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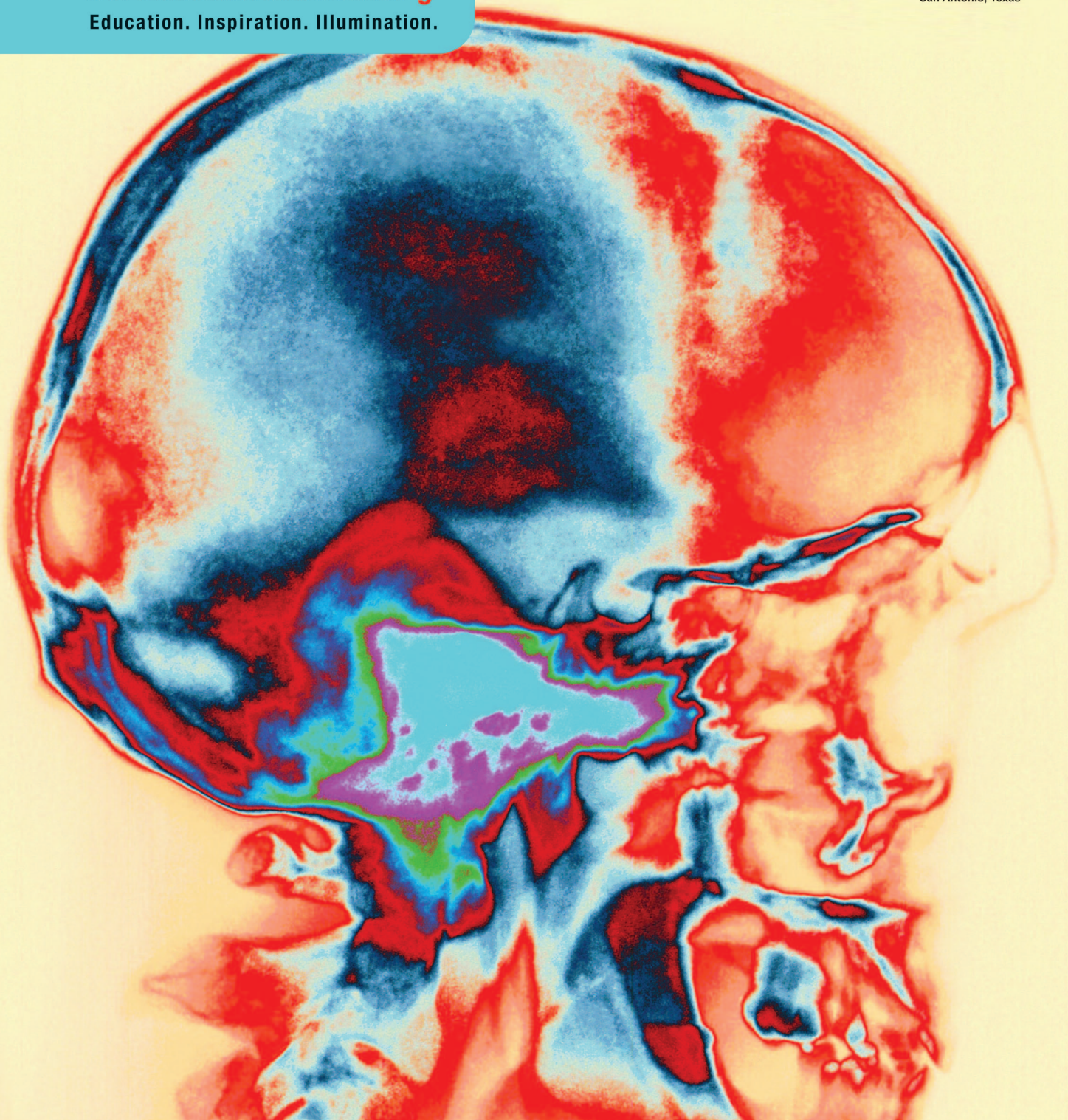
2010

Nursing Symposium: February 23
Sessions: February 24-26
Exhibits: February 24-25
San Antonio, Texas

Abstracts

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NS 10

Six-week Rehabilitation Following Transient Ischemic Attack Improves Cardiac and Physical Function

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Background and Purpose: Transient Ischemic Attacks (TIAs) act as a harbinger of the potential cascade of negative health consequences following brain ischemia. Importantly, more than half of individuals with a first time TIA are estimated to suffer a stroke within 5 years. However, at this time rehabilitation is not common after TIA. Therefore, the objectives were to determine whether a post-TIA rehabilitation program improved cardiac and physical function. **Method:** This single armed pilot intervention program was based on the concept that cardiovascular disease shares numerous risk factors with cerebrovascular disease and thus TIA. We applied the standardized cardiac rehabilitation structure to post-TIA rehabilitation for 1.5 hours, 3x per week, for 6-weeks or a total of 18 visits. All participants began the intervention in the month following their TIA. Each participant engaged in warm up, timed aerobic exercise and resistance training as tolerated for one hour. Exercise was progressed by utilizing increases in speed or elevation to relate to a workload that is subjectively identified as 12-14 ("somewhat hard") on the 6-20 Borg Scale of Perceived Exertion. Individualized education about reducing stroke risk factors was provided by a multidisciplinary team to encourage interaction and social support between the staff and clients. We measured blood pressure (BP), gait velocity (10 meter walk), and endurance (6 minute walk). **Results:** Participants demonstrated improved systolic and diastolic blood pressure during the 6-week intervention. While not statically significant (both p=0.1), the changes in blood pressure were clinically significant; systolic blood pressure reduced by 8.71 mm Hg (±20.48) and diastolic blood pressure reduced by 7.18 mm Hg (±18.84). Importantly, gait speed and endurance statistically significantly improved. In terms of gait speed, participants at the end of the 6-week program completed the 10-meter walk 2.15 seconds faster than at baseline (t(15)=5.153, p<0.001). Participants also walked 248.9 feet further at the end of 6 weeks during the 6 minute walk than at baseline (t(15)= -4.995, p<0.001). **Conclusion:** Previous work indicated that a change in systolic blood pressure of 5 mm Hg leads to a 14% decrease in stroke risk while a 5 mm Hg reduction in diastolic blood pressure leads to a 42% reduction in stroke risk. Using these guidelines, this pilot work was successful in lowering stroke risk for individuals who have had a TIA. Furthermore, improvements in gait speed and endurance may improve community functioning and physical activity, thus leading to reductions in additional stroke risk factors.

NS 11

Improving Risk Factor Modification in Secondary Stroke Prevention

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Background and Purpose: Stroke prevention by risk factor modification is widely endorsed, but inadequately carried out. Adherence to recommendations is sub-optimal, even among patients with prior strokes. Prior stroke is a strong predictor of recurrent stroke, and risk factor modification for secondary prevention is vital. We sought to encourage and monitor adherence to risk modification regimens among patients at a community-based Primary Stroke Center. **Patients/Methods:** Patients presenting with non-disabling ischemic stroke or TIA were enrolled after informed consent was obtained. Our protocol was adapted from UCLA's PROTECT program. It included in-hospital initiation of indicated medications along with counseling regarding diet, exercise, medications, and the importance of risk factor control. This regimen was reinforced by follow up phone calls and collaboration with primary care providers, as well as optional outpatient lectures, classes, and clinic visits to a vascular neurologist. Enrollment in the program* is continuing, but we report here our experience to date, as measured by the incidence of recurrent stroke, the use of risk-reducing medications, and clinical-laboratory variables. Statistical analysis was done using Chi-Square for categorical variables and Students t-test for continuous ones. **Results:** Between November of 2007 and June of 2009, a total of 408 patients agreed to participate. Thirty three (8.1%) subsequently withdrew. As of this report, 133 patients have passed the 1-year mark, 311 the 3-month mark, and 349 the 6-week mark. Of 375 individuals, 22 (5.8%) had recurrent strokes. Data regarding adherence to treatment

regimen and clinical/laboratory variables are shown in the Table. As compared with baseline, there were statistically significant improvements for all measures. In most of these, the improvement was maintained to the 1-year mark. **Conclusions:** Our data suggest that a program of systematic outpatient interaction can result in significantly improved and sustained control of stroke risk factors, up to 1-year following an ischemic stroke or TIA. This appears better than other reports have noted. Further follow up and data analysis are needed before a final judgment on our project can be rendered, however. * This program is funded by the Cancer, Cardiovascular Disease and Pulmonary Disease Grants Program at the Colorado Department of Public Health and Environment.

Table: Temporal Course of Risk Factor Modification

Variable:	Baseline	6 Weeks	12 Weeks	52 Weeks
Anti-hypertensive meds ¹	60.7%; 384	*77.9%; 281	*77.2%; 250	*76.4%; 106
Anti-platelet meds ¹	50%; 384	*96.1%; 282	*97.6%; 253	95.4%; 109
Lipid-lowering meds ¹	38.9%; 370	*80.6%; 279	*82.0%; 249	79.8%; 104
Not smoking ¹	75.2%; 403	*87.9%; 289	*90.0%; 254	*85.0%; 100
Systolic BP (mmHg) ²	146.7±24.8; 405	*129.0±16.4; 73	*122.0±13.7; 49	*127.5±12.9; 12
Diastolic BP (mmHg) ²	78.3±15.2; 404	*75.5±10.1; 72	*73.2±8.8; 49	76.9±8.6; 12
Glucose (mg%) ²	124.6±55.4;405	*98.6±21.2;116	*107±34.5;69	113.5±38;30
LDL cholesterol (mg%) ²	103.2±35.2; 400	*79.2±30.8; 108	*81.3±31.5; 65	*77.9±29.6; 28
HDL cholesterol (mg%) ²	39.9±11.5; 400	*47.6±14.4; 109	*48.7±14.2; 65	*46.2±11.3; 27

1 = %Yes; # 2 = Average ±SD; # * = P <0.05, compared to baseline.

NS 12

Patterns of Needs During a Stroke Caregiver Intervention Program

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Background and Purpose: Based on the literature and current patient care guidelines for stroke rehabilitation, intervention programs that address stroke family caregiver needs are recommended. The Telephone Assessment and Skill-Building Kit (TASK) is an 8-week program based on individualized assessment of stroke caregiver needs. The purpose of this study was to explore patterns of needs experienced by stroke caregivers receiving the TASK program. **Methods:** Stroke caregivers were enrolled in a small randomized controlled clinical trial to test preliminary efficacy of the TASK program. Telephone sessions took place every week for 8 weeks. At each session, the Caregiver Needs and Concerns Checklist (CNCC) was used to identify and prioritize new needs. Frequencies, percents, and types of needs expressed by a group of 21 stroke caregivers receiving the TASK intervention were analyzed over the 8 sessions. **Results:** Most of the needs reported over the 8 calls related to information about stroke (33.1%) and to managing emotions and behaviors of the survivor (32.0%). Only 16.6% of the needs focused on the caregivers own personal needs, and even fewer related to providing physical (7.6%) and instrumental (10.7%) care for the survivor. Caregivers generally waited until sessions 5 through 8 to begin to focus on taking care of themselves as a caregiver. By the 8th telephone session, 10 (47.6%) of the caregivers in the TASK program were still expressing new needs. **Conclusions:** Information about the warning signs, risk factors, and lifestyle changes following stroke, as well as how to manage emotions and behaviors of the survivor are priority areas for stroke caregiver interventions. The TASK program identifies the 5th session as a potentially important point at which caregivers begin to focus on their own emotional and physical health needs. To adequately address continued needs, the TASK program is being revised to extend beyond 8 sessions for caregivers still expressing needs, particularly in the areas of meeting the emotional and physical health needs of stroke caregivers.