Patient Psychology Research Review™

Making Education Easy

Issue 3 - 2012

In this issue:

Welcome to the final issue of Patient Psychology Research Review for 2012.

Highlights of this issue include a provocative paper that suggests that doctors should try and minimise the nocebo effect from medication by tailoring the side effect information provided to patients. The approach is controversial but worthy of debate. We have also included two NZ studies in this issue. The first found that the public have wildly overly optimistic expectations of benefits from preventive treatments and screening programmes, and the second shows how individuals' perceptions of medicines can have a profound effect on efficacy and tolerability.

With Christmas fast approaching, we'd like to take the opportunity to wish you all a fabulous festive season and safe travels.

Kind regards

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To tell the truth, the whole truth, may do patients harm: the problem of the nocebo effect for informed consent

Authors: Wells R and Kaptchuk T

Summary: Physicians need to explain possible side effects when prescribing medications because of their duty under the principle of informed consent. However, this disclosure may itself induce adverse effects via expectancy mechanisms known as nocebo effects. Rigorous research has shown that providing patients with details of all possible adverse events can actually increase the likelihood of side effects, and might create outcomes that are different from those that would have occurred without this information. This article suggests a pragmatic approach for providers to minimise nocebo responses while still maintaining patient autonomy through "contextualised informed consent". This approach takes into consideration possible adverse effects, the patient being treated, and the diagnosis.

Comment: In this provocative paper a leading placebo researcher, Ted Kaptchuk, proposes that doctors should try and minimise the nocebo effect from medication by tailoring the side effect information provided to patients about medication. We know from placebo-controlled studies that large numbers of patients report an increase in non-specific symptoms when warned about the possibility of getting such symptoms. This can lead to an increase in non-adherence, additional treatments and added distress to the patient. Kaptchuk proposes a process of "contextualised informed consent" where the health provider considers the possible side effects, the patient being treated and the diagnosis involved, in order to tailor the information about side effects and reduce patient expectations about non-specific side effects such as difficulty concentrating, fatigue, drowsiness, insomnia, nausea etc. The approach is controversial and a number of criticisms of the paper have already been published. But I think the approach is worth debating, given what we now know about how expectations shape symptom reporting and the principle of first do no harm.

Reference: Am J Bioeth 2012;12(3):22-9

http://dx.doi.org/10.1080/15265161.2011.652798

Patients' expectations of screening and preventive treatments

Authors: Hudson B et al

Summary: This study assessed patients' estimates of the benefit of screening (for breast and bowel cancer) and preventive treatments (for hip fracture and cardiovascular disease). Three GPs sent questionnaires to all registered patients aged 50–70 years asking them to estimate the benefits of various interventions, and to indicate the minimum number of events prevented by an intervention that would justify its use. 354 patients completed the questionnaire. 90% and 94% of participants overestimated the effect of screening for breast cancer and bowel cancer, respectively. 82% of participants overestimated the effect of preventive medicine for hip fracture, and 69% overestimated the effect of preventive medication for cardiovascular disease. With the exception of cardiovascular disease mortality prevention, most respondents indicated a minimum benefit greater than the interventions could achieve. A lower education level was associated with higher estimates of minimum acceptable benefit for all interventions. In conclusion, patients overestimated the risk reduction achieved with screening and preventive medications.

Comment: This NZ study of over 900 general practice patients looked at patients' expectations of benefits from two screening programmes (breast and bowel cancer) and two preventative medicines (bisphosphonates for reduction of hip fractures and the use of antihypertensive and lipid-lowering medication for prevention of cardiovascular deaths). As shown in other studies, the public have wildly overly optimistic estimations of benefits from both the treatments and screening programmes. Even when asked to indicate the minimum benefit needed for the interventions to be justified, most participants indicated a minimum acceptable benefit greater than the most achieved by the interventions. The authors rightly suggest that the overestimation of benefits from these interventions may reduce patients' ability to make informed decisions about participation in screening or use of preventative medicines.

Reference: Ann Fam Med 2012;10(6):495-502

http://dx.doi.org/10.1370/afm.1407

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The effect of an apparent change to a branded or generic medication on drug effectiveness and side effects

Authors: Faasse K et al

Summary: This study examined the effect of an apparent medication formulation change on medication efficacy and tolerability. 62 university students were enrolled in a study that purportedly tested the effectiveness of fast-acting beta -blocker medications in reducing exam anxiety. All tablets were placebos. In session 1, all participants received a yellow tablet (Betaprol). In session 2, participants were randomised to receive Betaprol (no-change group) or a white tablet labelled either as Novaprol (brand change group) or Generic (generic change group). Blood pressure and state anxiety were measured before and after tablet ingestion. The no-change group showed significantly greater decreases in systolic blood pressure and state anxiety than the brand change group and the generic change group. Significantly more adverse events were attributed to the medication in the generic change group (but not in the brand change group) compared with the no-change group (p=0.03). In conclusion, medication formulation change seems to be associated with reduced subjective and objective measures of medication effectiveness and increased adverse events.

Comment: This study from our Auckland group shows how individuals' perceptions of medicines can have a profound effect, not only of the effectiveness of the medication, but the side effects reported as well. Study participants who thought they had been given a generic beta-blocker showed smaller drops in blood pressure and complained of more side effects compared with those who had been given branded medication. The study shows that attitudes towards generic medicines on the part of both patients and doctors that generics are weaker medicines and cause more side effects may cause a self-fulfilling prophesy, whereby patients look for and report more symptoms when prescribed a generic. This may be particularly so when they have been established on a branded medicine.

Reference: Psychosom Med 2012; published online Oct 31

http://dx.doi.org/10.1097/PSY.0b013e3182738826

Cognitive-behavioural stress management enhances adjustment in women with breast cancer

Authors: Groarke A et al

Summary: This study investigated the impact of a psychological intervention on stress and distress after surgery in women with breast cancer. 355 women who had undergone surgery for breast cancer 4 months earlier completed questionnaires assessing global and cancer-specific stress, depression, anxiety, optimism and benefit finding. They were then randomised to a 5-week group cognitive-behavioural stress management (CBSM) programme plus standard care or standard care only and were reassessed post-intervention and again 12 months later. Patients who received the intervention had reductions in global stress and anxiety and increased benefit finding post-intervention compared with controls. However, these differences were not maintained at 12 months. Reductions in stress and anxiety after the CBSM programme were greatest in women with high global stress at baseline. In conclusion, a CBSM intervention had beneficial effects on adjustment for women with breast cancer.

Comment: This Irish study evaluated the cognitive behavioural stress management programme developed for breast cancer by Mike Antoni at the University of Miami. The results showed a brief version of the programme (3 hours a week over 5 weeks) reduced stress in the intervention group after the intervention but the differences between the intervention and control group were no longer significant at 12 months. The intervention seemed to be of more benefit for women with higher levels of stress. The study shows the value of psychological intervention following surgery to reduce the high levels of psychological distress in women with breast cancer.

Reference: Brit J Health Psychol 2012; published online Dec 4

http://dx.doi.org/10.1111/bjhp.12009

The financial costs of sadness

Authors: Lerner J et al

Summary: This study tested the hypothesis that sadness increases impatience and creates a myopic focus on obtaining money immediately instead of later. In 3 experiments, participants were randomised to sad- or neutral-state conditions, and then offered intertemporal choices (disgust served as a comparison condition in experiments 1 and 2). Sadness was found to significantly increase impatience. Compared with median neutral-state participants, median sad-state participants accepted 13–34% less money immediately rather than wait 3 months for payment. In experiment 2, impatient thoughts mediated the effects. In experiment 3, sadness made people more present biased (i.e. wanting something now), but not globally more impatient. Disgusted participants were not more impatient than neutral participants, suggesting that not all negative emotions have the same financial effects. In conclusion, myopic misery is a robust and potentially harmful phenomenon.

Comment: In this interesting paper describing what the authors label myopic misery, researchers found that sadness causes people to have an increased preference for immediate rewards and increased impatience for waiting for payment. Sad participants accepted 13–34% less money to avoid waiting for payment. The study highlights how depression increases an individual's impatience to achieve immediate gratification, probably as a way of emotional management. The results have practical implications for financial choices that are made following major life events. For example, following the death of a family member people may make less wise financial decisions about settling the estate.

Reference: Psychol Sci 2012; published online Nov 13

http://dx.doi.org/10.1177/0956797612450302

Physicians' communication of the common-sense self-regulation model results in greater reported adherence than physicians' use of interpersonal skills

Authors: Phillips L et al

Summary: This study evaluated the impact of an intervention based on the common-sense self-regulation model (CS-SRM) on patient adherence to treatment. 243 patients were recruited from a primary care waiting room and reported on objective behaviours of their providers (i.e. CS-SRM-related behaviours and interpersonal skills) directly after the medical encounter. They then reported on adherence, presenting problem resolution, and emergency care usage 1 month later. The more providers gave their patients an adaptive understanding of their presenting problem and or treatment (i.e. the greater the number of CS-SRM-related behaviours they engaged in), the more adherent the patients were in the month after the encounter and the better their problem resolution was 1 month later. The providers' CS-SRM-related behaviours were more predictive of outcomes and emergency care usage than their interpersonal skills. In conclusion, addressing the patients' illness/treatment representations is more important than the providers' interpersonal skills for attaining patient adherence.

Comment: This interesting study from Howard Leventhal's lab examines whether a doctor's consultation resulted in patients developing an adaptive understanding of their condition that was associated with greater adherence and problem resolution. The researchers showed that the degree to which the doctor discussed aspects of the presenting problem and prescribed treatment in a way that gave the patient an understanding of their condition and how the treatment fits with the problem had a greater association with adherence, lower emergency room visits and outcome than did patients' ratings of the interpersonal skills of the doctor in the consultation. The study raises the interesting issue of whether the push to develop good "bedside manner" skills, which has focused largely on the outcome of patient satisfaction with the consultation, has lost focus on patient health outcomes. Indeed, a recent diabetes intervention trial by Kinmonth et al. (1998) demonstrated that in comparison to a control group receiving standard medical care, the interpersonal skills-based intervention group reported improved communication with their doctor and greater satisfaction but worse health outcomes, including higher BMI and triglyceride levels and lower knowledge scores.

Reference: Brit J Health Psychol 2012;17:244-257

http://dx.doi.org/10.1111/j.2044-8287.2011.02035.x

The psychosocial impact of an abnormal cervical smear result

Authors: Drolet M et al

Summary: This Canadian study examined the impact of abnormal cervical smear results on health-related quality of life (HrQoL). 492 women with an abnormal result and 460 matched women with a normal result were included. HrQoL was measured at recruitment and again 4 and 12 weeks later using the EuroQol, Short Form-12, short Spielberg State-Trait Anxiety Inventory (STAI) and HPV Impact Profile. Receiving an abnormal result significantly increased anxiety (mean 8.3 point difference in STAI between groups). Initial anxiety decreased over time for most women although 35% of them still had clinically meaningful anxiety at week 12. These women were at a lower socioeconomic level, did not fully understand their result and perceived themselves to be at higher risk for cancer. It was calculated that between 0.007 and 0.009 QALYs were lost after an abnormal result. In conclusion, receiving an abnormal smear has a negative impact on mental health but this subsides after 12 weeks in most women.

Comment: This study shows, what many would suspect, that an abnormal cervical smear test results in a small but measurable increase in anxiety which subsides after 12 weeks for most women. Women from lower socioeconomic groups had higher levels of anxiety, as did women with a higher perceived risk of developing cancer and a lower understanding of the significance of the result. The study suggests many women on receiving an abnormal smear result may overestimate their risk of developing cancer or may believe the test is equivalent to having cancer.

Reference: Psycho-Oncology 2012;21:1071-1081

http://dx.doi.org/10.1002/pon.2003

Breast cancer survivors' beliefs about the causes of breast cancer

Authors: Panjari M et al

Summary: This study explored the beliefs held by breast cancer (BC) survivors about the factors that contributed to their disease development. 1684 women who were recruited within 12 months of their first diagnosis with invasive BC completed an enrollment questionnaire (EQ). They then completed a first follow-up questionnaire (FQ1) 12 months after the EQ and a second follow-up questionnaire (FQ2) 24 months after the EQ. The FQ2 asked the women whether they believed anything contributed to the development of their BC and whether they had made lifestyle changes since the FQ1. 1496 out of 1684 women completed the FQ2. 43.5% of them believed a factor may have contributed to their developing BC. These women were more likely to be younger, and educated beyond high school. Stress was the most common factor cited (58.1%), followed by previous use of hormone therapy (17.0%) and a family history of any cancer (9.8%). Women who believed stress contributed to their BC were more likely to have made lifestyle changes since their BC diagnosis. In conclusion, many breast cancer survivors believe that stress contributed to the development of their condition.

Comment: The search for causes of negative events is a natural human response. This process helps us see the world as a less threatening place and enables us to prepare for bad outcomes. This process also extents to the diagnoses of major illness. People tend to look for causes, especially soon after diagnosis. Sometimes, such as this study demonstrates, they attribute the cause of their illness to a factor (stress) for which there is little established evidence. Part of the modern view is that illness is the result of stress. In previous times patients blamed bad spirits or acts of God but stress has replaced these beliefs. Identifying patients' causal beliefs is important because it often helps us understand the reason behind the choices patients make to manage their illness.

Reference: Psycho-Oncology 2012;21:724-729

http://dx.doi.org/10.1002/pon.1949

Mending broken hearts: marriage and survival following cardiac surgery

Authors: Idler E et al

Summary: This study evaluated the impact of marital status on survival after cardiac surgery. 569 patients undergoing open-heart surgery were stratified according to whether they were married, widowed, separated or divorced, and never married. Participants were interviewed an average of 5 days prior to surgery and were followed-up for up to 5 years. 111 patients died during follow-up; 24 of them died in the first 3 months. After adjusting for demographics and pre- and post-surgical health, the risk of mortality was 1.9 times higher in unmarried patients than in married patients. Widowed, never married, and divorced or separated patients had comparable mortality risk, as did men and women. The adjusted risk of immediate postsurgical mortality in unmarried patients was 3.33 compared with married patients, and their adjusted risk for long-term mortality was 1.71. In conclusion, marriage has a strong protective effect on survival for up to 5 years after cardiac surgery.

Comment: The protective role of marriage against early death has been noted by researchers as early as the 19th century and has been shown by many studies since. Identifying the critical factors that explain this relationship is complex. This study looked at over 500 patients undergoing CABG surgery and showed a strong protective effect for marriage for up to 5 years following surgery, with unmarried patients 233% more likely to die in the 3-month post-operative period and 71% more likely to die in the following 5 years. This relationship is largely unchanged after controlling for pre- and post-surgical differences. The study found that women and men benefited similarly from marriage in terms of survival. This is an important study reinforcing the role of marital support in health.

Reference: J Health Soc Behav 2012;53:33-49

http://dx.doi.org/10.1177/0022146511432342