

# Patient Psychology Research Review™

Making Education Easy

Issue 1 - 2012

## In this issue:

- *Computerised decision aids prove useful*
- *Pew internet survey*
- *Evaluation of a 'perceived sensitivity to medicines' scale*
- *The reassuring value of diagnostic tests*
- *Perception of provider time at bedside*
- *Walking drawings and walking ability in children with cerebral palsy*
- *Illness representation profiles predict use of healthcare services*
- *Culturally appropriate storytelling improves BP*
- *Helping patients simplify prescription regimens*
- *The role of positive contagion in golf performance*

## Welcome to the first edition of Patient Psychology Research Review.

The Review is a summary of what we think are some of the most significant new papers in the field of patient psychology, plus local commentary on why they are important and how they can potentially affect practice. Selection and review of the papers is carried out independently by Keith Petrie, Professor of Health Psychology at Auckland University Medical School. The Review also provides website links to the abstract or fully published papers so you can make your own judgements. If you have friends or colleagues within New Zealand who would like to receive our publication, please send us their contact email and we will include them for the next issue.

We hope you find this first edition stimulating reading and welcome your comments and feedback.

Kind regards

**Dr Chris Tofield**

Medical Advisor, Research Review  
[christofield@researchreview.co.nz](mailto:christofield@researchreview.co.nz)

## Computerised decision aids: a systematic review of their effectiveness in facilitating high-quality decision-making in various health-related contexts

**Authors:** Sheehan J et al

**Summary:** This study reviewed the effectiveness of computerised decision aids (CDAs) in enabling decision-making in preference-sensitive health-related contexts. 28 suitable randomised controlled trials that included at least 1 decision quality or decision process variable outcome were identified from a search of Medline, CINAHL and PsycINFO databases. The studies evaluated 26 unique CDAs. CDAs performed better than standard consultations or education with regard to improved knowledge and lower decisional conflict, and did not increase anxiety. They also facilitated greater satisfaction with the decision-making process than standard education. Further investigation of the effects of CDAs on risk perceptions, value congruence with the chosen option, preferred roles in decision-making and decisional self-efficacy are needed. In conclusion, CDAs had similar effects to non-computerised decision aids on various outcomes.

**Comment:** The move to more patient-focused medical interviews and shared decision-making has brought with it a need for patients to better understand their treatment options. Decision aids are increasingly being used to help patients make better informed treatment choices based on understanding the options available. This paper reviews trials of CDAs, including ones providing patients assistance with treatment decisions on a variety of medical conditions including back pain, reconstructive breast surgery, HRT and atrial fibrillation. Generally, patients using CDAs report improved knowledge of options and the likely outcomes of treatment as well as more satisfaction with the decision making process. This area of medicine is likely to become an increasingly important one with the growing computer literacy of patients and desire for patients to be better informed about treatment choices.

**Reference:** *Patient Educ Couns* 2012;88:69-86

<http://dx.doi.org/10.1016/j.pec.2011.11.006>



**ATLANTIS  
HEALTHCARE**  
Understand.Connect.Change.

Is there an effective way to improve patient outcomes through increased medication adherence?

**Yes.** Turn over to find out more.

## Patients go online seeking support, practical advice on health conditions

**Authors:** Kuehn B et al

**Summary:** The Pew Internet and American Life Project has undertaken a number of surveys over the past decade to assess how people in the United States use the internet. The latest survey (<http://tinyurl.com/4jtdvwc>) contacted 3001 US adults by telephone to evaluate the kinds of health information people are now seeking online, and what they continue to seek from traditional sources. Response rates were 13.6% and 17% for people contacted by landline and mobile phone, respectively. 91% of respondents said they would approach a healthcare professional when seeking a diagnosis, 85% would seek drug information from their clinician, 63% would ask their clinician for information on alternative treatments, and 62% would approach their clinician for referrals to other healthcare professionals or facilities. In conclusion, the results of the telephone survey should allay the concerns of some healthcare professionals that patients will use the internet for self diagnosis and treatment.

**Comment:** This US survey highlights that the internet is being used by increasing numbers of patients with chronic illness for information about their illness and treatment as well as to gather data from patients with similar conditions. This is especially so for patients who have rare medical illnesses. This report found that by far the majority of individuals still turn to a healthcare professional when seeking a diagnosis or information about drugs but the internet is increasingly becoming a first stop for many people seeking quick information or advice about health problems.

**Reference:** JAMA 2011;305(16):1644-1645

<http://dx.doi.org/10.1001/jama.2011.509>

Coming soon...

> Asian Health Review

[CLICK HERE](#)

TO SUBSCRIBE

## The perceived sensitivity to medicines (PSM) scale: an evaluation of validity and reliability

**Authors:** Horne R et al

**Summary:** This study reported the development and psychometric properties of a perceived sensitivity to medicines (PSM) scale. The consistency, test-retest reliability, criterion-related, and predictive validity of the PSM scale were evaluated in 5 data sets involving 1,166 participants (the data sets comprised patients receiving treatment for HIV infection, patients receiving treatment for hypertension, individuals receiving a travel vaccination, and undergraduate students). Test-retest reliability of the PSM scale, assessed in undergraduates who completed the PSM test twice at a 2-week interval, was high ( $r=0.89$ ,  $p<0.001$ ). Cronbach's alpha ranged from 0.79–0.94. High PSM scores were associated with negative beliefs about medicines, strong concerns about potential adverse effects, and doubts about the need for treatment. High PSM scores were predictive of non-adherence to anti-retroviral therapy in patients with HIV, and a higher incidence of symptoms after travel vaccination. In conclusion, the PSM appears to be a valid and reliable measure of perceived sensitivity to medication and may be a useful research tool in studies of the use and effects of medicines.

**Comment:** The patient's attitude towards taking medicine is often the elephant in the room in medical consultations. Many patients feel uneasy about taking medicines and many believe they are very sensitive to the effects of medicine. This new 5-item scale with items such as: "My body is very sensitive to medicines" and "I usually have stronger reactions to medicines than most people" is an attempt to assess patients' perceived medicine sensitivity. While perceived sensitivity may not be related to actual sensitivity or adverse effects it does affect patients' adherence and persistence with treatment. Assessing perceived sensitivity to medicine may be a useful starting point for clinicians to assess when discussing treatment options.

**Reference:** Brit J Health Psychol. Published online 23 Apr 2012

<http://dx.doi.org/10.1111/j.2044-8287.2012.02071.x>

## The reassuring value of diagnostic tests: a systematic review

**Authors:** van Ravesteijn H et al

**Summary:** This study reviewed evidence for the value of using diagnostic tests for patient reassurance. Five randomised controlled trials ( $n=1544$ ) that examined the level of reassurance after diagnostic testing in outpatients were identified from a search of PubMed, Psychinfo, Cochrane Central, Ongoing Trials Database and Scopus. The trials used different diagnostic tests (e.g. ECG, radiography of lumbar spine, MR brain scan, laboratory tests, MR of lumbar spine) for different complaints, including chest pain, low back pain and headache. Four of the studies did not find a significant reassuring value in diagnostic tests. One of the studies reported a reassuring effect at 3 months but this had disappeared after 1 year. In conclusion, because diagnostic tests make minimal contribution to the level of patient reassurance, a clear explanation and watchful waiting can make additional diagnostic testing unnecessary.

**Comment:** Reassurance is one of the most common medical interventions but one of the least understood. This paper addresses whether diagnostic tests are a useful way to reassure patients. The authors reviewed 5 RCTs that addressed this question and found little evidence that diagnostic tests are in themselves reassuring. While there has been little work in this area, the authors recommend that exploration of the patient's fears about their symptoms accompanied by an explanation of symptoms may be a better strategy for improving patient reassurance. This is consistent with evidence from my own research which found that a good explanation of the meaning of normal results prior to medical testing improves reassurance (Petrie K et al. Effect of providing information about normal test results on patients' reassurance: randomised controlled trial. *Brit Med J* 2007;334:352).

**Reference:** Patient Educ Couns 2012;86:3-8

<http://dx.doi.org/10.1016/j.pec.2011.02.003>



**ATLANTIS HEALTHCARE**  
Understand.Connect.Change.

- + We **understand** the reasons why patients don't take their medication as prescribed.
- + Our evidence-based programmes **connect** with patients to deliver personalised interventions.
- + We help **change** patient outcomes for good.

To find out more about Atlantis Healthcare, visit [www.atlantishealthcare.com](http://www.atlantishealthcare.com)

## Effect of sitting vs. standing on perception of provider time at bedside: a pilot study

**Authors:** Swayden K et al

**Summary:** This study investigated whether patients perceive that a provider has spent more time at their bedside when the provider sits rather than stands. 120 adult inpatients who had undergone elective spine surgery were included. The postoperative patient evaluation was consistent for each patient. Prior to the physician entering the room, it was determined (according to a randomisation schedule) whether the physician would sit or stand. A nurse researcher then stood outside the room and timed the encounter from the moment the physician entered the room until the moment he left. Patients were then asked to estimate the amount of time the physician had been in the room. Patients perceived that the provider was at their bedside longer when he sat, even though the time spent at the bedside did not differ significantly whether he sat or stood. Patients with whom the physician sat reported a more positive interaction and a better understanding of their condition. In conclusion, sitting rather than standing at a patient's bedside can significantly improve patient satisfaction, patient compliance, and provider-patient rapport.

**Comment:** This clever little study shows how patients' perceptions can be influenced by whether doctors stand or sit at their bedside. Postoperative patients perceived doctors to spend more time with them if they sat rather than stood at their bedside. Perhaps most striking in this American study was the fact doctors were only with patients for just over a minute but patients on average believed they had been with them for over 5 minutes if they sat and 3 minutes 44 seconds if they stood. They also tended to make more positive comments about the interaction when the doctor sat down. The study highlights the fact that often little things can have a large influence on perceptions in doctor patient interactions.

**Reference:** *Patient Educ Couns* 2012;86:166-171

<http://dx.doi.org/10.1016/j.pec.2011.05.024>

## Walking drawings and walking ability in children with cerebral palsy

**Authors:** Chong J et al

**Summary:** This study evaluated whether 'self walking' drawings drawn by children with cerebral palsy (CP) reflected their actual walking ability and illness perceptions. 52 children with CP were asked to draw a picture of themselves walking. The size and content of the drawing was compared with the children's walking ability and their own perceptions of their illness (evaluated by the Brief Illness Perception Questionnaire). Larger drawings of the self were associated with less walking distance travelled in the walk test, higher emotional responses to CP, and lower perceptions of pain or discomfort. Drawings of the self within buildings were also associated with reduced walking ability. In conclusion, 'self walking' drawing size and content can reflect walking ability, symptom perceptions and distress in children with CP.

**Comment:** This study is a recent example of how patients' drawings, particularly of their illness or functioning are associated with important outcomes. Previous studies have found heart attack patients who drew larger hearts had a slower recovery as well as higher cardiac anxiety. Similar results have been found with individuals suffering from headaches, where larger drawings of the head were associated with worse symptoms and restricted activity. This NZ study of children with cerebral palsy who were asked to draw themselves walking somewhere found strong associations with functional ability measured by a standard walking test. The study shows that drawings can be a useful and non-threatening way for health professionals to access patients' views of how their illness is affecting their daily life.

**Reference:** *Health Psychol.* Published online Feb 27, 2012

<http://dx.doi.org/10.1037/a0027353>

## The association between illness representation profiles and use of unscheduled urgent and emergency health care services

**Authors:** Lowe R et al

**Summary:** The self-regulation model (SRM) assumes that people select healthcare services in ways consistent with their illness understanding. This study used the SRM to examine differences in people's unscheduled use of primary, secondary and community healthcare services according to their illness representation. A general population postal survey obtained data on service usage and illness representation from 588 respondents. Cluster analysis found 3 illness representation profiles: people who regarded their illness as serious, unambiguous, distressing, and difficult to manage (group 1); those who regarded their illness as chronic and concerning, but understood it and could manage it (group 2); those who thought their illness was short-term, of limited impact or concern but ambiguous (group 3). Group 1 used secondary healthcare services more than groups 2 or 3, and showed more use of primary care for non-chronic conditions and secondary care for chronic conditions. In conclusion, the unscheduled use of healthcare services is related to peoples' illness representation profiles.

**Comment:** A number of previous studies have demonstrated that the way patients view their illness has a major effect on the way patients utilise healthcare services. This study extends this work to the use of urgent and emergency services. Patients who viewed their illness as serious, distressing, and difficult to manage were more likely to use unscheduled medical care than patients in the other two illness perception clusters. This is a new application of illness perceptions and could possibly be applied to frequent attenders in emergency departments.

**Reference:** *Brit J Health Psychol* 2011;16:862-879

<http://dx.doi.org/10.1111/j.2044-8287.2011.02023.x>



### 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.

For full bio [CLICK HERE](#).

Research Review publications are intended for New Zealand health professionals.

You're welcome to pick our brains.

Ask us about financial solutions today.

0800 273 916 | [bnz.co.nz/medical](http://bnz.co.nz/medical) **bnz**

## Culturally appropriate storytelling to improve blood pressure

**Authors:** Houston T et al

**Summary:** This US study evaluated the effects of an interactive storytelling intervention on blood pressure in patients with hypertension. 230 African Americans with hypertension living in the southern United States were included. Patients in the intervention group watched DVDs of hypertensive patients from the study group talking about their experiences of hypertension (including talking with physicians, receiving treatment, medication adherence, diet and exercise). The comparison group watched an attention control DVD that covered health topics not related to hypertension. In patients with uncontrolled hypertension at baseline, blood pressure reduction favoured the intervention group at 3 months for both systolic (11.21mm Hg;  $p=0.012$ ) and diastolic (6.43mm Hg;  $p=0.012$ ) blood pressure. In patients with controlled hypertension at baseline, no between-group differences emerged over time. In conclusion, the culturally appropriate storytelling intervention significantly improved blood pressure in patients with uncontrolled hypertension at baseline.

**Comment:** This interesting study found African American patients randomised to a DVD, which featured other African American patients talking about living with hypertension, improved their blood pressure control compared to patients who received control DVD. The DVD showed patients giving their personal experiences in medical consultations as well as strategies for improving adherence to medication and lifestyle changes. Although the paper didn't look directly at mechanisms for why this effect occurred, it seems likely the patients identified more strongly with the patients on the DVD and were therefore more likely to adopt the health behaviour changes suggested. Among patients with uncontrolled hypertension both the systolic and diastolic changes were significant out to nine months. The paper suggests that using patients in information health material that the patient can more easily identify with adds to the power of these interventions. The effect of a DVD based around patients offering suggestions in the form of telling a story about how they manage their chronic illness seems to have real potential for motivating patients to change their behaviour and has an obvious application in web-based interventions as well.

**Reference:** *Ann Intern Med* 2011;154:77-84

<http://www.ncbi.nlm.nih.gov/pubmed/21242364>

## Helping patients simplify and safely use complex prescription regimens

**Authors:** Wolf M et al

**Summary:** This study investigated the need for a universal medication schedule that standardises prescribing practices to 4 daily time intervals. 464 adults were given a hypothetical, 7-drug regimen that could be consolidated into 4 dosing episodes per day and were asked to demonstrate how and when they would take the drugs in a 24-hour period. On average, participants identified 6 dose times in 24 hours to take the 7 drugs. Only 14.9% of participants organised the regimen into  $\leq 4$  dose times per day. Multivariable analysis showed that low literacy was a predictor of more dose times per day. Two of the drugs had identical instructions yet 31.0% of participants did not take them at the same time. Another set of drugs had similar instructions although 1 drug was to be taken "with food and water"; 49.5% of participants took them at different times. In conclusion, many patients do not consolidate prescription regimens in the most efficient manner and could be helped by a universal medication schedule with standardised instructions.

**Comment:** This study is a real life example of why there is a real need to simplify and standardise the way patients take all of their medicines. The study found patients had real difficulty organising a dummy collection of medicines with different sets of instructions on each drug. While the drugs could be taken at 4 consolidated times in the day only 15% of patients were able to do this and the rest took the drugs multiple times, with 29% taking the drugs 7 or more times per day. Obviously, the potential for non-compliance increases with each additional time drugs are taken, not to mention the added disruption to daily activity. The study highlights the need to help patients, particularly those with chronic illness, simplify and organise their medicines. There is potential here not only to reduce drug errors but also to improve adherence by a simple intervention. This need seems to be strongest in patients with low health literacy.

**Reference:** *Arch Intern Med* 2011;171(4):300-305

<http://dx.doi.org/10.1001/archinternmed.2011.39>

## Putting like a pro: the role of positive contagion in golf performance and perception

**Authors:** Lee C et al

**Summary:** The expression 'positive contagion' refers to the belief of transference of beneficial properties from animate persons/objects to previously neutral objects. This study investigated the role of positive contagion on golf performance and perception. Participants in 1 group were given a putter they were told had previously belonged to a professional golfer and were then asked to complete a golf putting task. During the task, they reportedly perceived the size of the golf hole to be larger, and had more success with sinking putts, than golfers without such a belief. In conclusion, these results suggest that using objects with positive contagion can improve performance, and that positive contagion can alter perception.

**Comment:** To end with here is a paper for the sports followers. In this study participants who were told the putter they were using belonged to a professional golfer sunk more putts (by about 40%) and also rated the golf hole to be larger than those using the same putter but who were not told it belonged to a pro. The paper elegantly highlights how our expectations can influence both performance and outcome. This also has relevance for the placebo effect associated with medical treatment. For example branded drugs are often perceived to be more powerful than unbranded or generic medicines and produce a larger response. Now does anyone know where I can buy one of Federer's racquets?

**Reference:** *PLoS ONE* 2011;6(10):e26016

<http://dx.doi.org/10.1371/journal.pone.0026016>

**Privacy Policy:** Research Review will record your details on a secure database and will not release them to anyone without your prior approval. Research Review and you have the right to inspect, update or delete your details at any time.

**Disclaimer:** This publication is not intended as a replacement for regular medical education but to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal. It is suggested readers review the full trial data before forming a final conclusion on its merits.

Find healthcare jobs  
in your area

trade me  
**JOBS**  
www.trademe.co.nz/jobs

## Subscribing to Research Review

To subscribe or download previous editions of Research Review publications go to

[www.researchreview.co.nz](http://www.researchreview.co.nz)