

# **35 healthy lifestyle & healthy aging abstracts**

## **november '18 newsletter**

Akerstedt, T., F. Ghilotti, et al. (2018). **"Sleep duration and mortality - does weekend sleep matter?"** *J Sleep Res*: e12712. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jsr.12712>

Previous studies have found a U-shaped relationship between mortality and (weekday) sleep duration. We here address the association of both weekday and weekend sleep duration with overall mortality. A cohort of 43,880 subjects was followed for 13 years through record-linkages. Cox proportional hazards regression models with attained age as time-scale were fitted to estimate multivariable-adjusted hazard ratios and 95% confidence intervals for mortality; stratified analyses on age (<65 years, ≥65 years) were conducted. Among individuals <65 years old, short sleep (<=5 hr) during weekends at baseline was associated with a 52% higher mortality rate (hazard ratios 1.52; 95% confidence intervals 1.15-2.02) compared with the reference group (7 hr), while no association was observed for long (>=9 hr) weekend sleep. When, instead, different combinations of weekday and weekend sleep durations were analysed, we observed a detrimental association with consistently sleeping <=5 hr (hazard ratios 1.65; 95% confidence intervals 1.22-2.23) or ≥8 hr (hazard ratios 1.25; 95% confidence intervals 1.05-1.50), compared with consistently sleeping 6-7 hr per day (reference). The mortality rate among participants with short sleep during weekdays, but long sleep during weekends, did not differ from the rate of the reference group. Among individuals ≥65 years old, no association between weekend sleep or weekday/weekend sleep durations and mortality was observed. In conclusion, short, but not long, weekend sleep was associated with an increased mortality in subjects <65 years. In the same age group, short sleep (or long sleep) on both weekdays and weekend showed increased mortality. Possibly, long weekend sleep may compensate for short weekday sleep.

Brookie, K. L., G. I. Best, et al. (2018). **"Intake of raw fruits and vegetables is associated with better mental health than intake of processed fruits and vegetables."** *Frontiers in Psychology* 9(487). <https://www.frontiersin.org/article/10.3389/fpsyg.2018.00487>

(Available in free full text) Background: Higher intakes of fruits and vegetables, rich in micronutrients, have been associated with better mental health. However, cooking or processing may reduce the availability of these important micronutrients. This study investigated the differential associations between intake of raw fruits and vegetables, compared to processed (cooked or canned) fruits and vegetables, and mental health in young adults. Methods: In a cross-sectional survey design, 422 young adults ages 18 to 25 (66.1% female) living in New Zealand and the United States completed an online survey that assessed typical consumption of raw versus cooked/canned/processed fruits and vegetables, negative and positive mental health (depressive symptoms, anxiety, negative mood, positive mood, life satisfaction, and flourishing), and covariates (including socio-economic status, body mass index, sleep, physical activity, smoking, and alcohol use). Results: Controlling for covariates, raw fruit and vegetable intake predicted reduced depressive symptoms and higher positive mood, life satisfaction, and flourishing; processed fruit and vegetable intake only predicted higher positive mood. The top 10 raw foods related to better mental health were carrots, bananas, apples, dark leafy greens like spinach, grapefruit, lettuce, citrus fruits, fresh berries, cucumber, and kiwifruit. Conclusions: Raw FVI, but not processed FVI, significantly predicted higher mental health outcomes when controlling for the covariates. Applications include recommending the consumption of raw fruits and vegetables to maximise mental health benefits.

Burton, R. and N. Sheron (2018). **"No level of alcohol consumption improves health."** *The Lancet*. [https://doi.org/10.1016/S0140-6736\(18\)31571-X](https://doi.org/10.1016/S0140-6736(18)31571-X)

(Available in free full text) By use of methodological enhancements of previous iterations,<sup>1</sup> the systematic analysis from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2016 for 195 countries and territories, 1990–2016,<sup>2</sup> is the most comprehensive estimate of the global burden of alcohol use to date. The GBD 2016 Alcohol Collaborators clearly demonstrate the substantial, and larger than previously estimated, contribution of alcohol to death, disability, and ill health, globally. In 2016, alcohol use was the seventh leading risk factor for both deaths and disability-adjusted life-years (DALYs), accounting for 2.2% (95% uncertainty interval [UI] 1.5–3.0) of female deaths and 6.8% (5.8–8.0) of male deaths. The burden is particularly borne among those aged 15–49 years, for whom alcohol ranks as the leading cause of DALYs. In this population, alcohol use was the leading risk factor globally in 2016, with 3.8% (3.2–4.3) of female deaths and 12.2% (10.8–13.6) of male deaths attributable to alcohol use ... The conclusions of the study are clear and unambiguous: alcohol is a colossal global health issue and small reductions in health-related harms at low levels of alcohol intake are outweighed by the increased risk of other health-related harms, including cancer. There is strong support here for the guideline published by the Chief Medical Officer of the UK who found that there is "no safe level of alcohol consumption".<sup>13</sup> The findings have further ramifications for public health policy, and suggest that policies that operate by decreasing population-level consumption should be prioritised. The most effective and cost-effective means to reduce alcohol-related harms are to reduce affordability through taxation or price regulation, including setting a minimum price per unit (MUP), closely followed by marketing regulation, and restrictions on the physical availability of alcohol.<sup>10</sup> These approaches should come as no surprise because these are also the most effective measures for curbing tobacco-related harms, another commercially mediated disease, with an increasing body of evidence showing that controlling obesity will require the same measures.<sup>14</sup> These diseases of unhealthy behaviours, facilitated by unhealthy environments and fuelled by commercial interests putting shareholder value ahead of the tragic human consequences, are the dominant health issue of the 21st century. The solutions are straightforward: increasing taxation creates income for hard-pressed health ministries, and reducing the exposure of children and adolescents to alcohol marketing has no downsides. The outlook is promising: the UK has just embarked on a huge controlled natural experiment with a progressive evidence-based alcohol strategy in place in Scotland, and with similar measures planned in Northern Ireland and Wales, with England as the placebo control. MUP in Scotland was introduced in May, 2018, without so much as a whisper of complaint from the media, the public, and politicians. Mortality and morbidity rates might be expected to diverge dramatically within just a few years, and pressures to extend these measures across Europe and elsewhere will start to rise.

Celis-Morales, C. A., P. Welsh, et al. (2018). **"Associations of grip strength with cardiovascular, respiratory, and cancer outcomes and all cause mortality: Prospective cohort study of half a million uk biobank participants."** 361. <https://www.bmj.com/content/bmj/361/bmj.k1651.full.pdf>

Objective To investigate the association of grip strength with disease specific incidence and mortality and whether grip strength enhances the prediction ability of an established office based risk score. Design Prospective population based study. Setting UK Biobank. Participants 502 293 participants (54% women) aged 40–69 years. Main outcome measures All cause mortality as well as incidence of and mortality from cardiovascular disease, respiratory disease, chronic obstructive pulmonary

disease, and cancer (all cancer, colorectal, lung, breast, and prostate). Results Of the participants included in analyses, 13 322 (2.7%) died over a mean of 7.1 (range 5.3-9.9) years' follow-up. In women and men, respectively, hazard ratios per 5 kg lower grip strength were higher (all at  $P < 0.05$ ) for all cause mortality (1.20, 95% confidence interval 1.17 to 1.23, and 1.16, 1.15 to 1.17) and cause specific mortality from cardiovascular disease (1.19, 1.13 to 1.25, and 1.22, 1.18 to 1.26), all respiratory disease (1.31, 1.22 to 1.40, and 1.24, 1.20 to 1.28), chronic obstructive pulmonary disease (1.24, 1.05 to 1.47, and 1.19, 1.09 to 1.30), all cancer (1.17, 1.13 to 1.21, 1.10, 1.07 to 1.13), colorectal cancer (1.17, 1.04 to 1.32, and 1.18, 1.09 to 1.27), lung cancer (1.17, 1.07 to 1.27, and 1.08, 1.03 to 1.13), and breast cancer (1.24, 1.10 to 1.39) but not prostate cancer (1.05, 0.96 to 1.15). Several of these relations had higher hazard ratios in the younger age group. Muscle weakness (defined as grip strength  $< 26$  kg for men and  $< 16$  kg for women) was associated with a higher hazard for all health outcomes, except colon cancer in women and prostate cancer and lung cancer in both men and women. The addition of handgrip strength improved the prediction ability, based on C index change, of an office based risk score (age, sex, diabetes diagnosed, body mass index, systolic blood pressure, and smoking) for all cause (0.013) and cardiovascular mortality (0.012) and incidence of cardiovascular disease (0.009). Conclusion Higher grip strength was associated with a range of health outcomes and improved prediction of an office based risk score. Further work on the use of grip strength in risk scores or risk screening is needed to establish its potential clinical utility.

Chekroud, S. R., R. Gueorguieva, et al. (2018). **"Association between physical exercise and mental health in 1.72 million individuals in the USA between 2011 and 2015: A cross-sectional study."** *The Lancet Psychiatry*. [https://doi.org/10.1016/S2215-0366\(18\)30227-X](https://doi.org/10.1016/S2215-0366(18)30227-X)

Background Exercise is known to be associated with reduced risk of all-cause mortality, cardiovascular disease, stroke, and diabetes, but its association with mental health remains unclear. We aimed to examine the association between exercise and mental health burden in a large sample, and to better understand the influence of exercise type, frequency, duration, and intensity. Methods In this cross-sectional study, we analysed data from 1 237 194 people aged 18 years or older in the USA from the 2011, 2013, and 2015 Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System survey. We compared the number of days of bad self-reported mental health between individuals who exercised and those who did not, using an exact non-parametric matching procedure to balance the two groups in terms of age, race, gender, marital status, income, education level, body-mass index category, self-reported physical health, and previous diagnosis of depression. We examined the effects of exercise type, duration, frequency, and intensity using regression methods adjusted for potential confounders, and did multiple sensitivity analyses. Findings Individuals who exercised had 1.49 (43.2%) fewer days of poor mental health in the past month than individuals who did not exercise but were otherwise matched for several physical and sociodemographic characteristics ( $W = 7.42 \times 10^{10}$ ,  $p < 2 \times 10^{-16}$ ). All exercise types were associated with a lower mental health burden (minimum reduction of 11.8% and maximum reduction of 22.3%) than not exercising ( $p < 2 \times 10^{-16}$  for all exercise types). The largest associations were seen for popular team sports (22.3% lower), cycling (21.6% lower), and aerobic and gym activities (20.1% lower), as well as durations of 45 min and frequencies of three to five times per week. Interpretation In a large US sample, physical exercise was significantly and meaningfully associated with self-reported mental health burden in the past month. More exercise was not always better. Differences as a function of exercise were large relative to other demographic variables such as education and income. Specific types, durations, and frequencies of exercise might be more effective clinical targets than others for reducing mental health burden, and merit interventional study.

Collaborators, G. A. (2018). **"Alcohol use and burden for 195 countries and territories, 1990-2016: A systematic analysis for the global burden of disease study 2016."** *The Lancet*. [https://doi.org/10.1016/S0140-6736\(18\)31310-2](https://doi.org/10.1016/S0140-6736(18)31310-2)

(Available in free full text) Background Alcohol use is a leading risk factor for death and disability, but its overall association with health remains complex given the possible protective effects of moderate alcohol consumption on some conditions. With our comprehensive approach to health accounting within the Global Burden of Diseases, Injuries, and Risk Factors Study 2016, we generated improved estimates of alcohol use and alcohol-attributable deaths and disability-adjusted life-years (DALYs) for 195 locations from 1990 to 2016, for both sexes and for 5-year age groups between the ages of 15 years and 95 years and older. Methods Using 694 data sources of individual and population-level alcohol consumption, along with 592 prospective and retrospective studies on the risk of alcohol use, we produced estimates of the prevalence of current drinking, abstention, the distribution of alcohol consumption among current drinkers in standard drinks daily (defined as 10 g of pure ethyl alcohol), and alcohol-attributable deaths and DALYs. We made several methodological improvements compared with previous estimates: first, we adjusted alcohol sales estimates to take into account tourist and unrecorded consumption; second, we did a new meta-analysis of relative risks for 23 health outcomes associated with alcohol use; and third, we developed a new method to quantify the level of alcohol consumption that minimises the overall risk to individual health. Findings Globally, alcohol use was the seventh leading risk factor for both deaths and DALYs in 2016, accounting for 2.2% (95% uncertainty interval [UI] 1.5-3.0) of age-standardised female deaths and 6.8% (5.8-8.0) of age-standardised male deaths. Among the population aged 15-49 years, alcohol use was the leading risk factor globally in 2016, with 3.8% (95% UI 3.2-4.3) of female deaths and 12.2% (10.8-13.6) of male deaths attributable to alcohol use. For the population aged 15-49 years, female attributable DALYs were 2.3% (95% UI 2.0-2.6) and male attributable DALYs were 8.9% (7.8-9.9). The three leading causes of attributable deaths in this age group were tuberculosis (1.4% [95% UI 1.0-1.7] of total deaths), road injuries (1.2% [0.7-1.9]), and self-harm (1.1% [0.6-1.5]). For populations aged 50 years and older, cancers accounted for a large proportion of total alcohol-attributable deaths in 2016, constituting 27.1% (95% UI 21.2-33.3) of total alcohol-attributable female deaths and 18.9% (15.3-22.6) of male deaths. The level of alcohol consumption that minimised harm across health outcomes was zero (95% UI 0.0-0.8) standard drinks per week. Interpretation Alcohol use is a leading risk factor for global disease burden and causes substantial health loss. We found that the risk of all-cause mortality, and of cancers specifically, rises with increasing levels of consumption, and the level of consumption that minimises health loss is zero. These results suggest that alcohol control policies might need to be revised worldwide, refocusing on efforts to lower overall population-level consumption.

Eyal, T., M. Steffel, et al. (2018). **"Perspective mistaking: Accurately understanding the mind of another requires getting perspective, not taking perspective"** *Journal of Personality and Social Psychology* 114: 547-571. <http://dx.doi.org/10.1037/pspa0000115>

Taking another person's perspective is widely presumed to increase interpersonal understanding. Very few experiments, however, have actually tested whether perspective taking increases accuracy when predicting another person's thoughts, feelings, attitudes, or other mental states. Those that do yield inconsistent results, or they confound accuracy with egocentrism. Here we report 25 experiments testing whether being instructed to adopt another person's perspective increases interpersonal insight. These experiments include a wide range of accuracy tests that disentangle egocentrism and accuracy, such as predicting another person's emotions from facial expressions and body postures, predicting fake versus genuine smiles, predicting when a person is lying or telling the truth, and predicting a spouse's activity preferences and consumer attitudes. Although a large majority of pretest participants believed that perspective taking would systematically increase accuracy on these tasks, we failed to find any consistent evidence that it actually did so. If anything, perspective taking decreased accuracy

overall while occasionally increasing confidence in judgment. Perspective taking reduced egocentric biases, but the information used in its place was not systematically more accurate. A final experiment confirmed that getting another person's perspective directly, through conversation, increased accuracy but that perspective taking did not. Increasing interpersonal accuracy seems to require gaining new information rather than utilizing existing knowledge about another person. Understanding the mind of another person is therefore enabled by getting perspective, not simply taking perspective.

Fayn, K., P. J. Silvia, et al. (2018). **"Nuanced aesthetic emotions: Emotion differentiation is related to knowledge of the arts and curiosity."** *Cogn Emot* 32(3): 593-599. <https://www.ncbi.nlm.nih.gov/pubmed/28488919>

The ability to distinguish between emotions is considered indicative of well-being, but does emotion differentiation (ED) in an aesthetic context also reflect deeper and more knowledgeable aesthetic experiences? Here we examine whether positive and negative ED in response to artistic stimuli reflects higher fluency in an aesthetic domain. Particularly, we test whether knowledge of the arts and curiosity are associated with more fine-grained positive and negative aesthetic experiences. A sample of 214 people rated their positive and negative feelings in response to various artworks including positive and negative themes. Positive ED was associated with the embracing sub-trait of curiosity that reflects engagement and enjoyment of novelty and complexity, but was unrelated to artistic knowledge and perceived comprehension. Negative ED was associated with higher curiosity and particularly more knowledge of the arts. This relationship was mediated by appraised comprehension suggesting that deeper engagement with art, by those with more art knowledge, is associated with more fine-grained emotional experiences. This finding extends ED beyond well-being research and suggests that more nuanced emotional experiences are more likely for those with expertise in the arts and motivation for exploration.

Furihata, R., C. Konno, et al. (2018). **"Unhealthy lifestyle factors and depressive symptoms: A Japanese general adult population survey."** *Journal of Affective Disorders* 234: 156-161. <http://www.sciencedirect.com/science/article/pii/S0165032717327155>

Objective To investigate the relationship between unhealthy lifestyles factors and depressive symptoms among the general adult population in Japan. Method Participants were randomly selected from the Japanese general adult population. Data from 2334 people aged 20 years or older were analyzed. This cross-sectional survey was conducted in August and September 2009. Participants completed a face-to-face interview about unhealthy lifestyle factors, including lack of exercise, skipping breakfast, a poorly balanced diet, snacking between meals, insufficient sleep, current smoking, alcohol drinking, and obesity. Presence of depressive symptoms was defined as a score of  $\geq 16$  on the Japanese version of the Center for Epidemiologic Studies Depression Scale (CES-D). Relationships between unhealthy lifestyle factors and depressive symptoms were evaluated by multivariate logistic regression analysis adjusting for sociodemographic variables and other unhealthy lifestyle factors. Results Multivariate logistic regression analysis revealed that insufficient sleep, a poorly balanced diet, snacking between meals and lack of exercise were significantly associated with the prevalence of depressive symptoms, with odds ratios ranging from 1.56 for lack of exercise to 3.98 for insufficient sleep. Limitations Since this study was a cross-sectional study, causal relationships could not be determined. Conclusion These results suggest that promoting a healthy lifestyle focused on sleep, food intake and exercise may be important for individuals with depressive symptoms.

Gewirtz-Meydan, A., T. Hafford-Letchfield, et al. (2018). **"How do older people discuss their own sexuality? A systematic review of qualitative research studies."** *Culture, Health & Sexuality*: 1-16. <https://doi.org/10.1080/13691058.2018.1465203>

Abstract This study captured older people's attitudes and concerns about sex and sexuality in later life by synthesising qualitative research published on this issue. The systematic review was conducted between November 2015 and June 2016 based on a pre-determined protocol. Key words were used to ensure a precise search strategy. Empirically based, qualitative literature from 18 databases was found. Twenty studies met the inclusion criteria. Thomas and Harden's thematic synthesis was used to generate 'analytical themes' which summarise this body of literature. Three main themes were identified: (a) social legitimacy for sexuality in later life; (b) health, not age, is what truly impacts sexuality, and (c) the hegemony of penetrative sex. The themes illustrate the complex and delicate relation between ageing and sexuality. Older adults facing health issues that affect sexual function adopt broader definitions of sexuality and sexual activity.

Giles, G. E., J. A. Cantelon, et al. (2018). **"Cognitive reappraisal reduces perceived exertion during endurance exercise."** *Motivation and Emotion* 42(4): 482-496. <https://doi.org/10.1007/s11031-018-9697-z>

Emotion regulation may influence psychological responses to exercise. We examined whether the emotion regulation strategies, cognitive reappraisal and distraction, influenced psychological state and prefrontal cortex oxygenation during endurance exercise. Twenty-four endurance runners ran for 90 min at 75–85% maximum heart rate in three separate sessions with no instruction or with instructions to use cognitive reappraisal or distraction. Participants rated their emotional arousal, emotional valence, and perceived exertion before, every 30 min during, and after exercise. Functional near-infrared spectroscopy quantified changes in prefrontal cortex oxygenation. Participants felt lower emotional arousal and physical exertion when instructed to utilize cognitive reappraisal than when given no emotion regulation instruction. Such responses to distraction did not differ from the other conditions. Emotion regulation strategies did not influence emotional valence or prefrontal cortex oxygenation. Participants' analytical interpretation of the cognitive reappraisal instruction could contribute to small effect sizes and limited effects. Further research should determine contexts under which emotion regulation strategies most benefit endurance exercise experience.

Gordon, B. R., C. P. McDowell, et al. (2018). **"Association of efficacy of resistance exercise training with depressive symptoms: Meta-analysis and meta-regression analysis of randomized clinical trials."** *JAMA Psychiatry* 75(6): 566-576. <http://dx.doi.org/10.1001/jamapsychiatry.2018.0572>

Importance The physical benefits of resistance exercise training (RET) are well documented, but less is known regarding the association of RET with mental health outcomes. To date, no quantitative synthesis of the antidepressant effects of RET has been conducted. Objectives To estimate the association of efficacy of RET with depressive symptoms and determine the extent to which logical, theoretical, and/or prior empirical variables are associated with depressive symptoms and whether the association of efficacy of RET with depressive symptoms accounts for variability in the overall effect size. Data Sources Articles published before August 2017, located using Google Scholar, MEDLINE, PsycINFO, PubMed, and Web of Science. Study Selection Randomized clinical trials included randomization to RET (n = 947) or a nonactive control condition (n = 930). Data Extraction and Synthesis Hedges d effect sizes were computed and random-effects models were used for all analyses. Meta-regression was conducted to quantify the potential moderating influence of participant and trial characteristics. Main Outcomes and Measures Randomized clinical trials used validated measures of depressive symptoms assessed at baseline and midintervention and/or postintervention. Four primary moderators were selected a priori to provide focused research hypotheses about variation in effect size: total volume of prescribed RET, whether participants were healthy or physically or mentally ill, whether or not allocation and/or assessment were blinded, and whether or not the RET intervention resulted in a significant

improvement in strength. Results Fifty-four effects were derived from 33 randomized clinical trials involving 1877 participants. Resistance exercise training was associated with a significant reduction in depressive symptoms with a moderate-sized mean effect  $\Delta$  of 0.66 (95% CI, 0.48-0.83;  $z = 7.35$ ;  $P < .001$ ). Significant heterogeneity was indicated (total  $Q = 216.92$ ,  $df = 53$ ;  $P < .001$ ;  $I^2 = 76.0\%$  [95% CI, 72.7%-79.0%]), and sampling error accounted for 32.9% of observed variance. The number needed to treat was 4. Total volume of prescribed RET, participant health status, and strength improvements were not significantly associated with the antidepressant effect of RET. However, smaller reductions in depressive symptoms were derived from randomized clinical trials with blinded allocation and/or assessment. Conclusions and Relevance Resistance exercise training significantly reduced depressive symptoms among adults regardless of health status, total prescribed volume of RET, or significant improvements in strength. Better-quality randomized clinical trials blinding both allocation and assessment and comparing RET with other empirically supported treatments for depressive symptoms are needed.

Ipsos (2018). **"New cigna study reveals loneliness at epidemic levels in america."**

<https://www.multivu.com/players/English/8294451-cigna-us-loneliness-survey/>

(Free downloadable 60 page report available) Today, global health service company Cigna (NYSE: CI) released results from a national survey exploring the impact of loneliness in the United States. The survey, conducted in partnership with market research firm, Ipsos, revealed that most American adults are considered lonely. The evaluation of loneliness was measured by a score of 43 or higher on the UCLA Loneliness Scale, a 20-item questionnaire developed to assess subjective feelings of loneliness, as well as social isolation. The UCLA Loneliness Scale is a frequently referenced and acknowledged academic measure used to gauge loneliness. The survey of more than 20,000 U.S. adults ages 18 years and older revealed some alarming findings: Nearly half of Americans report sometimes or always feeling alone (46 percent) or left out (47 percent). One in four Americans (27 percent) rarely or never feel as though there are people who really understand them. Two in five Americans sometimes or always feel that their relationships are not meaningful (43 percent) and that they are isolated from others (43 percent). One in five people report they rarely or never feel close to people (20 percent) or feel like there are people they can talk to (18 percent). Americans who live with others are less likely to be lonely (average loneliness score of 43.5) compared to those who live alone (46.4). However, this does not apply to single parents/guardians (average loneliness score of 48.2) – even though they live with children, they are more likely to be lonely. Only around half of Americans (53 percent) have meaningful in-person social interactions, such as having an extended conversation with a friend or spending quality time with family, on a daily basis. Generation Z (adults ages 18-22) is the loneliest generation and claims to be in worse health than older generations. Social media use alone is not a predictor of loneliness; respondents defined as very heavy users of social media have a loneliness score (43.5) that is not markedly different from the score of those who never use social media (41.7). [See too interesting discussion 'Americans are a lonely lot, and young people bear the heaviest burden' at <https://tinyurl.com/y8rbn7e9> and 'Guys, we have a problem: How American masculinity creates lonely men' at <https://tinyurl.com/ybs3kt9j> ].

Kashdan, T. B., F. R. Goodman, et al. (2018). **"Sexuality leads to boosts in mood and meaning in life with no evidence for the reverse direction: A daily diary investigation."** *Emotion* 18(4): 563-576. <http://psycnet.apa.org/record/2017-25711-001>

Sex is rarely discussed in theories of well-being and rarely empirically examined using methods other than cross-sectional surveys. In the present study, a daily diary approach was used (for 21 days with 152 adults) to explore the relationship between the presence and quality of sexual episodes and well-being (positive affect, negative affect, meaning in life). Time-lagged analyses demonstrated that sexual activity on 1 day was related to greater well-being the next. As for the quality of episodes, higher reported sexual pleasure and intimacy predicted greater positive affect and lower negative affect the following day. When the reverse direction was tested, well-being did not predict next-day sexual activity, pleasure, or intimacy. These results suggest a unidirectional relationship in which the presence and quality of sexual activity lead to gains in well-being the following day. Contextual moderators (gender, relationship status, relationship closeness, and relationship length) allowed for tests of conditions altering the link between sexuality and well-being. Relationship closeness was the most robust moderator in predicting greater levels of meaning in life and positive affect following sexual episodes. These data provide evidence to support the continual consideration of sex in empirical work and theoretical models of elements that comprise healthy relationships and a good life.

Keating, N. L. and L. E. Pace (2018). **"Breast cancer screening in 2018: Time for shared decision making."** *JAMA* 319(17): 1814-1815. <http://dx.doi.org/10.1001/jama.2018.3388>

(Available in free full text) In the past 9 years, there has been a major shift in the recommendations for breast cancer screening. Recognizing additional evidence about the harms of mammography, in 2009, the United States Preventive Services Task Force (USPSTF) revised its previous recommendation of annual mammograms for all women beginning at age 40 years and instead recommended biennial mammograms for women aged 50 to 74 years. The USPSTF recommended against routine screening mammography for women aged 40 to 49 years, stating that the decision to start regular mammography before age 50 years should be an individual one that considers how each patient values specific benefits and harms. The USPSTF reiterated this recommendation in a 2016 update, and other organizations, notably the American Cancer Society in 2015, have joined the USPSTF in recommending less routine use of mammography and a more individualized approach to screening.

Khambadkone, S. G., Z. A. Cordner, et al. (2018). **"Nitrated meat products are associated with mania in humans and altered behavior and brain gene expression in rats."** *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-018-0105-6>

Mania is a serious neuropsychiatric condition associated with significant morbidity and mortality. Previous studies have suggested that environmental exposures can contribute to mania pathogenesis. We measured dietary exposures in a cohort of individuals with mania and other psychiatric disorders as well as in control individuals without a psychiatric disorder. We found that a history of eating nitrated dry cured meat [bacon, salami, chorizo, bratwurst, etc] but not other meat or fish products was strongly and independently associated with current mania (adjusted odds ratio 3.49, 95% confidence interval (CI) 2.24–5.45,  $p < 8.97 \times 10^{-8}$ ). Lower odds of association were found between eating nitrated dry cured meat and other psychiatric disorders. We further found that the feeding of meat preparations with added nitrate to rats resulted in hyperactivity reminiscent of human mania, alterations in brain pathways that have been implicated in human bipolar disorder, and changes in intestinal microbiota. These findings may lead to new methods for preventing mania and for developing novel therapeutic interventions. [note nitrated meats have already been shown to be significantly carcinogenic].

Lam, B. C. P., C. Haslam, et al. (2018). **"Multiple social groups support adjustment to retirement across cultures."** *Social Science & Medicine* 208: 200-208. <http://www.sciencedirect.com/science/article/pii/S0277953618302922>

Rationale Research has demonstrated the positive effects that social identification with multiple groups has on people's health and well-being, in part during the transition from work to retirement. However, these effects have not been examined outside Western retirement contexts. This study addresses this gap. Objective This investigation aims to examine the

contribution that group membership and identification with multiple social groups makes to supporting retirees' physical health and well-being across cultures. Method Responses from a representative sample of 10,513 retired individuals from 51 countries drawn from the World Values Survey were used in this analysis. This research focused on the number of group memberships, identification with multiple groups, subjective health, and well-being that respondents reported. Results Analysis showed that belonging to multiple groups positively predicted retirees' health and well-being in both Western and non-Western cultural contexts. In line with cross-cultural research, there was evidence that country-level collectivism moderated the strength of this association, with the effect being weaker in collectivistic (vs. individualistic) countries. Conclusion Findings confirm the utility of using the social identity approach to understand people's adjustment to retirement across cultures.

Lassale, C., G. D. Batty, et al. (2018). **"Healthy dietary indices and risk of depressive outcomes: A systematic review and meta-analysis of observational studies."** *Molecular Psychiatry*. <https://doi.org/10.1038/s41380-018-0237-8>

(Available in free full text) With depression being the psychiatric disorder incurring the largest societal costs in developed countries, there is a need to gather evidence on the role of nutrition in depression, to help develop recommendations and guide future psychiatric health care. The aim of this systematic review was to synthesize the link between diet quality, measured using a range of predefined indices, and depressive outcomes. Medline, Embase and PsychInfo were searched up to 31st May 2018 for studies that examined adherence to a healthy diet in relation to depressive symptoms or clinical depression. Where possible, estimates were pooled using random effect meta-analysis with stratification by observational study design and dietary score. A total of 20 longitudinal and 21 cross-sectional studies were included. These studies utilized an array of dietary measures, including: different measures of adherence to the Mediterranean diet, the Healthy Eating Index (HEI) and Alternative HEI (AHEI), the Dietary Approaches to Stop Hypertension, and the Dietary Inflammatory Index. The most compelling evidence was found for the Mediterranean diet and incident depression, with a combined relative risk estimate of highest vs. lowest adherence category from four longitudinal studies of 0.67 (95% CI 0.55–0.82). A lower Dietary Inflammatory Index was also associated with lower depression incidence in four longitudinal studies (relative risk 0.76; 95% CI: 0.63–0.92). There were fewer longitudinal studies using other indices, but they and cross-sectional evidence also suggest an inverse association between healthy diet and depression (e.g., relative risk 0.65; 95% CI 0.50–0.84 for HEI/AHEI). To conclude, adhering to a healthy diet, in particular a traditional Mediterranean diet, or avoiding a pro-inflammatory diet appears to confer some protection against depression in observational studies. This provides a reasonable evidence base to assess the role of dietary interventions to prevent depression.

Lee, D. H., N. Keum, et al. (2018). **"Predicted lean body mass, fat mass, and all cause and cause specific mortality in men: Prospective us cohort study."** *Br Med J* 362. <https://www.bmj.com/content/bmj/362/bmj.k2575.full.pdf>

(Available in free full text) Objective To investigate the association of predicted lean body mass, fat mass, and body mass index (BMI) with all cause and cause specific mortality in men. Design Prospective cohort study. Setting Health professionals in the United States. Participants 38 006 men (aged 40–75 years) from the Health Professionals Follow-up Study, followed up for death (1987–2012). Main outcome measures All cause and cause specific mortality. Results Using validated anthropometric prediction equations previously developed from the National Health and Nutrition Examination Survey, lean body mass and fat mass were estimated for all participants. During a mean of 21.4 years of follow-up, 12 356 deaths were identified. A J shaped association was consistently observed between BMI and all cause mortality. Multivariable adjusted Cox models including predicted fat mass and lean body mass showed a strong positive monotonic association between predicted fat mass and all cause mortality. Compared with those in the lowest fifth of predicted fat mass, men in the highest fifth had a hazard ratio of 1.35 (95% confidence interval 1.26 to 1.46) for mortality from all causes. In contrast, a U shaped association was found between predicted lean body mass and all cause mortality. Compared with those in the lowest fifth of predicted lean body mass, men in the second to fourth fifths had 8–10% lower risk of mortality from all causes. In the restricted cubic spline models, the risk of all cause mortality was relatively flat until 21 kg of predicted fat mass and increased rapidly afterwards, with a hazard ratio of 1.22 (1.18 to 1.26) per standard deviation. For predicted lean body mass, a large reduction of the risk was seen within the lower range until 56 kg, with a hazard ratio of 0.87 (0.82 to 0.92) per standard deviation, which increased thereafter (P for non-linearity <0.001). For cause specific mortality, men in the highest fifth of predicted fat mass had hazard ratios of 1.67 (1.47 to 1.89) for cardiovascular disease, 1.24 (1.09 to 1.43) for cancer, and 1.26 (0.97 to 1.64) for respiratory disease. On the other hand, a U shaped association was found between predicted lean body mass and mortality from cardiovascular disease and cancer. However, a strong inverse association existed between predicted lean body mass and mortality from respiratory disease (P for trend <0.001). Conclusions The shape of the association between BMI and mortality was determined by the relation between two body components (lean body mass and fat mass) and mortality. This finding suggests that the "obesity paradox" controversy may be largely explained by low lean body mass, rather than low fat mass, in the lower range of BMI.

Maguire, A., F. Tselioui, et al. (2018). **"Consanguineous marriage and the psychopathology of progeny: A population-wide data linkage study."** *JAMA Psychiatry* 75(5): 438–446. <http://dx.doi.org/10.1001/jamapsychiatry.2018.0133>

Importance Approximately 1 in 10 children worldwide are born to consanguineous parents. The literature on consanguinity and mental health of progeny is scarce despite the fact that many of the factors associated with consanguineous unions are also associated with mental health. Objective To investigate if children of consanguineous parents are at increased risk of common mood disorders or psychoses. Design, Setting, and Participants This investigation was a retrospective population-wide cohort study of all individuals born in Northern Ireland between January 1, 1971, and December 31, 1986, derived from the Child Health System data set and linked to nationwide administrative data sources on prescription medication and death records. Data from the Child Health System data set identified all 447 452 births delivered to mothers residing in Northern Ireland between 1971 and 1986. The final data set comprised 363 960 individuals, alive and residing in Northern Ireland in 2014, with full data on all variables. The dates of analysis were June 1 to October 31, 2017. Main Outcomes and Measures Degree of parental consanguinity was assessed from questions asked of the parents during routine health visitor house calls within 2 weeks of the child's birth. Potential mental ill health was estimated by receipt of psychotropic medication in 2010 to 2014. Ever or never use was used for the main analysis, with sensitivity analyses using a cutoff of at least 3 months' prescriptions. Receipt of antidepressant or anxiolytic medications was used as a proxy for common mood disorders, whereas receipt of antipsychotic medications was used as a proxy indicator of psychoses. Results Of the 363 960 individuals (52.5% [191 102] male), 609 (0.2%) were born to consanguineous parents. After full adjustment for factors known to be associated with poor mental health, multilevel logistic regression models found that children of first-cousin consanguineous parents were more than 3 times as likely to be in receipt of antidepressant or anxiolytic medications (odds ratio, 3.01; 95% CI, 1.24–7.31) and more than twice as likely to be in receipt of antipsychotic medication (odds ratio, 2.13; 95% CI, 1.29–3.51) compared with children of nonrelated parents. Conclusions and Relevance A child of consanguineous parents is at increased risk of common mood disorders and psychoses.

Manstead, A. S. R. (2018). **"The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour."** *British Journal of Social Psychology* 57(2): 267–291. <https://onlinelibrary.wiley.com/doi/abs/10.1111/bjso.12251>

(Available in free full text) Drawing on recent research on the psychology of social class, I argue that the material conditions in which people grow up and live have a lasting impact on their personal and social identities and that this influences both the way they think and feel about their social environment and key aspects of their social behaviour. Relative to middle-class counterparts, lower/working-class individuals are less likely to define themselves in terms of their socioeconomic status and are more likely to have interdependent self-concepts; they are also more inclined to explain social events in situational terms, as a result of having a lower sense of personal control. Working-class people score higher on measures of empathy and are more likely to help others in distress. The widely held view that working-class individuals are more prejudiced towards immigrants and ethnic minorities is shown to be a function of economic threat, in that highly educated people also express prejudice towards these groups when the latter are described as highly educated and therefore pose an economic threat. The fact that middle-class norms of independence prevail in universities and prestigious workplaces makes working-class people less likely to apply for positions in such institutions, less likely to be selected and less likely to stay if selected. In other words, social class differences in identity, cognition, feelings, and behaviour make it less likely that working-class individuals can benefit from educational and occupational opportunities to improve their material circumstances. This means that redistributive policies are needed to break the cycle of deprivation that limits opportunities and threatens social cohesion.

Newman, D. B., J. Schug, et al. (2018). **"The negative consequences of maximizing in friendship selection."** *Journal of Personality and Social Psychology* 114: 804-824. <http://dx.doi.org/10.1037/pspp0000141>

Previous studies have shown that the maximizing orientation, reflecting a motivation to select the best option among a given set of choices, is associated with various negative psychological outcomes. In the present studies, we examined whether these relationships extend to friendship selection and how the number of options for friends moderated these effects. Across 5 studies, maximizing in selecting friends was negatively related to life satisfaction, positive affect, and self-esteem, and was positively related to negative affect and regret. In Study 1, a maximizing in selecting friends scale was created, and regret mediated the relationships between maximizing and well-being. In a naturalistic setting in Studies 2a and 2b, the tendency to maximize among those who participated in the fraternity and sorority recruitment process was negatively related to satisfaction with their selection, and positively related to regret and negative affect. In Study 3, daily levels of maximizing were negatively related to daily well-being, and these relationships were mediated by daily regret. In Study 4, we extended the findings to samples from the U.S. and Japan. When participants who tended to maximize were faced with many choices, operationalized as the daily number of friends met (Study 3) and relational mobility (Study 4), the opportunities to regret a decision increased and further diminished well-being. These findings imply that, paradoxically, attempts to maximize when selecting potential friends is detrimental to one's well-being

Pachankis, J. E. and R. Branstrom (2018). **"Hidden from happiness: Structural stigma, sexual orientation concealment, and life satisfaction across 28 countries."** *J Consult Clin Psychol* 86(5): 403-415. <http://psycnet.apa.org/doiLanding?doi=10.1037%2Fccp0000299>

**OBJECTIVE:** Although structural stigma (i.e., discriminatory laws, policies, and community attitudes) toward sexual minorities predicts adverse health and well-being, this association has typically only been examined within a single country and potential mechanisms remain unknown. Consequently, we examined the association between structural stigma and sexual minorities' life satisfaction across 28 countries, identity concealment as a potential mechanism of this association, and, in high-stigma countries, the potential for concealment to protect sexual minorities from discrimination and victimization, and therefore even poorer life satisfaction than they would otherwise experience in those countries. **METHOD:** Sexual minority adults ( $n = 85,582$ ) from 28 European countries responded to questions regarding sexual minority stigma, identity concealment, and life satisfaction. Structural stigma was assessed as national laws, policies, and attitudes affecting sexual minorities in each country. **RESULTS:** Country-level structural stigma explained 60% of country-level variation in life satisfaction and more than 70% of country-level variation in sexual orientation concealment. Sexual orientation concealment mediated the association between structural stigma and life satisfaction. Especially in high-stigma countries, concealment also protected against even lower life satisfaction than would be experienced if a sexual minority individual did not conceal in those countries because it partially protected against discrimination and victimization. **CONCLUSIONS:** Sexual minorities' life satisfaction varies greatly across countries largely due to the structural stigma of those countries and associated demands to conceal one's sexual orientation. Findings highlight the importance of reducing structural stigma to promote equitable life satisfaction and tailoring affirmative psychotherapies to address the structural context surrounding sexual minorities who seek treatment.

Pashayan, N., S. Morris, et al. (2018). **"Cost-effectiveness and benefit-to-harm ratio of risk-stratified screening for breast cancer: A life-table model."** *JAMA Oncology*. <http://dx.doi.org/10.1001/jamaoncol.2018.1901>

(Available in free full text) **Importance** The age-based or "one-size-fits-all" breast screening approach does not take into account the individual variation in risk. Mammography screening reduces death from breast cancer at the cost of overdiagnosis. Identifying risk-stratified screening strategies with a more favorable ratio of overdiagnoses to breast cancer deaths prevented would improve the quality of life of women and save resources. **Objective** To assess the benefit-to-harm ratio and the cost-effectiveness of risk-stratified breast screening programs compared with a standard age-based screening program and no screening. **Design, Setting, and Population** A life-table model was created of a hypothetical cohort of 364 500 women in the United Kingdom, aged 50 years, with follow-up to age 85 years, using (1) findings of the Independent UK Panel on Breast Cancer Screening and (2) risk distribution based on polygenic risk profile. The analysis was undertaken from the National Health Service perspective. **Interventions** The modeled interventions were (1) no screening, (2) age-based screening (mammography screening every 3 years from age 50 to 69 years), and (3) risk-stratified screening (a proportion of women aged 50 years with a risk score greater than a threshold risk were offered screening every 3 years until age 69 years) considering each percentile of the risk distribution. All analyses took place between July 2016 and September 2017. **Main Outcomes and Measures** Overdiagnoses, breast cancer deaths averted, quality-adjusted life-years (QALYs) gained, costs in British pounds, and net monetary benefit (NMB). Probabilistic sensitivity analyses were used to assess uncertainty around parameter estimates. Future costs and benefits were discounted at 3.5% per year. **Results** The risk-stratified analysis of this life-table model included a hypothetical cohort of 364 500 women followed up from age 50 to 85 years. As the risk threshold was lowered, the incremental cost of the program increased linearly, compared with no screening, with no additional QALYs gained below 35th percentile risk threshold. Of the 3 screening scenarios, the risk-stratified scenario with risk threshold at the 70th percentile had the highest NMB, at a willingness to pay of £20 000 (US \$26 800) per QALY gained, with a 72% probability of being cost-effective. Compared with age-based screening, risk-stratified screening at the 32nd percentile vs 70th percentile risk threshold would cost £20 066 (US \$26 888) vs £537 985 (US \$720 900) less, would have 26.7% vs 71.4% fewer overdiagnoses, and would avert 2.9% vs 9.6% fewer breast cancer deaths, respectively. **Conclusions and Relevance** Not offering breast cancer screening to women at lower risk could improve the cost-effectiveness of the screening program, reduce overdiagnosis, and maintain the benefits of screening.

Pereira Gray, D. J., K. Sidaway-Lee, et al. (2018). **"Continuity of care with doctors—a matter of life and death? A systematic review of continuity of care and mortality."** *BMJ Open* 8(6). <https://bmjopen.bmj.com/content/bmjopen/8/6/e021161.full.pdf>

(Available in free full text) Objective Continuity of care is a long-standing feature of healthcare, especially of general practice. It is associated with increased patient satisfaction, increased take-up of health promotion, greater adherence to medical advice and decreased use of hospital services. This review aims to examine whether there is a relationship between the receipt of continuity of doctor care and mortality. Design Systematic review without meta-analysis. Data sources MEDLINE, Embase and the Web of Science, from 1996 to 2017. Eligibility criteria for selecting studies Peer-reviewed primary research articles, published in English which reported measured continuity of care received by patients from any kind of doctor, in any setting, in any country, related to measured mortality of those patients. Results Of the 726 articles identified in searches, 22 fulfilled the eligibility criteria. The studies were all cohort or cross-sectional and most adjusted for multiple potential confounding factors. These studies came from nine countries with very different cultures and health systems. We found such heterogeneity of continuity and mortality measurement methods and time frames that it was not possible to combine the results of studies. However, 18 (81.8%) high-quality studies reported statistically significant reductions in mortality, with increased continuity of care. 16 of these were with all-cause mortality. Three others showed no association and one demonstrated mixed results. These significant protective effects occurred with both generalist and specialist doctors. Conclusions This first systematic review reveals that increased continuity of care by doctors is associated with lower mortality rates. Although all the evidence is observational, patients across cultural boundaries appear to benefit from continuity of care with both generalist and specialist doctors. Many of these articles called for continuity to be given a higher priority in healthcare planning. Despite substantial, successive, technical advances in medicine, interpersonal factors remain important.

Rubaltelli, E., S. Agnoli, et al. (2018). **"Emotional intelligence impact on half marathon finish times."** *Personality and Individual Differences* 128: 107-112. <http://www.sciencedirect.com/science/article/pii/S0191886918301004>

We investigated how runners' trait emotional intelligence (trait EI) influences their performance. Participants, recruited the day before a half marathon competition, were asked to report their experience and performance in previous races and to complete a trait EI questionnaire. Through a structural equation modeling approach, we demonstrated that runners' trait EI was the main predictor of runners' finish time. Specifically, trait EI emerged as the variable with the highest power to predict finish time over and above training. Overall, these results are consistent with the explanation that being effective at controlling emotions reduces the impact of fatigue and leads to better performance.

Saxbe, D., G. W. Corner, et al. (2018). **"The weight of fatherhood: Identifying mechanisms to explain paternal perinatal weight gain."** *Health Psychology Review* 12(3): 294-311. <https://doi.org/10.1080/17437199.2018.1463166>

ABSTRACT Men appear to gain weight during the transition to parenthood, and fathers are heavier than non-fathers. Paternal perinatal weight gain may set weight trajectories in midlife and have long-term health implications. Since men do not undergo the physical demands of pregnancy and breastfeeding, the specific mechanisms underlying weight gain in new fathers warrant investigation. This review aims to stimulate research on paternal perinatal weight gain by suggesting testable potential mechanisms that (1) show change across the transition to parenthood and (2) play a role in weight and body composition. We identify seven mechanisms, within three categories: behavioural mechanisms (sleep, physical activity, and diet), hormonal mechanisms (testosterone and cortisol), and psychological mechanisms (depression and stress). We also discuss direct effects of partner pregnancy influences (e.g., *couvade syndrome*) on men's body weight. In presenting each mechanism, we discuss how it may be affected by the transition to parenthood, and then review its role in body composition and weight. Next, we describe bidirectional and interactive effects, discuss timing, and present three broad research questions to propel theoretical development. [And see the excellent BPS Research Digest discussion of this paper at <https://tinyurl.com/yax5l72u>].

Schuch, F. B., D. Vancampfort, et al. (2018). **"Physical activity and incident depression: A meta-analysis of prospective cohort studies."** *Am J Psychiatry* 175(7): 631-648. <https://doi.org/10.1176/appi.ajp.2018.17111194>

OBJECTIVE: The authors examined the prospective relationship between physical activity and incident depression and explored potential moderators. METHOD: Prospective cohort studies evaluating incident depression were searched from database inception through Oct. 18, 2017, on PubMed, PsycINFO, Embase, and SPORTDiscus. Demographic and clinical data, data on physical activity and depression assessments, and odds ratios, relative risks, and hazard ratios with 95% confidence intervals were extracted. Random-effects meta-analyses were conducted, and the potential sources of heterogeneity were explored. Methodological quality was assessed using the Newcastle-Ottawa Scale. RESULTS: A total of 49 unique prospective studies (N=266,939; median proportion of males across studies, 47%) were followed up for 1,837,794 person-years. Compared with people with low levels of physical activity, those with high levels had lower odds of developing depression (adjusted odds ratio=0.83, 95% CI=0.79, 0.88; I(2)=0.00). Furthermore, physical activity had a protective effect against the emergence of depression in youths (adjusted odds ratio=0.90, 95% CI=0.83, 0.98), in adults (adjusted odds ratio=0.78, 95% CI=0.70, 0.87), and in elderly persons (adjusted odds ratio=0.79, 95% CI=0.72, 0.86). Protective effects against depression were found across geographical regions, with adjusted odds ratios ranging from 0.65 to 0.84 in Asia, Europe, North America, and Oceania, and against increased incidence of positive screen for depressive symptoms (adjusted odds ratio=0.84, 95% CI=0.79, 0.89) or major depression diagnosis (adjusted odds ratio=0.86, 95% CI=0.75, 0.98). No moderators were identified. Results were consistent for unadjusted odds ratios and for adjusted and unadjusted relative risks/hazard ratios. Overall study quality was moderate to high (Newcastle-Ottawa Scale score, 6.3). Although significant publication bias was found, adjusting for this did not change the magnitude of the associations. CONCLUSIONS: Available evidence supports the notion that physical activity can confer protection against the emergence of depression regardless of age and geographical region.

Stanton, A. M., A. B. Handy, et al. (2018). **"The effects of exercise on sexual function in women."** *Sex Med Rev*. <https://www.sciencedirect.com/science/article/pii/S2050052118300180?via%3Dihub>

BACKGROUND: Acute exercise is associated with transient changes in metabolic rate, muscle activation, and blood flow, whereas chronic exercise facilitates long-lasting adaptations that ultimately improve physical performance. Exercise in general is known to improve both physical and psychological health, but the differential effects of brief bouts of exercise vs long-term exercise regimens on sexual function are less clear. AIM: The purpose of this review was to assess the direct and indirect effects of both acute and chronic exercise on multiple domains of sexual function in women. METHODS: A literature review of published studies on exercise and sexual function was conducted. Terms including "acute exercise," "chronic exercise," "sexual function," "sexual arousal," "sexual desire," "lubrication," "sexual pain," and "sexual satisfaction" were used. OUTCOMES: This review identifies key relationships between form of exercise (ie, chronic or acute) and domain of sexual function. RESULTS: Improvements in physiological sexual arousal following acute exercise appear to be driven by increases in sympathetic nervous system activity and endocrine factors. Chronic exercise likely enhances sexual satisfaction indirectly by preserving autonomic flexibility, which benefits cardiovascular health and mood. Positive body image due to chronic exercise also increases sexual well-being. Though few studies have examined the efficacy of month-long exercise programs for the treatment of sexual

dysfunction, exercise interventions have alleviated sexual concerns in 2 specific clinical populations: women with antidepressant-induced sexual dysfunction and women who have undergone hysterectomies. **CONCLUSIONS:** This review highlights the positive effects of acute and chronic exercise on sexual function in women. Directions for future research are discussed, and clinicians are encouraged to tailor specific exercise prescriptions to meet their patients' individual needs.

Szczygiel, D. and M. Mikolajczak (2018). **"Is it enough to be an extrovert to be liked? Emotional competence moderates the relationship between extraversion and peer-rated likeability."** *Front Psychol* 9: 804. <https://www.frontiersin.org/articles/10.3389/fpsyg.2018.00804/full>

(Available in free full text) Likeability represents one of the aspects of social status in a peer group and refers to the extent to which one is accepted, preferred by others, and perceived as a likeable companion. Previous research has demonstrated that likeability is partly determined by dispositional factors. One body of research shows that variance in likeability across individuals can be traced to personality traits, mainly extraversion and agreeableness. Another expanding body of research demonstrates that success in achieving peer acceptance is determined, in some part, by the emotional competencies (ECs) of an individual. In an attempt to combine these two approaches and to clarify some inconsistencies in the results concerning the personality-likeability relationships, this study was designed to examine the interactive effect of adolescents' personality traits (i.e., extraversion and agreeableness) and ECs on peer-rated likeability in adolescence. A sample of 230 adolescents (47% female) from two comprehensive secondary schools in Poland completed measures of personality traits and ECs, as well as a sociometric assessment of likeability in their classrooms. The results demonstrated that interpersonal EC acts as a moderator in the relationship between extraversion and peer-rated likeability. Specifically, extraversion predicted greater likeability among adolescents with high interpersonal EC but not among adolescents with low interpersonal EC. The study yielded new insights into the determinants of likeability, as it demonstrates that adolescents need to be both extrovert and possess high interpersonal EC in order to be judged highly likeable by their peers. It also bears practical implications for the improvement of adolescents' position and acceptance within their peer group. The results suggest that encouraging "rejected" adolescents to reach out to others in an extrovert fashion is necessary but insufficient to increase their likeability. Improving their interpersonal EC is also necessary. The observation that higher levels of interpersonal EC helps adolescents to achieve higher acceptance in their peer group suggests the need to implement school training programs aimed at improving the core ECs (identification, understanding, expression, regulation and use of emotions).

von Soest, T., J. Wagner, et al. (2018). **"Self-esteem across the second half of life: The role of socioeconomic status, physical health, social relationships, and personality factors "** *Journal of Personality and Social Psychology* 114: 945-958. <http://dx.doi.org/10.1037/pspp0000123>

Self-esteem development across adulthood has been in the center of interest for some time now. However, not much is known about factors that shape self-esteem and its development in the second half of life and whether the factors differ with age and gender. To examine these questions, this study uses 2-wave data from the population-based NorLAG study in Norway (N = 5,555; Mage = 58 years; 51% women) and combines self-report data on self-esteem and personality with registry-based information on socioeconomic status (education, income, unemployment), health problems (sick leave, lifetime history of disability), and social relationships (cohabiting partner, lifetime history of divorce and widowhood). Results from latent change score models revealed that self-esteem peaked at around age 50 and declined thereafter. More importantly, lower socioeconomic status, not having a cohabiting partner, unemployment, and disability were each uniquely associated with lower levels of self-esteem and/or steeper declines in self-esteem over the 5-year study period. Over and above registry-based information, personality characteristics were relevant, with a more mature personality being associated with higher self-esteem level. Emotionally stable participants also showed less pronounced declines in self-esteem. Moreover, associations of disability and of emotional stability with self-esteem level were weaker with advancing age. Among women, self-esteem level was more strongly associated with emotional stability and less strongly with openness, compared to men. Our findings demonstrate the utility of registry-based information and suggest that physical health, social relationships, and personality factors are in manifold ways uniquely associated with self-esteem and its development later in life.

Wang, C., C. H. Schmid, et al. (2018). **"Effect of tai chi versus aerobic exercise for fibromyalgia: Comparative effectiveness randomized controlled trial."** *Br Med J* 360. <https://www.bmj.com/content/bmj/360/bmj.k851.full.pdf>

(Available in free full text) Objectives To determine the effectiveness of tai chi interventions compared with aerobic exercise, a current core standard treatment in patients with fibromyalgia, and to test whether the effectiveness of tai chi depends on its dosage or duration. Design Prospective, randomized, 52 week, single blind comparative effectiveness trial. Setting Urban tertiary care academic hospital in the United States between March 2012 and September 2016. Participants 226 adults with fibromyalgia (as defined by the American College of Rheumatology 1990 and 2010 criteria) were included in the intention to treat analyses: 151 were assigned to one of four tai chi groups and 75 to an aerobic exercise group. Interventions Participants were randomly assigned to either supervised aerobic exercise (24 weeks, twice weekly) or one of four classic Yang style supervised tai chi interventions (12 or 24 weeks, once or twice weekly). Participants were followed for 52 weeks. Adherence was rigorously encouraged in person and by telephone. Main outcome measures The primary outcome was change in the revised fibromyalgia impact questionnaire (FIQR) scores at 24 weeks compared with baseline. Secondary outcomes included changes of scores in patient's global assessment, anxiety, depression, self efficacy, coping strategies, physical functional performance, functional limitation, sleep, and health related quality of life. Results FIQR scores improved in all five treatment groups, but the combined tai chi groups improved statistically significantly more than the aerobic exercise group in FIQR scores at 24 weeks (difference between groups=5.5 points, 95% confidence interval 0.6 to 10.4, P=0.03) and several secondary outcomes (patient's global assessment=0.9 points, 0.3 to 1.4, P=0.005; anxiety=1.2 points, 0.3 to 2.1, P=0.006; self efficacy=1.0 points, 0.5 to 1.6, P=0.0004; and coping strategies, 2.6 points, 0.8 to 4.3, P=0.005). Tai chi treatment compared with aerobic exercise administered with the same intensity and duration (24 weeks, twice weekly) had greater benefit (between group difference in FIQR scores=16.2 points, 8.7 to 23.6, P<0.001). The groups who received tai chi for 24 weeks showed greater improvements than those who received it for 12 weeks (difference in FIQR scores=9.6 points, 2.6 to 16.6, P=0.007). There was no significant increase in benefit for groups who received tai chi twice weekly compared with once weekly. Participants attended the tai chi training sessions more often than participants attended aerobic exercise. The effects of tai chi were consistent across all instructors. No serious adverse events related to the interventions were reported. Conclusion Tai chi mind-body treatment results in similar or greater improvement in symptoms than aerobic exercise, the current most commonly prescribed non-drug treatment, for a variety of outcomes for patients with fibromyalgia. Longer duration of tai chi showed greater improvement. This mind-body approach may be considered a therapeutic option in the multidisciplinary management of fibromyalgia. Trial registration ClinicalTrials.gov NCT01420640.

West, K. (2018). **"Naked and unashamed: Investigations and applications of the effects of naturist activities on body image, self-esteem, and life satisfaction."** *Journal of Happiness Studies* 19(3): 677-697. <https://doi.org/10.1007/s10902-017-9846-1>



Body image dissatisfaction is a serious, global problem that negatively affects life satisfaction. Several claims have been made about the possible psychological benefits of naturist activities, but very little empirical research has investigated these benefits or any plausible explanations for them. In three studies—one large-scale, cross-sectional study (n = 849), and 2 prospective studies (n = 24, n = 100) this research developed and applied knowledge about the possible benefits of naturist activities. It was found that more participation in naturist activities predicted greater life satisfaction—a relationship that was mediated by more positive body image, and higher self-esteem (Study 1). Applying these findings, it was found that participation in actual naturist activities led to an increase in life satisfaction, an effect that was also mediated by improvements in body image and self-esteem (Studies 2 and 3). The potential benefits of naturism are discussed, as well as possible future research, and implications for the use of naturist activities.

Wieten, E., E. H. Schreuders, et al. (2018). **"Incidence of faecal occult blood test interval cancers in population-based colorectal cancer screening: A systematic review and meta-analysis."** *Gut*. <https://gut.bmj.com/content/gutjnl/early/2018/06/22/gutjnl-2017-315340.full.pdf>

Objective Faecal immunochemical tests (FITs) are replacing guaiac faecal occult blood tests (gFOBTs) for colorectal cancer (CRC) screening. Incidence of interval colorectal cancer (iCRC) following a negative stool test result is not yet known. We aimed to compare incidence of iCRC following a negative FIT or gFOBT. Design We searched Ovid Medline, Embase, Cochrane Library, Science Citation Index, PubMed and Google Scholar from inception to 12 December 2017 for citations related to CRC screening based on stool tests. We included studies on FIT or gFOBT iCRC in average-risk screening populations. Main outcome was pooled incidence rate of iCRCs per 100 000 person-years (p-y). Pooled incidence rates were obtained by fitting random-effect Poisson regression models. Results We identified 7 426 records and included 29 studies. Meta-analyses comprised data of 6 987 825 subjects with a negative test result, in whom 11 932 screen-detected CRCs and 5 548 gFOBT or FIT iCRCs were documented. Median faecal haemoglobin (Hb) positivity cut-off used was 20 (range 10–200) µg Hb/g faeces in the 17 studies that provided FIT results. Pooled incidence rates of iCRC following FIT and gFOBT were 20 (95% CI 14 to 29; I<sup>2</sup>=99%) and 34 (95% CI 20 to 57; I<sup>2</sup>=99%) per 100 000 p-y, respectively. Pooled incidence rate ratio of FIT versus gFOBT iCRC was 0.58 (95% CI 0.32 to 1.07; I<sup>2</sup>=99%) and 0.36 (95% CI 0.17 to 0.75; I<sup>2</sup>=10%) in sensitivity analysis. For every FIT iCRC, 2.6 screen-detected CRCs were found (ratio 1:2.6); for gFOBT, the ratio between iCRC and screen-detected CRC was 1:1.2. Age below 60 years and the third screening round were significantly associated with a lower iCRC rate. Conclusion A negative gFOBT result is associated with a higher iCRC incidence than a negative FIT. This supports the use of FIT over gFOBT as CRC screening tool.

Wilson, D. M., J. Cohen, et al. (2018). **"Bereavement grief: A population-based foundational evidence study."** *Death Studies* 42(7): 463-469. <https://doi.org/10.1080/07481187.2017.1382609>

Information is needed on the incidence and prevalence of bereavement grief, and factors associated with severe or prolonged grief. Among 1,208 representative Canadian adults, 96% had experienced bereavement grief and 78% were actively grieving at interview. Grief levels were higher among women, Protestants, and Catholics, when the death was under 2 years previously, when a spouse, parent, or child had died, and when the perceived death quality was lower. This study reveals the importance of good deaths; they are essential for dying people and also those who mourn their deaths.