

Satisfaction with a Quitline-based Smoking Cessation Intervention among Cancer Survivors

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Continued smoking after diagnosis jeopardizes cancer survivors' health and well-being. Quitline-based smoking cessation treatment is convenient, widely available and free, yet the appropriateness of this treatment approach for survivors is not known. We assessed satisfaction among participants in an enhanced quitline intervention as part of a randomized clinical trial assessing feasibility. **Methods:** We recruited cancer survivors through the NCI Community Clinical Oncology Program (CCOP) network within 6 months of treatment who smoked within the last 7 days and randomized them 2:1 to an enhanced quitline-based intervention (brief in-person motivational interviewing counseling session, quitline telephone counseling, 6 weeks of nicotine replacement patches) or usual care. We collected treatment satisfaction data and self-reported smoking status at 12 weeks and confirmed smoking status for reported non-smokers using a semi-quantitative urinary cotinine assessment. **Results:** We enrolled 146 survivors (75% female, 79% non-Hispanic white, mean age = 58 years). At entry, survivors reported smoking an average of 15 cigarettes per day; 77% reported smoking within 30 minutes of awakening. Assessments were completed by 63% of the quitline group and 75% of the usual care group at 12 weeks ($P > 0.05$). 83% of participants in the intervention arm ($n = 98$) completed at least one quitline call, and 18% completed ≥ 3 calls. Use of nicotine patches was 61% in the quitline group and 42% in usual care. Quitline participants were generally satisfied with both the in-person counseling (mean satisfaction score = 4.2 (SD = 1.0), on 1–5 scale) and the quitline telephone counseling (mean satisfaction score = 3.4 (SD = 1.3)). 87% would recommend the quitline program to others. Self-reported 7-day point prevalence cessation was 26% in the quitline group and 17% in the usual care arm ($P = 0.33$). **Conclusions:** An enhanced quitline smoking cessation intervention appears to be acceptable to cancer survivors and to result in a trend towards slightly higher cessation at 12 weeks. Increased efforts to retain survivors in treatment and encourage the use of nicotine replacement may be necessary to increase the impact of this intervention approach.

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Weight Lifting and Physical Function among Breast Cancer Survivors: A Post Hoc Analysis of a Randomized Controlled Trial

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Breast cancer survivors may experience deterioration of physical function. This is important because poor physical function may be associated with premature mortality, injurious falls, bone fracture, and disability. We conducted a post hoc analysis

to explore the potential efficacy of slowly-progressive weight lifting to reduce the incidence of physical function deterioration among breast cancer survivors. **Methods:** Between October 2005 and August 2008, we conducted a single-blind, 12-month, randomized controlled trial of twice-weekly slowly-progressive weight lifting or standard care among 295 non-metastatic breast cancer survivors. In this post hoc analysis of data from the Physical Activity and Lymphedema Trial, we examined incident deterioration of physical function after 12-months, defined as a ≥ 10 -point decline in the physical function subscale of the Medical Outcomes Short-Form 36-item (SF-36) questionnaire. We calculated the relative risk (RR) and 95% confidence interval (95% CI) using an unadjusted generalized linear model. **Results:** Study participants were 56 ± 9 years old (range 36–80). Median adherence to the weight lifting protocol was 81% over 12-months. As compared with the control group, the weight lifting group had greater improvements in upper- and lower-body strength at 12-months (both comparisons $P < 0.001$). The proportion of participants who experienced incident physical function deterioration after 12-months was 16.3% (24/147) in the control group and 8.1% (12/148) in the weight lifting group [RR: 0.49 (95% CI, 0.25–0.96); $P = 0.04$]. No serious or unexpected adverse events occurred that were related to weight lifting. **Conclusion:** Slowly-progressive weight lifting compared to standard care reduced the incidence of physical function deterioration among breast cancer survivors. These data are hypothesis generating. Future studies should directly compare the efficacy of weight lifting to other modalities of exercise, such as brisk walking, to appropriately inform the development of a confirmatory study designed to preserve physical function among breast cancer survivors.

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Prediagnostic Body-mass Index, Smoking and Prostate Cancer Survival: A Cohort Consortium Study of Over 10,000 White Men with Prostate Cancer

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Few prospective studies have investigated the relationship between pre-diagnostic obesity, smoking and prostate cancer (PCa) survival by timing of measurement, by age at diagnosis, and evaluated the interaction between obesity and smoking. **METHODS:** We conducted a multinational survival analysis among 10,106 PCa cases (1,007 PCa deaths and 2,893 total deaths) from eight cohorts with an average of 8.2 years of follow up. Hazard ratio (HR) of PCa death was estimated using Cox proportional hazard model, adjusting for age, alcohol intake, diabetes status, cohort and duration between baseline and diagnosis and subsequently adjusted for tumor stage and grade. **RESULTS:** Higher prediagnostic BMI was related to higher risk of PCa death. With each 5 kg/m² increase in BMI, the multivariate HR for PCa death was 1.08 (95% CI, 1.02–1.14) among overall participants (p -trend = 0.01) and 1.33

(95% CI, 1.18–1.51) among never or former smokers (p -trend < 0.001). This positive trend for PCa mortality was mainly observed among men with BMI measured more than 5 years before diagnosis, and among those age >65 years old at diagnosis. Compared with never smokers, current smokers had significantly elevated risk of PCa death, with a HR of 1.92 (95% CI, 1.52–2.43) regardless of the time of measurement, age at diagnosis and BMI. After further adjusting for tumor stage and grade, the association between BMI, smoking and PCa death was attenuated but remained statistical significant. CONCLUSIONS: In this consortium study of eight large cohorts, smoking and overweight/obesity before diagnosis were significant predictors for subsequent PCa-specific mortality. Smoking significantly modifies the association of BMI and PCa-specific mortality.

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Acculturation and Ethnic Variations in Breast Cancer Risk Factors, Gail Model Risk Estimates and Mammographic Breast Density

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Breast cancer (BC) incidence varies across countries and across US ethnic groups. US Immigrants often exhibit an intermediate level of risk between those observed in their birth country and in the US. This transition of risk may partly be explained by uptake of risk factors associated with acculturation. Investigating whether immigration and acculturation risk patterns are similarly reflected in disease biomarkers can provide insight into mechanisms underlying the transition of risk. We examined differences in the distribution of BC risk factors, absolute risk estimates and mammographic density by ethnicity and acculturation. We used data from 366 women recruited from an urban mammography clinic (ages 40–64 years) to compare BC risk factors and Gail model risk estimates across US-born white, US-born African American [AA], US-born Hispanic and foreign-born Hispanic women. We used linear regression models to examine the associations of immigration and acculturation indicators (e.g., generational status, age and life stage at immigration, language use) with percent density and dense breast area, measured from mammograms. Differences in BC risk factors were mostly observed for ethnic groups, with white women having higher reproductive and lifestyle risk profiles (e.g., lower parity, older age at first birth, higher alcohol intake), Hispanics having shorter height and AAs having larger body mass index (BMI) and waist circumference. The average lifetime and 5-year Gail estimates were highest in whites (11.4% & 1.4%), intermediate in AAs (7.2% & 1.0%) and lowest in Hispanics (6.9% & 0.7% in US-born and 6.6% & 0.8% in foreign-born). After adjusting for age, BMI and parity, lower linguistic acculturation, shorter residence in the US, and later age at immigration were associated with lower percent density (all p values for trend across acculturation levels < 0.05); e.g., monolingual Spanish and bilingual speakers respectively had on average 5.6% (95% CI, –10.0–1.3) and 3.8% (95% CI, –8.1–0.4) lower percent den-

sity than monolingual English speakers. Similar but more modest associations were observed for dense area. The increase in BC risk after immigration to the US and subsequent acculturation may operate via influences on mammographic density in Hispanic women.

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Decision Making about Contralateral Prophylactic Mastectomy Among BRCA1/2 Noncarriers with Newly-diagnosed Breast Cancer: Examining Cognitive, Emotional, and Sociodemographic Influences

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Pre-surgical BRCA1/2 genetic testing provides valuable risk information to guide a newly-diagnosed breast cancer patient's decision about whether to have a contralateral prophylactic mastectomy (CPM) to reduce her future risk of cancer in her unaffected breast. Although BRCA1/2 mutation noncarriers face a much lower objective ten-year risk of developing contralateral disease (approximately 3–10%) as compared to the risk of BRCA1/2 mutation carriers (27–37%), some noncarriers still choose to undergo a CPM. The psychosocial factors that motivate this decision are not well understood and warrant investigation. Thus, as part of a prospective study of pre-surgical BRCA1/2 testing, we examined the frequency and psychosocial correlates of the decision to undergo a CPM among newly-diagnosed breast cancer patients who were identified as BRCA1/2 mutation noncarriers. Self-report questionnaire data from 90 BRCA1/2 noncarriers (median age = 43 years, range = 29–59) were analyzed. A sizeable minority of the BRCA1/2 noncarriers (24.4%) chose to undergo a CPM after learning their mutation status (compared to 88% of the 8 BRCA1/2 carriers in the sample). Both bivariate and multivariable analyses indicated that perceiving that one's physician had recommended CPM (OR = 11.17, $P = 0.007$), perceiving greater risk for contralateral breast cancer (OR = 6.46, $P = 0.02$), and perceiving greater pros of CPM (OR = 1.37, $P = 0.004$) were all significantly associated with noncarriers' decision to undergo CPM. However, factors including age, Ashkenazi Jewish ethnicity, breast cancer-related distress, perceived cons of CPM, and decisional conflict regarding CPM were not related to the CPM decision (all p s > 0.05). Results demonstrate that although noncarriers' decision making regarding CPM was unrelated to sociodemographic and emotional factors, their cognitive perceptions of contralateral disease risk, surgical benefits, and physician recommendations were particularly important. Future studies should examine the content of patient-physician communication regarding CPM and hereditary risk in greater detail, and explore how these conversations shape and interact with women's past experiences, emotions, and beliefs to influence their cancer prevention decisions.

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