Patient Psychology Research Review Making Education Easy Issue 11 - 2015

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Welcome to the latest issue of Patient Psychology Research Review.

Highlights include a report of Project Connect Online, a useful internet-based program designed to help breast cancer survivors chronicle their cancer experience via personal websites. This is followed by a thoughtful reminder of how emotions can strongly influence risk perceptions, plus a study of caregiver resilience in the first year of caring for a disabled family member. We also have a report of a smartphone app that improves adherence to antiretroviral therapy, and a study that debunks the myth of comfort food.

We hope you find the issue interesting, and wish you all the best for a happy and safe festive season.

Kind regards

Keith Petrie

keithpetrie@researchreview.co.nz

Project Connect Online: randomized trial of an internet-based program to chronicle the cancer experience and facilitate communication

Authors: Stanton A et al.

Summary: This study investigated the use of Project Connect Online, an internet-based program that teaches women with breast cancer how to create personal websites to chronicle their experience and communicate with their social network. 88 women with breast cancer were randomly assigned to participate in a 3-hour workshop for hands-on creation of personal websites, or to a waiting-list control. Psychological health was assessed before randomisation then again 6 months after the intervention. Compared with controls, women assigned to Project Connect Online experienced significant benefits 6 months later in depressive symptoms, positive mood, and life appreciation, but not negative mood, perceived strengthened relationships, or intrusive thoughts. Women who were undergoing medical treatment for cancer benefited more than women not receiving treatment.

Comment: Most psychology interventions in oncology are based around improving the ability of the patient to cope with the diagnosis or the effects of treatment. In this innovative study researchers at UCLA taught women to make their own websites, where they could keep in touch with friends and family and reach out to others for help when needed. This approach works around strengthening the wider social network of patients and enabling enhanced communication between the patient and their friends and family. The study showed benefits for women in terms of improved mood, especially in those who were undergoing active medical treatment. Teaching and encouraging patients to use websites or social media tools as ways of connecting to others and garnering social support seems a simple and effective intervention that could be applied across a range of other medical conditions.

Reference: J Clin Oncol 2013;31:3411-3417 Abstract



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Invisible risks, emotional choices – mammography and medical decision making

Authors: Rosenbaum L

Summary and comment: This paper is a very thoughtful reminder of how emotions can strongly influence risk perceptions, and questions if it is possible in the era of patient-centred care and decision-making to empower patients to think more rationally about risk. The paper provocatively points out that we would not ask airline passengers to create standards for airline safety or car owners to optimise car engine emission standards but we do look to patient preference in decisions about screening and treatment. The author uses mammography screening as an example of how women find it difficult to think that there may be negative consequences from screening in the form of over-diagnosis and anxiety. The paper also highlights how beliefs influence the interpretation of medical evidence, and how sometimes providing more information to address misperceptions can result in unexpected outcomes.

Reference: New Engl J Med 2014;317:1549-1552

<u>Abstract</u>

Resilience in the initial year of caregiving for a family member with a traumatic spinal cord injury

Authors: Elliott T et al.

Summary: This study evaluated resilience in the first year of caregiving for a family member disabled with a traumatic spinal cord injury. 20 men and 108 women who were caregivers for a family member with a traumatic spinal cord injury were evaluated for 1 year from the time of injury. Latent growth mixture modelling of depression symptoms over time revealed 3 types of caregivers: chronic (24%), recovery (24%) and resilient (48%). The chronic group reported more anxiety, negative affect and ill health than the other 2 groups throughout the year. The resilient group was characterised by an enduring positive affect and supportive social networks. In conclusion, a large percentage of individuals are resilient in the initial year of caregiving, and those who have problems adapting show significant distress soon after the traumatic event.

Comment: This study looked at caregivers caring for family members who had a spinal cord injury and assessed aspects of their stress and functioning. Interestingly, objective measures of disability were unrelated to caregiver distress. About half of the sample of caregivers showed strong resilience in adapting to their new caregiver role. This group was characterised by high levels of effective social support networks and low levels of initial depression, fewer health problems and less negative affect than other caregivers. About a third of the sample showed very poor adjustment with high levels of distress noticeable at the start that didn't subside over the 12-month follow-up period. This group would clearly benefit from an intervention directed at improving problem solving or social support.

Reference: J Consult Clin Psychol 2014;82(6):1072-86 Abstract

Feeling old vs being old: associations between self-perceived age and mortality

Authors: Rippon I & Steptoe A

Summary: This study examined whether older people who feel younger than their chronological age have reduced mortality rates. 6489 individuals aged ≥52 years who were participating in the second wave (2004–2005) of the English Longitudinal Study of Ageing were analysed. Self-perceived age was measured by asking respondents, "How old do you feel you are?" All-cause mortality and deaths from cancer and cardiovascular disease up to March 2013 were recorded. Mean actual age was 65.8 years, while the mean self-perceived age was 56.8 years. 69.6% of respondents felt ≥3 years younger than their actual age, 25.6% felt close to their chronological age and 4.8% felt ≥1 year older than their chronological age. The crude mortality rate during the mean follow-up period of 99 months was 14.3%, 18.5% and 24.6% in the respective groups. Feeling older than actual age remained a significant independent predictor of mortality after adjustment for confounding factors.

Comment: How old do you feel? This paper by Andrew Steptoe and his colleague Isla Rippon provides convincing evidence that feeling 3 or more years younger than your actual age is associated with lower mortality, even after controlling for a range of health behaviours, demographic factors and social variables. Their follow-up study of 6489 people over 8 years found 25% participants who felt older than their actual age died compared with 19% who felt about the same age and 14% who felt younger. That represented a 41% greater mortality risk in those that felt older than their actual age compared to those that felt younger. Perhaps good evidence to engage with people and events that make you feel younger rather than older.

Reference: JAMA Intern Med 2014; published online Dec 15 Abstract

Patient Psychology Research Review

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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Fluency of pharmaceutical drug names predicts perceived hazardousness, assumed side effects and willingness to buy

Authors: Dohle S & Siegrist M

Summary: This report examined the impact of pharmaceutical drug names on people's evaluations and behavioural intentions. Results of 3 experimental studies showed that complex drug names were perceived to be more hazardous than simple drug names and negatively influenced willingness to buy. These results are of particular importance as there is a worldwide trend to make more drugs available for self-medication.

Comment: This is another paper showing the power of drug names and how drugs labelled with simple names are perceived to cause fewer side effects. In over-the-counter (OTC) drugs, having a simple rather than a complex name also improves the likelihood that a consumer will buy the product. The fluency with which something can be processed tends to be associated with familiarity, and the more familiar an object appears the less threatening and risky it is perceived to be by the individual. Look out for a run of one-syllable OTC medications. Anyone like some "Cure"?

Reference: J Health Psychol 2014;19(10):1241-1249 Abstract



Randomized controlled trial of cognitive behavioral stress management in breast cancer: a brief report of effects on 5-year depressive symptoms

Authors: Stagl J et al.

Summary: This study evaluated the long-term effects of cognitive-behavioural stress management (CBSM) administered after surgery in women with nonmetastatic breast cancer. 240 women with stage 0–IIIb breast cancer were recruited 2–10 weeks postsurgery and randomised to a 10-week CBSM intervention group or a 1-day psycho-educational control group. Women were then contacted 5 years later for the follow-up study (n=130). Depressive symptomatology was assessed using the Center for Epidemiologic Studies-Depression scale. Participants assigned to CBSM reported significantly fewer depressive symptoms at follow-up than those in the control group (p=0.03). The between-group difference remained significant after adjustment for confounding factors.

Comment: This study is an interesting example of how the effects of a psychological intervention can persist over time. The researchers tested whether the effects of a cognitive-behavioural therapy (CBT) intervention carried out soon after breast cancer surgery were still apparent 5 years later. The results showed women who had the CBT intervention had fewer symptoms of depression than women randomised to an educational control group. The results suggest that an early intervention in women with breast cancer can lead to less psychological distress later on. The difference in depression levels between the treatment and control groups was both statistically and clinically significant. Generally, higher psychological distress is associated with not only poorer quality of life but also lower adherence and increased medical care use.

Reference: Health Psychol 2014; published online Jul 28 Abstract



Patient Psychology Research Review

Effect of a smartphone application incorporating personalized health-related imagery on adherence to antiretroviral therapy

Authors: Perera A et al.

Summary: This study examined the efficacy of a smartphone application for improving adherence to combination antiretroviral therapy (ART). The app incorporated personalised health-related visual imagery that provided real-time information about the level of medication and the patient's level of immunoprotection. 28 people taking ART were randomised to either a standard or augmented version of the smartphone app. The augmented version contained components that illustrated participants' current estimated plasma concentrations of antiretroviral drugs and the immune protection provided by ART. Patients using the augmented app had higher adherence to ART at 3 months (p=0.03) and a decreased viral load (p=0.023) compared with individuals who used the standard version.

Comment: This paper from our group in Auckland essentially tried to make the invisible visible for patients so they could see the effects of missing doses of ART. When doses were missed a smartphone app showed the protection around their T-cells breaking down and the T-cells eventually being attacked by the HIV virus (there are illustrations of this in the paper). In a small randomised controlled trial, this app, compared to a control reminder app, had the effect of improving adherence to medication and this was reflected in improved levels of viral load. One of the difficulties with non-adherence to medical treatment is that patients do not get any feedback, in terms of immediately feeling worse or seeing the effect on bodily functioning. This approach shows patients in real time what is happening inside their body so they can see the actual effects of non-adherence. We think the approach would have most value in patients starting new medical treatments.

Reference: AIDS Patient Care STDS 2014;28:579-586 **Abstract**

Harnessing benefits of helping others: a randomized controlled trial testing expressive helping to address survivorship problems after hematopoietic stem cell transplant

Authors: Rini C et al.

Summary: Cancer survivors who help others face treatment experience a range of psychosocial and health-related benefits as a result of peer helping. This study investigated an expressive helping (EH) intervention designed to harness those benefits by targeting survivorship problems among cancer survivors treated with hematopoietic stem cell transplant. EH comprises 2 components: emotionally expressive writing (EW) and peer helping (PH). EH was compared with neutral writing (NW), EW without PH, and PH without EW in a 4-arm randomised controlled trial. Among survivors with moderate-severe survivorship problems, EH reduced distress compared with NW and PH (p<0.05), improved physical symptoms compared with NW, PH and EW (p<0.002) and improved health-related quality of life compared with NW (p=0.02).

Comment: The act of helping others has been shown in some studies to be better than receiving help yourself. This randomised controlled trial tested whether emotional writing about the transplant experience and providing help to other patients about to undergo a stem cell transplant by writing a narrative providing advice and encouragement would improve symptoms, psychological distress and quality of life. The study found a benefit in patients with high levels of survivorship problems for writing a helpful narrative to another patient in terms of improved levels of distress and symptoms. This type of intervention, where patients draw on their own experience to help others, is underused in health psychology and medicine. The authors found the intervention popular with patients and without adverse effects. Giving patients the opportunity to share their experience with others and offer encouragement seems to have considerable potential in illnesses with aggressive treatment demands.

Reference: Health Psychol 2014;33(12):1541-51 **Abstract**

The myth of comfort food

Authors: Wagner H et al.

Summary: These four studies investigated whether comfort food actually provides psychological benefits. Participants first completed an online questionnaire to indicate their comfort foods and a variety of comparison foods before watching 2 films (a week apart) that induced a negative affect. During 1 film session, participants were served their comfort food. In the other, participants were served an equally liked non-comfort food (study 1), a neutral food (study 2), or no food (studies 3 and 4). Short-term mood changes were measured. Comfort foods led to significant improvements in mood, but no more than other foods or no food at all. In conclusion, individuals may be giving comfort food credit for mood effects that would have occurred even in its absence.

Comment: Finally, here is a paper designed for the over indulgent festive season. Researchers from Minnesota investigated whether so-called comfort foods do make people who are in bad moods feel better compared to other types of food. The short answer is they don't. Popular comfort foods in the study were chocolate, ice cream and brownies and although eating them did improve mood, eating non-comfort food also had the same effect. So next time you feel distressed reach for an apple instead of ice cream. It will probably have the same effect on your mood.

Reference: Health Psychol 2014;33(12):1552-1557



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