

# Patient Psychology Research Review™

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Issue 14 - 2015

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

Highlights include an interesting study of how lung cancer screening can reduce the motivation of smokers to stop, and a NZ study of the benefits of relaxation training on wound healing. We also report a clever study of temporal trends in weight loss tweets that may help identify when people are more amenable to intervention, and we report the success of a telemedicine-delivered behavioural intervention that represents a viable option for cancer survivors in remote areas. Our final study provides evidence that singing in choirs reduces loneliness and improves mental health, but people who sing in choirs already know that!

We hope you find this issue interesting, and look forward to any feedback you may have.

Kind regards

**Keith Petrie**

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## Attitudes and perceptions about smoking cessation in the context of lung cancer screening

**Authors:** Zeliadt S et al.

**Summary:** This study assessed the views of smokers about smoking cessation in the context of lung cancer screening. 37 current smokers who were being offered lung cancer screening as a routine service by their primary care physician were interviewed. Lung cancer screening prompted most of them to reflect for the first time on what smoking meant for their health. However, 49% of them reported that screening lowered their motivation to stop smoking, and felt that undergoing an imaging test would provide the same health benefits. Other misperceptions were that everyone participating in screening would benefit; screening offered protection from lung cancer; and a cancer-free screening test result showed they had avoided the harmful effects of smoking.

**Comment:** The effect of lung cancer screening on encouraging smokers to stop smoking has not been very positive and this qualitative study sought to explore how screening impacts on the motivation of smokers to stop. In a series of interviews the researchers identified a number of misperceptions that may reduce the impact of screening on cessation rates. These misperceptions include the fact that many smokers believe that they are not susceptible to the effects of smoking and screening could unwittingly reinforce this belief. The researchers also identified that some smokers see screening as offering some protection from cancer to smokers. The results of the study are consistent with other work on health screening or risk factor testing that has found negative results can reinforce continuing unhealthy behaviour by bolstering misperceptions that the individual is at lower risk of negative effects.

**Reference:** *JAMA Intern Med* 2015;175(9):1530-7

[Abstract](#)

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## The effects of relaxation before or after skin damage on skin barrier recovery

**Authors:** Robinson H et al.

**Summary:** This preliminary study investigated the effects of a brief relaxation intervention on healing of skin damage produced by tape stripping. 121 healthy adults were randomised to prestripping relaxation, poststripping relaxation, or no relaxation. Those in the relaxation groups listened to 20 minutes of guided relaxation before or after the tape stripping, whereas those in the control group read quietly for 20 minutes. Relaxation either before or after tape stripping improved skin barrier recovery compared with no relaxation. Those in the relaxation groups were more relaxed and reported greater reductions in pain than the control group 25 minutes after tape stripping. Perceived stress in the previous month was not significantly related to healing.

**Comment:** The fact that stress has a large effect on wound healing has now been demonstrated in a large number of studies. This Auckland study investigated whether doing relaxation before or after wounding increases the speed of healing. The researchers used a fancy new tape stripping model, which triggers an inflammatory immune response but is less invasive than experimental punch biopsy wounds. Importantly, the results showed that it didn't matter whether relaxation training occurred before or after wounding. Both improved recovery compared to the control group. The implications of this study are that relaxation could be administered after surgery rather than before and is likely to be just as effective. This has practical benefits as getting access to patients prior to surgery is always more difficult.

**Reference:** *Psychosom Med* 2015; published online Sep 1  
[Abstract](#)

## Tweet for health: using an online social network to examine temporal trends for weight loss-related posts

**Authors:** Turner-McGrievy G et al.

**Summary:** This US study examined temporal trends in weight loss-related posts on Twitter over a 1-year period. Trends in #weightloss posts which also had the word 'weight' in them were examined for holidays (before, during and after), seasons (winter and summer), and New Year (before and after). There were more #weightloss posts per day during and after holidays than before holidays, and more posts per day during winter than summer, but the number of posts before and after New Year did not differ.

**Comment:** This clever study looked at whether tweets about weight loss increased during holidays or at other times in the year like winter and around New Year to reflect the new bunch of New Year's resolutions. The researchers found holidays and winter to have increased rates of weight loss-related tweets but not around New Year. This innovative approach of looking at changes in patterns of social media topics may help identify when people are more likely to be amenable to interventions about weight loss. I am sure a large number of companies are already using this approach in order to sell their products. Need a treadmill after the holiday anyone?

**Reference:** *Transl Behav Med* 2015;5(2):160-166  
[Abstract](#)

## Why do oncology outpatients who report emotional distress decline help?

**Authors:** Clover K et al.

**Summary:** This study examined the reasons why some oncology patients with significant emotional distress decline help. 311 oncology outpatients at an Australian hospital who scored  $\geq 4$  on a Distress Thermometer (significant distress) were asked if they would like help with their distress. 221 (71%) of them declined. The most common reasons stated were 'I prefer to manage myself' (46%); 'I'm already receiving help' (24%) and 'my distress is not severe enough' (23%). Younger patients and women were more likely to decline help and were more likely to already be receiving help.

**Comment:** This is the type of study that should be done more often. The researchers asked oncology patients who admitted to significant distress, but refused help, why they declined assistance. This is quite a large group, as the majority of patients with significant distress in this centre (71%) declined help and this included half of those with very high levels of distress. The main reasons for refusing help were a personal preference to manage problems by themselves, or because they were already receiving help, or because of a belief that their distress was not significant enough to need intervention. The results point to the fact that, for some patients, more information about how distress and depression may interfere with illness outcome may be useful to make a more informed decision about whether to seek help or not.

**Reference:** *Psychooncology* 2015;24(7):812-8  
[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.

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## Brief cognitive-behavioral and relaxation training interventions for breast cancer

**Authors:** Gudenkauf L et al.

**Summary:** Group-based cognitive-behavioral stress management (CBSM) has been shown to improve psychological adaptation after surgery in women with breast cancer, but the key mechanisms of CBSM are unclear. This study compared two interventions thought to drive the effects of CBSM: cognitive-behavioral training (CBT) and relaxation training (RT). 183 women with stage 0–III breast cancer were randomised to 5 weeks of CBT, RT, or health education (control group) 2–10 weeks post-surgery. Psychosocial measures were collected at baseline and 5 weeks. Both CBT and RT groups reported reduced depressive affect post-intervention. The CBT group reported better emotional well-being/quality of life and less cancer-specific thought intrusions, as well as increased reliability of social support networks. The RT group reported improvements in illness-related social disruption, and more confidence in relaxation skills. No changes were reported in the health education control group.

**Comment:** CBSM has been shown to improve psychological recovery in women with non-metastatic breast cancer. This Miami group led by Mike Antoni has done much of the work in this area and in this study they seek to unpack the relaxation and CBT components of their stress management intervention to see which component is most effective. The results indicate that both CBT and relaxation interventions offer benefits over an active health education condition and either or both could be used in combination to speed psychological adjustment following treatment for breast cancer. The intervention involves 5 weeks of 90 minutes per week in a group-based format and seems most helpful in the early stages of adjuvant treatment. There is now a growing focus on bolstering the psychological health of cancer patients, as negative psychological states are associated with poorer adherence to treatment and worse quality of life.

**Reference:** *J Consult Clin Psychol* 2015;83(4):677-88  
[Abstract](#)

## Can people benefit from acute stress? Social support, psychological improvement, and resilience after the Virginia Tech Campus shootings

**Authors:** Mancini A et al.

**Summary:** Responses to acute stress generally fit four patterns: resilience, gradual recovery, chronic distress, and delayed distress. This study examined the possibility that mass trauma can promote an additional response pattern (psychological improvement) in some survivors. 368 female survivors of the Virginia Tech shootings completed assessments before the shootings and at 2, 6 and 12 months after them. Latent growth mixture modelling showed distinct trajectories of resilience, chronic distress, delayed distress, continuous distress, and improvement. Resilience was the most common pattern (56%–59% of the sample), but a trajectory of substantial improvement in anxiety (13.2%) and depression symptoms (7.4%) also emerged. This improvement was associated with marked increases in perceived social support and gains in interpersonal resources.

**Comment:** This type of study is very uncommon in the literature because researchers rarely have psychological data on participants prior to a traumatic event, such as a campus shooting. However, in this case the researchers had already collected anxiety and depression data for another study so were able to follow a group of 368 women after the shooting at Virginia Tech. The researchers found about 60% of students showed low levels of anxiety and depression both before and after the shooting. They did find a group of around 10% of students who showed a significant improvement in anxiety and depression after the shooting. This improvement was associated with a perceived increase in perceived social support perhaps indicating that the ability to interact and gain support from others is critical after a traumatic event to help people make sense and process the event.

**Reference:** *Clin Psychol Sci* 2015; published online Sep 7  
[Abstract](#)

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## Project Connect Online: user and visitor experiences of an Internet-based intervention with breast cancer

**Authors:** Harris L et al.

**Summary:** This study examined the experiences of women in the intervention arm of Project Connect Online (PCO). In the PCO trial, 88 women with breast cancer were randomised to an Internet-based intervention or a waitlist control group. Those in the intervention arm attended a 3-hour workshop for creation of a personal website with a blog to communicate with their social network about their breast cancer experience. Assessment of this group at 6 months showed positive reactions, with the women finding the websites and blogs useful for telling their story and expressing their emotions. Women with advanced cancer were more likely to use them.

**Comment:** This paper is a follow-on study from the initial PCO trial where women were taught how to create a personal website to enable communication with their friends and family. The current study looks at how useful the women with breast cancer found the experience and how useful the visitors found the website and content. The facilitation to set up a personal website that can be shared just with the patient's social network is a novel idea and seems to have considerable benefit for both patients and friends. The value of expressing emotions in the website needs further exploration but there is at least an early indication that this is helpful to overall psychological adjustment, particularly in women with a more advanced cancer stage.

**Reference:** *Psychooncology 2015;24(9):1145-51*  
[Abstract](#)

## A randomized trial comparing live and telemedicine delivery of an imagery-based behavioral intervention for breast cancer survivors: reducing symptoms and barriers to care

**Authors:** Freeman L et al.

**Summary:** This trial evaluated the benefits of an imagery-based behavioural intervention on quality of life in breast cancer survivors. 118 breast cancer survivors were randomised 2:1:2 to attend a 4-h group session at a community centre every week for 5 weeks with therapist present (live delivery), therapist streamed via telemedicine (telemedicine delivery), or to a waitlist control group. Linear multilevel modelling analyses showed less fatigue, less cognitive dysfunction, and less sleep disturbance for live delivery and telemedicine delivery compared with controls during follow-up (all  $p < 0.01$ ), and clinically significant improvements in health-related and breast cancer-related quality of life. No differences were reported for outcomes in the live delivery and telemedicine delivery groups.

**Comment:** This study compared a live and telemedicine administration of an imagery-based group intervention (20 hours) over 5 weeks that identified maladaptive thoughts and imagery about fear and loss and encouraged more empowering imagery about healthy physiological processes and resistance to stress. Both intervention groups did significantly better than control in reducing distress and improving mood. There was no significant advantage of the live administration over the telemedicine delivery. Further work is needed to see if the intervention time can be reduced or even presented in an online self-administered format without losing the benefit for participants.

**Reference:** *Psychooncology 2015;24(8):910-8*

[Abstract](#)

## Effectiveness and cost-effectiveness of community singing on mental health-related quality of life of older people

**Authors:** Coulton S et al.

**Summary:** This study evaluated the impact of community group singing in older people in England. 258 adults aged  $\geq 60$  years were randomised to community singing or usual activities, and were assessed for mental health-related quality of life. After 3 months, significant differences were observed for anxiety, depression and mental health quality of life in favour of the singing group. At 6 months, improvements in mental health-related quality of life were maintained. In addition, the singing intervention was slightly more cost-effective than usual activities.

**Comment:** Finally, a paper for those who sing in choirs. These UK researchers investigated whether participation by older people (60 years and above) in community choirs increased psychological well-being. The researchers found benefits at 3 months on general quality of life, mental health-related quality of life, depression and anxiety compared to controls. This benefit was maintained for quality of life and mental health-related quality of life at 6 months. Feedback from participants was very positive for the effects on their social relationships and mental health. Although the study has the weakness of using a self-selected sample, it is an excellent example of using existing community resources to reduce loneliness and improve mental health in older people with a relatively inexpensive intervention.

**Reference:** *Br J Psychiatry 2015;207(3):250-5*

[Abstract](#)

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