Nurse and Pharmacist Communication Boosts Medication Adherence

A review of in-person, electronic, telephone, fax, and mail communications that counsel patients to stay on their medications indicates that retail store pharmacists are the most influential health care “voice” in getting patients to take medicine as prescribed.

The research, based on a review of 168 studies published in medical journals from 1966 through 2008, showed that nurses talking with patients as they are discharged from a hospital are the second most influential voice encouraging patients to stay on their medicines. Both in-store pharmacists and hospital-based nurses are more effective than pharmacists communicating to a patient via telephone or physicians instructing patients regarding their medications indicates that retail pharmacists talking to patients in a store were twice as effective at boosting adherence rates as programs where pharmacists talk to patients on the telephone.

The findings are contained in two separate reviews of medical journal studies sponsored by CVS Caremark and carried out by a team of researchers from Harvard University, Brigham and Women’s Hospital, and CVS Caremark.

The study found that programs using mail, fax, and brochure-type (nonpersonal) communications had relatively low impact on promoting patient adherence. A review of the use of electronic communications, such as videos and interactive technology, show promise but were determined to have medium impact on increasing adherence among patients.

The highest-impact programs featured pharmacists talking to patients in a store, followed by nurses talking face-to-face with patients who were leaving a hospital, the researchers concluded. Face-to-face discussions between pharmacists and patients in a store were twice as effective at boosting adherence as programs where pharmacists talk with patients on the telephone.

Meditation, Omega-3 Shown to Help Depression Symptoms

Two alternative modalities have recently been pinpointed as possible therapies in the treatment of depression.

A study from the Centre for Addiction and Mental Health in Canada has found that mindfulness-based cognitive therapy using meditation provides equivalent protection against depressive relapse as traditional antidepressant medication. Published in the Archives of General Psychiatry, the study involved participants who were diagnosed with major depressive disorder and who were all treated with an antidepressant agent until their symptoms remitted. They were then randomly assigned to come off their medication and receive mindfulness-based cognitive therapy using meditation versus maintaining the same treatment (antidepressant medication) over time.

The notorious 1998 Lancet paper by Andrew Wakefield implying a connection between the measles-mumps-rubella vaccine and autism has received international attention once again, not even a year after the Lancet retracted the article that prompted countless parents to view childhood vaccinations as the enemy.

Along with a detailed report by journalist Brian Deer, who previously authored a series of articles in the Times of London questioning Wakefield’s data, BMJ has published an editorial outright accusing Wakefield of intentionally committing fraud. The editorial, authored by BMJ editor-in-chief Fiona Godlee and her editorial staff, claims that “Wakefield altered numerous facts about the patients’ medical histories in order to support his claim to have identified a new syndrome” (para. 3). Deer’s contribution to BMJ and the corresponding editorial are supported with records that were made public last year after Wakefield’s medical license was revoked by Britain, along with interviews of the parents of the children from Wakefield’s study.

Despite Deer’s reports and BMJ’s accusation, practicing nurses are still likely to be questioned by concerned parents about a vaccine-autism link. Journal of Psychosocial Nursing and Mental Health Services Youth in Mind section editor Teena McGuinness, PhD, CRNP, FAAN, and co-author Shannon Lewis addressed this sensitive topic in their June 2010 article, “Update on Autism and Vaccines.”


Participants in MBCT attended 8 weekly group sessions and practiced mindfulness as part of daily homework assignments. Clinical assessments were conducted at regular intervals, and over an 18-month period, relapse rates for patients in the MBCT group did not differ from patients receiving antidepressant medication (both in the 30% range), whereas patients receiving placebo relapsed at a significantly higher rate (70%).

Meanwhile, the benefits of omega-3 supplements for depression were highlighted at the annual meeting of the American College of Neuropsychopharmacology. In a meta-analysis of 15 randomized, double-blind, placebo-controlled studies, researchers from the University of Illinois at Chicago found that patients taking omega-3 with either eicosapentenoic acid (EPA) or a combination of EPA and docosahexaenoic acid (DHA) experienced clear antidepressant benefits. However, across studies, patients taking the pure DHA form of omega-3 saw no antidepressant effect, showing that the EPA predominant formulation is necessary for therapeutic action to occur.

While scientists noted that omega-3 produces beneficial effects in patients with depression, EPA does not improve mood in people who are not depressed. In several studies, people without depression experienced no difference in mood as a result of omega-3 consumption. In another study, the researchers found that women with inadequate omega-3 intake were more likely to experience depression during and after pregnancy than women with adequate omega-3 in their diets.

**Older Adults Frequently Prescribed Antidepressants with Potential Drug-Drug Interactions**

More than half of older Americans 65 and older who were prescribed antidepressant medications for the first time were already taking a medication that could adversely interact with the antidepressant drug, according to a study published in the *American Journal for Geriatric Psychiatry*.

Among the 39,512 new antidepressant users in the study, 25.4% were prescribed an antidepressant and another medication that could cause a major interaction. An additional 36.1% had potential moderate interactions, and 38.5% had minor or no interactions.

Pain medications were most often identified as having the potential for major interactions with antidepressant agents, accounting for more than one quarter of all potential major interactions among older adults in the study. The presence of contraindications or interactions increased the probability of patients switching antidepressant medications by 19.5%.

The study also found that 5.6% of study participants had a documented side effect from the antidepressant drugs they were prescribed, most often insomnia, somnolence, and drowsiness. Overall, the presence of a side effect was associated with a 4.7% increase in drug switching (from 16.5% to 21.7%) and a 3.7% increase in discontinuation of treatment (from 22% to 25.7%).

Data for the study were derived from the Thomson Reuters MarketScan® database of Medicare claims. Potential drug interactions were identified using Thomson Reuters Drug-Reax® System. Study participants were new antidepressant users who were diagnosed with depression between July 1, 2001, and December 31, 2006.

**Children with ADHD Show Improved Symptoms After Computer Program Training**

An intensive, 5-week working memory training program shows promise in relieving some of the symptoms of attention-deficit/hyperactivity disorder (ADHD) in children, according to research in the *Journal of Clinical Child & Adolescent Psychology*.

Researchers at Ohio State University tested software developed by a Swedish company called Cogmed, in conjunction with the Karolinska Institute, a medical university in Stockholm. The software is designed to improve working memory, one of

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the major deficiencies found in people with ADHD.

The study involved 52 students, ages 7 to 17, who attended a private school in Ohio that serves children with learning disabilities, many of whom also have an ADHD diagnosis. All of the children used the software in their homes, under the supervision of their parents and the researchers.

The software includes a set of 25 computer game-format exercises that students had to complete within 5 to 6 weeks. Each session is 30 to 40 minutes long. In one exercise, for example, a robot will speak numbers in a certain order, and the student has to click on the numbers the robot spoke, on the computer screen, in the opposite order.

Half of the students participated at the beginning of the study. The other half were wait-listed and completed the software program after the others were finished. Parents and teachers of the participating students completed measures of the children’s ADHD symptoms and working memory before the intervention, 1 month after treatment, and 4 months after treatment.

Results showed that parents generally rated their children as improving on inattention, overall number of ADHD symptoms, working memory, planning and organization, and in initiating tasks. These changes were evident both immediately after treatment and 4 months later. On individual measures, between one fourth and one third of the children showed clinically significant progress. The teacher ratings, while pointed in the direction of improvement, were not strong enough to be statistically significant in this study.

According to the researchers, one of the strengths of the study is that it used a very typical sample of children with ADHD, whereas other studies in Sweden had excluded children who were taking medication, even though most children with ADHD take some kind of medication. In this sample, 60% of the students were taking medication. The results showed the program was equally effective regardless of whether they were on medication or not.


### Smoking Cessation Program & PTSD Treatment Work Well Together

Among smokers with military-related posttraumatic stress disorder (PTSD), integrating smoking cessation treatment with mental health care for PTSD resulted in higher rates of prolonged smoking abstinence, compared with referral for assistance with quitting smoking, according to a study in the Journal of the American Medical Association.

In a multisite randomized controlled trial, researchers hypothesized that integrating smoking cessation treatment into mental health care would improve long-term smoking abstinence rates in veterans with PTSD compared with referral for specialized cessation treatment. The trial included 943 smokers with military-related PTSD who were recruited from outpatient PTSD clinics at 10 U.S. Department of Veterans Affairs (VA) medical centers and followed up for 18 to 48 months between November 2004 and July 2009. Participants received either smoking cessation treatment integrated within mental health care for PTSD delivered by mental health clinicians (integrated care, IC) or were referred to VA smoking cessation clinics (SCC).

The researchers found that the IC group had a higher bioverified (i.e., verified from measures such as exhaled carbon monoxide or urine cotinine levels) prolonged abstinence (12 months) rate than the SCC group, with 42 patients (8.9%) in IC and 21 patients (4.5%) in SCC achieving bioverified prolonged abstinence. The treatment effect was consistent across all subgroups. Differences in bioverified point prevalence abstinence between the IC and SCC groups were largest at 6 months for both 7-day (16.5% for IC versus 7.2% for SCC) and 30-day (13.6% for IC versus 5.9% for SCC) abstinence, and remained significant at 18 months (7-day abstinence: 18.2% for IC versus 10.8% for SCC; 30-day abstinence: 16.9% for IC versus 9.3% for SCC), indicating that patients in the IC group were twice as likely as patients in the SCC group to achieve 7- and 30-day abstinence between 3 and 18 months.

Patients in the IC group attended more cessation sessions than patients in the SCC group and were more likely to use smoking cessation medications. Number of counseling sessions received and days of cessation medication used explained 39.1% of the treatment effect, according to the researchers, and PTSD symptoms improved for both participants who quit smoking and those who did not.

Initiatives to disseminate IC as an evidence-based practice within the VA are under way to meet the challenge of making tobacco cessation treatments available to veterans who need them, the authors concluded.