

# **30 healthy lifestyle abstracts** **november/december '14 newsletter**

(Baltazar, Hazem et al. 2014; Bègue, Beauvois et al. 2014; Bellavia, Larsson et al. 2014; Bredesen 2014; Brymer, Davids et al. 2014; Burri, Schweitzer et al. 2014; Cavazos-Rehg, Breslau et al. 2014; Cotten, Ford et al. 2014; Crippa, Discacciati et al. 2014; Damaske, Ecklund et al. 2014; Ford, Quigley et al. 2014; Hilbrecht, Smale et al. 2014; Hillman, Pontifex et al. 2014; Johansson, Guo et al. 2014; Johnston, Kanters et al. 2014; Joyal, Cossette et al. 2014; Kauffman 2014; Kiatpongpan and Norton 2014; Lajous, Bijon et al. 2014; Lewandowski 2014; Loprinzi and Mahoney 2014; Moayyedi, Quigley et al. 2014; Mosing, Madison et al. 2014; NICE 2014; O'Neil, Berk et al. 2014; O'Neil, Quirk et al. 2014; Pasanen, Tyrväinen et al. 2014; Toffanello, Coin et al. 2014; van der Kolk, Stone et al. 2014; Van Tongeren, Davis et al. 2014)

Baltazar, M., N. Hazem, et al. (2014). **"Eye contact elicits bodily self-awareness in human adults."** *Cognition* 133(1): 120-127. <http://www.sciencedirect.com/science/article/pii/S001002771400119X>

Eye contact is a typical human behaviour known to impact concurrent or subsequent cognitive processing. In particular, it has been suggested that eye contact induces self-awareness, though this has never been formally proven. Here, we show that the perception of a face with a direct gaze (that establishes eye contact), as compared to either a face with averted gaze or a mere fixation cross, led adult participants to rate more accurately the intensity of their physiological reactions induced by emotional pictures. Our data support the view that bodily self-awareness becomes more acute when one is subjected to another's gaze. Importantly, this effect was not related to a particular arousal state induced by eye contact perception. Rejecting the arousal hypothesis, we suggest that eye contact elicits a self-awareness process by enhancing self-focused attention in humans. We further discuss the implications of this proposal.

Bègue, L., J.-L. Beauvois, et al. (2014). **"Personality predicts obedience in a Milgram paradigm."** *Journal of Personality: n/a-n/a*. <http://dx.doi.org/10.1111/jopy.12104>

This study investigates how obedience in a Milgram-like experiment is predicted by interindividual differences. Participants were 35 males and 31 females aged 26–54 from the general population who were contacted by phone 8 months after their participation in a study transposing Milgram's obedience paradigm to the context of a fake television game show. Interviews were presented as opinion polls with no stated ties to the earlier experiment. Personality was assessed by the Big Five Mini-Markers questionnaire (Saucier, 1994). Political orientation and social activism were also measured. Results confirmed hypotheses that Conscientiousness and Agreeableness would be associated with willingness to administer higher-intensity electric shocks to a victim. Political orientation and social activism were also related to obedience. Our results provide empirical evidence suggesting that individual differences in personality and political variables matter in the explanation of obedience to authority.

Bellavia, A., S. C. Larsson, et al. (2014). **"Differences in survival associated with processed and with nonprocessed red meat consumption."** *The American Journal of Clinical Nutrition* 100(3): 924-929.

<http://ajcn.nutrition.org/content/100/3/924.abstract>

Background: High red meat consumption is associated with an increased mortality risk. This association is partly explained by the negative effect of processed meat consumption, which is widely established. The role of nonprocessed meat is unclear. Objective: The objective was to examine the combined association of processed and nonprocessed meat consumption with survival in a Swedish large prospective cohort. Design: In a population-based cohort of 74,645 Swedish men (40,089) and women (34,556), red meat consumption was assessed through a self-administered questionnaire. We estimated differences in survival [15th percentile differences (PDs), differences in the time by which the first 15% of the cohort died] according to levels of total red meat and combined levels of processed and nonprocessed red meat consumption. Results: During 15 y of follow-up (January 1998 to December 2012), we documented 16,683 deaths (6948 women; 9735 men). Compared with no consumption, consumption of red meat >100 g/d was progressively associated with shorter survival—up to 2 y for participants consuming an average of 300 g/d (15th PD: –21 mo; 95% CI: –31, –10). Compared with no consumption, high consumption of processed red meat (100 g/d) was associated with shorter survival (15th PD: –9 mo; 95% CI: –16, –2). High and moderate intakes of nonprocessed red meat were associated with shorter survival only when accompanied by a high intake of processed red meat. Conclusions: We found that high total red meat consumption was associated with progressively shorter survival, largely because of the consumption of processed red meat. Consumption of nonprocessed red meat alone was not associated with shorter survival.

Bredesen, D. E. (2014). **"Reversal of cognitive decline: A novel therapeutic program."** *Aging*.

<http://www.impactaging.com/papers/v6/n9/full/100690.html>

This report describes a novel, comprehensive, and personalized therapeutic program that is based on the underlying pathogenesis of Alzheimer's disease, and which involves multiple modalities designed to achieve metabolic enhancement for neurodegeneration (MEND). The first 10 patients who have utilized this program include patients with memory loss associated with Alzheimer's disease (AD), amnesic mild cognitive impairment (aMCI), or subjective cognitive impairment (SCI). Nine of the 10 displayed subjective or objective improvement in cognition beginning within 3-6 months, with the one failure being a patient with very late stage AD. Six of the patients had had to discontinue working or were struggling with their jobs at the time of presentation, and all were able to return to work or continue working with improved performance. Improvements have been sustained, and at this time the longest patient follow-up is two and one-half years from initial treatment, with sustained and marked improvement. These results suggest that a larger, more extensive trial of this therapeutic program is warranted. The results also suggest that, at least early in the course, cognitive decline may be driven in large part by metabolic processes. Furthermore, given the failure of monotherapeutics in AD to date, the results raise the possibility that such a therapeutic system may be useful as a platform on which drugs that would fail as monotherapeutics may succeed as key components of a therapeutic system.

Brymer, E., K. Davids, et al. (2014). **"Understanding the psychological health and well-being benefits of physical activity in nature: An ecological dynamics analysis."** *Ecopsychology* 6(3): 189-197.

<http://online.liebertpub.com/doi/abs/10.1089/eco.2013.0110>

(Free full text available) There is growing evidence that contact with nature and physical activity in nature have considerable benefits for human health. Exposure to nature has been shown to improve psychological well-being, relieve stress, increase positive mood, enhance life skills, reduce mental fatigue, increase concentration, and reduce aggression. In this paper, we propose a functional perspective from ecological dynamics, which emphasizes the person-environment scale of analysis for

understanding the psychological benefits of physical activity in nature. From this viewpoint, psychological benefits of green exercise emerge from a rich landscape of affordances or behavioral opportunities during interactions with natural environments to enhance human health and well-being.

Burri, A., R. Schweitzer, et al. (2014). **"Correlates of female sexual functioning: Adult attachment and differentiation of self."** *The Journal of Sexual Medicine* 11(9): 2188-2195. <http://dx.doi.org/10.1111/jsm.12561>

**Introduction** Female sexual functioning is affected by a range of factors including motivation, psychological well-being, and relationship issues. In understanding female sexual dysfunction (FSD), there has been a tendency to privilege diagnostic and medical over relationship issues. **Aim** To investigate the association between women's experience of intimacy in close relationships—operationalized in terms of attachment and degree of differentiation of self—and FSD. **Methods** Two hundred thirty sexually active Australian women responded to an invitation to complete a set of validated scales to assess potential correlates of sexual functioning. **Main Outcome Measures** The Female Sexuality Function Index, the Experiences in Close Relationships Scale, the Differentiation of Self Inventory, as well as a set of study-specific questions were subject to hierarchical multiple regression analyses. **Results** Relational variables of attachment avoidance and to a lesser degree, attachment anxiety were associated with FSD. Participants with lower levels of differentiation of self were more likely to report sexual difficulties. The inability to maintain a sense of self in the presence of intimate others was the strongest predictors of sexual problems. A history of sexual abuse in adulthood and higher levels of psychological distress were also associated with sexual difficulties. **Conclusions** The findings provide support for a relational understanding of female sexual functioning. Attachment avoidance, attachment anxiety, and degree of differentiation of self are shown to be associated with sexual difficulties. The findings support the need to focus on relational and psychological factors in women's experience of sex. Burri A, Schweitzer R, and O'Brien J. Correlates of female sexual functioning: Adult attachment and differentiation of self. *J Sex Med* 2014;11:2188-2195.

Cavazos-Rehg, P. A., N. Breslau, et al. (2014). **"Smoking cessation is associated with lower rates of mood/anxiety and alcohol use disorders."** *Psychological Medicine* 44(12): 2523-2535. <http://dx.doi.org/10.1017/S0033291713003206>

**Background** The psychological outcomes that accompany smoking cessation are not yet conclusive but positive outcomes could help to persuade quitting. **Method** We used data from the longitudinal National Epidemiological Study of Alcohol and Related Conditions. Logistic regression was used to examine associations between cigarette smoking reduction and Wave 2 status of addiction/mental health disorder among daily smokers at Wave 1, stratified by status of the diagnosis of interest at Wave 1. We adjusted for differences in baseline covariates between smokers with different levels of smoking reduction between Wave 1 and Wave 2 using propensity score regression adjustment. **Results** After adjusting for propensity scores and other mental health/addiction co-morbidities at Wave 2, among daily smokers who had current or lifetime history diagnosis of the outcome of interest at Wave 1, quitting by Wave 2 predicted a decreased risk of mood/anxiety disorder [adjusted odds ratio (aOR) 0.6, 95% confidence interval (CI) 0.4–0.9] and alcohol disorder (aOR 0.7, 95% CI 0.5–0.99) at Wave 2. Among daily smokers with no lifetime history diagnosis of the outcome of interest at Wave 1, quitting smoking by Wave 2 predicted a decreased risk of drug use disorder at Wave 2 (aOR 0.3, 95% CI 0.1–0.9). **Conclusions** There is no support in our data for the concern that smoking cessation would result in smokers' increased risk of some mental disorders. To the contrary, our data suggest that smoking cessation is associated with risk reduction for mood/anxiety or alcohol use disorder, even among smokers who have had a pre-existing disorder.

Cotten, S. R., G. Ford, et al. (2014). **"Internet use and depression among retired older adults in the united states: A longitudinal analysis."** *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 69(5): 763-771. <http://psychocgerontology.oxfordjournals.org/content/69/5/763.abstract>

**Objectives.** The purpose of this study is to examine the association between Internet use among retired older adults in the United States and changes in a commonly used predictor of depression (the CES-D). **Method.** Analyzing data from four waves (2002–2008) of the Health and Retirement Survey, we assess whether an available and commonly used index of a depression state was affected by prior values of the index and Internet use. The sample includes 3,075 respondents observed over 4 waves of data, yielding a total of 12,300 observations. We analyzed the effect on depression of Internet use and past depression in a full sample and a matched sample. We also conducted informal tests for confounders. Finally, we tested a basic mediation model to determine whether Internet use affected depression through its relationship with loneliness and social isolation. **Results.** Across methods, we found a positive contribution of Internet use to mental well-being of retired older adults in the United States, where Internet use reduced the probability of a depression state by one third. We found no evidence of confounding. Some evidence of mediation was found. **Discussion.** Our dynamic probit model indicates that for retired older adults in the United States, Internet use was found to reduce the probability of a depressed state by about 33%. Number of people in the household partially mediates this relationship, with the reduction in depression largest for people living alone. This provides some evidence that the mechanism linking Internet use to depression is the remediation of social isolation and loneliness. Encouraging older adults to use the Internet may help decrease isolation and depression.

Crippa, A., A. Discacciati, et al. (2014). **"Coffee consumption and mortality from all causes, cardiovascular disease, and cancer: A dose-response meta-analysis."** *Am J Epidemiol* 180(8): 763-775. <http://aje.oxfordjournals.org/content/180/8/763>

Several studies have analyzed the relationship between coffee consumption and mortality, but the shape of the association remains unclear. We conducted a dose-response meta-analysis of prospective studies to examine the dose-response associations between coffee consumption and mortality from all causes, cardiovascular disease (CVD), and all cancers. Pertinent studies, published between 1966 and 2013, were identified by searching PubMed and by reviewing the reference lists of the selected articles. Prospective studies in which investigators reported relative risks of mortality from all causes, CVD, and all cancers for 3 or more categories of coffee consumption were eligible. Results from individual studies were pooled using a random-effects model. Twenty-one prospective studies, with 121,915 deaths and 997,464 participants, met the inclusion criteria. There was strong evidence of nonlinear associations between coffee consumption and mortality for all causes and CVD (P for nonlinearity < 0.001). The largest risk reductions were observed for 4 cups/day for all-cause mortality (16%, 95% confidence interval: 13, 18) and 3 cups/day for CVD mortality (21%, 95% confidence interval: 16, 26). Coffee consumption was not associated with cancer mortality. Findings from this meta-analysis indicate that coffee consumption is inversely associated with all-cause and CVD mortality.

Damaske, S., E. H. Ecklund, et al. (2014). **"Male scientists' competing devotions to work and family: Changing norms in a male-dominated profession."** *Work and Occupations* 41(4): 477-507. <http://wox.sagepub.com/content/41/4/477.abstract>

Using in-depth interviews with 74 men across different ranks in biology and physics at prestigious U.S. universities, the authors ask to what extent changing norms of fatherhood and a flexible workplace affect men working in a highly male-dominated profession and what variation exists in family forms. The authors conceptualize four typologies of men: those forgoing children, egalitarian partners, neotraditional dual earners, and traditional breadwinners. Findings suggest male

scientists hold strong work devotions, yet a growing number seek egalitarian relationships, which they frame as reducing their devotion to work. The majority of men find the all-consuming nature of academic science conflicts with changing fatherhood norms. (See too BPS Research Digest's interesting comments ... <http://digest.bps.org.uk/2014/09/how-do-male-scientists-balance-demands.html> ... Academia remains heavily gendered, thanks in part to historical stereotypes that assert men are suited to solving complex problems and ready to put "great works" over other concerns such as community or family. Psychology and sociology have shown how this disadvantages women working in these fields, particularly if they wish to have children. A new study led by Sarah Damaske of Pennsylvania State University takes a different approach, looking at what this world is like for men. From the 73 male scientists interviewed, four groupings emerged. A minority (15 per cent) indicated they saw a fundamental incompatibility between raising a family and success in science, and as a consequence intended to forgo childrearing entirely. A second group (30 per cent) saw no such incompatibility... as long as you have a wife to raise the kids full-time. These "Traditional Breadwinners" were slightly older (average age 47) and more likely to be full professors. They were quick to accept that the family duties performed by their wives were key to their own career success. Some recognised their fortune and the compromises their partners made, whereas others saw the spheres of science and family as separate and inevitably gendered. To the question "Do you think that having children then is difficult to manage with being a scientist?", one responded "No, absolutely not. That's why you have a wife." But norms about working and being a father are changing, with more men wanting a greater role at home and more career opportunities for their partners. This study suggests that while some male scientists are prepared to follow through on this with action, the egalitarian commitment of others is more theoretical. This latter group (22 per cent) are "Neotraditionalists": they are opposed to the idea that their working partners ought to devote themselves only to childcare, but when tensions arose between work and home life, these men presumed that their own (male) career ought to come first. They often took pains to distance themselves from having caused these tensions. One characterised his wife facing a career break during the early years of childrearing as "her issue". Another stated that "there's more expected of the women in terms of family life", and a third that women were the ones "burdened" with childcare. This fatalism was a common theme of the Neotraditionalists: the situation is unfair, but what are you going to do? How about reducing your own work activities to accommodate the career of your female partner? This was the strategy taken by the final group, the "Egalitarian Partners". These men (33 per cent of the sample) were likely to be together with another scientist, and saw each career track as equally important. In their interviews, they spoke of concessions made by both sides, and the recognition that other colleagues were outpacing them. Their language also betrayed awareness that their decisions were not in line with their gendered role: one qualified his decisions by saying "I'm trying to be a sensitive new age guy". Data exists that suggests fathers are not expected by most managers to actually use organisational work-family policies such as crèches or shorter work-time; the true egalitarians are going against the grain, or even "acting female" by placing family as equal to or more important than their devotion to the Big Questions. Without greater societal efforts to overhaul institutional sexism, these challenges may remain for the Egalitarians. Non-child-rearing men are more likely to reach positions of power thanks to the extra time and energy they can devote to their work, and they may see less cause to introduce systems or drive cultural change to support those men who want to be an active partner in the home, however large their number may be at entry level. As a consequence, Damaske concludes, "the academic science pipeline may begin to leak young men as well as young women, increasing the overall loss of talent in academic science."

Ford, A. C., E. M. Quigley, et al. (2014). **"Efficacy of prebiotics, probiotics, and synbiotics in irritable bowel syndrome and chronic idiopathic constipation: Systematic review and meta-analysis."** *Am J Gastroenterol*. <http://www.ncbi.nlm.nih.gov/pubmed/25070051>

**OBJECTIVES:** Irritable bowel syndrome (IBS) and chronic idiopathic constipation (CIC) are functional bowel disorders. Evidence suggests that disturbance in the gastrointestinal microbiota may be implicated in both conditions. We performed a systematic review and meta-analysis to examine the efficacy of prebiotics, probiotics, and synbiotics in IBS and CIC. **METHODS:** MEDLINE, EMBASE, and the Cochrane Controlled Trials Register were searched (up to December 2013). Randomized controlled trials (RCTs) recruiting adults with IBS or CIC, which compared prebiotics, probiotics, or synbiotics with placebo or no therapy, were eligible. Dichotomous symptom data were pooled to obtain a relative risk (RR) of remaining symptomatic after therapy, with a 95% confidence interval (CI). Continuous data were pooled using a standardized or weighted mean difference with a 95% CI. **RESULTS:** The search strategy identified 3,216 citations. Forty-three RCTs were eligible for inclusion. The RR of IBS symptoms persisting with probiotics vs. placebo was 0.79 (95% CI 0.70-0.89). Probiotics had beneficial effects on global IBS, abdominal pain, bloating, and flatulence scores. Data for prebiotics and synbiotics in IBS were sparse. Probiotics appeared to have beneficial effects in CIC (mean increase in number of stools per week=1.49; 95% CI=1.02-1.96), but there were only two RCTs. Synbiotics also appeared beneficial (RR of failure to respond to therapy=0.78; 95% CI 0.67-0.92). Again, trials for prebiotics were few in number, and no definite conclusions could be drawn. **CONCLUSIONS:** Probiotics are effective treatments for IBS, although which individual species and strains are the most beneficial remains unclear. Further evidence is required before the role of prebiotics or synbiotics in IBS is known. The efficacy of all three therapies in CIC is also uncertain.

Hilbrecht, M., B. Smale, et al. (2014). **"Highway to health? Commute time and well-being among canadian adults."** *World Leisure Journal* 56(2): 151-163. <http://dx.doi.org/10.1080/16078055.2014.903723>

(Free full text available) This paper examines commute time, time spent in activities beneficial to well-being, and the relationship to self-assessed well-being. Using cross-sectional data from the 2010 Canadian General Social Survey, Cycle 24, time use patterns and feelings of well-being are assessed for a subsample of 3409 men and women who regularly commute to work by car. Drawing upon a resource drain model, daily activities known to affect well-being were selected for analysis, and well-being was measured by life satisfaction and time pressure. Time spent commuting is associated with lower levels of life satisfaction and an increased sense of time pressure. Reduced time for physically active leisure and experiences of traffic congestion mediate the association of commute time with well-being, consistent with a resource drain model. Results suggest workplace practices aimed at increasing opportunities for physical activity and government-led efforts towards more integrated solutions to reduce traffic congestion may help increase well-being.

Hillman, C. H., M. B. Pontifex, et al. (2014). **"Effects of the fitkids randomized controlled trial on executive control and brain function."** *Pediatrics*. <http://pediatrics.aappublications.org/content/early/2014/09/24/peds.2013-3219.abstract>

(Free full text available) **OBJECTIVE:** To assess the effect of a physical activity (PA) intervention on brain and behavioral indices of executive control in preadolescent children. **METHODS:** Two hundred twenty-one children (7-9 years) were randomly assigned to a 9-month afterschool PA program or a wait-list control. In addition to changes in fitness (maximal oxygen consumption), electrical activity in the brain (P3-ERP) and behavioral measures (accuracy, reaction time) of executive control were collected by using tasks that modulated attentional inhibition and cognitive flexibility. **RESULTS:** Fitness improved more among intervention participants from pretest to posttest compared with the wait-list control (1.3 mL/kg per minute, 95% confidence interval [CI]: 0.3 to 2.4;  $d = 0.34$  for group difference in pre-to-post change score). Intervention participants exhibited greater improvements from pretest to posttest in inhibition (3.2%, 95% CI: 0.0 to 6.5;  $d = 0.27$ ) and cognitive

flexibility (4.8%, 95% CI: 1.1 to 8.4;  $d = 0.35$  for group difference in pre-to-post change score) compared with control. Only the intervention group increased attentional resources from pretest to posttest during tasks requiring increased inhibition (1.4  $\mu\text{V}$ , 95% CI: 0.3 to 2.6;  $d = 0.34$ ) and cognitive flexibility (1.5  $\mu\text{V}$ , 95% CI: 0.6 to 2.5;  $d = 0.43$ ). Finally, improvements in brain function on the inhibition task ( $r = 0.22$ ) and performance on the flexibility task correlated with intervention attendance ( $r = 0.24$ ). **CONCLUSIONS:** The intervention enhanced cognitive performance and brain function during tasks requiring greater executive control. These findings demonstrate a causal effect of a PA program on executive control, and provide support for PA for improving childhood cognition and brain health.

Johansson, L., X. Guo, et al. (2014). **"Midlife personality and risk of Alzheimer disease and distress: A 38-year follow-up."** *Neurology*. <http://www.neurology.org/content/early/2014/10/01/WNL.0000000000000907.abstract>

**Objective:** To study the association between midlife neuroticism and extraversion and development of late-life dementia and long-standing distress in a sample of women followed for 38 years. **Methods:** A population-based sample of 800 women, aged 38 to 54 years, was examined in 1968, with subsequent examinations in 1974, 1980, 1992, 2000, and 2005. Neuroticism and extraversion were assessed using the Eysenck Personality Inventory at baseline. Distress was measured according to a standardized question at each study wave. Dementia was diagnosed according to DSM-III-R criteria based on information from neuropsychiatric examinations, informant interviews, hospital records, and registry data. **Results:** During the 38-year follow-up, 153 women developed dementia; Alzheimer disease (AD) dementia was diagnosed in 104 of these. A higher degree of neuroticism in midlife was associated with increased risk of AD dementia and long-standing distress over 38 years. The association between neuroticism and AD dementia diminished after adjusting for long-standing distress. Extraversion was associated with a lower degree of long-standing distress, but had no impact on AD dementia. When the 2 personality dimensions were combined, high neuroticism/low extraversion showed the highest risk of AD dementia. **Conclusions:** Our study suggests that midlife neuroticism is associated with increased risk of AD dementia, and that distress mediates this association. The results have clinical implications because a group of women at risk of AD dementia is identified.

Johnston, B. C., S. Kanters, et al. (2014). **"Comparison of weight loss among named diet programs in overweight and obese adults: A meta-analysis."** *JAMA* 312(9): 923-933. <http://dx.doi.org/10.1001/jama.2014.10397>

**Importance** Many claims have been made regarding the superiority of one diet or another for inducing weight loss. Which diet is best remains unclear. **Objective** To determine weight loss outcomes for popular diets based on diet class (macronutrient composition) and named diet. **Data Sources** Search of 6 electronic databases: AMED, CDSR, CENTRAL, CINAHL, EMBASE, and MEDLINE from inception of each database to April 2014. **Study Selection** Overweight or obese adults (body mass index  $\geq 25$ ) randomized to a popular self-administered named diet and reporting weight or body mass index data at 3-month follow-up or longer. **Data Extraction and Synthesis** Two reviewers independently extracted data on populations, interventions, outcomes, risk of bias, and quality of evidence. A Bayesian framework was used to perform a series of random-effects network meta-analyses with meta-regression to estimate the relative effectiveness of diet classes and programs for change in weight and body mass index from baseline. Our analyses adjusted for behavioral support and exercise. **Main Outcomes and Measures** Weight loss and body mass index at 6- and 12-month follow-up ( $\pm 3$  months for both periods). **Results** Among 59 eligible articles reporting 48 unique randomized trials (including 7286 individuals) and compared with no diet, the largest weight loss was associated with low-carbohydrate diets (8.73 kg [95% credible interval {CI}, 7.27 to 10.20 kg] at 6-month follow-up and 7.25 kg [95% CI, 5.33 to 9.25 kg] at 12-month follow-up) and low-fat diets (7.99 kg [95% CI, 6.01 to 9.92 kg] at 6-month follow-up and 7.27 kg [95% CI, 5.26 to 9.34 kg] at 12-month follow-up). Weight loss differences between individual diets were minimal. For example, the Atkins diet resulted in a 1.71 kg greater weight loss than the Zone diet at 6-month follow-up. Between 6- and 12-month follow-up, the influence of behavioral support (3.23 kg [95% CI, 2.23 to 4.23 kg] at 6-month follow-up vs 1.08 kg [95% CI, -1.82 to 3.96 kg] at 12-month follow-up) and exercise (0.64 kg [95% CI, -0.35 to 1.66 kg] vs 2.13 kg [95% CI, 0.43 to 3.85 kg], respectively) on weight loss differed. **Conclusions and Relevance** Significant weight loss was observed with any low-carbohydrate or low-fat diet. Weight loss differences between individual named diets were small. This supports the practice of recommending any diet that a patient will adhere to in order to lose weight.

Joyal, C. C., A. Cossette, et al. (2014). **"What exactly is an unusual sexual fantasy?"** *The Journal of Sexual Medicine*: n/a-n/a. <http://dx.doi.org/10.1111/jsm.12734>

**Introduction** Although several theories and treatment plans use unusual sexual fantasies (SF) as a way to identify deviancy, they seldom describe how the fantasies referred to were determined to be unusual. **Aim** The main goal of this study was to determine which SF are rare, unusual, common, or typical from a statistical point of view among a relatively large sample of adults recruited from the general population. A secondary goal was to provide a statistical comparison of the nature and intensity of sexual fantasies for men and women. This study also aims at demonstrating with both quantitative and qualitative analyses that certain fantasies often considered to be unusual are common. **Methods** An Internet survey was conducted with 1,516 adults (799 ♀; 717 ♂) who ranked 55 different SF and wrote their own favorite SF. Each SF was rated as statistically rare (2.3% or less), unusual (15.9% or less), common (more than 50%), or typical (more than 84.1% of the sample). **Main Outcome Measures** An extended version of the Wilson's Sex Fantasy Questionnaire with an open question. **Results** Only two sexual fantasies were found to be rare for women or men, while nine others were unusual. Thirty sexual fantasies were common for one or both genders, and only five were typical. These results were confirmed with qualitative analyses. Submission and domination themes were not only common for both men and women, but they were also significantly related to each other. Moreover, the presence of a single submissive fantasy was a significant predictor of overall scores for all SF in both genders. **Conclusion** Care should be taken before labeling an SF as unusual, let alone deviant. It suggested that the focus should be on the effect of a sexual fantasy rather than its content.

Kauffman, S. B. (2014). **"Is kindness physically attractive."** *Scientific American*.

<http://blogs.scientificamerican.com/beautiful-minds/2014/10/09/is-kindness-physically-attractive/>

One of the most robust findings in social psychology is the beauty-is-good stereotype: physically attractive people are perceived and treated more positively than physically unattractive people [1]. But here's the thing: I have definitely met attractive people who went from hot to not the second they opened their mouths! Vice-versa, some people are so kind and awesome that you can't help but be attracted to them, regardless of their score on hornotnot.com. Which has me wondering: I know beautiful is often perceived as good, but isn't good also beautiful? I mean, I know we are an extremely looks obsessed culture, and research does show that the people we initially perceive as physically attractive tend to follow a very predictable pattern: they are average, symmetrical, and have hormone-dependent features [2]. But don't things like character and goodness also factor into our perceptions of physical attractiveness? Enter a new study by Yan Zhang and colleagues. The researchers randomly assigned Chinese participants to one of three groups and had them rate 60 photographs of unfamiliar Chinese female faces. All the photographs were taken from Google, and all of the faces had neutral emotional expressions. After two weeks, the participants rated the same pictures again. But this time, one group of participants were given positive personality descriptors of the people in the photographs (e.g., decent, honest), another group of participants were given

negative personality descriptors (e.g., evil, mean), and the third group were given no information about the people in the photographs. During the first rating, there were no significant differences in ratings of attractiveness among the three groups. But after the second rating, the group given positive personality descriptors of the people in the photographs rated them the most attractive, and the group given negative personality descriptors of the people in the photographs gave the lowest ratings to the photographs. These results suggest that having a desirable personality may indeed be a factor when judging physical attractiveness. As the researchers note, "This findings indicates that human interior psychological activity is related to exterior physical feature[s], and that a human is the whole entity of psychology and physiology." But perhaps this study was too artificial. Maybe the same effects wouldn't occur for people who we know intimately. There is a series of really fascinating studies conducted by Kevin Kniffin and David Sloan Wilson, in which they address this very issue. As they note, there are evolutionary reasons why personality traits can inform our perceptions of physical attractiveness. Even though beauty is an assessment of fitness value, there is no reason why assessment of fitness needs to be purely physical. Fitness value of a potential social partner can be influenced by both physical and non-physical traits.

Kiatpongsan, S. and M. I. Norton (2014). **"How much (more) should CEOs make? A universal desire for more equal pay."** *Perspectives on Psychological Science*. <http://www.hbs.edu/faculty/Pages/item.aspx?num=47954>

(Free full text available) Do people from different countries and different backgrounds have similar preferences for how much more the rich should earn than the poor? Using survey data from 40 countries (N = 55,238), we compare respondents' estimates of the wages of people in different occupations—chief executive officers, cabinet ministers, and unskilled workers—to their ideals for what those wages should be. We show that ideal pay gaps between skilled and unskilled workers are significantly smaller than estimated pay gaps, and that there is consensus across countries, socioeconomic status, and political beliefs for ideal pay ratios. Moreover, data from 16 countries reveals that people dramatically underestimate actual pay inequality. In the United States—where underestimation was particularly pronounced—the actual pay ratio of CEOs to unskilled workers (354:1) far exceeded the estimated ratio (30:1), which in turn far exceeded the ideal ratio (7:1). In sum, respondents underestimate actual pay gaps, and their ideal pay gaps are even further from reality than those underestimates.

Lajous, M., A. Bijon, et al. (2014). **"Processed and unprocessed red meat consumption and hypertension in women."** *The American Journal of Clinical Nutrition* 100(3): 948-952. <http://ajcn.nutrition.org/content/100/3/948.abstract>

Background: High processed red meat consumption is associated with increased risk of cardiovascular disease. The high sodium content of processed red meat could increase blood pressure and explain the association with cardiovascular disease. Objective: We evaluated the relation between the consumption of unprocessed and processed red meat and incident hypertension. Design: In a prospective cohort of 44,616 disease-free French women who responded to a validated dietary questionnaire, we observed 10,256 incident cases of hypertension between 1993 and 2008. Cases were identified through self-reports of diagnosed or treated hypertension. Multivariate Cox regression models were adjusted for age, education, smoking, physical activity, body mass index, menopause, menopausal hormone therapy, and alcohol, bread, coffee, and fruit and vegetable consumption. Results: Women who consumed  $\geq 5$  servings of processed red meat/wk (50 g = 1 serving) had a 17% higher rate of hypertension than that of women who consumed  $< 1$  serving/wk (HR: 1.17; 95% CI: 1.09, 1.26; P-trend = 0.0002). No association was observed between unprocessed red meat consumption and hypertension. When women who consumed  $\geq 5$  servings of unprocessed red meat/wk (100 g = 1 serving) were compared with women who consumed  $< 1$  serving unprocessed red meat/wk, the multivariate HR was 0.99 (95% CI: 0.91, 1.08; P-trend = 0.63). Conclusions: In this large prospective cohort of French women, we observed an association between the consumption of processed red meat and hypertension. We observed no association for unprocessed red meat consumption and hypertension.

Lewandowski, G. W., Jr. (2014). **"What is the best way to flirt? Research examines the dilemma of subtlety v's success."** *PsyPost*. <http://www.psypost.org/2014/10/best-way-flirt-research-examines-dilemma-subtlety-vs-success-28968>

(Free full text available) Flirting comes in many forms: a casual gaze that lingers a half second longer than necessary, a light touch, an amorous expression, an overenthusiastic laugh during conversation, or even some playful or overtly sexual banter. Regardless of the technique employed, flirting aims to fulfill one purpose: stimulate sexual interest. To be clear, though, flirting may not have the explicit goal of having sex or even physical intimacy of any kind. A person may flirt simply to pass the time, to feel close, to see if they've still got it or because it's fun. Flirting motivations differ by gender. Big surprise: men's flirting is more motivated by sex, while women's flirting is more motivated by having fun or becoming closer to another person.

Loprinzi, P. D. and S. Mahoney (2014). **"Concurrent occurrence of multiple positive lifestyle behaviors and depression among adults in the united states."** *Journal of Affective Disorders* 165(0): 126-130.

<http://www.sciencedirect.com/science/article/pii/S0165032714002675>

Abstract Background To our knowledge, no studies have examined the dose-response association between concurrent occurrence of multiple positive health behaviors and depression. As a result, the purpose of this study was to examine the dose-response association between concurrent occurrence of lifestyle behaviors (i.e., diet, physical activity, and smoking) on depression symptoms among a national sample of U.S. adults (20–85 yr). Methods: Using data from the 2005–2006 NHANES (n=2574), diet was assessed from the healthy eating index variable; physical activity was assessed via accelerometry; smoking was assessed from cotinine levels; and depression was assessed from the Patient Health Questionnaire 9 (PHQ-9). Results: Each lifestyle behavior was independently associated with depression in the expected direction, and there was also evidence of a dose-response relationship. Compared to those having 0 positive lifestyle factors, those with 1, 2, and 3 positive lifestyle factors, respectively, were 15% (p=0.38), 67% (p=0.001), and 82% (p=0.01) less likely to be classified as having moderate or greater depression symptoms (PHQ-9 $\geq 10$ ). Limitations: The main limitation of this study was the cross-sectional design. Conclusion: there is a dose-response relationship between concurrent occurrence of positive lifestyle behaviors and depression symptoms.

Moayyedi, P., E. M. Quigley, et al. (2014). **"The effect of fiber supplementation on irritable bowel syndrome: A systematic review and meta-analysis."** *Am J Gastroenterol* 109(9): 1367-1374.

<http://www.ncbi.nlm.nih.gov/pubmed/25070054>

OBJECTIVES: Fiber has been used for many years to treat irritable bowel syndrome (IBS). This approach had fallen out of favor until a recent resurgence, which was based on new randomized controlled trial (RCT) data that suggested it might be effective. We have previously conducted a systematic review of fiber in IBS, but new RCT data for fiber therapy necessitate a new analysis; thus, we have conducted a systematic review of this intervention. METHODS: MEDLINE, EMBASE, and the Cochrane Controlled Trials Register were searched up to December 2013. Trials recruiting adults with IBS, which compared fiber supplements with placebo, control therapy, or "usual management", were eligible. Dichotomous symptom data were pooled to obtain a relative risk (RR) of remaining symptomatic after therapy as well as number needed to treat (NNT) with a 95% confidence interval (CI). RESULTS: We identified 14 RCTs involving 906 patients that had evaluated fiber in IBS. There was a significant benefit of fiber in IBS (RR=0.86; 95% CI 0.80-0.94 with an NNT=10; 95% CI=6-33). There was no significant

heterogeneity between results ( $I^2=0\%$ , Cochran  $Q=13.85$  (d.f.=14),  $P=0.46$ ). The benefit was only seen in RCTs on soluble fiber (RR=0.83; 95% CI 0.73-0.94 with an NNT=7; 95% CI 4-25) with no effect seen with bran (RR=0.90; 95% CI 0.79-1.03). CONCLUSIONS: Soluble fiber is effective in treating IBS. Bran did not appear to be of benefit, although we did not uncover any evidence of harm from this intervention, as others have speculated from uncontrolled data.

Mosing, M. A., G. Madison, et al. (2014). **"Practice does not make perfect: No causal effect of music practice on music ability."** *Psychological Science* 25(9): 1795-1803. <http://pss.sagepub.com/content/25/9/1795.abstract>

The relative importance of nature and nurture for various forms of expertise has been intensely debated. Music proficiency is viewed as a general model for expertise, and associations between deliberate practice and music proficiency have been interpreted as supporting the prevailing idea that long-term deliberate practice inevitably results in increased music ability. Here, we examined the associations ( $r_s = .18-.36$ ) between music practice and music ability (rhythm, melody, and pitch discrimination) in 10,500 Swedish twins. We found that music practice was substantially heritable (40%–70%). Associations between music practice and music ability were predominantly genetic, and, contrary to the causal hypothesis, nonshared environmental influences did not contribute. There was no difference in ability within monozygotic twin pairs differing in their amount of practice, so that when genetic predisposition was controlled for, more practice was no longer associated with better music skills. These findings suggest that music practice may not causally influence music ability and that genetic variation among individuals affects both ability and inclination to practice.

NICE (2014). **Dyspepsia and gastro-oesophageal reflux disease: Investigation and management of dyspepsia, symptoms suggestive of gastro-oesophageal reflux disease, or both**, National Institute for Health and Care Excellence. <https://www.nice.org.uk/guidance/cg184>

(Free full text available) This guideline updates and replaces NICE clinical guideline 17 (published August 2004). It offers evidence-based advice on the care and treatment of adults (aged 18 and over) with symptoms of dyspepsia, symptoms suggestive of gastro-oesophageal reflux disease (GORD), or both. New recommendations have been added about investigation and referral, *Helicobacter pylori* eradication therapy, specialist management, and surveillance of Barrett's oesophagus in people with dyspepsia.

O'Neil, A., M. Berk, et al. (2014). **"The association between poor dental health and depression: Findings from a large-scale, population-based study (the nhanes study)."** *Gen Hosp Psychiatry* 36(3): 266-270. <http://www.ncbi.nlm.nih.gov/pubmed/24636212>

OBJECTIVE: To examine the relationship of poor dental health and depression, controlling for markers of inflammation (C-reactive protein; CRP) and adiposity (body mass index; BMI). METHOD: Data from two National Health and Nutrition Examination Surveys (2005-2008) were utilized ( $n=10214$ ). Dental health was assessed using the Oral Health Questionnaire (OHQ). Depression was measured using the Patient Health Questionnaire-9 (PHQ-9), where cases were identified using a cut off score of 10 or above. Logistic regression was applied to measure magnitude of associations, controlling for a range of covariates including CRP and BMI. RESULTS: After adjustment for covariates, a significant dose-response relationship between number of oral health conditions and likelihood of PHQ-9 defined depression was observed. Compared with individuals without an oral health condition, adjusted odds ratio (95% confidence interval) for depression in those with two, four and six conditions were 1.60 (1.08-2.38), 2.13 (1.46-3.11) and 3.94 (2.72-5.72), respectively. Level of CRP and being underweight or obese were associated with being depressed. CONCLUSIONS: A positive association exists between poor dental health and depression that is independent of CRP and BMI.

O'Neil, A., S. E. Quirk, et al. (2014). **"Relationship between diet and mental health in children and adolescents: A systematic review."** *Am J Public Health* 104(10): e31-42. <http://www.ncbi.nlm.nih.gov/pubmed/25208008>

(Available in free full text) We systematically reviewed 12 epidemiological studies to determine whether an association exists between diet quality and patterns and mental health in children and adolescents; 9 explored the relationship using diet as the exposure, and 3 used mental health as the exposure. We found evidence of a significant, cross-sectional relationship between unhealthy dietary patterns and poorer mental health in children and adolescents. We observed a consistent trend for the relationship between good-quality diet and better mental health and some evidence for the reverse. When including only the 7 studies deemed to be of high methodological quality, all but 1 of these trends remained. Findings highlight the potential importance of the relationship between dietary patterns or quality and mental health early in the life span.

Pasanen, T. P., L. Tyrväinen, et al. (2014). **"The relationship between perceived health and physical activity indoors, outdoors in built environments, and outdoors in nature."** *Applied Psychology: Health and Well-Being* 6(3): 324-346. <http://dx.doi.org/10.1111/aphw.12031>

Background: A body of evidence shows that both physical activity and exposure to nature are connected to improved general and mental health. Experimental studies have consistently found short term positive effects of physical activity in nature compared with built environments. This study explores whether these benefits are also evident in everyday life, perceived over repeated contact with nature. The topic is important from the perspectives of city planning, individual well-being, and public health. Methods: National survey data ( $n = 2,070$ ) from Finland was analysed using structural regression analyses. Perceived general health, emotional well-being, and sleep quality were regressed on the weekly frequency of physical activity indoors, outdoors in built environments, and in nature. Socioeconomic factors and other plausible confounders were controlled for. Results: Emotional well-being showed the most consistent positive connection to physical activity in nature, whereas general health was positively associated with physical activity in both built and natural outdoor settings. Better sleep quality was weakly connected to frequent physical activity in nature, but the connection was outweighed by other factors. Conclusion: The results indicate that nature provides an added value to the known benefits of physical activity. Repeated exercise in nature is, in particular, connected to better emotional well-being.

Toffanello, E. D., A. Coin, et al. (2014). **"Vitamin D deficiency predicts cognitive decline in older men and women: The pro.V.A. Study."** *Neurology*. <http://www.neurology.org/content/early/2014/11/05/WNL.00000000001080.abstract>

Objective: To test the hypothesis that hypovitaminosis D is associated with a higher risk of cognitive decline over a 4.4-year follow-up in a large sample of older adults. Methods: This research was part of the Progetto Veneto Anziani (Pro.V.A.), an Italian population-based cohort study of 1,927 elderly subjects. Serum 25-hydroxyvitamin D (25OHD) levels were measured at the baseline. Global cognitive function was measured with the Mini-Mental State Examination (MMSE); scores lower than 24 were indicative of cognitive dysfunction, and a decline of 3 or more points on the MMSE over the follow-up was considered as clinically significant. Analyses were adjusted for relevant confounders, including health and performance status. Results: Participants with 25OHD deficiency (<50 nmol/L) or insufficiency (50–75 nmol/L) were more likely to have declining MMSE scores during the follow-up than those who were 25OHD sufficient ( $\geq 75$  nmol/L). Among participants cognitively intact (baseline

MMSE scores  $\geq 24$  and without diagnosis of dementia), the multivariate adjusted relative risk (95% confidence interval [CI]) of the onset of cognitive dysfunction was 1.36 (95% CI: 1.04–1.80;  $p = 0.02$ ) for those with vitamin D deficiency and 1.29 (95% CI: 1.00–1.76;  $p = 0.05$ ) for those with vitamin D insufficiency by comparison with individuals with normal 25OHD levels. Conclusion: The results of our study support an independent association between low 25OHD levels and cognitive decline in elderly individuals. In cognitively intact elderly subjects, 25OHD levels below 75 nmol/L are already predictive of global cognitive dysfunction at 4.4 years.

van der Kolk, B. A., L. Stone, et al. (2014). **"Yoga as an adjunctive treatment for posttraumatic stress disorder: A randomized controlled trial."** *J Clin Psychiatry* 75(6): e559-565. <http://www.ncbi.nlm.nih.gov/pubmed/25004196>

BACKGROUND: More than a third of the approximately 10 million women with histories of interpersonal violence in the United States develop posttraumatic stress disorder (PTSD). Currently available treatments for this population have a high rate of incomplete response, in part because problems in affect and impulse regulation are major obstacles to resolving PTSD. This study explored the efficacy of yoga to increase affect tolerance and to decrease PTSD symptomatology. METHOD: Sixty-four women with chronic, treatment-resistant PTSD were randomly assigned to either trauma-informed yoga or supportive women's health education, each as a weekly 1-hour class for 10 weeks. Assessments were conducted at pretreatment, midtreatment, and posttreatment and included measures of DSM-IV PTSD, affect regulation, and depression. The study ran from 2008 through 2011. RESULTS: The primary outcome measure was the Clinician-Administered PTSD Scale (CAPS). At the end of the study, 16 of 31 participants (52%) in the yoga group no longer met criteria for PTSD compared to 6 of 29 (21%) in the control group ( $n = 60$ ,  $\chi^2(1) = 6.17$ ,  $P = .013$ ). Both groups exhibited significant decreases on the CAPS, with the decrease falling in the large effect size range for the yoga group ( $d = 1.07$ ) and the medium to large effect size decrease for the control group ( $d = 0.66$ ). Both the yoga ( $b = -9.21$ ,  $t = -2.34$ ,  $P = .02$ ,  $d = -0.37$ ) and control ( $b = -22.12$ ,  $t = -3.39$ ,  $P = .001$ ,  $d = -0.54$ ) groups exhibited significant decreases from pretreatment to the midtreatment assessment. However, a significant group  $\times$  quadratic trend interaction ( $d = -0.34$ ) showed that the pattern of change in Davidson Trauma Scale significantly differed across groups. The yoga group exhibited a significant medium effect size linear ( $d = -0.52$ ) trend. In contrast, the control group exhibited only a significant medium effect size quadratic trend ( $d = 0.46$ ) but did not exhibit a significant linear trend ( $d = -0.29$ ). Thus, both groups exhibited significant decreases in PTSD symptoms during the first half of treatment, but these improvements were maintained in the yoga group, while the control group relapsed after its initial improvement. DISCUSSION: Yoga significantly reduced PTSD symptomatology, with effect sizes comparable to well-researched psychotherapeutic and psychopharmacologic approaches. Yoga may improve the functioning of traumatized individuals by helping them to tolerate physical and sensory experiences associated with fear and helplessness and to increase emotional awareness and affect tolerance. TRIAL REGISTRATION: ClinicalTrials.gov identifier: NCT00839813.

Van Tongeren, D. R., D. E. Davis, et al. (2014). **"Social benefits of humility: Initiating and maintaining romantic relationships."** *The Journal of Positive Psychology* 9(4): 313-321. <http://dx.doi.org/10.1080/17439760.2014.898317>

(Available in free full text) Previous research has highlighted the social nature of humility. In three studies, we provide evidence that humility facilitates the initiation and maintenance of romantic relationships. In Study 1, very humble potential dating partners, relative to less humble partners, were rated more favorably and were more likely to elicit intentions to initiate a romantic relationship. Study 2 was a conceptual replication of Study 1 that provided evidence that participants find humble potential dating partners more attractive than arrogant dating partners. In Study 3, we examined perceptions of humility in participants in proximal or long-distance relationships. We found that humility buffers against unforgiveness in long-distant relationships. Although long-distance relationships were associated with greater unforgiveness, this effect was only present when partners were viewed as having low humility. Together, these findings highlight the social benefits of humility in initiating and maintaining romantic relationships.