Informational Counseling in Health Professions: What do Patients Remember?

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The Audiology counseling literature makes an important distinction between informational counseling and personal adjustment counseling (Hodgson, 1994; Kricos, 2000). Informational counseling, the subject of this article, is intended to provide to the patient the relevant information needed to understand the nature of the disorder and the steps that are recommended to manage it. Personal adjustment counseling helps the patient and family deal with the emotional impact of the information. Both are necessary. Information on the nature and severity of the disorder as well as the prognosis and management plan is necessary if the patient and family are to play an active, positive role in remediation, rehabilitation, and secondary prevention of long-term consequences. Although some patients are able immediately to take the necessary steps to manage the disorder, some require personal adjustment counseling to deal with the psychosocial consequences of the disorder. In this article I discuss the research findings of patient recall of information presented in various clinical situations and some recommendations for maximizing what patients remember.

We need to keep in mind that our patients lead busy lives and there are many things that work against the likelihood that they will remember what we tell them. The working mom whose son broke an ankle yesterday playing soccer, who is worried about missing work, who doesn't have anything for dinner tonight, and whose husband may be laid off next week, is not likely to remember important details about a communicative disorder. We seldom know the complexities of our patients' lives and their ability to comprehend and retain important information presented in a counseling session.

The research studies on patient recall are published primarily in medical and counseling journals. The issue is almost completely ignored in the Communication Sciences and Disorders literature. There is a brief discussion of the topic in Luterman's

excellent text on Counseling Persons with Communication Disorders and Their Families (Luterman, 2001) and one study published in the *Texas Journal of Audiology and Speech Pathology* (Martin, Krueger, & Bernstein, 1990). Luterman summarizes the problem well. Patients and family members

> remember unimportant details such as the color of the doctor's shirt or the kind of glasses he or she wore. They always vividly remember the date and can describe the trip to the hospital in explicit detail, but they usually fail to retain any of the important information. (p. 76-77)

Why is Patient Recall Important?

It does not necessarily follow that accurate recall of health information is necessary as long as the patient complies with recommendations. But studies have found that when patients understand the information that is communicated by a healthcare provider, there are significant enhancements of patient satisfaction, compliance with recommendations, and outcomes and decreases in anxiety, treatment time, and cost (Thomson, Cunningham, & Hunt 2001). One study showed that physicians underestimate patients' desire for information and their ability to understand medical findings (Shapiro et al., 1992). When physicians were given specific strategies for enhancing communication, there were measurable improvements in patient recall (Ley, 1977). Recall of information, then, is important to the welfare of the patient and there are strategies that have been shown to increase what patients remember. A disturbing finding is that physicians' impressions of what patients would remember were not correlated with measures of patients' actual recall (Anderson et al., 1979). This finding reinforces the need to provide information in writing even for patients who appear to be absorbing everything.

How Much Do Patients Remember?

Recall of information communicated to patients has been measured under a variety of conditions. In these studies facts are given to the patient and the proportion of facts correctly recalled is measured at some point in time after the counseling session.

Because many factors affect memory for health information, there is a wide range of results but overall studies indicate that about 50% of information provided by healthcare providers is retained (Shapiro et al., 1992). Depending on conditions, 40-80% can be forgotten *immediately* (Kessels, 2003). Studies in which recall was measured at two points in time do not show a difference when recall is measured soon after the consultation and at a later date (Joyce et al., 1969; Reynolds et al., 1981). It seems that patients remember a small proportion of facts and those stay with them for a period of at least several weeks.

Of the information that is recalled, about half is remembered incorrectly (Anderson et al., 1979; Kessels, 2003). So about half is forgotten immediately and half of what is remembered is wrong. If you take any complex message that has an information component and an advice component and you remove 50% of the facts, and distort half the remaining information, the result could be a dangerously misunderstood message that could have life-threatening consequences.

An even more disturbing finding is that patients often forget their medical diagnoses even when the conditions are serious. In one study patients could not recall 68% of the diagnoses told to them in a medical visit. When there were multiple diagnoses, patients could not recall the most important diagnosis 54% of the time (Scheitel et al., 1996). Some of the diagnoses in this study were serious, even life-threatening conditions such as diabetes, hypertension, and liver disease. In another study, patients and physicians agreed on problems that required followup for only 45% of the problems identified by the physician as requiring followup (Starfield et al., 1979). When there was disagreement between the physician and patient regarding the need for followup, the likelihood of appropriate management was significantly lower (Starfield et al., 1981).

A study of recall of information presented during an informed consent process preceding elective surgery found that 25% of the information was correctly recalled (Godwin, 2000).

Factors that Affect Patient Recall

Recall of information is dependent on many factors, some related to the patient, some related to the mode of presentation of the information, and some related to the clinician.

Patient Factors. Some factors that you might expect to affect the ability to retain information don't appear to influence recall. Intelligence, for example, has not been shown to affect the proportion of information retained (Ley, 1979). However, familiarity with the information does have an affect (Tuckett et al., 1985). A patient who is familiar with hearing loss as a result of prior consultations, an affected family member, or professional knowledge tends to remember more. The degree of understanding of issues related to the diagnosis can have a significant effect (Ley, 1979). A finding that the patient expects is remembered more than one that is unexpected; a finding that is welcome or desired is more likely to be recalled than one that is unwelcome or unwanted (Tuckett et al., 1985). Interestingly, a patient is better able to recall information when they are in the same emotional and physical state they were in when they received the information (Kessels, 2003). If they were anxious at the time of the consultation they will remember more when they are in a similar state than when they are relaxed. Elderly patients tend to remember less than younger patients (Anderson et al., 1979; Kessels, 2003). When elderly patients are not included in the study, age effects are not seen (Ley, 1979). Anxiety can have a positive or negative effect on retention. Moderate anxiety enhances recall but severe anxiety inhibits retention of information (Anderson et al., 1979; Kessels, 2003; Ley & Spelman, 1965). Stress causes "attention narrowing" which interferes with the patient's ability to redirect to a different topic (Kessels, 2003). Denial, a defense mechanism that is common in patients with a variety of diagnoses including hearing loss, may contribute to poor recall. Denial

is such a powerful defense mechanism that it can interfere with recall of the most obvious findings. One study, for example, showed that patients frequently forgot diagnoses of excessive tobacco use and obesity (Scheitel et al., 1996). A patient who is in denial of their hearing loss, for example, is not likely to accurately convey information provided at the hearing evaluation to family members.

Mode of Presentation. Not surprisingly, information presented in a simple, easy-to-understand format is remembered better than information presented in a more complex manner (Bradshaw et al., 1975; Kessels, 2003; Tuckett et al. 1985). The more information presented, the lower the proportion that is recalled by the patient (Anderson et al., 1979; Kessels, 2003; Tuckett et al., 1985). Information that is presented first tends to be remembered better - the primacy effect (Ley , 1972).

Several studies have shown that categorizing information can improve retention and some authors discuss the *method of explicit categorization* (Kessels, 2003; Ley 1977, 1979; Tuckett et al., 1985). Information is organized in specific categories such as Explanation of Systems, Diagnostic Tests, Results, Prognosis, and Recommendations. The patient is told that the information will be presented in these categories, each category is announced, and the patient is asked if there are questions before moving on to the next category. One study found a significant enhancement of recall with this method (Kessels, 2003). Another found that in combination with asking the patient what information is wanted, the method provides a framework for enhancing retention (Reynolds et al., 1981).

A number of studies have investigated the effects of written and graphical material to supplement verbal presentation of information (Houts et al., 1998, 2001; Kessels, 2003). Written material, cartoons, and pictures, when used appropriately during the consultation can enhance recall of information. Thompson, Cunningham, & Hunt (2001) concluded from their study of information retention following an orthodontic

consultation “that verbal information should not be given to patients unless supplemented by written and/or visual information” (p. 169).

Recommendations are more likely to be remembered and followed when they are specific rather than general (Bradshaw et al., 1975; Ley, 1977, 1979). A recommendation should be a specific statement telling the patient what to do rather than a more general statement of the goal. A recommendation to “stay home from work and rest for two weeks with no strenuous exercise” is more likely to be followed than “get some rest and take it easy for a while.”

Clinician Factors. The clinician’s communicative style can have a significant influence on retention of information by patients. Information given by clinicians who speak in clear language with simple sentence structure is more likely to be remembered than information provided in complex language loaded with scientific terms (Kessels, 2003). Clarity of communication requires that the clinician understand what the patient wishes to learn and what his/her level of understanding is. To communicate clearly in a manner that promotes retention of information, the consultation needs to be a dialog in which the clinician listens to the patient. When the patient’s ideas are evaded or inhibited, the patient is less likely to remember important information (Tuckett et al., 1985). Even the clinician’s anxiety affects recall. Patients remember less when the information is provided by an overtly anxious clinician (Shapiro et al., 1992). The perceived importance of the information also affects retention (Ley 1972; 1977). Information that is presented in a manner that emphasizes its importance is more likely to be remembered than information present in a matter-of-fact manner. Non-verbal communication is important in reflecting the clinician’s state (confident, anxious, distracted, empathetic) and in indicating the importance of information (Tuckett et al., 1985).

We all know the head-nodding behavior often exhibited by people who hear only part of the message but don’t get enough to really be part of the conversation. The

same phenomenon occurs in a consultation when the patient appears to understand but their understanding is not confirmed by the clinician and the patient is not encouraged to ask questions. Information that is unorganized, unclear, or incomplete can be interpreted by patients to confirm their pre-existing beliefs which may not be in concert with the message the clinician is attempting to communicate. One writer called this the "illusion of shared understanding" (Tuckett et al., 1985). When the clinician is oblivious to the patient's lack of understanding, the entire consultation session may provide little benefit, or worse, do more harm than good.

Methods of Maximizing Retention

Studies of patient recall lead to effective strategies for presenting information in a manner that maximizes retention. Although the following strategies will improve retention, all patients will forget some information, even when presented in an optimal manner. Nevertheless, clinicians should incorporate these methods into their counseling sessions.

- Advice should be given as concrete instructions. "Use ear plugs when you use your power tools" rather than "Keep your noise exposure to a minimum."
- Use easy to understand language. Short words and sentences are remembered better.
- Present the most important information first to capitalize on the primacy effect. Often the most important information is the recommendations such as "make an appointment with the ear doctor."
- Stress the importance of recommendations or other information that you want the patient to remember.
- Use the method of explicit categorization. Tell the patient "We are going to go over **recommendations**, then we will talk about your specific hearing problem (**diagnosis**), then we will go over **test results,** then we will talk about how your hearing may change in the future (**prognosis**)". Ask the patient for questions before moving on to the next category.
- Repeat the most important information.

- Don’t present too much information. Present only the information that is important for the patient to remember. Proportion of retention decreases with the amount of information presented.
- Be sure you understand what the patient wants from the evaluation and what his/her beliefs are concerning the problem. Specifically address the patient’s desires and beliefs.
- Supplement verbal information with written, graphical, and pictorial materials that the patient can take home.

These techniques will significantly enhance the accurate recall of information by our patients. But they will still forget. The best way to ensure that the information gets home is to provide the patient with a permanent record. One author recommended that the patient be instructed to write the information as the clinician presents it (Ley, 1979). For certain kinds of information this may be an effective teaching technique. Another author recommended tape recording the consultation which would allow the patient and family to review the results and recommendations together (Starfield et al., 1979). Another approach is to provide clearly written, illustrated, patient-specific, educational materials that ensure that the information is clear, accurate, complete, and available for review and discussion with family members and other professionals.

Patients are always encouraged to bring family members or friends to consultations. Of course, this is not always possible. At the time of the consultation, the patient may not be in a state of receptiveness to important information. They may have prior beliefs about the extent of a problem that may or may not be realistic or they may be in denial. The research findings discussed in this article indicate that information that is presented in the 5-10 minutes that are usually available for counseling will not be remembered accurately and it is not realistic to expect the patient to communicate the information accurately to family members.

The problem of patient recall of information related to hearing loss was pointed out over 40 years ago by Bailey and Martin (1961). Recognizing that patients often forget information related to their diagnostic findings, they prepared letters that could be given to patients that describe hearing loss and methods for remediation and management. Their recommendation to provide important information in writing has not been widely embraced in our professions. Although the professions of Audiology and Speech-Language Pathology are solely concerned with the communicative well-being of our patients, our own communication to patients is fundamentally disordered. We complain that our counseling efforts are not reimbursed but an analysis of our methods and outcomes would probably not convince payers that we are providing a valuable, reimbursable service when we verbally present complex information in a format that is known to be ineffective. I recommend the following guiding principle for our communication of results and recommendations to our patients.

Any information that is important for the patient to understand and remember should be provided in writing.

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