Female Caregivers Ask Questions in the First Year of Caring

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Female Caregivers Ask Questions in the First Year of Caring

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Methods to Improve Emergency Stroke Response To Post-Cathodal Surgical Stroke Patients.

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Introduction: Primary Stroke Centers often organize “teams” to respond emergently to patients with acute stroke symptoms while hospitalized. This study’s aim was to determine accuracy of this process in identifying these patients in our community-based hospital - particularly in high-risk – post-cathodal surgical stroke patients. Methods: A retrospective chart review was performed on all records yielding a log of Stroke Response Team (SRT) activity from 01/ 2005 -12/ 2006. Medical records were reviewed to confirm stroke diagnosis. This log was compared to our Society of Thoracic Surgeons (STS) database for post-cathodal surgical strokes for the same time period. The data were analyzed to assess the efficacy of the SRT in identifying and providing care to these patients. Results: The SRT responded to 59 calls in the study period. Of these, 22 of 49 eligible records had confirmed stroke diagnoses, 5 had TIA and 22 had no stroke. Admitting diagnoses for the group were: Non-surgical cardiac: 27; surgical cardiac: 3; neurological: 10; other: 9. The STS data for the same period reflected 59 confirmed strokes in post-cathodal surgical patients alone. Only one patient with stroke diagnosis was common to both logs. Conclusions: There is significant need for a SRT response system for hospitalized patients. A total of 60 strokes were confirmed over 2 years. Our process poorly identified post-cathodal surgical strokes. Factors contributing to this problem included: attending surgeon rejection of the SRT process; difficult nursing neurological assessment in ventilated patients and lack of knowledge regarding feasibility of IA IIA in these patients. Steps taken to improve SRT access for these patients were: nursing and physician education on safety of IA IIA in the post-cathodal period and implementation of “sedation vacations” every four hours for ventilator-dependent patients to strengthen nursing neurological assessment. Literature review identified other processes for prevention of post-cathodal surgical stroke including: aggressive peri-operative management of atrial fibrillation and maintenance of peri-operative blood pressure to within 10 mm Hg of baseline to sustain cerebral perfusion. Standardized order sets were modified to reflect these changes and nurses and physicians were educated regarding both practices. As of 7/31/07, 19 SRT incidents were initiated on post-cathodal surgical patients. In conclusion, SRT process provided an opportunity to prevent an embolic event, particularly in post-cathodal surgical patients, with education and support of nursing and medical staff.

Doublet Stimulation Maximizes Force Output in Young and Older Thenar Muscle.

Barbara M Doucet, The Univ of Texas Med Branch Galveston, Galveston, TX; Lisa Griffin; The Univ of Texas at Austin, Austin, TX

Introduction: Neuromuscular electrical stimulation (NMES) is an effective and commonly used modality for the recovery of motor function in hemiplegic musculature; however, NMES can impart rapid fatigue and disruption patterns that maximize force output and delay the onset of fatigue remain unclear. Hypothesis: We hypothesized that the use of an increasing stimulation frequency pattern or a stimulation pattern incorporating doublets (two rapid pulses separated by 5 ms) applied midway during a 3-minute fatigue protocol would maximize force output in the thenar; nursing and physicians would delay the onset of fatigue when compared to a constant period and implementation of “sedation vacations” every four hours for ventilator-dependent patients to strengthen nursing neurological assessment. Literature review identified other processes for prevention of post-cathodal surgical stroke including: aggressive peri-operative management of atrial fibrillation and maintenance of peri-operative blood pressure to within 10 mm Hg of baseline to sustain cerebral perfusion. Standardized order sets were modified to reflect these changes and nurses and physicians were educated regarding both practices. As of 7/31/07, 19 SRT incidents were initiated on post-cathodal surgical patients. In conclusion, SRT process provided an opportunity to prevent an embolic event, particularly in post-cathodal surgical patients, with education and support of nursing and medical staff.

Methods: Ten young (Avg. age 23.8 ± 2.71 yrs.) and ten older healthy individuals (Avg. age 63.60 ± 12.88 yrs.) were tested with 3 intermittent stimulation patterns applied to the thenar muscle of the right hand on 3 days, each separated by at least 48 hours. 1) A constant 20 Hz pattern; 2) A 3-min pattern consisting of 90s of 20 Hz followed by 90s of a gradual increase from 20 Hz to 40 Hz; and 3) A 3-min pattern consisting of 90s of 20 Hz separated by 5 ms) applied midway during a 3-minute fatigue protocol would maximize force output and delay the onset of fatigue remain unclear. Hypothesis: We hypothesized that the use of an increasing stimulation frequency pattern or a stimulation pattern incorporating doublets (two rapid pulses separated by 5 ms) applied midway during a 3-minute fatigue protocol would maximize force output in the thenar; nursing and physicians would delay the onset of fatigue when compared to a constant period and implementation of “sedation vacations” every four hours for ventilator-dependent patients to strengthen nursing neurological assessment. Literature review identified other processes for prevention of post-cathodal surgical stroke including: aggressive peri-operative management of atrial fibrillation and maintenance of peri-operative blood pressure to within 10 mm Hg of baseline to sustain cerebral perfusion. Standardized order sets were modified to reflect these changes and nurses and physicians were educated regarding both practices. As of 7/31/07, 19 SRT incidents were initiated on post-cathodal surgical patients. In conclusion, SRT process provided an opportunity to prevent an embolic event, particularly in post-cathodal surgical patients, with education and support of nursing and medical staff.

Results: For both groups, significantly higher average forces were recorded during doublet stimulation (yours: 7.7 vs. 7.7; P = 0.036 kN; older, 7.80 ± 1.72 N vs. 7.67 ± 1.72 N; p = 0.001) compared to the 20 Hz and 20–40 Hz patterns (young, 5.99 ± 0.86 N; P = 0.001 and 6.66 ± 0.93 N, P = 0.001 respectively; older, 4.72 ± 0.87 N; P = 0.001 and 5.98 ± 0.52 N, P = 0.001 respectively). Force-time integrals (FTI) were also highest in the doublet pattern (young, 1,333.7 vs. 776.4 mL; older, 1,421.6 ± 115.4 kN.s) compared to the constant and increasing-frequency pattern (young, 1,055.7 ± 1.72 N.s; older, 1,082.2 ± 1.79 N.s and 1,067.9 ± 1.15 kN.s) respectively. FTI and average force output during the doublet pattern was slightly higher in older participants and may reflect slowing of muscle contractile properties and greater fatigue resistance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance. Conclusions: Variable patterns of electrical stimulation were more effective in maximizing force output over time in both a younger and older healthy population. These results suggest that variable stimulation patterns, rather than constant patterns, may facilitate enhanced motor performance.
personal experiences. Theme 2 of validating their caregiving efforts (coherence) and Theme 3 of dealing with role change (system maintenance) also emulated. Other questions were more direct, task-oriented, and looked for a specific answer. Consequently, Themes 4 of asking questions about medical care (system maintenance) evolved. Conclusions: In conclusion, these female caregivers were doing everything in their power to preserve their lives and family system. There was a sense of togetherness, as they reached out to others to gain information in dealing with stroke. Healthcare professionals can use these themes early in the caring experience as topics for supportive educational interventions with caregivers and should consider providing this information via face-to-face or web-based discussions.

Establishing the Validity and Reliability of the State Self-Esteem Scale.

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Introduction: Self-esteem is a feeling of self worth. Positive self-esteem can buffer stress by enhancing the implementation of efficacious coping strategies; poor self-esteem can result in diminishing self-appraisal and creating self-defeating attitudes. While self-esteem could be regarded as a stable trait that predicts future behavior, it could be argued that situational and environmental factors will change it. Self-esteem is a major factor determining recovery, rehabilitation and integration for stroke patients, with longitudinal studies showing it to be a significant predictor of physical, social and psychological functioning. Thus, there is a need for a valid and reliable measure of self-esteem. Although the Chinese version of the State Self-Esteem Scale (SSES) has been used in this population, no study has examined its construct validity and reliability. Methods: Data from 265 Chinese stroke patients before discharge from two rehabilitation hospitals were factor analysed using principal-components analysis (PCA) with oblique rotation. The Kaiser rule and scree test were used to decide the number of components to be retained. An internal consistency analysis of the SSES was also conducted. Pearson’s correlation coefficients were calculated between the SSES and the Geriatric Depression Scale (GDS) to determine convergent validity. Results: The final factor solution comprised a three-factor model with correlated constructs, and accounted for 49.5% of the total variance. The eigenvalue of the three factors were 5.07 (performance self-esteem), 2.34 (appearance self-esteem), and 1.99 (social self-esteem) respectively. The factor loadings for the items showed that they were adequate indicators of their respective factors (p < 0.001). All items except for item 7 (“I am dissatisfied with my weight”) loaded primarily on one of the factors. Cronbach alphas for the SSES subscales ranged from 0.73–0.81. Significant negative correlations were found between the GDS and the SSES subscale scores (<p = 0.31 to 0.55, p < 0.01) indicating that the SSES had acceptable convergent validity. Conclusion: The SSES appears to be a useful measure for assessing state self-esteem in stroke patients. Since the data were obtained from convenience samples, further studies from randomly selected samples are warranted. A confirmatory factor analysis is needed to further test the underlying factor structure and to determine whether the current factor structure required modification.

A Factor Analysis of the National Institute of Health Stroke Scale.

Mary Brethour, Duck-Hee Kang, David E Vance; Univ of Alabama Birmingham, Birmingham, AL

The National Institute of Health Stroke Scale (NIHSS) is a commonly used neurological assessment tool for making treatment decisions and determining outcomes in stroke patients. The purpose of this study was to validate the major subscales of the NIHSS in MR or CT confirmed stroke patients. The NIHSS scores from 60 patients (25 females and 35 males with a mean age 65.70 years) with MR or CT confirmed strokes (63% left, 35% right, and 1% bilateral hemispheric) were used in a factor analysis. For the entire scale, the reliability coefficient was .78 for internal consistency. The principal component extraction yielded communalities values .650 - .850. Two factors emerged: right and left hemispheric strokes, with 48.8% of the total variance, and eigenvalues 5.280 and 2.044. The next 3 factors had eigenvalues > 1; all 5 factors -.74356% of the variance. In the component matrix for left hemispheric strokes, Factor 1, all items except left motor tasks (Sa and Sa), and sensory changes (8) had adequate loading with values >.32. Factor 2, right hemispheric strokes and visual fields, had a loading of .87 hemispheric and .75 visual fields. Conclusion: The NIHSS scale has been used in studies to compare stroke populations. A future study with a longer period of RAGT, compared to other well-known gait training such as body weight-supported treadmill training, will provide a better understanding of efficacy of the novel RAGT.

Effects of Study Participation on Cigarette Smoking.

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Background: It has been reported that participants in clinical trials are more aware of risk factors that may result in lifestyle changes. Cigarette smoking is the most modifiable risk factor for the formation and rupture of intracranial aneurysm (IA). This study examined the impact of the participation in the Familial Intracranial Aneurysm (FIA) study on smoking behavior. Methods: Upon entry into the FIA Study a baseline smoking history was obtained including smoking status, years smoked, and daily number of cigarettes. As part of the follow-up subjects were again surveyed concerning their current smoking status and daily number of cigarettes consumed. The study did not dictate what risk reduction information was given out at the time of study entry. Although risk factor reduction was often discussed with subjects, the only consistent messages regarding smoking cessation for reducing the risk of IA were in the annual participant newsletters. Results A significant reduction in the daily amount of cigarettes smoked was seen in the follow-ups for years 1 through 3. The most significant reduction was between the initial visit and the first yearly follow-up (Table 1). In addition, subjects diagnosed with an IA at entry or during the course of the study were significantly more likely to decrease their cigarette consumption than those who were not diagnosed with an IA (9.4 to 5.1 cigs per day) than those who were not diagnosed with an IA (4.9 to 4.3, p < .001). The other factor that was significantly associated with a change in cigarette usage during the course of the study was the subject’s age at time of study entry. Subjects over the age of 51 years had a greater reduction in the amounts of cigarette smoked per day compared to 51 years or younger (p < .005). Conclusion: Subjects who entered into the FIA study had a significant decrease in the amount of cigarettes consumed between study entry and at the end of their 3-year follow-up. Factors associated with decreased usage of cigarettes were diagnosis of IA and older age.

<table>
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<th>3rd Yearly</th>
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*Significance of change over time.

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