

# Patient Psychology Research Review™

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Issue 16 - 2016

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## Welcome to the latest issue of Patient Psychology Research Review.

Highlights include a recent study out of Cornell University that found a correlation between weight and what people display on their kitchen counters (more support for a sugar tax?). This is followed by 2 studies of the media and how it reflects or drives behaviour, plus evidence that being financially generous to others pays off health-wise. We also report the benefits of mindfulness in patients with chronic pain, an opinion piece on the rise of consumer health wearables, and finish with the growing trend of websites for rating physicians.

We hope you find these and the other selected studies interesting, and look forward to any feedback you may have.

**Research Review is ten!!** The first ever issues of Research Review were delivered to inboxes in February 2006. Fast forward ten years and we now publish 48 regular reviews to which there are over 160,000 subscriptions. We're grateful to each and every one of you for your support and are looking forward to even bigger and better things over the coming years.

Kind regards

**Keith Petrie**

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## Slim by design: kitchen counter correlates of obesity

**Authors:** Wansink B et al.

**Summary:** This 2-part study investigated whether the presence of food on a person's kitchen counter is associated with their body mass index (BMI). In study 1, a nationwide sample of 500 households was asked to inventory their kitchen and provide their height and weight. In study 2, researchers photographed and catalogued 210 households in Syracuse, New York, and measured the occupants' height and weight. The presence of fruit on the kitchen counter was associated with lower BMI in both studies, but the presence of foods such as candy, cereal, soft drinks, and dried fruit was associated with weight increases ranging from 9.4–14.4kg.

**Comment:** Keep snack food out of sight and just have fruit on the kitchen bench is the simple message of this paper. The researchers found high BMI individuals were more likely to have energy rich foods such as sweets, biscuits and soft drinks on the kitchen counter. It also seems men rather than women are more likely to be more influenced to consume visible unhealthy food. The two studies in this paper reinforce the idea that the proximity and visibility of food has a strong influence on consumption. The modelling of snacking behaviour by parents is also likely to have a strong influence on the dietary behaviour of their children. Visible soft drinks were also associated with higher BMI for women. More support for the case to introduce a sugar tax?

**Reference:** *Health Educ Behav* 2015; published online Oct 19

### Abstract



Time spent reading this publication has been approved for CME for Royal New Zealand College of General Practitioners (RNZCGP) General Practice Educational Programme Stage 2 (GPEP2) and the Maintenance of Professional Standards (MOPS) purposes, provided that a Learning Reflection Form is completed. Please [CLICK HERE](#) to download your CPD MOPS Learning Reflection Form. One form per review read would be required.



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## Negative statin-related news stories decrease statin persistence and increase myocardial infarction and cardiovascular mortality

**Authors:** Nielsen S & Nordestgaard B

**Summary:** This nationwide cohort study examined the influence of various factors on statin discontinuation. From the entire Danish population, 674,900 adults who started taking statin therapy in 1995–2010 were followed-up until 31 December 2011. The number of individuals taking a statin increased from <1% in 1995 to 11% in 2010, while early statin discontinuation increased from 6% in 1995 to 18% in 2010. The odds ratios for early statin discontinuation versus continued use were 1.09 for negative statin-related news stories, 1.04 per increasing calendar year, 1.04 per increasing statin dose, 1.05 for male sex, 1.13 for living in cities, 1.67 for ethnicity other than Danish, 0.92 for positive statin-related news stories, 0.73 for baseline cardiovascular disease, and 0.91 for baseline diabetes. During follow-up, the hazard ratios for adults with versus without early statin discontinuation were 1.26 for myocardial infarction (MI) and 1.18 for death from cardiovascular disease.

**Comment:** The size and scale of this study and the methodology are mind boggling for someone like me who does experimental studies with 80 or 100 participants. The health registries that are now available in Scandinavian countries make this kind of work possible and very valuable. The researchers set out to see what factors were associated with early discontinuation of statins, and not to be content with answering this question, they also went on to look at what were the health consequences of early statin discontinuation. The researchers found news stories in the six months after beginning statins did influence statin persistence; negative news stories reduced persistence and positive stories about statins increased persistence. This is a very clear finding on how media stories can influence adherence to medication by eroding or building the public's confidence in that drug. As would be predicted, early discontinuation of statins was also associated with increased rates of MI and death.

**Reference:** *Eur Heart J* 2016;37(11):908-16

[Abstract](#)

## Fifty years of fat: news coverage of trends that predate obesity prevalence

**Authors:** Davis B & Wansink B

**Summary:** This study investigated whether media reports of food predate the prevalence of obesity. 50 years of non-advertising articles in the New York Times and 17 years of articles in the London Times were coded for the mention of less healthy (salty and sweet snacks) and healthy (fruits and vegetables) food items by year, and then associated with annual obesity prevalence in subsequent years using time-series linear models. The prevalence of obesity in the US was found to be positively associated with New York Times mentions of sweet snacks and negatively associated with mentions of fruits and vegetables. Similar associations were found in the UK for the London Times news reports.

**Comment:** Here's another paper that looked at the media and how it reflects or drives behaviour. The researchers found mentions of sweet snacks or less healthy food in the New York and London Times were associated with obesity in subsequent years. While the paper makes no claims around causality, the authors suggest that obesity prevalence could be predicted by how frequently media mention sweet snacks as opposed to fruits or vegetables. The paper is a further example of how the online search engines for newspapers can now be used to look at societal trends and related to health outcomes.

**Reference:** *BMC Public Health* 2015;15:629

[Abstract](#)

## Is spending money on others good for your heart?

**Authors:** Whillans A et al.

**Summary:** This 2-part study examined whether spending money on others (prosocial spending) improves the cardiovascular health of older adults with high blood pressure (BP). In study 1, the spending habits of 186 older adults with high BP participating in the MIDUS trial were examined. In study 2, 73 older adults with high BP were assigned to spend money on others or themselves for 3 consecutive weeks. In study 1, the more money people spent on others, the lower their BP was 2 years later. In study 2, participants who were assigned to spend money on others subsequently had lower BP than those who spent money on themselves. The magnitude of the effects was comparable to that of interventions such as antihypertensive medication or exercise.

**Comment:** There are now a few intriguing studies showing that volunteering and providing social support has some health benefits but most of this research is correlational. This paper reports on two studies looking at whether spending money on others reduced BP. The second study is the most interesting where participants were given \$80 to spend on themselves or others. The researchers found the group randomly assigned to spend the money on others had significantly lower BP than the group assigned to spend money on themselves (5–7mmHg change). Perhaps it pays off health-wise to be financially generous to others.

**Reference:** *Health Psychol* 2016; published online Feb 11

[Abstract](#)

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## You can't always get what you want: the influence of choice on nocebo and placebo responding

**Authors:** Bartley H et al.

**Summary:** This study investigated the impact of having a choice of medication compared to no choice on both nocebo and placebo responses. 61 students were randomly assigned to choose between or be assigned to 1 of 2 equivalent beta-blockers (actually placebos) for pre-examination anxiety. There was a greater nocebo response in the no choice group and an increased placebo response in the choice group.

**Comment:** This is a recent paper from my group looking at the effect of having a choice or no choice of medication on the nocebo and placebo response. In an experimental study, not having a choice of beta-blocker medication (actually placebos) increased the number of medication side effects reported. While the level of symptom complaints was similar in the choice and no choice groups, more symptoms were attributed to the medication in the no choice group. Human beings do like to have choice and we do tend to see choices that we have made as being better than alternatives, regardless of the reality. This study suggests that reducing choice can by itself cause an increase in side effects and a lowering of overall treatment efficacy by also reducing the placebo response. This psychological effect may be something to be aware of when the number of funded medications available is reduced or some treatments become unavailable, forcing patients to only have a single option.

**Reference:** *Ann Behav Med* 2016; published online Jan 15

[Abstract](#)

## Effect of mindfulness-based stress reduction vs cognitive behavioral therapy or usual care on back pain and functional limitations in adults with chronic low back pain

**Authors:** Cherkin D et al.

**Summary:** This study compared the effectiveness of mindfulness-based stress reduction (MBSR) with that of cognitive behavioral therapy (CBT) or usual care on chronic lower back pain. 342 adults with chronic low back pain were randomly assigned 1:1:1 to receive MBSR, CBT, or usual care. CBT and MBSR were delivered in 8 weekly 2-hour groups. In intent-to-treat analyses at 26 weeks, the percentage of participants with clinically meaningful improvement on the modified Roland Disability Questionnaire was higher for MBSR (60.5%) and CBT (57.7%) than for usual care (44.1%). The percentage of participants with clinically meaningful improvement in pain bothersomeness at 26 weeks was 43.6%, 44.9% and 26.6% in the respective groups. Findings for MBSR persisted with little change at 52 weeks for both outcomes.

**Comment:** There are a number of studies coming out now looking at mindfulness as an intervention for chronic pain patients. This large trial with over 300 patients compared CBT to mindfulness and usual care for patients with non-specific low back pain – one of the most troublesome and disabling conditions in Western countries. Most of the participants had pain every week for the previous year and an average rating of pain of 6/10. After 8 weeks of group treatment there was significant improvement in the mindfulness and CBT groups compared to usual care that continued to the 1-year follow-up. The effect was surprisingly strong given the fact that only 51% of the mindfulness group and 57% of the CBT group attended at least 6 of the 8 sessions. Another study showing mindfulness is a useful therapy for chronic pain.

**Reference:** *JAMA* 2016;315(12):1240-9

[Abstract](#)

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## The rise of consumer health wearables: promises and barriers

**Authors:** Piwek L et al.

**Summary:** Consumer wearables provide patients with personalised health data to assist with behaviour change interventions, but there are a number of concerns about their safety, reliability, and security. Practitioners and researchers need to consider how these technological advances may impact upon healthcare in the 21st century.

**Comment:** This interesting essay examines the rising use of wearables such as fitbits, smart phone apps and smart watches that measure activity often in combination with social media or online communities. According to this paper, 15% of consumers in the US currently use wearable technology. The evidence for wearables being effective in changing health habits has not been established. Most people who use wearables are fit, healthy and affluent. Furthermore, their appeal does not seem to last, with recent surveys suggesting 32% of consumers stop wearing these devices after 6 months and 50% after one year. That is not to say that wearables don't have a future. It is just that to date they have not been effectively integrated into chronic illness management programmes or tied to effective behavior change techniques. New wearables that manage to do this will be important devices to help manage chronic illness and increase fitness in the groups at most need.

**Reference:** *PLoS Med* 2016;13(2):e1001953

[Abstract](#)

## Acceptability of smartphone technology to interrupt sedentary time in adults with diabetes

**Authors:** Pellegrini C et al.

**Summary:** The smartphone application NEAT!<sup>®</sup> works in conjunction with a wireless accelerometer that measures physical activity. When a sedentary bout ( $\geq 20$  min) is detected by the accelerometer, the app triggers a reminder prompt to the user to engage in light-intensity physical activity for at least 2 minutes. This feasibility study examined the use of the NEAT!<sup>®</sup> app to interrupt prolonged periods of sedentary time in 9 adults with type 2 diabetes. Participants used the app and accelerometer during waking hours for 1 month. Sedentary time decreased by 8.1% and light physical activity increased by 7.9% over the 1-month period. 8 of the 9 participants agreed that the app made them more conscious of sitting time, and 7 of them said they would use it in the future.

**Comment:** This is a tiny feasibility study looking at reminding adults with type 2 diabetes to get moving when a device detects that they have been sitting for greater than 20 minutes. The adults all agreed that the device made them more aware of sitting time and the measures taken by the researchers seemed to decrease sedentary behaviour and increase physical activity. This is an example of how wearable technologies could be used in the future to increase activity in high-risk patient groups. A larger study with some relevant biological markers would seem to be a useful next research step.

**Reference:** *Transl Behav Med* 2015;5(3):307-14

[Abstract](#)

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## Online patient ratings: why they matter and what they mean

**Authors:** Trehan S & Daluiski A

**Summary:** This article examined the growing trend of patients rating their physicians on publicly accessible websites. The validity of these ratings, the potential implications for practice, and the means by which inaccurate reviews can be challenged were discussed.

**Comment:** An interesting development in the social media world has seen the rise of websites that have developed for patients to rate their experience with physicians. These are more frequent in countries with a greater proportion of privatised medicine but their use is increasing in other countries as well. This paper presents a review of these websites for a surgical journal but many of the points are of interest to a more general readership. It is interesting to note that surveys show that many patients are now aware of these sites but view them with a fair amount of skepticism. Most ratings of doctors are positive, and positive ratings seem to be associated with a longer experience with the doctor, older age of the patient and a higher volume of patient ratings. There has been very little study of the relationship of online ratings and objective measures of medical care.

**Reference:** *J Hand Surg Am* 2016;41(2):316-9

[Abstract](#)



### Independent commentary by Professor Keith Petrie



Keith Petrie is Professor of Health Psychology at Auckland University Medical School. Keith Petrie worked as a clinical psychologist in medical settings before taking up a faculty position in Auckland. His early work in pain clinics and medical wards sparked his interest in the field of health psychology and, in particular, the different ways patients cope with medical symptoms and treatment. His research group also does work on adherence to treatment, psychoimmunology, symptom reporting as well as the placebo and nocebo response. **For full bio** [CLICK HERE](#).



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