Helping Clients Think Through Their Causal Models: Application to Counseling Clients to Exercise

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This article presents a model for therapy using active investigation of causal attributions made by the client. Causal attributions guide behavior. Often wrong attributions (excuses) force the individual to waste effort and time in making changes that do not lead to desired behavior. Many focus on their motivation and not external causes of their behavior. As a consequence, they relapse into old habits when their motivation waivers. Others gather information that is not causally linked to their behavior, and therefore of little use in understanding the mechanism for change. The role of clinician is envisioned as being to guide the clients to seek causal explanations for their behavior, to correct false attributions, and to help the clients use the causal mechanisms they have found to change their behavior. In theory, at least, it is expected that when causes of the unhealthy behavior are removed, lasting change will occur and the client is less likely to go through cycles of improvement and relapse. This article shows how the clinician can conduct causal analysis of the client’s behavior. This model for therapy is in the tradition of solution-focused approaches to helping individuals make psychological and behavioral changes. A case example is also presented, where the client is trying to increase his or her exercise patterns.

Cognitive therapy assumes that patients are information processors and that when faced with the right information at the right time, they would make the right choices and thus correct their behavior. Recent research has shown that human beings organize information in terms of causal models.1,2 If this is the case, then the cognitive therapist should focus his or her effort on helping the client understand the causal schema behind the client’s behavior. Some information is part of the client’s causal model of the behavior and affects the client’s behavior. Other information is not and is irrelevant to the client, even though others may see it to be pertinent. Merely telling a patient about pros and cons of a behavior is not sufficient to bring about lasting behavior change—even if the patient understands that it is in his or her self-interest to change. Lasting change requires us to assume that the patient’s motivation will waiver and to create an environment where the desired unhealthy behavior is unlikely to occur.3 Knowing that cigarette smoking kills is not sufficient, the causes of smoking should be investigated and an environment created where even if the patient waivers and wants to smoke, it is unlikely that he or she will do so. Likewise, motivation is not enough to keep up with exercise resolutions. An environment must be created where it is easier to exercise than to have a sedentary lifestyle. Making lasting change requires understanding what

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causes the behavior and working on the mechanisms that would promote the desired behavior and constrain unhealthy ones. Clinical psychologists will bring about more lasting change if they focus their therapeutic interventions on clients’ causal models. In this article, we show how causal models can be used to help clients change their behavior.

We focus on advice that a psychologist can provide to clients regarding adhering to an exercise regimen. There are many health consequences of lack of exercise. Poor exercise leads to overweight and obesity, a growing problem in the United States. It can lead to decreased lifespan and an increased risk for conditions such as high blood pressure, heart disease, stroke, and diabetes. Physical activity is associated with many health benefits, including cardiovascular and musculoskeletal fitness as well as body composition and metabolism. Exercise has also been shown to have beneficial effects for many types of common mental health conditions such as depression and anxiety. This article proposes a method that can be used to assist individuals make lasting change in their exercise patterns.

THEORETICAL CONSIDERATIONS

Knowledge of causal relationships lies at the core of human functioning because it is our understanding of how events occur in the world and what part our behavior can have on influencing or determining those events that guide our choices and actions. On the basis of our knowledge of generating mechanisms, we engage in self-regulating behavior to move toward identified goals.

People are active shapers of their environments. Not only do we observe and reflect on events in our environment but also we are able to observe and reflect on our own behavior, thoughts, and emotions. We identify incentives that motivate and guide our behavior (eg, “I want to lose 10 pounds [behavior] because I believe it is a healthy way to live [thought] and I have a desire to be thinner [emotion]”). On the basis of our goals, we set standards for our behavior (eg, “I will attempt to loose 2 pounds per week”) and continually evaluate the outcomes (eg, weigh-in at the end of the week). We make strategic choices for behavior on the basis of our progress toward our goals (eg, “I only lost 1 pound this week, perhaps I’ll add one more exercise for next week”).

Solution-focused models of helping directly derive from this conceptualization of human knowledge and experience. The role of the therapist is to assist the client in identifying internal events and external behaviors that are important for goal achievement. It operates under the assumption that most clients who are in distress tend to be focused on finding solutions to their problems and feeling better. This is in contrast to some therapists’ views that focus them on the origins of the problem and transforming the problematic situation through insight. Solution-focused models have tried to move away from therapy as discussion toward therapy as practical problem solving.

SOLUTION-FOCUSED THERAPY

The exercise/weight loss model presented here is rooted in solution-focused approaches to therapy. It represents a guided, collaborative approach for a clinician to monitor and guide a client’s progress toward the goal of losing weight. Here, the role of the clinician is to assist the client in identifying and modifying false causal attributions. It is an active check of evidence in support of causal claims. The rationale is that if one has an accurate understanding of causal relationships significant to weight loss, then one is better able to self-regulate toward and achieve goals. The role of the counselor is less to provide empathetic listening, or to provide therapeutic interventions such as cognitive therapy. The role of the counselor is to guide the client through an examination of the factors that led him or her to exercise or fail to exercise, and then assist the client in developing strategies to increase success at adhering to an exercise regimen.

DEFINITION AND COMPONENTS OF A CAUSAL SYSTEM

The first task of the therapist is to help the client distinguish causes from other events. Some clients
will be confused about the definition of a cause. When clients are asked why they are sedentary, many respond, “I do not exercise because I am not motivated.” This is a typical response but not a helpful one. A cause should reveal the mechanism by which it leads to the effect. A general attribution of sedentary lifestyle to motivation does not reveal the mechanism that leads to exercise. Clients often suggest causes that are not plausible. For example, they may list causes that never change and they could not explain why they exercise some day and not others. For example, they may say that they exercise because they live with their spouse. Clearly, they do so everyday and this cannot explain variation in exercise. Clients sometimes list causes that do not occur in a reasonable time frame. For example, they may speculate that they exercise. In further exploration it becomes clear that no one has asked them for years. This cause might be more a wish than a real cause. It is also our experience that many clients list the benefits of exercise as its cause. They typically say, “I exercise because it is good for me.” This may seem an utterly reasonable cause of exercise to the client. But benefits cannot be the cause of exercise, as benefits follow and do not precede exercise. To make sure that causes of exercise are listed and not symptoms or benefits that emerge after exercise, it is important for the clinician to emphasize that a cause must describe a mechanism that leads to exercise. By mechanism we mean a series of intermediary events that eventually lead to exercise. Causal events have specific characteristics that distinguish them from other events. Sloman defines a cause as any object, action, or event that leads to another state or event and implies a generating mechanism that as an end product produces the event of interest. This definition of cause and effect leads to a number of observations:

1. First, causes should covary with the event of interest. If joining a competitive team covaries with exercise, we infer that joining the team might be a cause of exercise. That is to say that the initiation of the causal agent (eg, joining a team) sets events into motion that culminates in a given end state (eg, exercise). Causes are expected to be associated with the desired behavior.

2. Second, it suggests asymmetry of the relationship. A cause leads to the effect, but not vice versa. Causes are more likely to lead to the effect than vice versa. The probability of exercise after joining a competitive team is higher than the probability of joining a competitive team given one exercises. The latter is called causal relation and the former is called diagnostic information. Causal relationships are stronger than diagnostics ones.

3. Third, it suggests a temporal sequence. The effect takes place after some time and no effect can precede its cause. Joining a team should precede exercise, and not vice versa. It is important to investigate the sequence of the event to make sure that a clear mechanism exists, leading from the cause to the event. It might be true that if a person does not exercise, he or she cannot join a competitive team. But given the current physical condition of the person, joining the team will increase exercise, as it creates a host of expectations and events that require exercise. The client has to go to practice. Eventually, the client has to play in a league tournament. The client will meet new people who would encourage exercise. All of these events follow joining the league and all of these events lead to more exercise.

4. Finally, causes suggest various mechanisms. The mechanism for how joining a team leads to exercise is through increased play and communication skills. The way joining a team leads to exercise is through weekly required team practices and eventual league tournaments. A cause must have a clear set of events leading to the desired behavior.

A clinician can assist a client problem solve by making sure that clients express causes of their behavior and not unrelated events or general attributions that do not describe a specific mechanism leading to the target event.

Clinicians can also help by checking clients’ causal claims against available evidence. Clients may hold mistaken beliefs. They may erroneously consider
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that they overeat because they are depressed. An investigation of causal attributions may find that their overeating is related to their menstrual cycles and not to their occasional bouts of depression. Once the clinician has helped the client articulate causes, the key next task is to investigate the evidence in support of these causal claims. This is typically done by assessing the association (correlation or conditional probability) between the cause and effect. For example, one would examine that people who are on the team exercise more than people who are not in the league. But the presence of association is not enough. Causal relationships are distinct from correlational relationships in 2 key ways. First, causal relationships do not simply imply that 2 events co-vary, but rather that the cause serves as a generating mechanism that produces some change that culminates in a given end state or event. It follows then that if A causes B, then B would not occur in the absence of A. This leads to the second condition of causality: counterfactual dependence. Counterfactuals are statements about another possible world. These are “if only” statements that are linked to implied causal relationships. For example, “If I had A, then I would have B”; more specifically, “If I had a million dollars, I would build a gym and exercise more,” or “If I had not taken my medicine, I wouldn’t have gained weight and would have been able to exercise more.” Counterfactuals are the means by which we open thought or discussion about what might be or what could have been given different causal actions. A causal relationship not only implies a generating mechanism (X caused Y) but also that the effect would not have occurred if the cause had not (if X had not occurred, Y would not have either).

Each client has his or her own mental model of his or her own behavior. While there are many differences, all clients’ mental schema of cause and effect contains certain shared components:

1. A causal model includes a description of the event of interest (increased exercise) and a method of verifying its occurrence. For example, a client might define exercise as getting to the point of sweating, which will include nonstructured activities such as walking a dog, cleaning the house, etc.

2. A causal model contains a list of possible causes and a longer list of events not considered and discarded as potential causes. Many possible causes are discarded over time. In their minds, clients maintain lists of causes examined and discarded, causes examined and found to be true, and causes not yet examined.

3. A causal model contains the strength of association between the cause and the effect. Causal relationships do not always lead to the intended effect. Therefore, clients maintain a probabilistic relationship between the cause and the effect. When the cause occurs, the effect is likely but not for sure. Typically, this can be expressed in terms of a conditional probability statement. A conditional probability statement gives the probability of the effect given that the cause has occurred. Thus, the client might say, “I am likely to gain weight if I eat chocolates around my menstrual cycles.” This is a conditional probability statement. It gives the probability of weight gain if a particular condition is met.

4. A causal model contains information about dependence and independence. Certain causes are related to the effect, but perhaps more important is that many other events are unrelated and therefore not a cause of the event. For example, a client may consider time off from work, commuting by bike, and weather as causes of exercise. In this schema, many other possible causes have not been mentioned. The client is assuming that they are unrelated (probabilistic independence). For example, the nature of television programs is not mentioned as a cause of exercise, and therefore it should be probabilistically independent of exercise patterns.

5. Many causes also follow the principle of conditional independence. In these situations, information about what has led to the emergence of the cause is not relevant, what matters in predicting the effect is the presence or absence of the cause. For example, it does not matter whether we have the time off from work because
of a holiday or vacation days, as long as we have time on our hands we will be more likely to exercise. In this sense, the history of what has led to the cause does not matter. What matters is the presence of the cause. When history is not relevant, we are reassured that we have found an important cause of the behavior. Of course, this is not always the case. Sometimes history does matter. It is unlikely to see a sick person exercise even if he or she has time off from work.

6. Finally, a causal model includes information about sources of randomness. Because so many causal links are present in the causal system, when predicting or judging causality, we often must ignore or discount some of the potential causes in our calculations for the sake of simplicity. For example, diet and exercise are causally linked to weight loss, but so too may be a prolonged shortage of food. Likewise, when a cause fails to lead to an anticipated event or outcome, we often attribute the reason to sources of randomness. For example, if diet and exercise fail to lead to weight loss, we attribute the failure to extraneous variables that were not considered in the original causal calculation—perhaps a personal trainer’s ineptitude or a prolonged period of bad weather that prevented regular exercise.

FORMING CAUSAL MODELS

Some of the earliest psychological models of causation and the manner in which humans detect causation were based on covariation of causes and events.\(^{17}\) Kelley’s model of causal attribution proposed that we seek 3 sources of information in order to determine causal relationships. We pay attention to covariation and ask, “Does event B always follow A? Or are there other stimuli similar to A which also lead to B or different from A which do not lead to B?” For example, does weight loss always occur when you exercise? Are there other forms of reducing calories that also lead to weight loss? Dieting may be similar to exercise to this end, and thus may also lead to the desired outcome of weight loss. This is distinctiveness information. We also pay attention to consistency information. Does event A always lead to B? Does exercise always lead to weight loss? Or are there cases in which it might not? Finally, we look for consensus information. Do others agree that A leads to B? Is exercise a commonly recognized mechanism by which to lose weight?

Hagmayer and Waldmann\(^{19}\) propose that temporal intervals are important in detecting causal relationships. Basically, we make causal assumptions on the basis of how long we anticipate it will take for a cause to lead to an event. If we expect that exercise will lead to weight loss in 1 week, we might fail to identify a causal relationship between exercise and weight loss if after 1 week we have lost only 1 lb. If we expect that exercise will lead to weight loss in 3 months, we might identify a causal relationship if after 3 months we have lost 10 lb. While contingencies about the covariation of events are one major source of information by which we determine causality, temporal assumptions may serve as another source of information. Temporal associations can structure sequences of events into pairs of related and unrelated events. They can help us to identify potential antecedents of an event on the basis of temporal proximity.

Oppenheimer\(^{20}\) suggests that another source for judging causality is familiarity judgments. Oppenheimer bases his theory on a concept know as the “availability heuristic,” which states that we determine how “common” an event is by how easily something comes to mind. The easier it is for us to retrieve information about an event, the more frequent we assume the event is and the more likely we are to retrieve information about that event when making causal judgments. For example, if we weigh ourselves after 3 weeks of rigorous exercise and occasional dieting and find that we have lost 6 lb, we are more likely to attribute the cause of the weight loss to exercise than to diet because exercise occurred more frequently than diet over the past 3 weeks and is more readily accessible from memory when we attempt to identify the causes of the weight loss.

Familiarity may also come from the visibility of an event. For example, if we have the goal of losing weight, we first seek to identify potential causes
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that will lead the desired effect. The media is flooded with sources of information about weight loss. Commercials offer “quick fix” solutions to weight loss, such as taking various forms of herbal or medical supplements. The media shows us celebrities and high-profile individuals who utilize plastic surgery to maintain ideal bodies. When we seek to identify potential causes of weight loss, these highly visible events (e.g., diet pills, plastic surgery) are more likely to be identified than less visible events. Oppenheimer suggests that even though there are usually multiple causes that can lead to a given outcome, we prefer single causes to multiple causes. Sources of familiarity allow us to narrow down the causal field.

Psychological theories of perception and information processing also offer clues to how we identify causal relationships, and can have an impact on all of the processes discussed above. The manner in which we understand our world is inherently tied to similar knowledge already stored in memory from previous experiences. These categories of knowledge are known as schemata. A schema is any mental organization of information, and we can possess an infinite number of them. Schemata are like files in a file cabinet. When we attempt to identify the cause of a given event, we refer to one of our mental files that we judge will provide relevant and useful information about similar situations that will give us clues to potential causes for the present event. We rely on the causal systems stored in that file to predict what outcomes we might expect from given causes.

Thus, each individual may differ in which mental file is used for the same process. Several factors can impact our selection. Psychological literature has consistently identified mood and affect as directing the manner in which we perceive the world (e.g., the mental schema we choose to understand the world). Psychological research has shown that conditions such as depression or anxiety and general affect (e.g., optimist, pessimist, pleasant, unpleasant) cause individuals to perceive the same event in different ways. This is because conditions such as depression and anxiety are associated with typical patterns of thought, the typical use of certain mental schemata. If a depressed individual is successful in completing an exercise program for a week, he or she is less likely to view it as a success or meaning anything for his or her future success. Nondepressed individuals would perceive the same event in the opposite manner.

A related concept from psychology relevant to causal models is locus of control. Rotter proposed that one key difference among people that affects perception of and reasoning about causal relationships is locus of control. Locus of control refers to what types of potential causes are identified in causal reasoning. We could look to events outside ourselves and our agency for the cause of a given effect, or we could look to internal psychological events (thoughts, feelings) and our own behavior for the potential cause. Individuals make either external attributions of causality (external locus of control) or internal attributions of causality (internal locus of control). As discussed above, Rotter also agreed that mood and affect are closely related to types of causal attributions we make in a given situation. For example, depressed individuals are more likely than nondepressed individuals to attribute success externally (e.g., to luck or chance). When weight loss occurs, there are several possible causes: exercise, diet, fluctuations in metabolism, good weather, etc. A depressed individual will identify external causal attributions (fluctuations in metabolism, good weather), whereas a nondepressed individual will identify internal causal attributions (diet, exercise).

Thus, the manner in which we process information and the schema used to understand our experiences are a significant part of forming and revising of our understanding of causal systems. It affects our judgments of whether a causal explanation represents a plausible account of the facts, our consideration of what other causal explanations are available, and our consideration of how current events relate to others in the causal system.

SESSION GUIDELINES

On the basis of current theoretical understanding of the manner in which people make causal
attributions, we have developed several steps that clinicians can take to help the client articulate and test their causal model. We present these steps as questions that the clinician should ask the client. These queries focus on provoking thought on the part of the individual in regard to the causes of success or setbacks in attempts to maintain his or her resolution. Depending on the range of responses a client may provide, the queries do not necessarily need to be always used as prescribed; they are provided as a general framework for directing the interview with the client. We present these queries in the context of exploring client’s causal model of exercise.

1. Define the target behavior:
   a. What is your resolution?
   b. What do you consider to be a day in which you have successfully exercised?
   c. How would you know that you have reached your exercise goals on any particular day?

2. Establish variation in target behavior using specific examples:
   a. Do you always succeed in keeping up with your exercise resolution?
   b. Give me an example of an occasion when you did not exercise as planned. What happened, what preceded it, what followed, where you were, who was with you, and when it was? Give as much detail as you can.
   c. When was the last time you did not keep to your resolution and why not?

3. Generate a list of possible causes:
   a. Tell me an event that helps you exercise.
   b. Tell me a situation that keeps you from exercising.
   c. Describe a constraint that prevents you from exercising.
   d. List for me possible causes of exercise—in each case make sure to explain to me how the cause leads to exercise.
   e. What are some of the reasons you have had for not being motivated enough to exercise?

4. Test that causes specify a mechanism leading to the target event:
   a. Sort the causes you have listed, and tell me which one more clearly specifies a link or a mechanism between the cause and exercise.
   b. Explain why the cause you have specified would lead to exercise or restrain you from engaging in exercise.
   c. Divide the causes you have into necessary and sufficient reasons for exercise.
   d. List a sequence of events (at least 2–3 events) that starts from the cause and leads to more exercise.

5. Check that causes precede the effect:
   a. Exclude from the list of causes any event that occurs after or during exercise.
   b. Is the event being considered the cause of exercise or a symptom associated with people who do not exercise?

6. Check that causes covary with the effect:
   a. Exclude from the list of causes any event that always occurs or never occurs despite the fact that you occasionally exercise.
   b. How would you know the strength of the link between the cause and exercise?
   c. What would you have to observe before you would no longer consider the event as a cause of your exercise?
   d. Excludes from the list of causes any event that is not strongly associated with exercise.
   e. Are there any exceptions when the cause does not affect exercise patterns?
   f. How do you know this is the true cause?

7. Check for independence:
   a. Exclude any event that is not related to exercise.
   b. Excluding your current list of causes of exercise, is there something else that would increase or reduce the probability of exercise but not affect any of the events you have listed as causes of exercise?
   c. How often do you exercise? How often do you exercise given that a particular cause has occurred? Is there a significant increase associated with the presence of the cause?
   d. Review the causes you have listed and identify those causes for which the history of what has led to them is irrelevant in
estimating the affect they have on exercise.

8. Check for counterfactual dependence:
   a. Would you exercise, if none of the causes you have listed were present?
   b. Think of the last time when a particular cause was present and you did exercise. Would you have exercised anyway even if the cause was not present?
   c. Think of an ideal world where exercise is easy to do, common, and fun. If none of the causes you have listed has occurred, can such an ideal world exist?
   d. What is necessary for exercise? Does this list include items not mentioned as possible causes of exercise?
   e. If the cause had not happened, would you have exercised?

9. Summarize findings:
   a. Provide a list of causes and constraints that meet the definition of causal models.
   b. Provide a plan for checking the evidence against or for each one of the causes.

INCREASING ADHERENCE TO AN EXERCISE REGIMEN: A CASE EXAMPLE

The following provides an example of how these queries can be used with a client.

1. Define the target behavior:
   a. What do you consider to be a day in which you have successfully exercised?

      Two things. First, I either have to spend time at my gym or I have to do at least a half hour walk or two miles. Second, I have to break a sweat.

   b. How would you know that you have reached your exercise goals on any particular day?

      Either I went to the gym or I walked half an hour or two miles and whichever I did, I broke a sweat.

      [Our comment: This is a well-specified set of markers for when we can know “if exercise” has occurred.]

2. Establish variation in target behavior:
   a. Do you always succeed in keeping up with your exercise resolution?

      [Chuckles] Definitely not.

   b. Give me an example of an occasion when you did not exercise as planned. What happened, what preceded it, what followed? Where were you, who were you with? When was it? Give as much detail as you can.

      The most common scenario is if I end up working late. I will have planned to hit the gym after work, but if I get out late, I lose my motivation. I’m more tired from having to work late and there’s less of the evening left then to be taken up with time at the gym. I’d say it happens at least three or four times a month, usually whenever we are either starting or finishing a new project, because that’s when I get busy and have to stay late.

3. Generate a list of possible causes:
   a. Tell me an event that helps you exercise.

      Getting out of work early.

   b. Tell me a situation that keeps you from exercising.

      Getting out of work late.

      [Our comments: Occasionally list the absence of a cause as a constraint. Sometimes clients list entirely new ideas. It may have helped probe further to see what other constraints might be operating on this client’s behavior.]

   c. Describe a constraint that prevents you from exercising.

      Getting out of work late . . . so I guess having extra work to do, ultimately.
Figure 1. Causes articulated by the client.

And also being tired, because I have less energy at the end of the day if I’ve worked late.

d. List for me possible causes of exercise—in each case make sure to explain to me how the cause leads to exercise.

Either I already feel good about my weight, energy level and/or the way I look or it’s that I feel really unhealthy and like I’ve been really lazy and its like, “You have to get to the gym.” So either way it’s a motivator for me. Because I feel good about my body I want to keep it up so that makes me go to the gym or go for a walk or because I feel so bad about my body I want to exercise so I can get back to feeling good about it.

[Our comments: It would have helped if the therapist had investigated what leads to these feelings. We want to find an external event that causes the feelings that cause exercise.]

e. What are some of the reasons you have had for not exercising every day?

Working late, too tired, or I have social plans that prevent me from exercising because I’m using that time for other things. Like if I am going to see a play at night, I’m not going to have time to work out and still make it to that on time.

[Our comment: “Feeling good about my body” needs to be articulated more (Fig 1.)]

4. Test that causes specify a mechanism leading to the target event:

a. Sort the causes you have listed and tell me which one represents the strongest factor leading to exercise.

Feeling bad about my health and my body . . . that’s difficult though, because if I get to feeling really bad then I get depressed and I don’t want to work out because I’m thinking like, “Whatever I do isn’t going to do me any good anyway, so why bother?”

[Our comment: It would have been more useful to investigate in more detail what is meant by depression and what triggers the depression (Fig 2.).]

5. Check that causes precede the effect:

a. Exclude from the list of causes any event that occurs during or after exercise.

Nope. They all happen before I would exercise.

[Our comment: Later responses indicate that the client might see exercise reducing depression, though the conversation seems to go back on forth on this issue.]

6. Check that causes covary with the effect:

a. Exclude from the list of causes any event that always occurs or never occurs despite the fact that you occasionally exercise.
Well, I always have an opinion about my health or my body ... I'm either feeling more of less good about it, but it definitely affects my exercise schedule no matter what. It's either motivating me to exercise or killing my motivation.

[Our comment: The focus seems to have gone back to motivation as opposed to events that lead to staying motivated.]

b. How do you tell how much impact a cause has or how strongly associated a cause is with exercise?

Because if I don't meet my goal of exercising on a given day, that day is most likely one where I feel bad about myself and depressed. And when I do meet my goal of exercising then most likely I feel good or feel a little bad but not to the point I'm depressed. Certain things push it one way or the other like how depressed I feel that day and also time constraints; what my schedule is like and how busy I am. So as long as I'm not too depressed and I have the time, I'll be like, “Why not? Might as well go to the gym.” But if my schedule is busy and I'm feeling blah then I'm like, “Forget it.”

c. What would you have to observe before you will no longer consider the event as a cause of your exercise?

My mood would have absolutely no effect on my decision-making process when it came to going to the gym.

[Our comment: It is important for therapist to continue this line of talk to reach to specific concrete events that could be used as markers.]

d. Excludes from the list of causes any event that is not strongly associated with exercise.

If any of them, it would be being tired. That's the one I find not too difficult to overcome as long as there aren't other things also getting in the way like feeling depressed or not having time in my schedule because of work or social events.

e. Are there any exceptions when the cause does not affect exercise patterns?

There are some days I really don't want to exercise, but I make myself do it, usually because like I said before I either feel good about myself and want to keep it going or I feel really disgusted with myself and have to reverse it. I mostly try not to focus on the fact that I have to go exercise, because if I don't think about it and go through the motions that's the best way to get me to exercise.

[Our comment: The clinician needs to investigate further what brings about these feelings.]
f. How do you know this is the true cause?

Like I said, there may be things that increase or decrease my chances of exercising on a given day, like something coming up at work and staying late or being tired, but it most often boils down to my body image on a given day. That’s what’s really at the root of it. The other things just kind of add on top of that in terms of getting me to go to the gym or just not feeling like exercising on that day.

7. Check for independence:
   a. Exclude any event that is not related to exercise.

   [All of the client’s identified causes seem related to exercise, so this question was not asked from the client.]

b. Excluding your current list of causes of exercise, is there something else that would affect the probability that you would exercise but that would not affect any of the events you have listed as causes of exercise?

   Two things. Either having a person go to exercise with me or if I was responsible to report to somebody about my exercise routine. For example, about a year ago I participated in a weight loss study at one of the local universities and I had to adhere to both a diet and exercise regimen and I had to record everything so it helped to keep me on track. But, like, I could record what I eat and when I work out and all, but if it’s just me that’s going to be seeing it, it doesn’t work. But if I know someone else is going to be seeing it, then I’m going to do it because I don’t want to look bad in front of them.

   [Our comment: Causes leading to “Expectation of others” added in (Fig 3).]

c. How often do you exercise? How often do you exercise given that a particular cause has occurred? Is there a significant increase associated with the presence of the cause?

   My goal is to exercise at least three times a week. It’s probably pretty rare that I can’t make it at least two times in a week, and a lot of times I can do four times a week. My body image always is connected to whether or not I exercise, you can’t rule it out.

8. Check for counterfactual dependence:
   a. Would you exercise, if none of the causes you have listed were present?

   Maybe the only exception would be if I had nothing else to do that day.
it would be like, “Well, you might as well go to the gym, why not? You don’t have anything else going on or any reason not to.” But the thing is that there’s also days when I have nothing to do and I don’t want to do anything including exercising because I don’t have to do anything that day and sometimes its nice just to know there’s nothing you have to do.

b. Think of an ideal world where exercise is easy to do, common, and fun. If none of the causes you have listed has occurred, can such an ideal world exist?

[Chuckles] That’d be great but if it were the case then that would probably mean that I would have had a lobotomy. Like I said, my opinion of my health and weight always plays into my motivation for exercise.

c. What is absolutely necessary for exercise? Does this list include items not already mentioned as possible causes of exercise?

I can’t think of anything. Well, I guess workout clothes. I’m not going to exercise in blue jeans or in my skirt and heels that I wore to work all day. I’m certainly not going to exercise naked. But I solve that by leaving a gym bag in my car so I always have a back up.

[Our comment: Addition of gym bag as a cause (Fig 4).]

d. If the cause had not happened, would you have exercised?

If I didn’t have my feelings about my health and weight, there wouldn’t be any motivation to exercise, so no. If I’m not to the point of feeling so bad about myself that I get depressed, then definitely yes, I have the motivation to exercise.

9. Summarize findings:

a. Provide a list of causes and constraints that meet the criteria for legitimate causes.

Therapist: [The therapist presents the drawn Fig 4 and comments.] So, what we have learned is that getting depressed is an important cause of your exercise. We’ve also learned that if you are too tired or have other constraints in your schedule such as extra work or social events, you most likely would not exercise despite your feelings about your health and weight. You developed a plan to ensure you always have the necessities for exercise in that you keep a gym bag in your car.

b. Provide a plan for checking the evidence for or against any newly identified causes.
This does not apply to the client at this time.

c. Identify strategies for overcoming causes of not exercising.

Therapist: Are there ways that you can think of that might help you overcome some of these obstacles we’ve discussed, such as being tired or working late or having social events?

Client: Well, one thing is that I can usually anticipate the weeks when I will have to work late one or two days or I’ll know if I have a social event planned for one night that week. If I know that then I try to plan my workout schedule around that. Like for example, I’ll be sure to go to the gym on both weekend days instead of just one like I normally do because that ensures that I make up for a day I might miss in advance. I also try to get to bed by a certain hour, but occasionally that just doesn’t happen and I think I have to just deal with that. But, maybe I could try to find an exercise partner on a day when I’m feeling tired to help me get to the gym anyway.

d. Develop a plan to test newly identified causes of exercise.

Therapist: How might you go about implementing your plan to determine if it increases your success at exercising?

Client: I guess one time I’m tired this week, call up a friend and see if I actually go to the gym. I already know that planning ahead helps on busy weeks because I’ve had busy weeks where I don’t think about when I’m going to exercise ahead of time and then it doesn’t happen.

Therapist: Ok, so your plan will be to call a friend to go to the gym on days when you are tired. Note what happens on these days. Do you succeed in going to the gym? If not, we’ll talk about what other strategies might help you achieve your goal of exercising.

[Our comment: It is important to start somewhere, anywhere in the causal links specified and try to engage the client in cycles of self-experimentation and revision of the causal model.]

DISCUSSION AND CONCLUSIONS

In this article we have attempted to lay out one method for how clinical psychologists can help clients change their behavior to adhere to an exercise regimen through solution-focused therapy. In this approach, the causal model for exercise that the client holds is compared with evidence at hand. If the evidence is not sufficient, the client is encouraged to conduct self-experiments to verify the accuracy of the causal links.

In this article, we have presented key issues that need to be discussed in counseling clients about their causal models of their behavior. We have described one in many sessions that are needed. Obviously, the constant revision and improvement of the causal schema is one way to help the client arrive at self-insight. Additional work is needed to describe the entire course of the treatment, including how client’s misperceptions are corrected over time, how client’s effort is maintained, and what the clinician’s role is when the client is in denial.

Most research to date has paired cognitive behavioral therapy or behavior modification techniques with exercise regimens in order to increase adherence to a diet and exercise regimen. These methods have proven to be successful, and research has concluded that an interdisciplinary approach to weight loss is most useful in assisting clients to exercise and ultimately lose weight. Various studies have highlighted the ways in which cognitive behavioral and behavioral modification techniques assist clients in
adhering to an exercise regimen, including increasing self-efficacy for exercise and reducing perceptions of barriers to exercise,\(^{27}\) increasing the frequency of exercise,\(^{28}\) and increasing adherence to an exercise program when compared with clients who do not receive adjunctive dietary assistance in maintaining an exercise program.\(^{26}\)

The solution-focused method presented in this article has not been empirically validated, nor is there any existing research (to the best knowledge of the authors) that validates the use of solution-focused techniques for exercise and weight loss. Thus, more research is needed to determine whether solution-focused methods, in general, and causal counseling, in particular, will also assist clients to exercise more. In particular, research is needed on the impact of the proposed method on relapse to poor habits. The main hypothesis of causal counseling is that change, when it occurs, will be a more lasting change. Researchers should investigate this claim.

REFERENCES


