Managing Distress, Discomfort, and Anxiety in Imaging

It was once thought that physicians become radiologists because they didn't want to interact with their patients. In the joke "How do you hide a 100 dollar bill from a doctor?" the answer pertaining to the radiologist is "You pin it on the patient." But times have changed. Today, radiologists are at the critical interface between diagnosis and treatment, a time when patients and referring clinicians have questions, demands, and are in need of guidance.

Positive patient interactions and experiences not only help the "customer" but also directly affect the bottom line. Anxiety related reactions, ranging from apprehension to inability to complete the test, affect between four and 30 percent of patients undergoing MRI (Melendez & McCrank, 1993). An estimated 2.3 percent of patients cannot complete their MRI scans because of claustrophobia, panic, or other reasons that prevent them from lying still (Dewey, Schink, & Dewey, 2007). This results in hundreds of thousands of dollars of losses every year for the involved facilities. Fortunately such waste of overhead can be limited by simply changing the way staff talks with patients (Lang, Ward, & Laser, 2010).

The promise of medications for distress management is a panacea. When the threshold to use anaesthesia is low, such as in paediatric imaging, it can create a bottleneck when availability of anaesthesia personnel is limited. For this reason – not scanner capacity - waiting times for elective paediatric MRI are currently in the range of several months in Canada. Another problem that good communication with patients can avoid is no-shows. Support by a communication-trained scheduler or judicious use of scripts can greatly ameliorate this challenge. It pays to have patients arrive with less anxiety: Otherwise their cases will take longer and be more painful (Schupp, Berbaum, Berbaum, & Lang, 2005).

Litigation Headaches Linked to 'Absent' Physicians

Patients who feel their healthcare provider doesn't care are more likely to sue (Levinston, 1994). Malpractice attorneys cite communication issues as the primary reason for filing a suit in more than 80 percent of cases (Avery, 1985). These patients cite having information poorly delivered, and not being understood or valued as leading causes of dissatisfaction (Beckman, Markakis, Suchman, & Frankel, 1995). Responding to the public's frustration with poor doctor-patient relationships, the Accreditation Council for Graduate Medical Education now demands that all physicians be trained and are fluent in communication and interpersonal skills (Accreditation Council for Graduate Medical Education, 2001). Before embarking on such training one should, however, better understand the sources of patient distress and how they can be addressed efficiently.

Causes of Patient Anxiety and Distress

Patient concerns may encompass possible adverse effects, cancer, pain, or poor outcomes. We measured the distress of 214 women in the radiology waiting room through the analysis of extensive questionnaires (Lang & Flory, 2010). Women awaiting breast biopsy had significantly higher levels of anxiety and perceived stress than women awaiting much riskier procedures, such as chemoembolisation for known liver cancer. They also experienced depressive moods and impact on daily life comparable to those of the cancer patients. Stress levels didn't differ among women coming for embolisation of benign fibroids and those coming for embolisation of cancer. These results identify not knowing the diagnosis as a highly potent stressor. Uncertainty of diagnosis during the wait for final results can even disturb cortisol secretion to a degree similar to that of patients who learned they have cancer (Lang, Berbaum, & Lutgendorf, 2009; Gustafsson et al., 1995).

The distress of patients can be further aggravated by the reactions of the attending facility personnel. Patients who come for examinations or procedures are in a highly suggestible state which makes them vulnerable to a pessimistic interpretation of the information they receive (Ewin & Eimer, 2006). Words, tone, expressions, and context determine if the information creates positive or negative expectations (Bayer, Coverdale, Chiang, & Bangs, 1998). Negative expectations bring about negative outcomes (Silvestri et al., 2003; Spiegel, 1997).

Handing the patient a "panic" button in MRI sets the stage for what to expect. Pain can be insinuated by just mentioning its possibility, as has been shown in a study where volunteers who expected pain, reported pain, even when there were no painful stimuli (Bayer et al., 1998). In an interventional radiology study, negatively-valenced statements (e.g. "just a sting and burn"), as compared to none at all or to neutral ones, increased patients' anxiety and pain when used to announce upcoming stimuli (Lang et al., 2005). Fortunately, it is easy to avoid negative outcomes by simple changes in vocabulary. "I will give you the local anaesthetic," or "I will give you the numbing medicine" will do just fine.

Paradoxically, things can actually become worse when medical personnel want to be particularly nice but are not trained how to express their empathy in a way that helps patients help themselves: Under these conditions haemodynamic disturbances and adverse events can become significantly more frequent in interventional radiology and further stress the patient (Lang et al., 2008).
Radiology is a haven of technology. The recourse to fight patient distress with technology is appealing: creating a more patient friendly atmosphere through the lay-out, colouring, placement of art and pictures, offering more "open" equipment design, earplugs for sound suppression, headphones for listening to music, blindfolds or video-goggles for blocking out reality. Technology, however, weighs on the budget and cannot replace the human element that many patients clamour for to overcome their stresses.

Spending more time with patients is not necessarily the answer. Even when doctors take extra time and think they are making special efforts in giving more information and explanations this may not result in greater patient satisfaction (Ley, Bradshaw, Kinsey, & Aterton, 1976). One reason resides in the following dynamics (Suchman, Markakis, Beckman, & Frankel, 1997): Patients seldom verbalise their emotions directly; they tend to offer clues instead. When healthcare providers respond to this emotional appeal accurately and acknowledge the patients, communication proceeds smoothly. When healthcare providers return to the preceding topic or sentence sequence, patients remain unsatisfied. Some patients may raise the issue again and again with escalating intensity. Patients who want attention will ultimately get it – which may be at most inopportune times when their attention seeking behaviour disrupts a procedure or a scan. It is thus far more preferable to respond to the patients' needs early on.

Over the past 20 years we worked on and tested solutions that rapidly diffuse patient distress and help patients with painful radiological procedures. We focused on nonpharmacologic methods and started to train healthcare professionals in a more patient-centred talking style, complemented with hypnotic language that directly addresses anxiety, pain and distress. It was important that methods would not require prior patient preparation or selection, any props, or extra time, but could be integrated in routine workflow. Therefore it was important to include rapid rapport skills and ways to positively influence the patients' experience right from the start. We summarised the techniques in a book "Patient sedation without medication. Rapid rapport and quick hypnotic techniques. A resource guide for doctors, nurses, and technologists" (Lang & Laser, 2009). The emphasis of our approach is helping patients help themselves and using what comes naturally. Quirk et al. found that many MRI patients combatted anxiety on their own by using breathing and relaxation techniques, visualising pleasant scenes, and performing mental exercises (Quirk, Letenre, Ciottone, & Lingley, 1989). This type of focused attention on a more pleasant outlook than the immediate surrounding reality is the essence of self-hypnosis. We evolved the concept of guidance in self-hypnotic relaxation in radiology and showed efficacy in three large prospective randomised clinical trials: in the "Lancet Study" testing applicability with concurrent access to IV conscious sedation during vascular and renal procedures; in the "Breast Trial" during large core breast biopsy in a pure outpatient model, and the "Tumour Embolisation Trial" as a model for more invasive therapy with high complication potential (Lang et al., 2000; Lang et al., 2006; Lang et al., 2008).

Patients had less pain, less anxiety, fewer medications, and fewer complications. Being able to increase haemodynamic stability and outcomes came as particularly valuable side effects – not negligible in a climate of mandated safety initiatives, Pay-For-Performance, and trends towards open "Report Cards". Use of these methods resulted in the considerable savings of 338 dollars per case in the catheterisation laboratory (Lang & Rosen, 2002).

Over the years we came to learn that it "takes a village" to have a smooth transition in how communication is used throughout the department. We have developed a method of patient interaction called Comfort TalkTM in which schedulers, receptionists, nurses, technologists, and physicians are extensively trained in advanced rapport skills and setting expectations. A core group of healthcare professionals then provides additional guidance in self-hypnotic relaxation. We used this model when we were asked to help a large private MRI practice. After team training, the non-completion rate of MRIs was reduced by 40 percent and resulted in annual savings of 140,000 dollars, with maintained success at the time of a one-year follow-up (Lang, Ward, & Laser, 2009).

Hypnotic Language in the Modern Healthcare Environment

Although successful use of relaxation and hypnotic techniques in radiology, mainly MRI, dates back to the 80's, these methods received surprisingly little attention (Friday & Kubal, 1990; Klonoff, Janata, & Kaufman, 1986; Quirk, Letenre, Ciottone, & Lingley, 1989). Main impediments were early beliefs that such techniques are best provided by mental health professionals, and that traditional hypnotic techniques and desensitisation approaches just took too long for a busy practice. The beliefs are changing. It has become apparent that guidance in self-hypnotic relaxation on the examination table can be applied without interruption of workflow and that personnel already involved can perform it expertly (Lang & Berbaum, 1997).

Openness towards and usage of alternative approaches has made great strides with the public (Eisenberg et al., 1993). More and more traditional medical institutions are opening alternative centres to respond to the need. The press is extensively reporting positively about use of such methods (www.hynalgesics.com_professionals_news). The balance has swung far towards Comfort TalkTM type interventions, which smooth communication and help patients through a stressful time, improve outcomes, and give patients the assurance of caring and the respect they seek. In our experience, patients appreciate the effort made to help them through their examinations. Informed patients will choose their healthcare facilities based on whether they can receive this kind of assistance and will shun places that are hostile to the concept. With patient expectations rising, it makes sense to train one's radiology team in advanced communication.

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