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WOMEN'S EMPLOYMENT, JOB CHARACTERISTICS AND MENTAL HEALTH STATUS. P. O'Campo,\* W. Eaton, and C. Muntaner (Johns Hopkins University, Baltimore, MD 21205).

Evidence that work characteristics are associated with mental health and well-being is growing. Much of this research, however, has been conducted on men. Women may experience different work and nonwork conditions than men. Despite recent gains, women still face discrimination in the workplace in terms of pay, access to power, and promotion. Married or co-habitating women, compared to men, often have a greater share of home responsibilities. All of these factors can affect mental health of women. We analyzed data from the Epidemiologic Catchment Area Study; 961 respondents were from Baltimore and had a full time job between 1981-1994. Our outcomes of interest included indicators of distress (upper tertile of the GHQ), anxiety, and depression. In addition to demographic factors, we obtained information on women's job and home characteristics including job title, job demands and control, pay, whether women were in jobs which required decision making and supervision. We also constructed several indicators of gender inequality by the census categories of occupation and industry. Within occupations, far fewer women were in managerial positions and women received far less pay with an average difference of \$17,000 per year. Results from regression analysis suggest that several workplace factors are significantly associated with adverse mental health outcomes in women. Being involved in policy making at work (OR 0.54, 95%CI: 0.28-1.0), being a professional (OR 0.64;95%CI:0.43-0.96), and working in a large firm (OR 0.28 95% CI: 0.12-0.64) all had protective effects for distress as measured on the GHQ.\*\*

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THE EFFECT OF MASSAGE THERAPY ON SELF-REPORTED ANXIETY, DEPRESSIVE MOOD AND PAIN IN OVARIAN CANCER PATIENTS: INITIAL FINDINGS. S. Lawvere,\* B. Moscato, R. Donahue, and C. Mettlin (University at Buffalo School of Medicine and Biomedical Sciences, Buffalo, NY 14214).

Despite the increasing use of alternative medicine and specifically massage therapy among cancer patients, the efficacy of Massage Therapy (MT) has not been evaluated in a clinical sample of ovarian cancer patients. Previous studies of MT in other samples have demonstrated a reduction in cancer related symptoms. This randomized crossover trial evaluated the effect of MT on self-reported anxiety (Spielberger State Anxiety Inventory), depressive mood (Visual Analogue Mood Scale), and pain (Memorial Pain Assessment Card) among seven hospitalized, white, aged 44 to 75, ovarian cancer patients undergoing chemotherapy at the Roswell Park Cancer Institute, Buffalo, N.Y. Six of the seven women (85.7%) self-reported using some prior form of alternative medicine. Patients were randomized to one of the following sequence groups: 1) First a 30-minute MT treatment followed the next day by a 30-minute rest period, (n=3) or, 2) First the rest period followed the next day by the MT treatment (n=4). The mean percent change in scores from pre to post MT were: anxiety (33% reduction), depressive mood (38% reduction), and pain (9% reduction). These reductions were compared, using a paired t-test, to the corresponding percent changes for the rest period: anxiety (6% reduction), depressive mood (13% reduction), and pain (5% increase).\*\*

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EFFECT OF NUTRIENT INTERVENTION ON BONE MINERAL DENSITY AND BIOMARKERS OF BONE REMODELING. C. Jensen\* and G. Block (University of California, Berkeley, CA 94720).

Calcium and vitamin D can reduce bone loss and osteoporotic fracture risk in post-menopausal women. However few trials have compared different nutrient intervention approaches to minimizing bone loss. This randomized trial was a parallel comparison of the effect of 3 nutrient interventions on bone loss and bone remodeling biomarkers among late-postmenopausal Caucasian women. The data presented are for 83 subjects who completed the 3-year trial. Treatments were: 1) supplemental calcium (1400 mg/d) and vitamin D (400 IU/d); 2) calcium and vitamin D as above plus other bone-active nutrients; and 3) instruction to increase calcium from foods. Groups 1 and 2 consumed >2000 mg/d total calcium; group 3 consumed 1200 mg/d. Serum 25-hydroxyvitamin D concentrations at annual follow-up visits were higher in groups 1 and 2 compared to group 3, with all groups showing increases over time. Spinal bone density was maintained in all groups while decreases were seen at the hip neck, total hip, and whole body. No betweengroup differences were found and loss of bone for each group was less than the 1% per year expected. Each treatment produced a decrease in serum parathyroid hormone concentration at year I with a rebound toward baseline thereafter. Serum osteocalcin and urinary pyridinium crosslinks followed a similar pattern. These biochemical results indicate that intervention produced a transient decrease in the rate of bone remodeling. Lower annual rates of bone loss across years 1 and 2, compared to year 3, support this conclusion.\*\*

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DIETARY PATTERNS AND RISK OF ENDOMETRIAL CANCER IN WESTERN NEW YORK. SE McCann,\* JL Freudenheim, JR Marshall, JE Vena, R Laughlin, JR Brasure, MK Swanson, and S Graham (SUNY Buffalo, Buffalo, NY 14214).

Epidemiologic evidence regarding diet and risk of endometrial cancer has been limited. Diet is a multidimensional behavior possibly not fully expressed in investigations of individual foods or nutrients and disease. We examined the associations of patterns of food use with risk of endometrial cancer among 232 incident, primary histologically confirmed cases of endometrial cancer and 639 controls, frequencymatched for age and county of residence, participants in the Western New York Diet Study (1986-1991). Self-reported frequency of use of 203 foods and beverages during the two years before the interview and data regarding other relevant factors were collected by detailed in-person interviews. Dietary patterns were identified using principal components analysis, and factor scores categorized into low, medium and high. Odds ratios (OR) and 95% confidence intervals (CI) were estimated for each pattern by unconditional logistic regression, adjusting for age, BMI, smoking history, diabetes, parity, energy and nutrients identified as protective in previous analyses of these data (vitamin C, folate, and carotenoids). A 'healthful' pattern was positively associated with intakes of fruits and vegetables, vitamins C and E, and carotenoids. A 'high-fat' pattern was positively associated with intakes of high fat foods, dietary fat, sodium and cholesterol. A 'traditional' pattern was characterized by higher use of canned fruits, cereals, and starchy vegetables, and a 'fast food' pattern by higher use of foods from fast food restaurants.\*\*

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