Stroke Rehabilitation Issues: Depression and Fatigue
Background

• Post-stroke depression (PSD) occurs in one-third of stroke survivors
• PSD can occur at any point within 5 years of stroke
• PSD negatively affects rehabilitation, functional recovery, and quality of life
• Identifying PSD and risk factors for development of PSD can improve outcomes
In a recent review of PSD outcomes, Babkair (2017) found that stroke severity, physical disability and functional dependency are the most common risk factors for development of depression following stroke.

The author recommended that nurses on stroke units can play an important role in identifying patients at risk for PSD through early screening in order to enhance rehabilitation and improve recovery.
• West, Hill, et al. (2010) examined the trajectory of psychological symptoms over the first few months after stroke, in order to better understand the longer term impact of PSD on physical functional recovery.

• They concluded that while assessment of psychological symptoms typically occurs during the first few weeks after stroke, repeat assessments over time are needed, as persistent mood symptoms in the first 26 weeks are associated with substantially poorer physical function outcomes at one year post-stroke.
The Role of Individual Patient Characteristics

• Premorbid personality factors predict risk for PSD.

• High self-efficacy, the confidence in one’s ability to cope with life’s challenges, is a personality trait that is a protective factor for depressive symptoms after stroke (Lewin, et al., 2013). Individuals with low perceived self-efficacy may be at greater risk of development of PSD.

• Perceived social support is another important predictor of post-stroke depression.
• The perception of high level of social support (the presence of a social relationship which is perceived as helpful by the patient) is a protective factor for depressive symptoms after stroke (Lewin A., et al., 2013).

• Upon discharge home from rehab, stroke survivors encounter challenges that can put them at greater risk of developing depression.
• They may experience decreased self-confidence, feel overwhelmed and isolated by limitations, or feel like a burden to others (Ostwald, S.K., et al., 2008).
• Psychological counseling, stroke support groups, continued outpatient rehab, or home health can help facilitate adjustment after discharge from inpatient hospitalization.

• Patients with high and low depression scores receiving outpatient stroke rehabilitation use different coping strategies and problem solving skills (Visser et al., 2015).

• Patients with higher depression used more emotion-focused coping strategies, such as avoidance behaviors.

• Those with lower depression scores used active coping strategies focused on finding solutions to specific problems.

• Coping strategy and problem solving orientation were both related to patients’ perceived health-related quality of life (HRQOL).

• These findings suggest that training patients in problem solving and coping skills during outpatient rehab may be beneficial in improving both HRQOL and symptoms of depression.

Post-Stroke Fatigue

• Fatigue is a common symptom after stroke and is likely to persist over the long-term (Duncan et al., 2012).
• Fatigue affects younger stroke survivors as well as older individuals. This is an important factor to address as in younger individuals, fatigue can have negative consequences for daily life such as caring for children or returning to work.
• Fatigue has also been associated with depression after stroke, so identifying and treating depression may help decrease fatigue, although the directionality of the relationship is unclear.

The Nottingham Fatigue After Stroke (NotFAST) study examined factors in stroke survivors without depression in order to better understand the independent association between fatigue and outcomes.

Fifty-one percent of stroke survivors studied reported fatigue six months post-stroke.

Fatigue was associated with reduced independence of daily living, and may negatively affect participation in rehabilitation.

The authors recommended development of appropriate interventions to manage fatigue.

• Turner-Stokes and Hassan (2002) suggested that treatment of PSD results in improved functional recovery and rehabilitation outcome, based on a review of hospital-based studies. The authors recommended use of an integrated care plan (ICP) that might include cognitive-behavioral therapy as well as antidepressant treatment of post-stroke depression in order to improve functional recovery after stroke.

• Gravin et al. (2011) also recommended an integrated approach to treating PSD in a community based rehabilitation setting.

• The authors recommended that clinicians incorporate a client-centered approach to rehabilitation, focused on activities that have intrinsic meaning for the individual, as well as involvement of caregivers as “partners” in the rehab process.

• Similarly, Kootker and her colleagues (2016) evaluated the effectiveness of individually tailored cognitive-behavioral therapy (CBT) for reducing depressive symptoms after stroke.

• The authors hypothesized that the CBT group would show a greater decrease in depressive symptoms compared to a group receiving computerized cognitive training (CCT).

• Interestingly, both CBT and CCT were effective in significantly decreasing depression. It may be that cognitive training may improve mood through motivational mechanisms or through cognitive improvement, and authors suggest that future research explore common underlying mechanisms in CBT and CCT to better understand this effect.

Treating Mood Symptoms in Aphasic Patients

- Worrall et al. (2016) addressed whether an early intervention for stroke survivors with aphasia, and their family members, could lead to improved mood and quality of life.
- The authors described a study protocol, Aphasia Action Success Knowledge (Aphasia ASK), to determine whether this intervention is beneficial in improving mood and quality of life at 12 months post stroke in patients attending speech-language rehabilitation.
- Interventions included aphasia and stroke education, basic communication strategies, strategies for managing mood, and strategies for maintaining social network support.
- Results have not yet been published.

Conclusions

• Post-stroke depression (PSD) and fatigue both are common problems following stroke.
• (PSD) occurs in one-third of stroke survivors and has a negative impact on rehabilitation, functional recovery, and quality of life.
• Fatigue is common in half of stroke survivors and can persist over the long-term. Fatigue decreases participation in rehab and independence in daily living.
• Therefore, early identification and management of depression and fatigue can improve functional outcomes in stroke survivors both during and post-rehabilitation.
• Training patients in problem solving skills and coping strategies can decrease depression and improve perceived quality of life.
• Interventions to manage fatigue can help improve participation in rehab and in daily living activities upon discharge home.
• Recommendations for treatment of PSD include integrated plans of care within the treatment team, client-centered approaches to treatment, and involvement of caregivers as partners in the rehabilitation process.