SELF-INJECTION ANXIETY COUNSELING (SIAC)

MANUAL FOR COUNSELORS

For Use with the
Self-Injection Anxiety Counseling
Patient Workbook

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INTRODUCTION

This treatment is designed for patients who have needle anxiety and who rely on self-injection for the management of their illness. Many of these patients are not phobic enough to prevent them from receiving medications when someone else injects them, but anxiety interferes with their ability to self-inject. There are several reasons why it is useful for patients to learn to self-inject. Patients who do not self-inject are more likely to discontinue the medication (Mohr, Boudewyn, Likosky, Levine, & Goodkin, 2001). The people on which they rely may not always be available or may not be dependable. People who rely on clinics to perform the injection may become tired to having to go to the clinic on a regular basis. Some people may also have difficulty with the dependency that reliance on others brings.

In our experience, the vast majority of patients who initially cannot self-inject due to psychological reasons cannot self-inject, are able learn to do so within 6 weeks, some in only one or two weeks (Mohr, Cox, Epstein, & Boudewyn, 2002).

This treatment manual is designed to assist the person providing SIAC. SIAC was developed by psychologists working in a multiple sclerosis center (Mohr et al., 2002). However, we have successfully trained nurses to administer this treatment. The treatment is straightforward; the counselor is candid with patient about the rationale behind the treatment, the reasons behind the exercises, and answers questions in a direct manner. As such, this manual is designed simply to augment the information provided in the patient workbook. Most of the required information is there. This manual provides some additional direction to the counselor as to the goals of each session, and some tips on how to present the material, and what types of problems the counselor might encounter. While this manual offers suggestions for each session, the counselor and patient together will need to individualize the treatment to best meet the patient's needs. For example, a patient who quickly masters relaxation and managing unhelpful thoughts does not need to wait until the 4th or 5th session to begin attempting to self-inject. Or, a patient who reports primarily difficulties with unhelpful intrusive thoughts may get more benefit from addressing those thoughts immediately. All of the techniques in this manual have been helpful for patients, but the patient and counselor together need to select the tools that will be most helpful for each individual patient.

This treatment is designed to be conducted in 6 weekly 50-minute sessions. While some patients may have success earlier, many patients require this amount of time to both learn to self-inject and to learn skills to maintain their abilities in the face of any potential future reemergence of anxiety. Thus, the intervention is highly focused on the goal of helping the patient self-inject, rather than any other

psychological issues that may arise for the patient in the course of treatment. While it is important to address these other psychological issues, such as depression, in the context of learning to self-inject, the counselor should remain focused on the goal. The counselor should be aware of the resources available for the patient, should the patient need a referral to receive treatment for depression, other anxiety disorders, substance abuse, or other psychological issues that may interfere with treatment or successful self-injection.

Basic Information About Injections and Injection Anxiety

Diagnosis: The Diagnostic and Statistics Manual-IV (American Psychiatric Association, 1994), the primary diagnostic system used in American psychiatry, diagnoses a specific phobia when symptoms of intense fear and avoidance of a non-dangerous stimulus are present, and when this fear and/or avoidance interferes significantly with the patient's normal routine, relationships, or causes marked distress. Specific phobia – blood, injection, and injury (BII) is a diagnosis that is characterized by phobic reactions to exposure to injections, injury, or blood, leading to avoidance of such situations or tolerating these situations only under extreme emotional duress. Patients may experience unreasonable anxiety when presented with any of these stimuli or only when receiving an injection.

However, many patients who can receive injections without difficulty may experience phobic reactions when faced with the need to self-inject. We will refer to anxiety that prevents self-injection as "self-injection anxiety." Self-injection anxiety is not currently part of the DSM or ICD diagnostic system. However, inability to self-inject is clearly prevalent, distressing, and can have a significant impact on patients' healthcare, as discussed below. Research from the two populations where this issue has been most frequently studied, diabetes and MS, suggest that this issue needs to be addressed when treating patients with these conditions.

Consequences of Self-Injection Anxiety: The use of regular self-injection for the treatment of chronic conditions is increasing. While self-injected insulin has long been used to treat diabetes (Glasgow, McCaul, & Schafer, 1986; S. B. Johnson, 1992), more recently self-injected medications have become available for a variety of conditions, including migraine headache (Schulman et al., 2000), allergy (Hurst, Gordon, Fornadley, & Hunsaker, 1999), multiple sclerosis (MS) (Jacobs et al., 1996; K. P. Johnson et al., 1995; The IFNB Multiple Sclerosis Study Group, 1993), erectile dysfunction (Manecke & Mulhall, 1999), impaired female fertility (Gocial, Keye, Fein, & Nardi, 2000), and chronic infection (Esposito, 2000). These disorders impact a significant percentage of the population, with migraine occurring in 27.9 million Americans and diabetes occurring in 17 million Americans (Lipton, Stewart, Diamond, Diamond, & Reed, 2001; NIDDK, 2000).

The relationship between self-injection anxiety and compliance has been directly examined in two diseases: MS and diabetes. We followed a group of MS patients initiating treatment with interferon beta-1a (IFNβ-1a), which requires weekly IM injections (Mohr et al., 2001). Inability to self-inject at treatment initiation was significantly related to discontinuation of medication during the first 6 months of treatment. Similar findings have been observed in type I and type II diabetes patients prescribed subcutaneous insulin injection up to 4 times per day. In these patients greater injection anxiety was associated with increased avoidance of injections and increased avoidance of blood glucose testing (Mollema, Snoek, Ader, Heine, & van der Ploeg, 2001; Zambanini, Newson, Maisey, & Feher, 1999). Injection anxiety and phobia have been shown to correlate with increased glycohemoglobin (GHb), as a result of poor blood glucose test compliance (Berlin et al., 1997). Many other studies also find lower compliance with blood glucose testing (Bienvenu & Eaton, 1998; Mollema et al., 2001; Zambanini et al., 1999). In dental patients, those with co-morbid dental phobia and injection phobia had significantly higher levels of tooth decay than individuals with dental phobia alone (Poulton, Thomson, Brown, & Silva, 1998).

As such, BII and self-injection anxiety appear to impact adherence to treatment recommendations, although the impact of self-injection anxiety and BII on long-term health outcomes is has not been well examined.

Prevalence and Demographics: The prevalence of injection phobia, generally defined in terms of ability to receive an injection, has been estimated to be between 7% and 22% in the general population (Agras, Sylvester, & Oliveau, 1969; Bienvenu & Eaton, 1998; Cartwright et al., 1993; Costello, 1982). Good epidemiological data on self-injection anxiety is lacking but is likely quite variable depending on the medical condition, age at diagnosis, type of injection, and consequences of the injection. For example, self-injection phobia was seen in half of all MS prescribed IFNβ-1a, which requires weekly intramuscular injections (Mohr et al., 2001). In a sample of 115 insulin dependent diabetics, 14% were reported to have avoided injections due to anxiety, and 42% reported concern about the need to inject more frequently in the future (Zambanini et al., 1999). However, other authors, using a questionnaire to assess level of self-injection anxiety in diabetics postulate a very low (.2-1.3% of the population) prevalence of anxiety severe enough that injections are missed due to anxiety (Mollema et al., 2001).

There may be several potential moderators of self-injection anxiety, including type of injection, frequency of injection, and consequences of injection. Two types of self-injections are commonly performed at home: subcutaneous (SC) injections and intramuscular (IM) injections. IM injections may prove more daunting for patients due to the length and gauge of the needle.

In addition to the type of injection, the frequency and duration of the injection schedule may contribute to or help reduce phobic symptoms. Repeated exposure to a feared stimulus can reduce phobic symptoms. As such, frequent self-injection may facilitate habituation to self-injection, while longer intervals between injections may strengthen anxiety and phobic reactions, particularly following unpleasant injection experiences such as pain, bleeding, injection site reactions, or medication side effects. In other words, more frequent self-injections may allow patients to "get used to it." The consequences of self-injection may also serve to increase or decrease anxiety and phobic reactions. In the case of self-injection for migraine or sexual dysfunction, the resulting relief from migraine pain or the pleasure associated with improved sexual functioning may reinforce self-injection. For patients who use medications that are primarily preventative or medications with severe side effects, the unpleasant injection experiences and aftermath may be the primary experience. These patients may be more vulnerable to anxiety and phobic reactions, particularly following an unpleasant injection experience.

Psychiatric Co-morbidities: The small literature on the relationship between psychiatric disturbance and self-injection anxiety suggests that people with self-injection anxiety are at greater risk for depression and other types of phobias (Mollema et al., 2001). Thus, practitioners working with injection phobic patients should be alert to such co-morbidities. The presence of other depressive or anxiety disorders may complicate the treatment by reducing adherence to treatment procedures (DiMatteo, Lepper, & Croghan, 2000; Mohr et al., 1997; Mohr et al., 1996). For example, depressed individuals may lack the motivation to carry through on homework, while patients with other anxiety disorders may be too overwhelmed to participate constructively. If other psychiatric problems are interfering, the injection counselor should refer the person for treatment of these disorders before proceeding with injection training.

Vasovagal Responses

Vasovagal responses are another potential complicating factor. A vasovagal response is characterized by an episode of a racing heartbeat and drop in blood pressure, either immediately preceding or concurrent with the injection. This may result in the patient passing out (called syncope), or can produce feelings of faintness or dizziness, pallor, queasiness, depersonalization, and ringing in the ears. Recent estimates of the occurrence of vasovagal responses in injection phobia patients range from 25% - 37% (Antony, Brown, & Barlow, 1997; De Jongh et al., 1998; Kleinknecht, Thorndike, & Walls, 1996). Anticipatory fear of vasovagal response appears to be much more prevalent. Vasovagal responses are almost always quite brief and benign, although there have been case reports of ventricular fibrillation, myocardial infarction, and cerebral infarction in patients with BII and severe vascular disease following exposure to injection or venipuncture (Hamilton,

1995). Vasovagal responses may complicate the treatment of self-injection anxiety. The most efficacious treatment for phobias generally is behavioral exposure therapy, which involves repeatedly exposing the patient to the feared stimulus. However, for patients with severe vasovagal reactions, this effect may not be found, as vasovagal reactions may persist despite frequent exposure. One treatment outcome study suggests that patients with a history of vasovagal responses may be less likely to respond successfully to exposure training alone than phobia patients without vasovagal responses (Hellstrom & Ost, 1996).

We have found that our treatment is effective for vasovagal patients. For safety, vasovagal patients should always remain seated or lying down during treatment. If they are seated, they should seated such that if they lose balance or consciousness, they will not fall or be harmed. We also recommend that relaxation focus specifically on the injection site. If possible, it is helpful to teach the patient to increase muscle tone in the neck and shoulders (to maintain blood pressure) while increasing relaxation at the injection site.

Potential Mechanisms: Understanding the underlying mechanisms of a disorder may offer suggestions for the effective management or resolution of a disorder such as BBI and injection anxiety. There is very little literature on the physical or genetic etiology of self-injection anxiety. Psychological mechanisms have received a little more empirical attention. In MS patients with self-injection anxiety, pre-treatment expectations about one's ability to self-inject was significantly related to subsequent ability to self-inject (Mohr et al., 2001). Self-efficacy, or one's opinion about how likely it is that one will be able to complete any given activity, is an important factor in BII phobia and self-injection anxiety. Patients with low self-efficacy about injections are more likely to have difficulty self-injecting, while patients with higher self-efficacy, even if they also have high anxiety, may be more likely to succeed. In addition, patients' beliefs about the benefits they may receive from the injection, beliefs about the course and/or chronicity of the disease, and beliefs about the potential burden associated with the injection appear to be important factors (Cox, Mohr, & Epstein, In press). Many patients taking injections for chronic conditions may believe that injecting represents "giving in to the disease" or "allowing the disease into my life." These thoughts may increase risk for BII and self-injection anxiety.

The Collaborative Relationship

SIAC is primarily a psycho-educational model. That means your job is to teach the patient skills that will help him or her regulate anxious arousal, control thoughts that interfere with self-injection, and develop a program of incremental behavioral change that can result in successful self-injection. However, that being

said, the most critical component to success is the relationship with your patient. Study after study after study has shown that the relationship between therapist and counselor is crucial to success (Bergin & Garfield, 1994). The more the patient feels genuinely cared for, is actively involved, and shares the goals of the treatment, the greater the success. Thus, it is not just what you teach, but *how* you teach it. It is not just what you say, but *how* you say it.

There are three critical variables to the relationship. It should be warm, empathetic, and collaborative. It is beyond the scope of this workbook to teach warmth and empathy. But briefly, showing warmth means showing you care about patient in verbal and non-verbal ways. This includes making direct eye contact (unless this makes the patient uncomfortable), smiling, using a soft tone of voice, showing you are listening, etc. Empathy means understanding the patient's problem from their perspective. You can demonstrate you empathy by describing in your own words what the patient has told you.

The relationship between the counselor and patient should also be collaborative. The collaboration means that you and patient have clearly defined goals that are agreed upon. This insures that you and patient are not working at cross-purposes. Second, collaboration minimizes patient resistance that can occur when the counselor is perceived as controlling, or imposing his/her will on the patient. Alternatively, for patients who are overly passive, the collaborative relationship should stimulate them to take more responsibility for their progress. Finally, collaboration, through constant feedback, minimizes misunderstandings.

Your role is also to encourage the patient and to provide support. By showing your faith in the patient's ability to succeed you can help the patient develop the confidence necessary to self-inject. You should convey this faith to your patients well as your excitement and happiness as he or she achieves his or her goals.

SESSION 1

The first session covers the first 2 chapters of the patient workbook. To make most efficient use of the counselor's and patient's time, the patient should be given the workbook prior to meeting with you, and be asked to read these chapters. There is a great deal of material to be covered, particularly in the first session. The more homework the patient has done, the more quickly it will go. It is recognized that many patients do not read the materials prior to the first appointment. But it is still worth trying.

The first session is primarily education. However, at the same time, the counselor is developing the rapport with the patient that will be important to the success of the therapy.

Goals for Session 1:

1. Establish rapport and goals for treatment
2. Review the Anxiety Response
3. Introduction to Cognitive-Behavioral Therapy (CBT)
4. Introduction to the use of hierarchies
5. Introduction to relaxation training

Establishing rapport and goals for treatment

It is very important to establish and maintain rapport with your patients. For any therapy to be effective, the patient must feel comfortable enough with you to speak freely and openly. For this to work the patient must share not only his or her successes with you, but also his or her failures, fears, and disappointments. The most common impediments are anxiety, nervousness, and embarrassment. Spending just a few moments reassuring patients that their concerns and fears are common and that SIAC is an effective treatment for injection anxiety can help them calm down significantly. Patients who initially were able to self-inject but who are now having difficulty may be particularly embarrassed and feel as if they will be perceived as a failure, "wimpy", or not invested in their treatment.

Example: *Having difficulty with injections is a very common problem. Self-injecting is even more difficult for most people. We spend a lot of our time insuring that we don't ever get into a situation where we are intentionally breaking our skin or sticking ourselves with something sharp – it is an unnatural thing to do, and it's perfectly normal to have difficulty with it. You certainly aren't the first person with this problem!*

Some patients may also cope with their anxiety by presenting as somewhat withdrawn or very businesslike. Establishing a warm and accepting atmosphere can help draw patients like this out and allow them to discuss their anxiety more openly.

Some patients may be very clear that their primary goal is to self-inject, and that they expect they will be able to achieve this goal. However, it's also common for patients to say that they are pretty sure they will never be able to self-inject, and that they only hope to decrease the anxiety they experience while they are undergoing an injection. Through the use of this program, most patients will be able to self-inject. While it is important to help establish hope in patients, it is not necessary in the first session to convince them that they will be able to self-inject. In fact, if they have strong initial doubts, monitoring their doubt as it decreases can be a helpful aspect of therapy. Overcoming these doubts may lead to a greater sense of self-efficacy and pride after they are able to self-inject!

This is a structured treatment focused on one specific problem- difficulty with injections. It is important to discuss the focused nature of this treatment with your patient. Most patients will have the expectation that treatment will focus on their difficulties with injection and will not want to use the sessions you have as "regular" therapy- to discuss other problems that are not related to their problems with injection. Some patients may be more difficult to keep on track, and they may try to turn the conversation to other, unrelated topics. While it is important to identify how issues in patients' relationships, life events, or experiences as a person with a chronic illness impacts their injection anxiety, it is also important to ensure that patients remain focused on the task at hand. You can assist patients in accessing other services if they need or desire a referral for more general psychotherapy.

Review the Anxiety Response

Patients often have a good intuitive understanding of the physiological process of arousal they experience when self-injecting. It's a good idea to begin by reviewing this process with an example, such as below, and explaining how this model will work within this process.

Example: The anxiety response is a collection of physiological responses to a frightening and dangerous situation. Imagine that you are cleaning your garage, and as take your hand down from a shelf, you realize that a large spider has crawled right onto your hand. Your body will have an emotional arousal response: you may scream a little, quickly brush your hand off, and/or quickly move away from the shelf. The emotional arousal response includes rapid breathing, increased heart rate, sweating, increased muscle tension, increased

blood flow to the muscles and heart, (and away from processes like digestion), release of adrenaline and other substances that cause arousal, and many other physiological processes. The reason our bodies do this is to enable us to either fight off or run away from serious threats to our lives. These mechanisms are very adaptive and have developed over the course of evolution - they protected our ancestors from wild animals and natural disasters, and continue to help us when we are in fact in physical danger. Our bodies will continue to have the anxiety response in situations that are perceived as dangerous, to warn us to get out of the situation and keep ourselves safe. For example, as you continued to clean your garage, you would probably be more alert and feel a little nervous when you couldn't see your hands. If something brushed against your fingers that felt like it might be a spider, you might jerk your hand back, feel your pulse race, or even feel dizzy. The anxiety response would be working to try to keep you safe. However, if you kept cleaning and didn't encounter any more spiders, eventually the anxiety response would start to fade away, and your body would be relaxed and calm.

However, what happens with injection anxiety is that an experience such as seeing a needle or self-injecting is associated with this anxiety response- our bodies start to respond to the cues of self-injecting as if we were in a life-threatening situation. What the treatment that we are beginning today does is break the association between the anxiety response that your body produces and the act of self-injecting. We do this several ways: by using the cognitive behavioral model to control our thoughts and understand our feelings, by practicing relaxation to gain more control over our physiology, and by practicing the steps leading up to self-injecting slowly to gain confidence and control."

You should make sure your patients understand the anxiety model and ask them to apply it to their own lives. What physiological symptoms of anxiety do they experience? You can stress the role of slow, calm, deep breathing in relaxation, and stress that anxiety and relaxation are physiological opposites and cannot occur simultaneously. Remind patients that the goal of treatment is not to make anxiety completely disappear. First, this goal is likely unobtainable. Secondly, anxiety is a natural and important part of our experience. Instead, patients will learn to control and keep their anxiety at manageable levels.

Introduction to Cognitive Behavioral Therapy

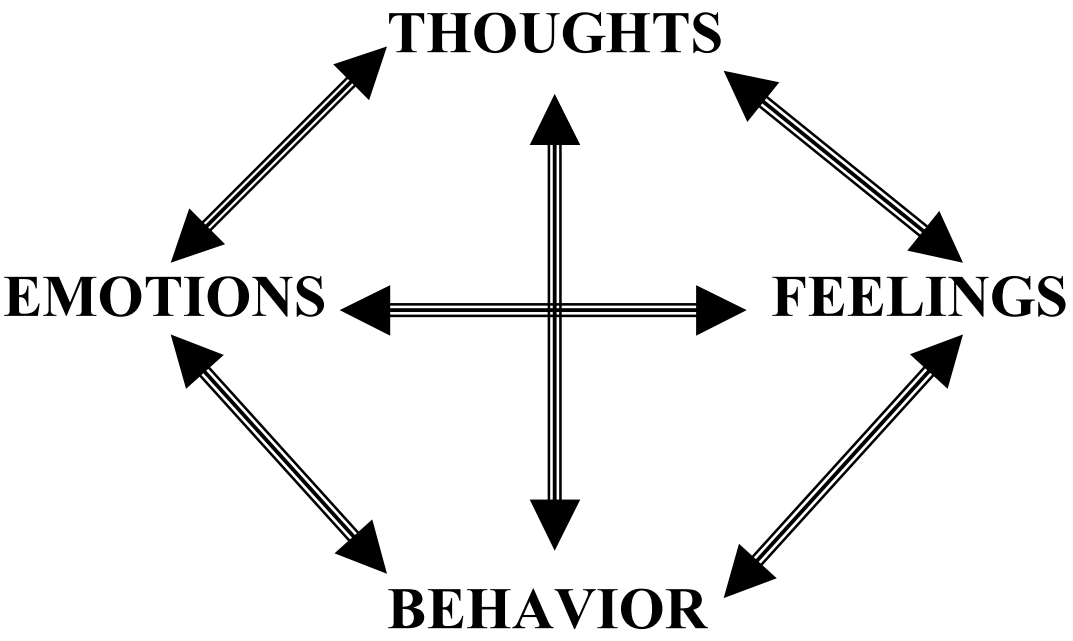
1. Session Agenda
2. Use of Subjective Units of Distress (SUDS) to check injection anxiety
3. Homework check
4. Cognitive Behavioral Model

Each session in this therapy begins by setting an agenda. You and the patient will create the agenda collaboratively at the beginning of the session. In the first session, you will do most of the agenda setting, because you have a lot of ground to cover. However, you should be sure to give the patient the opportunity to add any issues he or she wants to cover. In the following sessions, the agenda should include a review of homework assignments you asked the patient to do between sessions. Each session should also include a rating of the patient's injection anxiety, regardless of whether the injection is self-administered or administered by you. The counselor and patient should also prioritize the agenda items. Finally, a final acceptance of the agenda by the patient should be obtained. This process focuses treatment on the goals and emphasizes the collaborative nature of the therapy.

Review of injection anxiety and homework will follow the agenda in subsequent sessions, and will therefore be covered below.

Cognitive Behavioral Model

Draw the following diagram to help illustrate the cognitive behavioral model.



"*As you can see from this diagram, the basis of the cognitive behavioral model is that our thoughts, our feelings, our emotions, our behavior, and the environment are all continuously interacting with each other. In this model, we use the word "emotions" to refer to the specific physiological changes our body undergoes, like a racing heart when excited or afraid, or a smile on our faces when we are happy. We use the word "feelings" to describe the actual internal experience we have with certain physiological states- the feeling of fear, anxiety, or happiness. These things interact- for example, even if you are not in a very good mood, if you force yourself to smile for a few minutes, you will find that your body becomes more relaxed and your mood starts to improve a little bit.*

In the case of anxiety, all of these components are involved in the anxiety reaction you have when trying to self-inject. Your body experiences emotions and becomes physiologically aroused. You experience a feeling of fear, anxiety, or tension. You may have thoughts such as "it's going to hurt" or "I'll never be able to do this". Behaviorally, you may freeze. As these components all interact with each other, a vicious cycle of anxiety can develop."

Each component can feed on the others to increase your overall experience of anxiety. For example, if you are afraid that the shot will hurt, you experience the emotions associated with fear, and the muscles in your legs will become more tense. When the muscles are more tense, the injection will become more painful. This could lead to the thought "it hurts even more than I thought it would", which increases the feeling and emotion of fear, which increases muscle tension, and makes the next shot more painful.

However, using the cognitive behavioral model, we can intervene at each of the components to some degree, and reverse the spiral. By monitoring our unhelpful thoughts about injecting and changing them, we can gain control over that component. By practicing relaxation and becoming skilled at quickly stopping the physiological responses to injecting, we can control our emotions. By making changes in the environment, we can make the process of injecting less anxiety provoking. By making changes in our behavior, we can make the process of injecting less anxiety provoking and less painful.

Remind the patient that the cognitive behavioral model has been used to successfully treat all kinds of specific phobias, including fears of flying, snakes, spiders, heights, and public speaking. Cognitive behavioral therapy is the treatment of choice for phobia. Also remind the patient that these tools can be used in a variety of situations, and people have found them helpful for depression, anxiety, and stress management. Most people find that this model makes intuitive sense and don't have much trouble accepting it.

The Subjective Units of Distress (SUDS) Rating

An important component of any CBT treatment is continual assessment. Assessment allows both the patient and counselor to identify areas that are problematic. Thus, assessment can guide treatment. Assessment is also useful for the patient and counselor to provide continual feedback regarding progress or lack of progress. People are not always good at remembering previous mood states. Our memories of previous moods tend to be influenced by our present mood. This means that if patients rely solely on memory for their self-assessment of progress, they may minimize their gains. A written record of moods can show the patient progress that is being made, thereby contributing to a positive feedback loop.

One of the first things the patient should do is rank his or her anxiety on a scale from 0 to 100, with 0 meaning no anxiety at all, and 100 meaning the worst anxiety the patient has ever experienced. It's important that the patient understand this, because you will be asking them to use this skill to rank their anxiety as you practice relaxation skills, as they develop their hierarchy, as they practice the items on their hierarchy, and as they do unhelpful thought records. You monitor their rankings throughout treatment- you can use this information to chart their progress.

Introduction to the Use of Hierarchies

"*As with anything, the key to learning a new skill and successfully mastering a difficulty task is to start slow and to take small steps.*"

Encourage the client to identify other situations in their life where this strategy has been successful, such as learning how to play a sport, learning how to use a computer, or mastering any complex and potentially intimidating task.

"*Just as with everything else, we will be starting slow to overcome your injection fear. I'd like you to start to think about all the steps that lead up to the injection process in order of difficulty, starting with the easiest, and assign them SUDS anxiety ratings. For example, how much anxiety do you have preparing the for the injection? How much anxiety do you have preparing your leg to receive the shot? How much anxiety do you have around actually injecting? How much anxiety would you have about depressing the plunger after I have inserted the needle into your leg? How much anxiety do you have about observing me giving you the shot?*"

Ask as many sample questions like this as needed to help your patient generate a variety of activities with different difficulty levels. For most patients, actually self-injecting will be rated as 100. You want your patient to generate a n umber of activities that range from a 40 or 50 on the difficulty scale up to 100.

Patients can list actual physical activities, (e.g. looking at the needle, touching the needle, injecting an orange - oranges feel very close to administration of intramuscular injections), or mental activities, (visualizing themselves injecting or visualizing the needle entering their skin).

Introduction to the Use of Relaxation

It is impossible to maintain a state of relaxation and a state of tension and anxiety at the same time. The purpose of relaxation training is to give your patients the ability to quickly and effectively relax when they are anxious. You will be asking patients to practice with their relaxation tape as often as possible. The tape takes about 20 minutes. Practice is very important- they should be encouraged to practice controlled breathing techniques throughout the day, every day, and ideally, to practice with the relaxation tape at least once a day, every day, during the first few weeks of treatment. However, these goals may not be possible for people, and you and your patient should problem-solve together to help find a time of the day and a quiet environment that will allow them to practice at least a few times a week.

Most patients leave the therapy office or clinic intending to do the homework assignment. But frequently such assignments never get done. How many times have you been at a meeting, been excited about a topic, agreed to follow-up after the meeting, and then never gotten around to it? In the same way, most patients intend and want to do the homework. There are a few things you can do to help them actually carry through these intentions.

1. Help the patient plan a time to do the homework: at time where they will not be interrupted by work and family demands.
2. Encourage the patient to schedule the homework and relaxation into their daily planner.
3. Help empower the patient to get help from family/friends that will allow them to do the homework. For example, helping a patient educate his or her spouse about the need for treatment, so the spouse can do some extra childcare to give the patient time to practice relaxation.

If you have done relaxation training before with patients, you can use any form of relaxation script you find easy. However, with MS patients, you shouldn't use a tension-release script (asking them to tense their muscles, notice the tension, and then relax, noticing the relaxation). These scripts can make MS patients more uncomfortable due to spasticity. If you use an imagery script, avoid one that talks about sensations of warmth or tingling, as many MS patients find these sensations uncomfortable.

If you haven't done relaxation training before, practice reading the script in a slow, calm, almost singsong voice to friends or relatives. When you make people feel like falling asleep, you're ready to try it with a patient.

EXAMPLE OF A RELAXATION SCRIPT

Begin by sitting comfortably in your chair. Let you hands rest in your lap, and let both your feet rest comfortably on the floor. Sit up and let your back rest in a comfortable position- neither overly rigid nor slumped over. Now, you can just let your eyes close, and begin to focus on your breath. Focus on taking slow, calm, deep breaths, and become aware of the sensation of breathing. Inhale, and exhale. (Observe the patient breathing, and time your requests to inhale and exhale with the natural rhythm of their breathing). Inhale, and exhale. Become aware of the feeling of the air entering through your nose and moving into your lungs, and then out. With each breath out, allow your body to become more relaxed and comfortable. Inhale, and exhale.

As you breathe out, notice any tension anywhere in your body, and just let your body relax. Begin at the top of your head, and notice any tension anywhere in your forehead. Just let all the little wrinkles in your forehead smooth out. Notice any tension around your eyes, and just let them rest comfortably closed. Breathe in, and out, and with each breath out, notice the relaxation moving down your head. Notice any tension in your jaw, and just let your jaw rest comfortably, perhaps even a little open. Feel the relaxation move down from your head, into your neck and shoulders. Notice any tension in your neck, any tension in the sides or back of your neck. Maybe let your head roll very, very gently and slowly, just a little, from side to side, to release the tension. With each breath out, your body becomes more and more relaxed, and more and more comfortable. Notice any tension in your shoulders, and let them slowly sink down into your chair.

With each breath out, the feeling of relaxation can move further down your body. You can visualize the relaxation as a cool, blue light moving slowly down your body. With each breath, your body becomes more relaxed and comfortable. The relaxation now can move down your upper arms, into your chest. Notice your breathing, how calm, and slow, yet very natural, it has become. The relaxation moves now into your hands and stomach. Let all the muscles in your stomach relax, let your breathing flow naturally from your stomach, where all the muscles are soft and relaxed. Notice any tension in your hands, and feel the tension just flow out your fingers.

Now the calm, blue, light of relaxation can move down your body further, into your thighs, your knees. With each breath, all the parts of your body become more relaxed and comfortable. Finally, the relaxation moves down your calves,

into your feet. You can feel any residual tension flowing down your body into the floor, and you rest and relax comfortably.

Any thoughts, any feelings that come into your mind, you can just push them gently aside. You don't need to think about anything now except the comfortable feeling of relaxation in your body, and your calm breathing. You can just let every other thought go right now and rest comfortably in that feeling of peaceful, relaxed, confidence. And with each breath, that feeling can become more strong, you can become more aware of it.

Just focus comfortably on your breathing, gently pushing aside any other thoughts that come up. (Allow the patient to breathe comfortably for a minute or two)

And, when you're ready, you know you can take that calm feeling of relaxation, of confidence, and comfort with you. You can keep that feeling with you, and return to it whenever you need by just focusing on calm, slow, deep breaths. When you're ready, you can take that feeling of relaxation and comfort with you when you open your eyes.

Introduction to the Workbook

Ideally, you should get the workbook to the patients before you even meet with them, and ask them to read through the first two chapters (about 30 pages) before the first session. However, if this is impossible or the patient has not done it, ask them to read through as much of the first two chapters as they can before the next session, which discuss the anxiety response, the cognitive-behavioral model, and relaxation.

Homework

Homework is very important. Patients will need to be proactive about practicing skills between sessions in order to get benefit from this treatment. Practicing relaxation is essential in order to train the body to have a rapid and effective relaxation response that can be used in a variety of situations. Practicing at home helps generalize learning from the treatment sessions to their home environment, where they will in fact be giving themselves the majority of their injections. You can discuss these facts with the patient directly. It's important to help patients with time management skills. Ask them what parts of the home assignments they think will be difficult to comply with, and help them find solutions to the problems around them. Remind them that although their anxiety may initially increase while they are doing this treatment, the end result will be the increased independence and feeling of self-confidence that accompanies successful self-injections.

Homework:

1. Read the first two chapters, if they haven't already
2. Practice relaxation tape as much as possible, ideally once a day, but at least three times over the week
3. Practice controlled breathing in different situations across the week
4. Complete hierarchy, and/or begin to practice with hierarchy

SESSION TWO

Topics to Cover:

1. SUDS Rating
2. Review Homework
3. Finalize hierarchy
4. Practice item from hierarchy with relaxation

Begin the session by setting the agenda with the patient. It should include a review of the homework, any problems that came up, and a review of the hierarchy. It should also include any issues the patient is having that are relevant- any questions about technique, medications, disease, or any other issues. Get a SUDS rating for the weekly injections, and note who performed the injections. Note any changes in SUDS rating since last week- patients may feel more confident and less anxious. Also be sure to ask the patient what s/he wants to include in the agenda.

The patient should have continued to build upon the hierarchy you introduced in the first session, as well as practiced with the relaxation tape and practiced deep breathing. You may want to help the patient expand the number of activities and ratings to include a wide range.

You can suggest activities on the hierarchy rating, watching a video (many pharmaceutical companies provide videotaped instruction on how to self-inject), practicing injecting an orange, visualizing self-injecting, holding the needle with the cap on, holding the needle with the cap off, holding the needle above the skin, etc. Even if the patient says that these are not difficult to do, you might consider assigning them a hierarchy rating. It is helpful for patients to see the range of injection-related activities and the range of levels of distress. However when selecting activities for the patient to engage in, you want to begin with experiences that have some minimal level of difficulty for the patient, but are not so anxiety-provoking that they overwhelm the patient and result in a failure experience. The experience of beginning with easier items and slowly moving to the more difficult items in the hierarchy should provide a success experience and increase self-efficacy. For most patients, starting with items that the patient ranks as between a 30 and 50 on the SUDS scale should arouse sufficient anxiety to provide a challenge, but not so much anxiety that the chance of success is reduced. As you progress through the hierarchy, you should periodically have the patient re-rate the items, as very often patients will reconsider the difficulty level of items as they move through the hierarchy.

Once you and your patient have identified the steps in the hierarchy, you will want to begin with the first item. This item should be at a SUDS level of 30 or

above. Have the patient perform the feared activity. When he or she notices his anxiety rising, immediately stop the activity and begin a brief relaxation exercise:

"Begin to focus on your breath, taking slow calm deep relaxing breaths. Become aware of any tension you are holding in your body, any feelings of nervousness, and with each slow, deep, relaxing breath, allow your body to relax and become calm. Focus on your breath, taking slow, calm, deep breaths. Feel the sense of peaceful relaxation increase with each calming breath. Become aware of any thoughts you're having, any feelings. Be aware of them, but just let them go, just push them aside. What's important right now is that feeling of calm, cool relaxation that you can feel throughout your body. Notice the relaxation in your face, your shoulders, your neck (anywhere else the patient has tension). Just relax, and feel your deep calm breaths, and the cool, peaceful sense of relaxation, confidence and comfort. When you're ready, you can take that sense of calm and relaxation with you as you open your eyes."

Once the patient's anxiety has returned to a low level, instruct him or her to begin the activity again. When his or her anxiety begins to rise, again stop the patient and conduct the relaxation exercise.

You should repeat this process for twenty to thirty minutes, unless the patient's anxiety remains at a constant low level with less practice. If this is the case, then you should move to the next item in the hierarchy, and begin with that item, repeating the same process.

Your goal is for the patient to be able to monitor his or her anxiety and implement the relaxation process him or herself over the week. The final time, you should have your patient identify when s/he is becoming too anxious, and do the relaxation exercise him/herself.

COMMON PROBLEMS

Not all patients complete homework. The section at the end of the manual, entitled Problems in Completing the Intervention, discusses some the problems that might interfere with performing homework, and how to address these problems.

Homework:

1. Continued relaxation practice
2. Continue to practice hierarchy- collaborate with patient to choose items to practice over the week
3. Read chapters on Unhelpful Thoughts and Unhelpful Thought Records

SESSION 3

Topics to Cover:

1. Get SUDS Rating
2. Review homework
3. Introduce Unhelpful Thought Record
4. Complete Unhelpful Thought Record
5. Set date for self-injecting, if not already set- Session 4 is ideal if possible

Begin by setting the agenda, getting a SUDS, and discussing the homework from last week. Discuss your patient's independent practice with the hierarchy.

Review the cognitive behavioral model you presented in the first week of treatment.

"As you remember, our thoughts, emotions, behaviors, feelings and the environment all interact with each other, and we can make changes in any of these areas to try to reduce our anxiety. One of the most effective places to make changes is in our thoughts. Have you ever tried to just not think about anything? To have absolutely no thoughts in your head? It's very hard to maintain this state for more than a few seconds. We are always thinking, all the time, without even being aware of it. In away, it's like our thought processes are like a TV or radio playing in the background- if something interesting comes up, like our favorite show or song, we might choose to focus on it, but most of the time it's just in the background, we don't even notice it's there. We call the thoughts that are always in the background "automatic thoughts," because they happen automatically, without our conscious awareness. Very often, when we're in a situation that's anxiety provoking, our automatic thoughts are distinctly unhelpful. For example, some people have the automatic thought "this is going to hurt" when they see the needle. They persist in having this thought despite the experience of painless injections at times. The thought just keeps going in their heads, like a broken record. However, once we choose to become aware of our unconscious unhelpful thoughts, we can begin to change them."

Help your patients to begin identifying their unhelpful thoughts around injection. Some patients will be able to do this easily without any help. Other patients may need to be exposed to anxiety-provoking stimuli, such as holding the needle, in order to identify any unhelpful thoughts. As your patient's anxiety rises, help him or her to put into words any thoughts he or she is having. Write down the unhelpful thoughts as your patients identify them. At this stage, don't

attempt to identify any evidence for or against the unhelpful thought, or evaluate the thoughts in any way. Remind your patients that these thoughts don't need to make any sense or be rational. Some patients also have unhelpful mental images, such as the needle vanishing into their leg or breaking off. Being accepting and non-judgmental of these fears will help your patients confront them and express them. Help your patients expand on these thoughts, to get to the assumptions and beliefs behind them. For example, asking a patient with the thought "I don't want to do this" for clarification or associations to that thought can lead to his or her expression of resentment about having the disease, and thoughts that self-injecting will somehow make the diagnosis "more real."

Some common unhelpful thoughts:

- It will hurt
- I can't do this
- I will mess up the injection and hurt myself somehow (inject into vein, inject air bubbles, damage muscle)
- I will freeze and be unable to inject
- I will panic
- Intrusive visual images of blood, oversized needles, etc.
- This makes having my illness more real
- This means I can't deny I have _____.
- This means my disease is taking over my life
- I can't believe how much of a wimp I'm being
- I'm making a big deal out of nothing
- I should just be able to tough this out

You should not be surprised if people have thoughts that seem strange to you. It is important that you accept the patient's thoughts empathetically and without judgment. For example, saying "Really, is that what you think!?," will likely reduce the patient's willingness to be open and candid with you, while "I can see how that might make you feel more anxious" helps draw the connection between the thought and anxiety, and also helps the patient feel understood.

As you identify the events, thoughts, and feelings, fill out the Unhelpful Thought Record

Sample Unhelpful Thought Record

Triggering Event – Injection process	Unhelpful Automatic Thought (rate strength)	Emotions and Feelings Associated with Thought (rate strength)	Rational Responses to Thought	Changes in strength of thought/emotions

Once your patient has identified some of their unhelpful thoughts, help them to identify the feelings and emotions that develop as a result of the thought. For example, thinking they will damage themselves as a result of the injection can lead to fear, thinking of themselves as a wimp can lead to embarrassment, etc. Have them assign a 0-100 rating to the strength of their belief in the thought, and have them assign a 0-100 rating to the strength of the emotion it produces.

Once you have identified some unhelpful thoughts and the emotions they are associated with, then you can begin to question the unhelpful thoughts, starting with the ones that are rated less strongly by your patient. For some thoughts, particularly ones about making mistakes and hurting yourself, the process of questioning them is relatively easy. By providing patients with the information they need (it's impossible to hit a bone, instruction in proper technique, etc.), the strength of belief in these thoughts and the accompanying distressing emotions should quickly subside.

Some thoughts, like the idea "I'm being wimpy," can't really be considered "right" or "wrong." With thoughts like this, it can be very helpful to encourage patients to examine whether this thought helps them achieve their goals, rather than focusing on the "truth" of the thought. However, evidence against the thought can also be gathered- for example, identifying areas in the patient's life where they are brave, and noting the fact that many people on injectable medications, including medical professionals, have difficulty self-injecting. It can be helpful to ask people what they would think if a good friend of theirs had a problem with injection- whether they would consider that person to be "wimpy." The process of developing rational responses to these thoughts is most effective if the patients take an active role, and develop the majority of the rational responses themselves. You should provide a great deal of support and encouragement.

Most patients have some thoughts that, by injecting, they are increasing the burden of having their illness or increasing the role that their illness has in their

lives. And, when patients have severe injection anxiety, this may be true. Ask your patients how much they worry about the shot over the week and how much the shot interferes with their piece of mind. It is important to help patients differentiate between "the shot" – a brief pricking sensation that lasts for less than 5 seconds; any side effects for the medication, which will pass; their anxiety about the shot, which may involve several hours of worrying each week; and their feelings and thoughts about having their illness. While it is helpful to talk about feelings and thoughts related to MS, it is important to help patients understand that the "the shot"- a brief, albeit unpleasant, prick, actually helps control the disease- actually reduces the burden.

Homework

1. Continue relaxation practice
2. Continue hierarchy items
3. Do Unhelpful Thought Records
4. Identify Unhelpful Thought Patterns by using UTRS over week

SESSION 4

Topics to Cover:

1. Get SUDS Rating
2. Review homework
3. Review Unhelpful Thought Records
4. Review Unhelpful Thought Patterns
5. If agreed to by patient, attempt self-injection

Review the Unhelpful Thought Patterns the patients have brought in that they did over the week. If they did not do this, help them recreate any situations around anxiety where they should have done at UTR, and help them to identify their unhelpful thoughts and find rational responses. Then review and help the patient identify any unhelpful thought patterns they experience.

Unhelpful Thought Patterns

1. **Name-calling**: In this unhelpful pattern, you attach a negative label to yourself or to others. For example, calling yourself a wimp is name-calling. Very often, these names are a lot nastier- people who use this pattern a lot often are a lot harder on themselves than anyone else would be, and often harder on themselves than they would be on someone else.

2.**"Should" statements**: In this unhelpful pattern, people have very strict rules about what they "should" be able to do- not only do they often expect they should be able to do almost everything, but they insist they should be able to do it perfectly the first time, without any nervousness or anxiety. People with this pattern may also have these expectations about other people or situations. When their unrealistically high expectations are not met, they can experience a lot of negative emotions- guilt, anger, fear, or frustration. For example, a lot of people think they "should" be able to inject themselves with no anxiety, or they "should not" be having this kind of difficulty.

3. **Accentuate the negative, ignore the positive**: In this pattern, people tend to focus on every negative aspect of the situation or their response to it, while ignoring any positive aspects. For example, some people may focus on the fact that they are still having trouble with injections 3 weeks into this therapy rather than focusing on the progress they have made.

4. **Black-or-white thinking**: In this pattern, people look at the extremes- very often, they will limit themselves to two opposite and extreme options, such as *either* being able to self-inject easily *or* not being able to take interferon medications at all.

5. **What's the use?**: This pattern of thinking is common for people who often have hopeless feelings or feel powerless. This pattern of thinking leads to limiting behavior. Someone with this pattern might try to self-inject once, experience anxiety and be unable to do it, and then conclude "I'll never be able to do it- there's no reason to try again."

6. **Catastrophizing**: This pattern is very common in people who are often anxious- in this pattern, the automatic thoughts are always the worst possible outcome. People with this pattern jump to the worst or most frightening conclusion when faced with a stressful event. For example "I had those flu-like symptoms last week after my shot, they are only going to get worse – I'll have to stop the Avonex and my MS will start getting worse, and I'll be in a wheelchair within a month," etc.

7. **Overinterpreting/overgeneralizing**: In this pattern, you make assumptions and draw conclusions based on only a few facts. This pattern tends to show up in almost all the other patterns, to a greater or lesser degree.

8. **Personalization**: You assume that others feel negatively about you, are being particularly critical of you, or will be upset and disgusted by your behavior. You assume that you are worse than anyone else. Patients with this pattern may worry a great deal about how you are responding to them- they may worry that their anxiety makes you uncomfortable, or that you pity them or think they are "wimpy."

9**.** **Emotional thinking**: You interpret your feelings as if they were facts. For example, if you feel afraid, you assume that there must be something dangerous happening. Or, if you feel embarrassed, you assume that you are doing something shameful.

10.**"If only" thinking**: The theme of this pattern of thinking is regret. People with this pattern spend time thinking about the situations in their lives with a sense of regret and disappointment, without being able to focus on the changes they can make in their lives here and now. These patients often will ignore their successes

and try to focus on ideas like "if I had only gotten treatment earlier, I could have been taking Avonex for 2 years already, etc."

Patients usually can identify at least one or two of these unhelpful thought patterns as personally applicable. You can use the Unhelpful Thought Record Technique to challenge the beliefs espoused by the unhelpful thought pattern. However, increased awareness alone can help patients avoid this pattern in the future. It can be helpful to have your patient identify how this pattern impacts areas of their life other than injecting as well, and to rehearse blocking the pattern by noticing it and using the positive self-statement "I will not allow this pattern to determine how I think right now" or "I will not allow this pattern or feeling to determine how I behave right now." You also can continue to refer back to the thought pattern as the patient experiences unhelpful thoughts throughout treatment. Some patients will identify events from their past that they feel contribute to these patterns, like identifying a past negative medical experience or noting that important people in their lives were critical when they demonstrated weakness. This is helpful if it allows the patient better understanding of his or her unhelpful thoughts and greater control of them, but it is not necessary for treatment to be successful.

The actual injection process

Patients will usually remain quite anxious through their initial injection. It is important to remind them that this is normal, and that their goal is to make injecting manageable- it may never be pleasant. Stop as many times as is necessary in the injection process and practice relaxation to reduce anxiety. For intramuscular injections, many patients who have difficulty with the "stabbing" aspect of injection find it much easier to lightly rest the tip of the needle against their skin, and then insert the needle from that position. Patients who are afraid of blood and/or pain can be reminded that by completing the steps of the injection process quickly, they will reduce these possible side effects. It is very important to provide lots of positive feedback as patients are actually injecting- remind them in an encouraging way to quickly insert the needle, depress the plunger and remove the needle, as many of patients will perform the process very slowly the first time, and the slower they go, the more likely they are to experience pain.

Most patients experience a sense of pride and increased self-confidence after injecting. Some patients will feel so relieved that they become a little tearful. Many patients will say things like "that was so much easier than I thought it would be" or "that was no big deal." You should validate your patients for these realizations, while reminding them that learning to self-inject is anxiety-provoking for a lot of people, and their past anxiety was perfectly normal.

If the patient is unable to complete the injection, having them do part of the injection process is still very helpful. You can insert the needle and have them depress the plunger and remove the needle, just as you have been doing with the hierarchies. Or, you can have them place their hand over yours as you insert the needle their leg, and then have them take over. These intermediate steps bring the patient closer to completely self-injecting, model your good technique, and give the patient a sense of participation and empowerment. These steps can be initiated as early as the first session, if the patient feels able. Many patients, particularly those who were initially able to self-inject, get progressively slower during the injection process as their anxiety develops, and may take 30 or 45 seconds to insert the needle, and another 30 seconds to depress the plunger and remove the needle. This generally worsens pain and bruising, which increases anxiety. Modeling appropriate speed can be helpful for these patients. If your patient is injecting too slowly, having them practice inserting a needle quickly into firm surfaces at home, like the arm of a couch or a mattress, with a spare needle and syringe can be very helpful. It can also be helpful to demonstrate that you can place the needle just over the skin before piercing the skin.

Homework

1. Continue relaxation practice
2. Assign homework as needed

SESSION 5

1. Get SUDS rating
2. Review homework
3. Self-injection
4. Discussing transfer of learning to the patient's home

Many of your patients will have begun to self-inject in the fourth session or earlier, but some will have attempted to in that session and been unable to, or will have scheduled the attempt for this session.

The patients who successfully self-injected in session four should continue to self-inject with you in their sessions, and they should continue to monitor their anxiety throughout the process. Any increases in anxiety throughout the process should be questioned, and the appropriate response to the cause of the anxiety should be taken, whether that's a relaxation exercise, education about injection technique, an unhelpful thought record, or other strategy. Most patients will quickly and easily self-inject the second time.

It's important to discuss differences between injecting at home and injecting in the clinic. The most important difference is your presence- while the patient is being supervised, he or she can be sure that he or she isn't making any errors. Discussing any questions that remain about injection technique and reinforcing the patient for their good technique is important to build confidence. You should help the patient identify a good injection routine for home. Help them choose a comfortable place to inject, and to identify the conditions for injection that will be best for them. Will they find relaxing music or aromatherapy candles comforting? Do they want someone else there, or will it be easier alone? What chair will they use? What day will they inject, and what time of day? What schedule and type remedies might they take for side effects, if these are a problem for your patient?

It is also very important that you encourage your patients to reinforce themselves for injecting. They should build something nice for themselves into their injection routine. For example, some patients rent a movie the night after they inject, or cook a favorite meal (or have their partner cook a favorite meal). Other patients get a manicure, or buy a favorite snack for themselves. Remind your patients that they wouldn't hesitate to congratulate and celebrate the accomplishment of a child or an employee, and that they should extend the same courtesy to themselves.

If your patient was unable to inject in session four, session five should focus on self-injecting. Using techniques such as hand-over-hand modeling can be very helpful. At each step of the injection process, it's important to identify the

patient's thought that prevents successful injection and use relaxation and unhelpful thought records to replace that thought with a more helpful one.

SESSION 6

Relapse Prevention

Identifying possible triggers for relapse is very important and can be very helpful. Helping patients to prepare for possible problems, including a painful injection, blood at the injection site, scheduling problems, or a feeling by the spouse or partner who had been doing the injections that the patient no longer needs them is important. Use the workbook to help the patient make a plan for coping with any relapse triggers they can identify.

Discussing the differences between a lapse and a relapse is also helpful. The patient should plan that if he or she experiences a lapse- notices an increase in anxiety, notices a tendency to avoid the injection or rely on others to do the injection, etc. he or she can intervene by re-contacting you and rereading the workbook, and redoing any exercises as necessary to regain a sense of confidence around injecting. Stress for the patient that it is much easier to intervene early in the process, rather than waiting until self-injecting becomes terribly anxiety provoking or impossible.

For patients who can identify many potential triggers, you may wish to schedule a booster session a month or two after the last session, to help cope with any problems that arise.

PROBLEMS IN CONDUCTING THE INTERVENTION

Patient does not complete homework

It is not uncommon for patients to not complete or only partially complete homework exercises. While the success of the intervention is dependent in large part on these exercises, it is also important not to turn lack of compliance into a failure experience for the patient. This will diminish the likelihood that the intervention will be successful. You also want to avoid a situation in which you begin "pulling" the patient- it is the patient's responsibility to complete assignments. Pulling the patient has two bad effects: it sets up an adversarial relationship and it also makes you more invested in performing the exercises than the patient – you want to keep the motivation with the patient (a good rule of thumb is never be more invested in the counseling than your patient).

The first thing to do is assess the situation. Don't assume you know why the patient did not complete the exercise. Ask the patient what made it hard to complete the exercises. Very often, patients will cite problems with time or family responsibilities as reasons they didn't follow through on their homework. In such cases you might help the patient plan out certain times of day where they can practice their skills. You may also find that the patient expected too much of themselves, and then when he or she realized the goal would not be met, felt hopeless and gave up. In such cases you can scale back the homework to make a doable assignment (one completed 5 minute session of relaxation practice in a week is better than planning and failing to do 7 20-minute relaxation exercises). Unhelpful thought monitoring can be used effectively to help these patients comply with homework.

Some patients may say that their families did not give them time to complete the exercises. In such cases it may be necessary to help the patient be assertive with his or her spouse or family members about the need for quiet while he or she practices relaxation, and the need for more time to do homework. Patients may have also experienced an increase in anxiety related to doing homework. Reassure the patient that this increased anxiety, and way it interferes with performing the exercises, is valuable information. Alternatively, patients may report that they experienced no anxiety and were unable to identify any anxiety-provoking steps in the injection process other than the final step of actually self-injecting. With these patients, it can be helpful to review the SUDS rating scale and have them give a continuous SUDS rating as they go through the steps to injecting. Usually, patients will notice their anxiety begin to rise somewhere in the process.

It is also important to emphasize that this treatment can only work if the patient does the exercises outside of therapy. But such advice should be timed to

be supportive, not an admonition. Usually it is best to emphasize this after you understand the source of the problem.

Patient has other psychopathology that prevents him or her from participating fully in the intervention

Patients can present with a variety of psychological difficulties that are co-morbid with injection anxiety. Many of these difficulties, such as mild depression, mild anxiety, or other specific phobias (such as flying or animals) will have no impact on the patient's ability to participate in this treatment. In fact, many patients may find the skills they learn are helpful in coping with other problems and fears in their lives.

However, patients who are severely depressed may not have the energy, motivation, or hope to participate in the treatment. Patients who experience severe insomnia or hypersomnia, loss of interest in activities, psychomotor slowing, suicidality, extreme tearfulness, flatness of affect, or other signs of severe depression should be referred for an immediate medication evaluation and psychological follow-up. This intervention should be attempted when their depression has stabilized.

A few patients may also experience multiple panic attacks, or severe panic-like symptoms in the course of this treatment. While these patients can be successfully treated using this model, it is likely to take longer than six weeks, and the patient should be referred to a counselor who has experience conducting cognitive-behavioral therapy with patients with panic disorder.

Patients with more severe mental illnesses, such as psychotic disorders or severe personality disorders, may be able to benefit from this model, but will likely need a more intensive intervention, and should be referred to a mental health professional who has experience with patients with co-morbid medical and mental disorders.

Patient has a history of fainting during injections or at sight of blood

Some patients with injection anxiety will report a history of fainting during injections or at the sight of blood. It's important to assess this carefully. Very often when questioned, patients will report that they don't actually lose consciousness, but that they feel strongly as if they will lose consciousness if they don't escape the situation immediately. They may feel dizzy, nauseous, panicked, or experience tunnel vision or black spots before their eyes. However, some patients do have a vasovagal response to injections, and will actually lose consciousness, often quite suddenly. For these patients, it will be best to focus on managing unhelpful thoughts about injection, rather than relaxation, as increased physiological relaxation may contribute to the sharp decrease in blood pressure that

can lead to unconsciousness. For these patients, a mild stimulant such as caffeine may also be helpful prior to injection. Beta-blockers may also be helpful.

For any patient with a history of fainting or feeling faint, it is reassuring to demonstrate to the patient that, should they faint, they will not damage themselves. Have them practice injecting in an infusion chair or some other comfortable seating arrangement where they cannot fall over. Remind them, that even in the very worst case scenario- if they pass out while injecting, they will not bleed to death or damage themselves. Reminding them that, even if they do become unconscious, they will only remain that way for seconds, can also be helpful.

For patients who have a history of feeling faint when seeing blood, instruction in proper site selection to avoid veins and creating a hierarchy around blood (i.e., look at a drop of blood on the gauze after bleeding has stopped after injection, then waiting a second before applying the gauze to see if there is bleeding, etc.) is very helpful.

Patient has cognitive impairment

This model has been used successfully with patients who have mild to moderate cognitive impairment. Except in the most severe cases, cognitive impairment alone should not prevent a patient from benefiting from this model. However, when working with a patient who has cognitive impairment, you should be sure to provide additional aids and cues. These patients will benefit from the structure the workbook provides. Writing down homework assignments and providing written direction will also be helpful. If the patient is willing, involving the person who has been giving the injections can also be helpful. This person can help the patient remember to practice homework and bring the workbook to meetings. If your patient has problems with attention, you can have them choose the relaxation exercise they prefer from the tape, and then ask them to practice only that one exercise.

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