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Providing Effective Assessment Feedback to Patients: Lessons Learned from Feedback After a Severe Injury

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Providing Effective Assessment Feedback To Patients: Lessons Learned From Feedback
After A Severe Injury

A DOCTORAL PAPER
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DOCTOR OF PSYCHOLOGY

BY
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Providing Effective Assessment Feedback To Patients: Lessons Learned From Feedback After A Severe Injury

"I've done a lot of thinking about fear. For me the crucial question is not how to climb without fear – that's impossible – but how to deal with fear when it creeps into your nerve endings." – *Alex Honnold, Infamous Free Solo Climber*

Imagine yourself hanging 30 feet off the ground on an overhang with nothing but your fingertips keeping you from falling. Fear crept into my nerve endings very quickly. On December 8, 2021, I was climbing at an indoor climbing gym in Salt Lake City, Utah. I was climbing in part to avoid writing my doctoral paper, but I also wanted some exercise and to socialize with new friends. I had recently moved to Utah and was excited to begin my new life here. Climbing was a new sport for me and it represented my willingness to overcome a fear of heights, and even more to start living the life I've always said I wanted.

When climbing, I felt a sense of accomplishment when I reached the top of the wall. To me, climbing involves overcoming obstacles and fear. It requires you to think outside the box in order to move your body and muscles in ways that you didn't know were possible. It requires you to solve a puzzle with your mind while your body is hanging from a wall. You have to get your body and mind to work together or you won't make it to the top, you won't reach your goal. It's much like life, or at least like my life. Learning to focus on only helpful thoughts, ignoring those that are self-defeating, and using your body to behave in alignment with those thoughts to help you reach your goal(s). Working with fear, and not running from it, is essential. Anyway, climbing was,

and is, much more than just a sport to me. It was helping me become a better version of myself, which included learning to be a better psychologist.

On December 8th, climbing tested my mental and physical strength like nothing in life had ever done before. I was on my third route of the night, climbing a 10a overhang route, a route that was particularly challenging for me. I was almost to the top of the wall when I looked down and noticed my rope was almost completely out of my harness. The figure eight knot was no longer there. I took my right hand and grabbed for the last bit of rope, unsure of my plan, but hoping that somehow I could get myself out of the dire situation I would soon discover I was in. As I grabbed the last several inches of the rope that were accessible to me, I yelled down to my friend and told him I was no longer tied in. He looked at me in shock and told me to hang on. My fingers were getting tired at this point, and I was on the overhang part of the wall so I knew I didn't have much longer before I was going to fall. Surprisingly, my mind was clear, trying to problem solve my way out of the situation. Unfortunately though, the end of the rope was no longer near me and I had no options left but to hold on for dear life. An employee of the gym was frantically climbing up the wall to save me. He yelled up at me to hold on. Several seconds later though, my fingers let go of the wall and I was falling the 30 feet down to the bottom of the route. I don't remember the fall as much as I remember the pain I felt once I hit the mat at the bottom.

Chaos ensued, with people surrounding me telling me not to move. My friend was holding my head in place insisting I not move my neck. My feet hurt and my lower back was killing me. The EMT's arrived shortly thereafter and I was brought to the hospital. Early the next morning I underwent the first surgery of four. I would end up having two

surgeries on my right foot, one on my left, and one back surgery. I broke my sacrum, my pelvis, and fractured my fourth and fifth lumbar spine. My spine was ultimately fused at L4 through S2 and hardware was placed in my pelvis and sacrum. My left foot ended up with 8 screws and a metal plate in my tibia, and my right foot ended up with 6 screws. Both feet were also fused in two spots. By the time I was discharged from the hospital, I felt like a bionic woman.

I wasn't paralyzed but I didn't find this out definitively until the second day of being hospitalized. I ended up spending close to two weeks in the hospital. While in the hospital, six different teams were consulting on my case and the feedback from the many providers was overwhelming, and at times, confusing. Some of the interactions with doctors were pleasant, comforting, and even empowering. Other interactions were scary, ambiguous, and anxiety provoking. When certain doctors would arrive, I would feel either open or closed off and I began to wonder what caused those reactions within me. Ironically, the doctoral paper I had proposed to write was on the topic of providing feedback to neuropsychology patients. What was it about certain doctors that made me feel such polarizing feelings? Perhaps I was curious about this as a means of distracting myself from my pain, but regardless, I began to investigate my reactions to each doctor that worked with me.

Although my hospitalization does not mirror a one-time feedback session that a psychologist would traditionally provide to a client or patient, my lengthy hospitalization taught me numerous lessons that psychologists can implement into their practice, regardless of session length. I experienced both effective and ineffective feedback while hospitalized. Effective feedback was factual and direct, yet empowering. And ineffective

feedback scared me and left me anxious. In short, the main goal of this paper is to utilize my personal experience of receiving feedback to help inform psychologists to provide the most effective feedback to their patients.

Encounters with Physicians

Picture yourself lying in a hospital bed. Hooked up to oxygen. Connected to continuous IV ketamine. Prescribed oral opioids and IV Dilaudid. In other words, you are highly medicated on medication that is used to treat the most severe pain. You are in a daze from the night before when the accident occurred. Your support system has not arrived yet, since they all live out of town. A group of six masked doctors enter your room at 6am the morning after your injury and begin asking you to wiggle your toes. Of course, you attempt to wiggle your toes but because of the severity of your injuries and the amount of medication you are on, you can't tell if your toes are actually moving. The bottom half of your legs and feet are wrapped up in splints and your head and neck are being stabilized with a brace so you're unable to look down and see your toes. One doctor then asks, "Okay, now try and move your right toes." I quickly ask, "Did my toes move!?" Several of the doctors looked at each other and others began to write things down. After what seemed like an eternity, one doctor finally replied, "Not as well as we would like but it's still early." My mind started racing.

That means I'm not paralyzed then, right? Wondering what that meant for my chances at walking again. What kind of doctors were even in the room with me? Did they tell me already? Did they know how badly I had hurt my back yet? What was happening? Before I even had time to ask any questions, and more importantly, before they offered

me the chance to ask questions, one doctor began to explain what the CT scans showed related to my foot injuries.

Lesson 1: Create an alliance on what the test is for

Nearly a century of research on what works in clinical psychology has produced one clear result: the working alliance (Norcross & Wampold, 2019; APA, 2012; Bordin, 1979). The working alliance is built by articulating mutual goals, showing how procedures will lead to those goals, and tending to the relational bonds that naturally arise between people who are cooperating (Bordin, 1979). Here, the procedure or recommended test was to see if I could wiggle my toes. The test was administered without any information about its purpose and what its results would mean.

Similar disregard for the working alliance often occurs in neuropsychological assessment. For instance, many patients who have suffered severe traumatic brain injuries often demonstrate fine motor impairments, particularly during the acute phase of their recovery. Some suffer from severe hemiparesis where they are no longer able to move their fingers; this of course depends on what part of their brain was impacted in the injury. Regardless, a neuropsychologist will typically administer the Grooved Pegboard test, a test assessing bilateral fine motor function. The test is straightforward. One hand at a time, the patient picks up small pegs and places them in holes on a board. If the patient is unable to move their hand or fingers, they of course are unable to complete the test successfully. This, then, is obvious to the patient. They, of course, are aware that their fingers are not able to pick up a peg and place it in the board. Yet, the neuropsychologist often does not explain the purpose or implications of the results to the patient.

Instead of plunging in with testing, the doctors should have told me what they hoped to learn and what various results would mean. They might have warned me that a substantial percent of people who recover fully cannot wiggle their toes and an even larger percent cannot wiggle them very well. They should have told me what they saw as soon as they saw it and said what it meant in the context of why the test was administered.

Analogously, neuropsychologists can explain that most results will not be obtained until the tests are scored, in the same way that someone has to read a scan after it's taken. However, neuropsychologists should be aware that many test results are immediately apparent, and when they are apparent to the patient, the neuropsychologist should explain the range of meanings the results indicate. For example, a patient not able to accurately draw a clock realizes it, or a patient unable to recall a simple list of words immediately states, "Why can't I remember?" The neuropsychologist, then, should explain that the patient is demonstrating visuospatial deficits or a working memory impairment, respectively. Further, the neuropsychologist should explain how those deficits will show up in the patient's world. As it relates to the previous example, the neuropsychologist could explain that a visuospatial deficit would impact the patient's ability to safely drive and a working memory impairment could impact the patient's ability to successfully follow multi-step directions in school.

Bone after bone, the doctor identified which ones were broken, as if I knew the medical names of the bones in my feet. "Your calcaneus, talus, tibia..." Couldn't he just say your ankle and heel so I could understand him? Couldn't he bring in a picture or model and show me? He then went into the limited mobility in my right toes and what

that could mean for having a potential "drop foot" in the future. He also mentioned something about bones dying and the probability of that happening. He then immediately went into what he recommended in terms of surgery—something along the lines of fusing bones together which would ultimately cause limited lateral movement of both feet but would limit the chances of needing future surgeries. At this point, the group of doctors looked at me and asked what I would like to do.

I couldn't answer this question because the working alliance was not established. The sort of alliance being proposed was not the sort that engaged me, the patient, in collaboration, but one that postured me as a helpless obstacle to providing consent. It's fine to say, "Trust me," if you know what you are doing is certain to work and if it doesn't need the patient's collaborative participation in rehab. Otherwise, doctors need to get patients on board, not as passengers on an ocean liner but as collaborators like two people in a canoe or a rowboat. This happens in neuropsychology when the doctor knows what should be done but forgets that the plan will never work without buy-in from the parents. For example, when a 17-year-old Spina Bifida patient would benefit from extended guardianship once they turn 18. If the parents were unaware of this being a possible outcome or recommendation, the chances the parents will adhere to the recommendation is slim.

When the doctors asked me what I wanted to do, I thought about running out of the room and wishing I could rewind the last 48 hours so the climbing accident never happened. I was so overwhelmed I didn't even know what question I was supposed to be answering – what even were my choices? How do you tell a group of doctors you didn't understand most of what they had just said even though you supposedly both spoke the

same language? My mind was still wondering if I was paralyzed while at the same time trying to use logic that if my toes were able to move, even at all, that I most likely wasn't paralyzed—right? Where was my nurse? Where was the neurosurgeon or someone that could tell me about my back injury?

This disconnect occurs in neuropsychological feedback sessions when the neuropsychologist gives feedback about neuroanatomy and how the brain works when the parents just want to know if Timmy can still snowboard, which is what he lives for. The argument is clinical effectiveness, but legally and ethically, it's not clear that informed consent can be obtained from someone who isn't thinking about or processing the information being provided. The neuropsychologist should be guided by the agreed upon goal(s) of the feedback session and the related tasks assigned to the patient and neuropsychologist, which should have been established, collaboratively, when creating the working alliance. However, all too often, the neuropsychologist forgets the alliance and is caught up in performing as if they were completing their board exams. They forget to attend to the relational bond with the patient, which, when collaborative, leads to greater treatment adherence and thus change. Moreover, make sure you are on the same page while giving the feedback.

Bring an interpreter

Ultimately, the decision was made that I needed to go into surgery to place pins in my right foot for temporary stabilization. Before my family was there to support me, I was brought to the operating room. I understood that surgery needed to take place quickly but I also understood that there had to have been a better way for the doctors to interact with me. I've worked in several hospital systems so I also understood that the hospital

system was at play here – doctors are busy, in high demand, and residents along with attending doctors have to be present for teaching opportunities. Unfortunately, there's not much that can be done about the bigger system at play, but delivery of information is important. How information is presented to a patient is extremely important. In a hospital setting, you get limited time to build a working alliance with your doctor. This is similar to when a neuropsychologist presents feedback to a patient. You typically get one or two days with a patient to administer tests and then provide feedback. How does one, whether a medical doctor or neuropsychologist, provide information to a patient about their medical or neuropsychological condition that is factual, yet hopeful, without having a longstanding relationship with them built on a foundation of trust? This is a difficult and multifaceted task.

The first thing I learned was that I needed an interpreter, a trusted counterpart that could translate the overwhelming amount of information I was receiving. I needed a family member or loved one to be in the room with me and actually hear and understand what the doctors were saying to me. My emotions were too involved. My mind was overly activated with worries and concerns about my future and prognosis. I was in fight or flight mode. My brain was not able to take in information, understand it, or make rational decisions. According to Kessels (2003), 40-80% of medical information provided by healthcare practitioners is forgotten immediately...[and] almost half of the information that is remembered is incorrect. So what affects the patient's memory and ability to accurately recall what was told to them?

Clearly, information that doctors provide to patients has a profound impact on patients' lives. The awareness and recognition of this cannot be understated.

Psychologists are often in the position of providing information about intellectual functioning, learning disabilities, mental illness, whether or not someone is on the autism spectrum, and so forth. This diagnostic feedback is life-changing. Moreover, anxiety and distress are often impacting the patient's ability to encode, store, and retrieve information at a later time. According to Kessels (2003), attentional narrowing and state dependent learning are two main factors impacting a patient's memory when receiving critical feedback. Attentional narrowing occurs when you're given information that is perceived as stressful or emotionally laden. The person focuses their attention, or narrows in on the stressful information and stops listening to the additional information that is given. I relate this to the phenomena of the "fight or flight" experience. When a perceived threat is present, such as a bear confronting you in the woods, all of your attentional resources focus in on the bear so you're able to survive. Your physiological response automatically supplies blood to your limbs so you can run. You are no longer paying attention to the beautiful scenery around you because you're focused on surviving.

With my accident, I experienced attentional narrowing several times. When the doctors mentioned something about "bone death," when they asked me to wiggle my toes and I wasn't able to verify that I was able to, and several other times that I will discuss later in this paper. Given the literature on attentional narrowing and how it impacts the patient's ability to remember and ultimately adhere to treatment recommendations, it may be important to sequence feedback where the stressful information is provided last. Providing the diagnosis, which is typically the most stressful information as it implies prognosis, at the end of the feedback session will allow the patient to hear all of the information provided. As it relates to my situation, the doctor might have said that he

knows I am worried about a lot of things and not in a good place to track what he is saying to me, but one thing has to be done right away, and he would like me to put aside all the concerns I have for two minutes and let him explain to me why the pins have to go into my foot right away. Then, after surgery, the team could've talked to me about what is currently known and not known about how my injuries will affect me.

State dependency relates to the emotional state in which the patient is in when given diagnostic information. If the patient is in a stressed state when given information, they will best recall that information when stressed. This becomes applicable because the patient may be in a high stress state when in the psychologists' office but more relaxed when in their home environment. Moreover, the psychologist will want to mitigate the level of stress the patient is feeling during the feedback session as much as possible so they are able to recall the information when in a less stressful environment.

One possibility, not always feasible, is to have a team member, well-versed in communication and with more time available than many specialists have, provide the feedback. This professional would serve as the interpreter rather than a friend or family member of the patient. An analogy from psychology, more prevalent with personality testing than neuropsychological testing, is for the assessment to be written for the treating clinician and for the treating clinician to provide the feedback.

Written Information/Audio

As I mentioned previously, the amount of information given to me, and the medical language used, was overwhelming. It would have been helpful to receive some of the information with a visual aid or written summary. In the example I provided above, I would have appreciated a picture or written outline of the bones I broke in my feet. I

would have been able to remember much better if that was provided. Written information is better remembered and leads to better treatment adherence (Kessels, 2003). This information can also be consulted again when the patient is more lucid.

In summary, within the medical system, the realities of the doctor's schedule impact the amount of time they have to build a working alliance with their patients. However, given that research posits that the working alliance is the most effective change agent in clinical psychology, the working alliance must be prioritized. The relational bond can be established by the doctor taking the time to explain the procedure to the patient and how it may or may not lead to the goal. Given time constraints, this often does not take place. The medical provider is usually dictating to the patient and not working with them collaboratively, as if informed consent, relational bonds, and mutually agreed upon goals aren't important. They act as if the patient does not need to be on board with medical decisions. If the patient has an interpreter, that's great, but if not, one should be provided.

In neuropsychology, this happens when the patient dissociates during feedback or when the injury or deficit the feedback is about interferes with communication. It's perfectly reasonable for the neuropsychologist to say she doesn't have time for that lengthy of a process, but then she should either identify someone in the patient's support system or provide an interpreter. Similarly, providing a handout to explain a procedure or a course of treatment is fine if the doctor has good reason to believe the patient will read, understand, and be guided by the handout. Most people, though, need relational bonds to create an effective alliance. Also, the handout can't answer questions.

I needed someone that could do those things for me. I needed an interpreter, better organization of critical information, and written or visual aids. I believe this is true whether the patient is getting news about broken bones or their intellectual capacity secondary to Spina Bifida or even as seemingly mundane as the severity of their depression. When someone is receiving feedback about their psychological, neuropsychological, or physical functioning, emotions are running too high for the brain to be working at optimal capacity. In short, have someone with you that can accurately take in the information that is given, advocate for you that visual aids would be helpful, and to organize the information for you once the patient's emotions have been alleviated.

Lesson 2: Know your patient

One doesn't often think about developmental milestones as an adult. Learning to talk, walk, and independently toilet are not things that are thought about when one is functioning independently. Moreover, these basic and fundamental abilities are things that are often taken for granted. I learned this lesson when sitting in the hospital for 12 straight days unable to void on my own. I could no longer walk, yes, but that was temporary. Not being able to use the restroom was another thing entirely. With my history in neuropsychology, I was well versed in neurogenic bladder. I knew that some central nervous system disorders, such as Spina Bifida, often cause interruptions in the nerves that communicate from the brain to bladder and bowel muscles. This, then, often results in catheters and self-enemas. As you can probably imagine, not being able to use the restroom independently impacts one's life dramatically. Day after day, not being able to void, I constantly thought about all of my patients that have neurogenic bowel and bladder. I was beginning to have a newfound empathy and understanding of their reality.

I was also beginning to feel guilty because I was praying that that would not be my new reality. As a psychologist in training, how do you hold both empathy and a deep wish to not have the same reality as your patient? Shouldn't my mindset be more accepting and open to life's possibilities? I think I can answer this by understanding that I can first empathize with uncertainty and later with reality. It's not uncommon for people who are uncomfortable with uncertainty to be drawn to fields like surgery and neuropsychology. This is perhaps what drew me to neuropsychology. I want answers so I know what the patient is dealing with, but all too often what the patient is dealing with is uncertainty.

While hospitalized, I had six different medical teams working on my case. My primary team was the trauma team. I then had the orthopedic surgeon team, a pelvic team, neurosurgeon team, pain management team, and the Physical Medicine & Rehab (PM&R) team. Because of my background, I immediately asked if I had a neurogenic bladder and unfortunately the responses I got were not helpful. The typical response was surprise. It caught the doctors off guard that I even used the term "neurogenic bladder." And instead of talking to me intelligently about this, they kept pushing me off as if I didn't know what I was talking about. As previously mentioned, doctors don't seem concerned with the informed consent process. They appear to favor unconscious patients. And again, this is fine if the intervention is effective without needing the patient's buy-in for follow-up treatment or physical therapy or utilizing compensation strategies. And here, in my situation, I was fully conscious and desperately wanting to engage in the process of establishing a working alliance. Unfortunately, most of my doctors were not interested in engaging in such a process.

There were several factors at play here. First, communication between the different teams was difficult to maintain. They each specialized in different areas and they typically worked at different times of the day. I then received different messages from different teams. In short, they weren't on the same page about what to communicate to me and that caused distress for me. It would have been helpful for the primary team to convey to the additional teams that my main cause of distress was the functioning of my bladder so they, then, could all get on the same page about a unified message to communicate to me. They could also have concentrated their assessment efforts on either answering that question or on explaining why it couldn't be answered yet.

Second, because I have some background and understanding in neurogenic bladder I would have liked to have an intelligent conversation about it with them. Instead, they minimized my concerns and told me I just needed to wait and see. And yes, I did need to give it time but it would have been helpful for them to ask me why I was concerned about it, what was my knowledge base, and what would have been helpful for me to know. Again, none of this happened and I was left with mixed messages and ambiguity.

Third, some of the medical teams were speaking on the neurogenic bladder when it was clearly outside of their area of expertise. When I was finally able to see the PM&R doctor, the expert in neurogenic bladder, she entered the room and told me definitively that a rectal exam needed to be completed so they could answer the question. She explained the procedure to me. I was shocked. I had been told I needed to wait and I had been told the CT scans of my back indicated severe nerve damage in the area that controls bowel and bladder function. She quickly notified me that the CT scan would not

be able to indicate bowel and bladder function. She was confident, clear, and direct. Yes, I was nervous about the results of the rectal exam, but I was mostly relieved that I finally got a clear answer. I kept wondering, and still do wonder, why it took so long for me to see the PM&R doctor when this was her area of expertise. I also wonder why other doctors did not just tell me they did not know. Of course there are a lot of systemic and practical reasons I didn't see her earlier, but the one that concerns me is that the delay made no difference to my bladder. If the doctor thinks the patient is the bladder, then it is impossible to develop an alliance with the person whose body contains the bladder. The analogy to families and children can be drawn. If the patient is the child, the alliance with the family is likely to suffer. In pediatric neuropsychology this happens when the neuropsychologist creates an alliance only with the patient, the child, and fails to also create an alliance with the parents. The goals would be the same but the tasks and relational bonds would look different. Again, time constraints and a lack of importance placed upon the working alliance impacts this from happening.

Neuropsychologists can learn from this by knowing their patient when giving assessment feedback. Know your patient's educational level and know their occupation. This information should inform how the psychologist navigates the feedback conversation. This information will help the psychologist determine what language to use, more formal or informal. And it will also help the psychologist determine what questions to ask the patient – Does this make sense to you? Have you heard of this condition before? What are your main concerns? What would be helpful for you to know? What questions do you have for me about yourself that you're not sure you're supposed to ask? In short, check in with your patient throughout the feedback. Don't

minimize their concerns and let your knowledge of your patient inform the language you use and the questions you ask. Moreover, feedback should be a conversation rooted in an understanding of who the patient is and what the main goal of the feedback session is. The patient should always feel that they and not their brain are the doctor's patient. The doctor might think it lowers her status to admit what she does not know, but in fact, it enhances the working alliance (if she's willing to try to find out what she does not know).

Lesson 3: Think like a behaviorist to increase treatment adherence

On the third day of my hospitalization I had back surgery. The neurosurgeon spent time with me to explain that he would be doing the surgery with the pelvic specialist, as my injuries were unique and complicated. He brought in a model of the spine, sacrum, and pelvis to visually explain to me what my injuries looked like. He explained that since I broke my sacrum in multiple places they were going to put a metal plate on my sacrum and reconnect the sacrum to the lumbar vertebrae. He also showed me where he would be fusing several of my lumbar vertebrae and how that would impact functioning after recovery. He also discussed with me how long the surgery would last and noted his experience doing similar types of surgeries. Most importantly, he asked me what concerns I had and gave me a chance to ask him questions. The neurosurgeon prioritized patient consent. He established mutual goals, explained the procedure, and created a bond with me. And this made all the difference.

Two days after my back surgery, a physical therapist (PT) and occupational therapist (OT) came to my room and informed me I would be starting therapy that morning. I was surprised given that I only had back surgery less than 48 hours prior, and I was still waiting to have reconstructive surgery on both of my feet and ankles.

Nevertheless, they walked in, told me I would start therapy and began taking the blanket off me in my bed. The physical therapist stated emphatically that my back was secure and stable and that it was important to begin sitting up and getting out of bed. I told them I was nervous but I hesitantly obliged. I sat up with their assistance, and promptly passed out after screaming in pain. I came to smelling an alcohol swab being waved under my nose. They apologized for pushing me so hard and noted that I should take my pain medication the next morning before I engage in therapy.

The next morning, a different physical and occupational therapist arrived to my room. I was scared and frustrated and I didn't want to participate in therapies. I didn't want to feel that intense, sharp, and mind-numbing pain that I felt the morning before. My face must have conveyed this message, as both therapists sat by my bed and talked with me about the events that occurred the previous morning. In behavioral terms - a transformation of stimulus functions occurred for me. The previous therapists (discriminative stimulus) occasioned a negative response (intense pain and passing out). Based upon that historical consequence, and the negative thoughts and beliefs associated with it, I surmised that the new therapists would occasion the same negative response. Without knowing it, Kim the physical therapist, utilized principles of contextual behaviorism to promote behavior change.

Contextual behaviorism relies on differentially emphasizing contextual variables that can be manipulated in order to promote psychological change (Hayes, 2016). Functional analysis is an approach to changing behavior that uses both operant and respondent conditioning paradigms. Functional analysis examines the problem behavior by identifying the antecedents and consequences, within the historical and current

contexts in which the behavior occurs. The intervention or treatment is formulated based upon the functional analysis and will often directly influence the antecedent and/or consequent stimuli that maintains the problem behavior. However, functional analysis interventions can also aim to alter the psychological functions of the antecedents and consequences, rather than their actual presence (Wilson & Murrell, 2002). Functional analysis involves four steps when implemented in treatment interventions: (1) Assessment of problem behaviors, (2) Assessment of relevant antecedents, (3) Assessment of consequences, and (4) Treatment by intervening on identified antecedents and/or consequences (Wilson & Murrell, 2002). In sum, the goal of functional analysis is to accurately examine the variables (function and context) that contribute to behavior, which leads to an intervention that will reduce the frequency of problem behavior and/or increase behaviors that improve the individual's quality of life.

Here, the problem behavior was my reluctance to participate in therapy. My reluctance was based upon my previous encounter that involved therapies beginning without a mutual goal being articulated and by the intense pain caused by participation. Our interaction was not collaborative, so the pain seemed out of my control. This led to the consequences of intense pain and passing out. Kim intervened on the identified antecedents by ensuring a low dose of pain medication was administered and by thoroughly discussing the procedure she was recommending take place that day. She went as far as showing me the back brace, slide board, and wheelchair we would be using. Kim directly acknowledged that she understood my fear. She then explained that the anticipation of pain is often worse than the actual pain that occurs. I felt validated and I bought in to the process.

Kim, perhaps without knowing it, then engaged in Exposure and Response Prevention (ERP) with me. ERP is a functional contextual approach to treating symptoms of anxiety with the aim of changing the function of the feared stimuli by eliminating escape/avoidant behaviors (i.e., change the response), thereby teaching people how to tolerate distress without engaging in counterproductive behaviors. In order to fully understand the function of anxiety symptoms, the behavior analyst must examine the phenomena known as experiential avoidance (EA). "EA reflects an intense aversion to certain experiences within, leading often to psychologically inflexible responding" (McNeill, 2019). ERP aims to expose the individual to the feared stimuli *and* prevent the consequent behavior, such as escape, in order to increase the occurrence of alternative and more value congruent behaviors, in place of the escape behavior.

In short, Kim successfully examined the variables (function and context) that contributed to the behavior (reluctance to participate), which led to an intervention that reduced the frequency of the problem behavior and increased behaviors that improved my quality of life. Kim collaborated with me and thus prioritized the bond that was naturally created. I will forever remember Kim and the positive impact she made on my life, both physically and psychologically.

Lesson 4: Use self-disclosure in a tactful and intentional way

Self-disclosure has long been disputed in the field of psychology as it pertains to its effectiveness or ineffectiveness to the therapeutic relationship. If you ask a psychoanalyst about self-disclosure they would likely tell you that there is no place for self-disclosure in therapy. As Freud once stated, "The analyst should remain opaque to his patients, like a mirror and show them nothing but what is shown to him" (Geller,

2003). This makes sense if the procedure that is recommended is for the patient to reveal aspects of her psychology that will not be divulged in any relationship that has any sort of social aspect to it. Social relationships run on tact and hiding our inner lives, so anything that sounds the least bit social inhibits the patient's self-disclosure. Other treatment relationships have different rationales and different internal cultures to support those rationales. It's helpful to think of a relational therapist trying to put aside the social aspects of the relationship and the professional aspects of the relationship to emphasize the unique kind of relationship called therapeutic. In contrast, the neuropsychologist and the physician are typically trying to establish a professional relationship. Self-disclosure, along with friendliness and even refreshments, need not disrupt a professional relationship, whether the profession is accounting, medicine, or neuropsychology (Karson, 2018).

In contrast, if you ask a feminist psychologist, they would likely tell you that self-disclosure enhances rapport and therapeutic change. "Feminist therapists purposefully self-disclose their opinions and feelings about such emotionally and politically divisive issues as sexual orientation and nonmonogamous relationships so that clients can determine whether the therapist can provide unbiased support if these issues arise (Brown & Walker, 1990). Feminist psychotherapy "supports" one aspect of the self against another, as if the patient is the woman in a battering relationship and as if the ambivalent part of the patient is the man who should be ditched. Relational therapy strives for conflict resolution between the conscious patient and her ambivalence, as if the two are both part of the patient.

For those psychologists that do adhere to a model of self-disclosure, determining the appropriateness of such disclosure is important. Knox and Hill (2003) suggest fitting the disclosure to the particular patient's needs and preferences. For me, I needed insight and information about future functioning. Some providers met these needs and others did not. One morning, after I had back surgery, a doctor from the pain management team consulted with me. While adjusting my ketamine dose she disclosed that she "understood" how difficult it was to experience back pain because she had thrown her back out the day prior. She continued to explain that she was unable to walk for 24 hours due to the amount of pain she was in. Annoyed, I responded in a short yet polite way. I wondered what she expected me to say. This, I believe, was a failed attempt to create a bond with me. Not only did her self-disclosure not meet my needs or preferences, it felt inappropriate given my situation. I shut down and did not trust her. This would be equivalent to me telling my patient with Cerebral Palsy, who permanently lives in a wheelchair, that I understood what their experience was like since I spent 4 months in a wheelchair.

In contrast, I experienced a helpful self-disclosure when the orthopedic surgeon disclosed that his previous knee injuries resulted in a similar outcome that my foot/ankle injuries would result in – no longer being able to run long distances. For context, I was training for a half-marathon when my injury occurred and running was becoming a real passion of mine. I was heartbroken to learn that I would no longer be able to run, and more, that I may not walk normally if the nerve damage was severe enough.

In that moment I was crying. Feeling desperate, I asked him how not to get depressed. I was also perseverating over the mistake I likely made tying my knot, which

ultimately led to my injury. I was having a very difficult time accepting my mistake. Responding to my distress, the surgeon sat down next to my hospital bed and proceeded to spend a significant amount of time with me, helping me process my new reality. I will never forget this interaction. He encouraged me to think about life as pressing the "play button." He stated, "You can't go back and change what happened, you can't press the rewind button. A mistake was made and that's okay. Your mistake didn't hurt anyone else. All too often I see patients that are injured by a drunk driver..." In other words, he encouraged me to be mindful and grateful that things weren't worse. He went on to disclose that he used to be an avid runner but due to several knee injuries he was no longer able to run. He explained that like him, I needed to pivot my athletic pursuits to things that were conducive to my injuries like swimming and biking. He shared his process of adjusting his athletic pursuits. It felt like he understood my distress and that's what I needed in that moment, to not feel so alone. His self-disclosure helped me feel hopeful about the future. There's also a lesson in here about helping patients look forward with compensatory strategies and not backward with regret. The same applies to personality problems, where patients often want to fix the past rather than mourn the past and change the future.

Lesson 5: Inform patients about what to expect after feedback

Experiencing a traumatic injury changed my life. Although I am grateful my injury didn't result in paralysis or neurogenic bladder, my life was changed. I was an independent adult completing my clinical internship one day, and the next I was living life in a wheelchair, completely dependent upon others. My internship was put on hold and I was no longer able to graduate with my cohort. My days consisted of taking medication,

attempting to sleep, being in agonizing pain, eating, and transferring from one seated surface to the next. I quickly realized that my fight to overcome my physical pain was only half the battle. The psychological pain was just as prevalent, and even harder to navigate than the physical pain. I was angry, embarrassed, regretful, deeply sad, and grateful all at the same time. Additionally, I didn't want to leave my apartment in the wheelchair because I was embarrassed and stressed about navigating uneven surfaces and thresholds in a wheelchair. And what would people think of me? How many times would I be asked about my injury? Thinking about being in public in a wheelchair scared me. And the fact that I was embarrassed made me feel ashamed. I had to really look at myself and confront my biases that were now consuming my world. Examining yourself when in a psychologically vulnerable and physically disabled state was, and is, a powerful and humbling experience. I think I truly saw myself for the first time. And with the risk of sounding melodramatic, I think I went through the stages of grief, mourning the loss of my previous self – the Kelsie before the accident. In short, it was a psychological journey that I was not prepared for.

While hospitalized my doctors were, of course, focused on the mechanics—repairing bones in surgery and prescribing medications with the goal of stabilization and discharge from the hospital. But what about my psychological health? Wasn't there a provider, a psychologist or social worker perhaps, that could help prepare me for adjustment to life after the hospital? The medical system failed me in regards to this aspect.

As a neuropsychologist, this may look like providing psychoeducation about the mental health risks associated with Traumatic Brain Injury (TBI), the social implications

of their injury (i.e., slower processing speed), providing resources for the patient and family on adjusting to life after TBI, and recommendations for future testing. The patient and family should know that TBI places the patient at a higher risk for developing suicidal ideation, anxiety, and depression (Dreer, L. E., et. al, 2018). They should know what to look out for and where to go if those symptoms do present themselves. Asking the patient what questions or concerns they have and addressing them during feedback will also help them feel more prepared when they leave your office. Feedback should be directly applicable to the patient's life and when the patient returns home, after the feedback session, they should feel prepared or at least know what the next steps are.

Conclusion

The purpose of this paper was to articulate lessons learned from feedback received after a severe injury in order to help neuropsychologists provide more effective feedback. Presently, there is no agreed upon conceptual framework for giving neuropsychological assessment feedback. However, nearly a century of research on what works in clinical psychology indicates that the working alliance is the most important variable (Norcross & Wampold, 2019; APA, 2012; Bordin, 1979). Take the time to identify mutual goals, show how the procedure will help reach those goals, and support the relational bond between the provider and the patient as the foundation of the alliance. Additionally, when working with patients, be mindful of the desire to self-disclose as a means to connect to your patient. Self-disclosure can be beneficial but also harmful. Be a human first and a doctor second. Your patient should feel as if you understand them and their condition as one working whole, and not as if their brain, or bladder, is the patient. Neuropsychologists should always be guided by the goal of helping the patient function

more effectively in their world. In order to help the patient improve functioning, a functional analysis could be used as a means to support behavior change. Consider the context of your patient's behavior (i.e., thoughts and actions) in order to understand the function. Alter the context and the patient's behavioral repertoire will expand. Finally, think beyond the feedback session in order to prepare your patient for life after the feedback is given.

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