Chapter 11
Incorporating a New Technology for Patient Education

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ABSTRACT

This chapter explains the design of a survey that provides a new technology for physical therapy clinicians to use while treating patients. The new survey uses both numerical subjective and written subjective questions; the questions dovetail knowledge from the fields of writing and medicine to provide a resource for patient education. Encouraging a patient to write how he or she feels throughout the physical therapy process can increase the clinician's awareness, allowing for the modification of treatment when needed to achieve elite results for the patient. Reading a patient's writing also helps the clinician become more aware of whether the patient has a positive or negative outlook throughout the recovery process. The patient's development and maintenance of a positive outlook becomes a goal of the clinician. From this survey, the authors learned patients with a higher positive outlook throughout treatment sessions demonstrated greater healing gains in existing objective physical therapy measures.

NARRATIVE OF A SURVEY

This chapter uses the theory of narrative inquiry and the process of multigenre writing to discuss the development and implementation of a new survey. Clandinin and Connelly (2000) introduce the theory of narrative inquiry by explaining, "for us, life – as we come to it and as it comes to others – is filled with narrative fragments, enacted in storied moments of time and space, and reflected upon and understood in terms of narrative unities and discontinuities" (p. 17). They continue, "in narrative inquiry, people are looked at as embodiments of lived stories" (p. 43). Since the authors of this chapter are also the designers of the survey, instead of referring to ourselves as "the researchers," at times in our writing we choose to use first person to tell the story of our thought process as we developed our research idea. Connelly and Clandinin (1988) elaborate, "narrative is the study of how humans make meaning of experience by endlessly telling

and retelling stories about themselves that both reconfigure the past and create purpose in the future" (p. 24). We use narrative to reflect on our past survey design while simultaneously setting goals for using this new technology to influence the future of patient education.

In reporting our research process by using narrative, we use the practice of multigenre writing. In describing multigenre writing, Romano (2013) explains, "multigenre places students in a situation that demands narrative thinking. It's risky. Readers might not 'get' the writer's intentions. Writers must work hard on the writing. They must craft it" (p. 22). Multigenre writing encourages writers to look beyond traditional expository writing when discussing research. Romano adds, "our students can extend that practice, incorporating traditional genres, as well as employing other means of communication they have come to know in the twenty-first century" (p. 26). In our modern society where technology surrounds us, we used technology to implement our ideas. Numerous exchanges between the authors took place over email; consequently, we use multigenre writing to replicate the original email exchanges and provide insight into our thought process.

INITIAL DISCOVERIES

What if we told you that filling out a survey while writing down goals has the potential to help you heal faster in physical therapy? Would you do it? The authors of this chapter created a survey that uses writing to assist the healing process. The survey features both numerical subjective questions, where patients are asked to rate how they feel by circling a number, and written subjective questions, where patients are asked to respond to a prompt by providing a short written answer. The writing prompts are scored using a rubric similar to the rubrics used by writing teachers when evaluating students' papers.

In designing our research and implementing our survey, we wanted to answer the question if there was a relationship between a patient's positive outlook when writing down his or her feelings and the patient's recovery process. As of this writing our research remains ongoing and we plan to study this topic further, but our initial study revealed that patients who used more positive language when responding to short answer writing prompts on the survey we designed showed higher objective improvements on existing physical therapy measurements such as the DASH (Disabilities of the Arm Shoulder Hand), LEFS (Lower Extremity Functional Scale), NDI (Neck Disability Index), and Modified Oswestry (for back pain). We hope that after more studies strengthening the validity and reliability of the survey, it will become a new technology medical practitioners can add to their tool kit of patient education resources.

ALL ABOUT GOALS

For the remainder of the chapter, we explain our rationale for designing the survey, our thought process as we developed it, and our goals for additional research using the survey. We know that technology can lead to innovations; we are, after all, writing this chapter to be included in a book about technology. However, designing new technology does not mean abandoning old ideas that work well. Sharp (2000) argues, "in this day of computers and superfast information and increasingly dehumanized communication, I believe that the writer is more important to society than ever. Someone who takes the time to sit down, perhaps with pen or pencil in hand, and express themselves in their own words – this is a person with something to say and a commitment to say it" (p. 133). Furthermore, as Goldberg (2005) adds about writing, "and it's inexpensive. All you need is pen, paper (of course computer, if you are so inclined), and the human mind" (p. xii). Obviously writing does not take the place of following the

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