “I was not seeing those symptoms in Todd.”
Seeking a Diagnosis

In 2008, she put her professional advocacy skills to work, accompanying her husband to a series of doctor appointments. He was first diagnosed with hyperthyroidism and then depression.

It took three more years for his disease to be confirmed.

Todd Dolan was ultimately found to suffer from frontotemporal dementia or degeneration (FTD), a form of dementia centered in the brain’s frontal lobe.

Unlike Alzheimer’s disease, which attacks the brain’s memory centers, FTD causes atrophy in the part of the brain that controls judgment, behavior and executive function.

People with FTD are often described as apathetic, lacking in empathy and exhibiting an impaired social filter.

“They lose their insight, so they could be like a 3-year-old, blurt[ing] out, ‘Your dress is ugly.’ They lose impulse control, so they might just take a candy bar at a store,” said Susan Dickinson, CEO of AFTD, the Association for Frontotemporal Degeneration. “They lose their understanding of what is acceptable. You’ll see people who spend the kids’ college fund on a sports car or fall for a scam.”
Younger Patients Affected by FTD

Dickinson notes that FTD is particularly devastating because it strikes at a young age. FTD is the most common form of dementia in people under 60; they’re often still working and can make illogical decisions about relationships and finances that can destroy their family’s security and disrupt their connection to those dearest to them.

“Most family doctors are still not picking up on it. These people are most often treated for a psychiatric disorder. If someone makes an inappropriate [sexual] advance or shoplifts, you don’t think to take them to a neurologist,” Dickinson said. “On average, it takes three and a half years from when symptoms are noticed until the patient is diagnosed. This gap is tragic.”

A Financial and Emotional Toll

The economic burden of the disease takes a steep toll on the health care system as well as on individuals.

According to a study published in the scientific journal Neurology last fall, the average annual cost associated with FTD is nearly $120,000, close to twice the cost of care for Alzheimer’s patients. Researchers concluded the disparity is attributed to the younger age of onset, which results in “major losses of household income” as those diagnosed — and eventually, their family caregivers — stop working.

“This is a really tough disease on the family. I believe it’s more psychologically stressful than Alzheimer’s, if you can believe it. It burns out caregivers,” said Dr. Michael Rosenbloom, a neurologist and director of the Center for Memory and Aging in St. Paul, Minn.

“Someone with FTD is particularly dependent on a care partner, but they’ve often alienated that person and are single and alone,” Rosenbloom added. “Without a spouse or child to intervene, behaviors go unchecked. It’s easy for these patients to fall through the cracks.”
Dealing with challenging behaviors

Inappropriate comments

– Pink index card in the pocket: “George, you can think it but you can’t say it”

– Female staff pin blank pink index card to front of their clothes, point to it when they approach George, ask him to read his pink card
  – Walk away if any outbursts (to not reinforce them)

– From *Frontotemporal Dementia Syndromes*, John Hodges, ed., 2007
Pink card therapy for sexually inappropriate behavior
First pants, THEN your shoes
Clock Drawing Test—2:45

- Normal
- Mild Cognitive Impairment
- Moderate Cognitive Impairment
- Severe Cognitive Impairment
Modern prosthetics
The “prosthetic frontal lobe”
People with executive dysfunction depend on

Other people
+

The environment

For their executive function
Please pardon my language/behavior.

I have a brain disease called frontotemporal degeneration. Thank you for your patience.

www.theaftd.org // 866.507.7222—HelpLine
Please pardon my companion’s language/behavior.

He/She has a brain disease called frontotemporal degeneration, which makes it difficult to control comments and actions.

Thank you for your understanding.
Examples of treatment programs
Snoezelen Room
The Bus Stop to Nowhere

The Bridges by EPOCH at Hingham in Massachusetts built a 'bus stop to nowhere' in the courtyard of their memory care community. The idea serves as an example of person-centered, life enrichment programming aimed at improving the quality of life for assisted living residents living with dementia.
Name this locally well-known destination restaurant
Residents of Hogeweyk, a village located in Weesp, Netherlands, lead a normal life. They go to the grocery store, complain about the weather, and enjoy a weekly game of bingo. But there's one thing that sets the 152 residents apart from the general public: Everyone has an advanced form of dementia.

Hogeweyk is a nursing home disguised to look like the outside world. It helps people with mild to severe dementia suffer a little bit less in their remaining years, facility manager Eloy van Hal told Business Insider. He said it preserves people's sense of autonomy.

The village is comprised of 23 houses, each with six to seven residents and a caregiver who cooks, takes people to social events, helps them go grocery shopping at the village market, and watches over them to ensure their safety.
Hogeweyk caregivers and house attendants use an in-house currency to help their residents buy groceries at a fully-functional supermarket.
"For us it's important that we support them to experience a normal day, a day they like and a day they recognize," van Hal said.
Staff at Hogeweyk are trained to focus on highlighting what residents can do, not what they can't.
Valuable local resources

• Eastern Nebraska Office on Aging (ENOA)

• Driving assessment programs
  – Immanuel
  – Madonna

• Geriatric assessment programs
  – UNMC Geriatric Medicine
  – Methodist
  – VA
Resources

• The Association for Frontotemporal Degeneration (theaftd.org)
  • Online resources
  • Support groups
Alzheimer’s Association