Post Stroke Anxiety and Depression

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• While about 11% of the U.S. non-disabled population is moderately or severely depressed at any given time, research shows that about 20% - 30% of people with long-term disabilities have a depressive condition.
NIMH-Stroke

• Of the 600,000 American men and women who experience a first or recurrent stroke each year an estimated 10 to 27% experience major depression.

• An additional 15 to 40 percent experience some symptoms of depression within two months following a stroke.

• Among the factors that affect the likelihood and severity of depression following a stroke are
  – the location of the brain lesion,
  – previous or family history of depression, and
  – pre-stroke social functioning.

• Stroke survivors who are also depressed, particularly those with major depressive disorder, may be less compliant with rehabilitation, more irritable, and may experience personality change.
Incidence-Lezak (2012)

- Depression rates between 11%-28%
- More often in women as disability severity increased
Contributing Factors to Emotional Response

- Drug effects & side effects
  - Antispasmodic
  - Seizure
  - Pain
  - Sleep
- Pain Interference
- Fatigue
- Sensory-motor changes- contributing to fears, sense of loss
- Cognitive changes
Risk of Developing Post Stroke Depression—Prospective Study (Karger & Basel, 2013)

- Risk: 20%-65% depending on population and depression definition
- Depression in this study:
  - 3 months post- 28.1%
  - Study drop outs: more physically limited, more care dependent, more speech and language problems
  - Not related to gender, age, education and living situation
  - Not associated with left hemispheric stroke
Risk of Developing Post Stroke Depression-Prospective Study (Karger & Basel, 2013)

• Increased in patients with more functional and cognitive impairment, greater ADL dependency, speech and language impairment, apraxia and less measured quality of life
• During convalescent phase: reduced mobility and cognitive impairment
• Use of antidepressants early might be related to less depression at 3 months post stroke
Incidence of Post Stroke Depression

• Mild, moderate or severe depressive symptoms were reported by 27% of the participants.

• Post stroke depression was uniquely associated with post-stroke fatigue, sleep latency and sleep disturbance.

• Patients with PSD also reported slightly more bodily pain. Stroke type, stroke location, and the sociodemographic characteristics examined were unrelated to PSD. (Kouwenhoven, Gay and Bakken 2013 in press).
Factors Influencing Incidence of Depression

• High self-efficacy, no history of pre-stroke depression, and high levels of perceived social support were the strongest protective factors for depressive symptoms.

• The influence of cognitive functioning on depressive symptoms was fully mediated by general self-efficacy, and general self-efficacy was a stronger predictor than stroke-specific self-efficacy.

• Neither ADL nor age significantly predicted depressive symptoms.

(Lewin, Jobjes, Werheid, 2013)
Psychosocial problems associated with depression at 18 months post stroke
De Ryck et al 2013

- Depression was diagnosed in 28% of the patients.
- Patients with PSD were more dependent for activities of daily living and displayed more physical and cognitive impairment than patients without PSD.
- The risk to become depressed decreased when the patient's activities increased
- Patients with persistent relational problems since stroke onset had approximately four and a half times greater risk of becoming depressed than patients without
Depression Increases Post Stroke Hospitalization: Husaini et al 2013

- Literature review on depression
  - Depression associated with longer institutionalization and poorer rehabilitation outcomes
  - Correlated with increased suicidal ideation and stroke mortality
  - Increases risk of stroke
  - Increases health care costs
  - Medical costs 54% higher for depressed patients
Depression Increases Post Stroke Hospitalization: Husaini et al 2013

- In current analysis, depression and anxiety among Tennessee stroke patients is associated with a 63% increase in the annual hospital care cost.
- Higher cost for depressed stroke patients, especially among women.
- Average healthcare cost among blacks compared to whites were higher regardless of whether the stroke was hemorrhagic or ischemic.
- These differences suggest that blacks with chronic conditions may seek medical services later in the progression of their disease and that this late entry to care may require more services and longer hospitalization, noted in their data (16 days for black patients compared to 12 days for white patients).
Depression Increases Post Stroke Hospitalization: Husaini et al 2013

• Previous studies suggest that black males are more likely to drop out of behavioral and pharmacological therapies which in turn leads to more complications and readmissions (readmissions are higher among blacks).

• Lower costs for women may be related to finding that, in general, women seek professional help earlier on in the development of their illness compared to men.
Reporting to PCP

- 37% of older stroke survivors reported depression to their PCP
- Identifying symptoms of depression and attributing the cause to the stroke was related to telling their PCP (Klinedinst, Clark and Dunbar, 2013 in press)
Impact of Caregiver Depression

• Forty-one percent of caregivers experienced prominent depressive symptoms after their family member's stroke. Higher depression severity in caregivers was associated with caring for a man, and having worse health and poor family functioning. (Epstein-Lubow, Beevers, Bishop, and Miller 2009)
Caregiver Impact

- Rochette et al (2007)
  - Decline in personal relationships
  - Decreased employment
  - Decreased recreation

- Grant et al (2001)
  - Social support best predictor of caregiver satisfaction with life
Other Emotional Reactions

• Apathy: 22.5% incidence within 10 days post CVA
  – Half also showed depression
  – Possibly related to serotonergic deficits

• Positive reactions
  – Improved health awareness
  – Personal growth
  – Closer relations
Depression associated with sense of loss

Anxiety associated with threat or fear
Common Fears Among Survivors

- Recurrent stroke
- Falling while away from home and being stranded
- Financial struggles
- Being a burden
- Physical vulnerabilities
- Being abandoned

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Anxiety:
Incidence facts: Caplan 2010

- Less common than depression
- Likely co-occurring with depression
- Together can delay recovery from depression and compromise resumption of social participation
- Anxiety alone did not have same disabling impact
Incidence

Barker-Collo (2007) - incidence at 3 months

- 21% Anxiety
- 22% Depression
- Left Hemisphere CVA-associated with anxiety
Incidence

Anstrom 1996-longitudinal study

- 28% Generalized Anxiety Disorder
  - 1 year post- 31%
  - 2 years post- 25%
  - 3 years post- 19%

- More than half had comorbid depression
Research on Localization Effects: Tang et al 2013

- Pontine infarcts may play a role in the development of PSA.
- Acute caudate infarcts remained an independent predictor of post stroke fatigue.
- The post stroke fatigue included more females, had higher depression scores, and a higher number of acute infarcts.
- Post stroke fatigue patients were more likely to have acute infarcts at the basal ganglia.
Lezak (2012)

- **Left MCA:**
  - Depression reflects awareness of deficits

- **Right MCA:**
  - Awareness of deficits often diminished or absent.
  - Secondary effects of diminished self awareness and social insensitivity
  - More likely to hold unrealistic expectations or hold previous expectations w/o taking limitations into consideration
  - Depression more slowly to develop but then more chronic
Bushnell et al (2014)

- Lower QOL ratings for women
- More impairment in ADL’s at 3 months post CVA
- Increase in social withdrawal, emotional distress, health issues, financial strain
Common Changes Impacting Caregiver and Survivor of CVA

Cognitive changes
   Memory, judgment
   Awareness

Role Changes
   Sharing home and family responsibilities
   Financial assistance
   Intimacy
Caregiver Personal Challenges

Physical burdens
- Assisting with transfers
- Pushing wheelchairs
- Monitoring ambulation

Emotional Strain
- Characterological changes in survivor
- Behavioral changes in survivor
Caregiver Adjustment Factors

- **Physical challenges**
  - Health problems of the family member
  - Ability to help with transfers, monitor ambulation

- **Emotional challenges**
  - Adjusting to characterological and personality changes of loved ones
  - Adjusting to cognitive changes
  - Adjusting to role changes
Caregiver Concerns

• Inclined to have greater difficulty adjusting to the cognitive-behavioral changes versus physical challenges
• Caregiving associated with
  – Depression, anxiety, frustration, social isolation
• Can result in reduction in personal relationships, employment and creation
• Presence of a support network as a strong predictor of caregiver satisfaction with life
• Anger at individual for not modifying at-risk behaviors
• Fearing they have provoked the stroke with stress/tension
Caregivers are less distressed by difficult behaviors if they attribute the behaviors to the CVA and outside of the control of the individual.
Sexuality

- Sexual inactivity increased from 11% to 64% in men; 29% to 54% in women after stroke
- Decline not associated with age, depression or level of disability
- Causes:
  - Physiological dysfunction
  - Reduced sensory or motor functions
  - Medication side effects
  - Loss of self esteem
  - Decreased desire
  - Communication and cognitive deficits
  - Fear of another stroke
TREATMENT RECOMMENDATIONS
Treatment

• Education on effects of CVA, recovery process
• Building and accessing support network of survivor and caregiver
• Assessment of emotional and behavior functioning
• Psychotherapy (Cognitive Behavior Therapy, Relaxation training)
• Medication options
Psychotherapy Focus

• Addressing fears through education, environmental design, accommodations
• Recognizing catastrophic thinking and impact
• Goal Focus
• Training in alternative response to fears & threats
Counseling Focus with Caregiver

- Caregiver focus
  - Education on CVA effects
  - Understanding and working with cognitive changes
  - Understanding and managing difficult behaviors
    - Recognize common triggers (frustration, overstimulation, fatigue)
    - Boundaries, expectations
  - Self care
    - Exercise
    - Social participation
    - Delegation and respite
4 Suggested Value Changes

• Valuing strengths and broader choices
• Subordinating physique to kindness, effort, cooperation, wisdom, etc.
• Containing disability spread effects
• Avoiding comparative thinking and valuing asset values
References

References


