Research

Using Positive Motivation Techniques to Help People Gain Control of Eating Behaviors: A Clinical Review on Building Confidence and Routines for a Sustainable Body Transformation

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Abstract

Despite determined prevention efforts and an increase in our knowledge about how to build successful health behavior change skills, the increased incidence and prevalence of obesity has continued. The traditional approach of modifying diet and increasing exercise is often not holistic enough for many to sustain new diet/exercise behaviors when external motivators are removed. The key to long term actions and behavioral maintenance starts in patients' perceptions about their own ability to change and existing decision making skills. These perceptions and skills can be largely influenced by the clinician. Often clinicians can make the mistake of thinking that people already have the mental skills and thought processes to stick

with new behaviors, but in reality without actively working towards developing specific mental skills and a hardy mindset, change will be difficult to maintain. This review focuses on how to help patients or clients develop the mental skills for lasting health behavior change through understanding their choices and by providing guidelines on how to build self-efficacy toward behavior changes. Building routines, positive self-talk, affirmations, and expression of empathy among clinicians are discussed along with the research on the efficacy of positive motivation techniques such as mindfulness and motivational interviewing (MI).

Introduction

In understanding obesity it is important to examine the multifaceted barriers to changing this complex condition. Perceptions and homeostatic behavioral habits often guide people towards unhealthy motivations and poor decision making. Despite determined prevention and maintenance efforts, the obesity epidemic has continued and is currently responsible for more health related expenditures than any other modifiable health condition. According to the U.S. Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey,[1] the prevalence of obese and overweight individuals has significantly increased in the past 3 decades moving from 46% between 1976-80 to 66% between 2007-2008. Risk of comorbidities such as type II diabetes, hypertension, cancers, etc. have increased with higher ratios of weight-to-height, weight-to-activity, and weight-to-body fat. Sturm reports that obese adults have 36 to 39 percent higher health care costs than people within normal weight ranges.[2] The American Society for Bariatric Surgery in 2014 estimated that 179,000 procedures were performed in 2013.[3 4]

In light of these persistent increases, it appears that the traditional wisdom of modifying diet and increasing exercise without addressing the psychological processes of behavior change and motivation is not sufficient for many to achieve a sustainable body transformation. The key to physical actions and behaviors starts in the mind, with understanding internal thought processes and choices an individual makes. How patients are trained to think about their ability to control their thoughts and choices makes a big difference in lasting motivations and drives to maintain healthy behaviors. Therefore, the purpose of this review is to provide guidelines on how to build and nurture the development of lasting confidence, mental skills and routines. It also aims to discuss how a paradigm shift in health communication is needed in order for clinicians to be more effective at helping patients take control of their eating behaviors. The dissemination of this review will also help those who serve obese patients (as well as clients for health and fitness professionals) by building empathy through developing greater understanding of the biochemical influences that contribute to obesity and the body's natural resistance to sustainable transformation.

Both eating and exercise have a significant impact on neurotransmitters (such as serotonin and dopamine), the limbic system, and hormones, all of which have profound influences on how one thinks and behaves.[5] Research on hunger and metabolic hormones such as ghrelin and leptin indicates that it is difficult for some people to choose healthy dietary patterns and lose weight.[6, 7] There is a critical need for improvements to existing obesity prevention programs and in the training of the practitioners who are implementing them. Current strategies often do not address pre-existing barriers such as low self-efficacy or an external locus of control. Fortunately, there are viable solutions, such as motivational interviewing (MI), to help patients or clients regain hope in their beliefs to control and 'stick with' their behavioral choices. MI has been shown to be highly effective in increasing the effectiveness of exercise

and diet management programs as well as building lasting holistic traits.[8] Additionally, MI helps individuals learn to enjoy the process of self-improvement verses perceiving it as one of suffering.

Motivational Enhancement therapy and self-help treatment for binge eaters

The cause and current behavioral assessment for obesity is often identified and classified into three categories: poor diet and nutrition, lack of exercise and lack of education or information.[4] These categories are not complete and contain several sub-levels. It is within these sub-levels that the confounding factors are revealed and must be accurately defined for their role in the obese and overweight. The confounding factors carry a distinctive insight to the causal nature of obesity but hold minimal significance in curbing and acknowledging the behavior. Further, these factors are believed to work through their effects on the individual's motivations and subjective perceptions rather than functioning on direct health actions.[9] In addition to other causes, behavior change must be addressed for action to occur. To some degree, the defining reason for the increase in obesity must be greater than the explanation construed as a failure to eat properly, a lack of exercise, or the availability of information about diet and exercise.

Obesity develops when energy intake exceeds energy expenditure over a long period. Despite the seeming simplicity of the energy balances equation, the factors that influence energy balance are numerous, varied, and complex. These confounding factors involve genetic, metabolic, environmental, behavioral, cultural, and socioeconomic influences.[4] Control over one's behavior includes both personal and external influences of the confounding factors. If the individual determines control based on the confounding factors then it is the perception and not necessarily "true" capabilities that influence behavior. The degree or the lack of control relates to a person's belief of their capability in performing the behavior that leads to a desired outcome. Thus, individuals with low self-efficacy about a particular task may ruminate about their personal deficiencies rather than thinking about or attending to the task at hand; this, in turn impedes successful performance of the task.[10]

The roles of ghrelin, leptin and insulin resistance in obesity

Lustig[6] provides a clear illustration of the value that can be added to obesity prevention and intervention programs by understanding the hormonal influences that contribute to obesity. His biochemical model of obesity illustrates how an obese individual's hormonal signaling may inappropriately trigger a starvation response. This causes the body to store more energy as fat and reduce energy expenditure while at the same time increasing appetite and biochemical motivations to eat (e.g., increased ghrelin production). As an example, a child may be gaining weight due to a biochemical imbalance that is causing her/him to experience hunger and sluggishness even though she/he is ingesting more calories than should be required.[7] Ghrelin is a hormone produced mainly by the lining of the stomach and by the pancreas cells that stimulate hunger.[11] Ghrelin levels increase before meals and decrease after meals; ghrelin is considered the counterpart of the hormone leptin, which is produced by fat cells and induces satiation or full feelings when present at higher levels. Ghrelin has emerged as the first circulating hunger hormone and has been shown to increase food intake and fat mass.[12] Ghrelin-responsiveness is both leptin- and insulin-sensitive. In relation to food addiction, the hormone activates the mesolimbic cholinergic-dopaminergic reward link, a circuit that communicates the hedonistic and reinforcing aspects of natural rewards, such as food, as well as of addictive drugs.[13] Understanding the strength of this addictive mechanism helps us to explain why people continue to eat despite the tremendous consequences of obesity.

Today, a Google search will net millions of results on diet and exercise programs. As of late April 2015, Amazon's website lists 118,079 books on diet and 145,229 books on exercise.[14,15] It can be theorized that there is so much information available on different diet programs that this could be contributing to people's continued ambivalence toward dietary change. This could be due, in part to: a) confusion and b) the lack of reliability/credibility of information for sustainably reducing body fat and improving body composition. Additionally, this phenomenon has allowed some qualified and many unqualified self-declared experts in the fitness and nutrition industry to take advantage of the public's confusion by offering fad diet programs based on anecdotal evidence. Often, these diets are followed and promoted on social media and are based on what has worked for that individual or a certain sub-group of people, and does not necessarily generalize well to give the best benefits to other individuals.

The age-adjusted prevalence of adult obesity was 35.7% in 2009-2010, 30.5% in 1999-2000, and 22.9% in 1988-1994.[16,17] From 1988 to 2000, the prevalence of overweight also increased from 55.9% to 64.5% and morbid obesity (BMI =40) also increased significantly in the population, from 2.9% to 4.7%.[16,17] A possible correlation exists between the increased obesity prevalence and the degree of inaccuracy of the information that exists online. The individual's efficacy expectations will vary greatly depending on the particular task and context that confronts them. A decline in self-efficacy may lower the scale of expectations of success and ultimately could diminish the significance of the intentions for weight loss. A prevailing view is that the current increase in obesity and overweight is the result of a permissive environment that has allowed greater expression of genetic predisposition.[18] The current environmental and societal trends have produced the perfect storm of availability, convenience and susceptibility. Increased portion sizes, soft drinks, fast-food, trans fats, smoking, pre-cooked food, fillers and processed foods, costs of quantity versus quality have likely all led to a greater influence of psychological want as opposed to a physiological need. Satiation is no longer predicated on physiological parameters.

In humans, diet-induced weight loss results in a decrease in plasma leptin concentration. Leptin may play an important role in regulating body weight by signaling the size of the adipose tissue mass. Plasma leptin was found to be highly correlated with body mass index (BMI) in rodents and in 87 lean and obese humans. In humans, there was variability in plasma leptin at each BMI, suggesting that there are differences in its secretion rate from fat. Weight loss due to food restriction was associated with a decrease in plasma leptin in samples from mice and obese humans.[19] The ability to control or suppress appetite must be addressed through a cognitive understanding of behavioral influences and not independently rely on the motivations or perceptions of physiological indicators.

The Theory of Planned Behavior states that individuals will try to perform a behavior if they believe that the benefits of success are outweighed by the benefits of failure.[20] Adherence to exercise programs is thereby diminished through the failure to receive results. This has been described as a cycle of failure and renewed effort as a "false hope syndrome" characterized by unrealistic expectations about the likely speed, amount, ease, and consequences of self-change attempts.[21] An attempt-and-quit cycle emerges, resulting in the breaking down of the individual's self-determinism and ultimately a shift in goals. Self-efficacy is also compromised. All too often the goal setting for weight loss, especially in obese populations, is set to unreasonable and unfeasible expectations, or the goals are not that of the client or patient but set by the clinician. When an educator or clinician has a goal that is different from that of the individual, the opportunity for successful goal attainment is attenuated.[22] The loss of the ability to self-regulate decreases based on the lack of appeal to the individual's own self-interest and goals. A well-structured exercise program is definitely a valued tool for weight loss. However, more influence should

be placed on achieving a high level of behavioral compliance compared to just an outlay of an exercise regimen. Ultimately, behavioral modification is the key to success.

Techniques to address emotional and binge eating

While much research has historically focused on eating disorders which result in low body mass (e.g., anorexia), more recent research on the high prevalence of overweight and obese has revealed the need for more comprehensive approaches to unhealthy eating habits. The American Psychiatric Association (APA) suggested that binge eating disorder (BED) be included in the DSM-V because of several reliable predictive factors such as family history and its comorbid associations with mood disorders.[23] BED is marked by recurrent episodes of binge eating and is characterized by both of the following: a) eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than most people would eat in a similar period of time under similar circumstances, and b) a sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating). Binge eating episodes are also associated with three or more of the following: 1) eating much more rapidly than normal, 2) eating until feeling uncomfortably full, 3) eating large amounts of food when not feeling physically hungry, 4) eating alone because of feeling embarrassed by how much one is eating, 5) feeling disgusted with oneself, depressed, or very guilty afterwards. Marked distress regarding binge eating is also present. Additionally, the behavior occurs, on average, at least once a week for three months.

Binge eating is not associated with the recurrent use of inappropriate compensatory behavior such as purging and does not occur exclusively during the course of anorexia, bulimia, or restrictive food intake disorder.

Treatment Options

Mindfulness has been described as an intentional, nonjudgmental awareness of one's present-moment thoughts, feelings, sensations, and perceptions as they occur and fade away in an ongoing stream, without being swept away in preconceived expectations.[24-26]
Research evaluating mindfulness-based therapy has begun to proliferate in the health literature[27] and has demonstrated effectiveness in treating a variety of health concerns including addictive disorders.[28] Several mindfulness-based therapies are commonly found in clinical and counseling psychology literature. Among these are dialectical behavior therapy[29] (DBT), acceptance and commitment therapy[30] (ACT), mindfulness-based eating awareness training[31] (MB-EAT), and mindfulness-based cognitive therapy[32] (MBCT). Researchers have found MBCT and MB-EAT to be effective in the treatment of eating disorders.[25, 31] MBCT and MB-EAT programs frequently consist of 8-10 sessions. The initial sessions serve to introduce the basic tenets of mindfulness, while subsequent sessions help participants address the thoughts (and feelings) associated with food and eating through *mindful eating*. Binge triggers, hunger cues, and taste and stomach satiety are identified. Participants, then, learn how to use mindful eating to reduce the frequency and severity of unhealthy eating episodes.

The presence and influence of health and wellness coaches in many environments, makes them well-positioned to identify patterns or evidence of disordered eating. Furthermore, MBCT and MB-EAT interventions may be enhanced and reinforced on a more regular basis, by including those close to the individual in the training. Clinicians should be made aware that mindfulness-based interventions can serve much broader purposes beyond performance enhancement[33] and should at least consider

familiarizing themselves with these existing evidence-based modalities (e.g., MBCT, MB-EAT).

A variety of treatment options have been associated with positive outcomes regarding emotional and binge eating. Mental health interventions that increase emotional awareness are highly beneficial for emotional eaters, and because binge eating disorder and other addictive behaviors possess a number of overlapping symptoms, treatments that are successful in treating addictive behaviors are also typically considered beneficial in reducing binge eating episodes. [34, 35] Other assumptions for treating emotional and binge eating disorders include (a) education alone will not be sufficient; (b) goal orientation and coaching to better manage emotions and resist overeating temptations may positively impact behaviors; (c) engaging in stress management techniques (like meditation or relaxation) may help clients' regulate emotions; and (d) positive parenting skills/behaviors may help to model positive behavior for children, as explained by the social learning theory.[36]

Cognitive-behavioral therapy (CBT) is still considered the treatment of choice for binge eating and is successful in reducing binging eating behaviors and improving confidence in behavioral control.[37] CBT in self-help programs and group settings provide positive outcomes, not only for BED, but also in treating depressive disorders, maladaptive body image, and social self-esteem by addressing negative self-beliefs and teaching effective coping strategies.[37-39]

More recent advances in the treatment of eating disorders use the behavioral theory practice of motivational interviewing (MI), a patient-centered directive method for enhancing intrinsic motivation for change.[35, 37] MI is effective in treating substance use, diet, exercise, and other lifestyle behaviors including eating disorders, and is as effective as CBT in reducing the frequency of binge eating.[35, 37] MI encourages reflection on the behavior and resolution of ambivalence towards changing the behavior Moreover, MI introduces/considers the idea of change, and may increase self-esteem, self-efficacy, and motivation for change, while decreasing depressive symptoms.[35]

The four principles of motivational interviewing

In motivational interviewing, clinicians should consider themselves as navigators and the patient as the captain. It is the individual's ship and his or her ultimate responsibility to steer it around and through the barriers. Most people prefer to feel in control of their lives, and resolving to change promotes such feelings.[21] Change is not an aptitude to be learned but rather discovered. The ambivalence and decisional balance of the patient must be acknowledged and adequately resolved so that the propensity to change may be established within the individual.

The four principles of MI are to express empathy, roll with the resistance, support self-efficacy and develop discrepancy.[40] Traditional therapeutic strategies have involved a direct style of persuasion and teaching. The burden has been on the practitioner to "fix" the client's behavior. Offering advice and issuing the tools to correct a condition or behavior have not been effective in maintaining long-term adherence. The Cardiovascular Initiative and Health Education study provided some compelling evidence in the promotion of MI in a study on efficacy in cardiac patient's adherence to exercise programs. Results of the study showed that patients in the intervention group showed a significant increase in their level of activity when compared to the control group.[41] The principles of MI resolve the power of change to the client. The change of behavior is then elicited from client's motivations and inter-personal goals.

Expressing Empathy. Expressing empathy involves viewing things through the patient's or client's eyes, being non-judgmental, sharing in the client's understanding. All too often the obese and overweight are viewed from a context that they are "bad" people, lack discipline and have made the choice to be fat. Consequently, the health practitioner utilizes external motivators to push the client into or within a program for weight loss. Impact of success is once again focused on the practitioner and away from the client. When the practitioner is non-judgmental and the patient or client feels understood, the lines of communication expand allowing them to feel more confident and comfortable exploring their ambivalence. In a study of 550 outpatients from a Korean hospital, data were analyzed from a questionnaire regarding patient satisfaction and compliance. Results indicated that patient-perceived physician empathy significantly influenced patient satisfaction and compliance via the mediating factors of information exchange, perceived expertise, inter-personal trust, and partnership.[42] Self-blame may be deflected as an insignificant consequence, thus increasing the individual's self-efficacy. A readiness to accept and acknowledge change is realized.

Rolling with resistance. Resistance occurs as a result of the client feeling trapped or restricted. Patients or clients will often resist and attempt to gain affirmation of their feelings by challenging the practitioner to exert more control. This resistance should not be challenged and instead used as momentum to explore the individual's views. "A client's belief that change is possible is an important motivator to succeeding in making a change."[40] Changes can come in many forms, and it is up to the client to create his or her own possibilities and methods of action for their success.

Self-efficacy and developing discrepancy. Developing discrepancy is a very complex principle and requires careful listening. A discerning dialogue is established to highlight the client's contradictive analysis between their personal beliefs and current behavior. MI is a carefully constructed process in the spirit to develop the client's self-efficacy, self-discovery and eventually self-determination.

There are seven categories of techniques associated with the spirit of motivational interviewing. 1) Motivation to change is elicited from the client, and not imposed from without. 2) It is the client's task, not the counselor's, to articulate and resolve his or her ambivalence. 3) Direct persuasion is not an effective method for resolving ambivalence. 4) The counseling style is generally a quiet and eliciting one. 5) The counselor or clinician is directive in helping the patient or client to examine and resolve ambivalence. 6) Readiness to change is not a client trait, but a fluctuating product of interpersonal interaction.7) The therapeutic relationship is more like a partnership or companionship than expert/recipient role.[42] These techniques provide for a foundation for the client to grow and guided to make a cognitive change.

Despite recent reports to the contrary,[43] it is no longer acceptable or effective to be judgmental or to vilify the condition of obesity as solely due to irresponsibility. While the problem must be addressed at the individual level and with the individual's awareness of self-empowerment, being judgmental ignores the role of community, policy and institutional norms that are well-established components of the risk equation.[44] Self-empowerment can only be realized as the obstacles of ambivalence are eliminated. Choice then becomes a cognitive ability to create an autonomous and competent influence of intrinsic needs through extrinsic motivation. The stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the stronger their commitment is to sustain these goals.[6]

The positive psychological principles of MI can also be used by clinicians along with other therapeutic approaches and positive strategies when working with clients. Clinician behaviors may significantly

influence a client's motivation for change. Therefore, a strategic model could be integrated to help improve existing therapeutic practices. When working with clients who struggle with emotional eating (EE) or BED, clinicians can use the following MI strategies to guide treatment or counseling sessions.

First, express acceptance toward the client and maintain an empathetic manner. Also, affirm the client's freedom of choice and self-direction. Elicit both the client's concerns about the behavior as well as ideas for healthier alternative behaviors. Change talk should also be elicited from the client. Next, explore the client's ambivalence towards changing the behavior while assessing their confidence and readiness for change.[35, 37] It is also advisable to discuss the various stages of change (i.e., transtheoretical model) and assess the patient's current stage while eliciting self-motivational statements. These statements may then be reframed to amplify motivation and self-efficacy. Proceed by exploring the persons' values and encourage a written decisional balance of the pros and cons for changing the behavior. Strive to practice active listening with the client and work collaboratively on a change plan in which the client is vested. Similar treatment models for composure and coping may also be helpful in treating patients with eating pathologies.

As suggested by over 20 years of research on addictive behaviors, clinicians can help patients improve health outcomes most effectively by focusing on the individuals' perceived positive motivations and perceived ability to change behavior.[45-47] Clinicians should consider using positive research based intervention and prevention models such as Motivational Interviewing and mindfulness, rather than focusing on the negatives or using scare tactics. Clinicians can serve clients more effectively by first listening to the reasons each person chooses to overeat or binge eat in a non-judgmental and understanding way.[46] Multiple brief MI-based intervention studies have shown it is essential for clinicians to first listen to patients and to let them describe or work through their ambivalence (both the positive and negative beliefs/feelings towards the behavior) prior to offering behavior change advice.[45-46, 48] Results suggest that focusing on negative consequences or offering advice too soon (e.g., before fully working through ambivalence) increases patients resistance to change and strengthens ones' resolve to continue the negative eating behaviors. Therefore, clinicians working to help patients change addictive eating behaviors need to be proficient in positive and collaborative communication approaches.

The clinician's approach (collaborative vs. directive) and communication style (following and guiding vs. directive) has been shown to significantly impact client outcomes (both positively and negatively), with a collaborative non-threatening approach being the most effective.[45-46] After listening to and demonstrating an understanding of the clients' perceived reasons for eating behaviors, work collaboratively with him/her to help them create personalized health behavior change plans. These plans could include an assessment of resiliency to stress, sleep habits, eating habits,[35] physical activity, and emotional coping strategies. Again, it is advisable to discuss the various stages of change (i.e., transtheoretical model) and to assess the clients' current readiness to change. While doing so, elicit positive self-efficacy statements (often presented by the student during the decisional-balance process; e.g., pros vs. cons) about their perceived ability to change.

Once the client's readiness and commitment levels have been established, then proceed (if he/she is ready, willing, and able) by exploring his/her goals and values. In this process, use positive communication techniques to develop a discrepancy between their present behaviors and broader future goals.[49] If his/her perceived ability to change is not ready, willing, or able, it is best to not push the issue for change at that time. The persons' levels of readiness and commitment should be used by the clinician to help the patient establish the degree of difficulty to his/her change plans. To help solidify

clients' positive reasons for change, encourage him/her to complete a written decisional-balance worksheet of the pros and cons for change including both reasons for change and reasons not to change.[35] Strive to practice active listening and work collaboratively with patients to help them develop autonomous change plans.

Developing Mental Skills

Building positive self-talk and affirmations

The most important and influential thoughts for a client's success and development come from inside of their own mind in the form of self-talk. Regardless of what others say, what truly happens, or what results clients achieve, what clients perceive/believe is happening is their reality. Unfortunately, for most people that reality is negative, since many have learned or been taught to focus on mistakes and what is wrong. This self-criticism occurs through our own self-talk. Often, we hope that it will motivate us to improve or make changes. It doesn't work that way. Talking to oneself in negative terms and criticizing yourself will generally not improve and can often undermine positive outcomes. Negative self-talk affirms failure. Most self-imposed limitations are mental, not physical, and they usually are spoken in our clients own voice. Success is not about avoiding failure, it is about repeating success! This means that we need to teach clients to be their own best supporter and to be the evaluator of their own success. To keep them focused on successful results they have had and want to have in the future is very important. If clients change how they think (through positive self-talk and affirmations) about their own skills and abilities to achieve what they want, focus on what is working, and what they can do to continue to improve, they can see remarkable changes in their confidence and success. Positive self-talk and confident thinking will open up the possibilities for success by replacing the negative thinking that has kept them focused on their limitations and past failures.

Self-talk should include strong self-statements called affirmations. Some examples are "I am strong," "I can do this," or "I will succeed." Affirmations are also encouraging reminders about what one has done in the past or will do. Teaching clients the skill of using affirmations is very powerful to help them continue on the road to successful behavior change. Some examples of affirmations are, "I have worked hard;" "I have done this before and will do it again;" or, "I am prepared." As cliché as it may sound, a client's confidence is dependent on learning to believe in themselves. These examples are of how the patient can think, or are forms of self-talk. A clinician may assist a client with developing affirmations through a statement such as (clinician speaking to the client):

> *Remember, these are just thoughts. This is not bragging. Nobody else needs to know what you are thinking. Positive affirmations are believing in yourself and your ability. Using them will give you the best chances to succeed in a difficult situation.*

The role of the clinician is to instruct and encourage clients to write down their personal, positive affirmations. Health coaches are urged to model examples to their client and it is best if they are part of this process. This will increase the likelihood that clients will identify with their own affirmations and actually practice using them until they become a habit. Once a client has created his or her own list of affirmations, they should be encouraged to read the list to themselves several times daily. Encourage the client to read the list out loud when alone so that they can actually hear what they are saying in their own voice. This will help ingrain the affirmations and make them a real part of the client's repertoire of thoughts for challenging and difficult situations. As simple as it sounds, using positive self-

talk and affirmations is a skill and it must be taught for most people to be able to use it effectively in behavior change.

Building routines

The foundation for long term health behavior change is preparation, both physically and mentally. Being mentally prepared and ready to intervene with ones' inner thoughts through self-talk and affirmations at any time throughout the day, is important to managing health behavior changes. When one trying to change leaves eating behavioral patterns to chance, the will be setting themselves up for failure. These routines include daily eating routines and routines for special or surprise circumstances. It is important to re-iterate that each person will have to experiment to establish routines that work best for them and prepare them to achieve their desired goals.

Typically, a routine should include a combination of the mental skills of positive self-talk, positive affirmations about oneself, relaxation techniques, and positive visualization. The routine should also end with some type of positive personalized permission trigger. A permission trigger is a word, phrase, or action that tells his/her mind and body to trust his/her training, experience, and preparation. The idea is to learn to trust oneself and to have confidence in our ability to succeed at something we perceive as being difficult.

Routines can be developed for pre-meal situations. This could be just before eating, 20 minutes before, or even an hour before. It is best to not wait until already hungry whenever possible, but plans should certainly be well established and in place to effectively deal with the scenario of understanding and positively overcoming hunger.

An example pre-meal routine could be as follows: 1) controlled breathing coupled with progressive relaxation for 1-2 minutes; 2) positive visualization with successful outcomes; 3) identification of two possible obstacles and how these will be overcome successfully; 4) strong positive self-talk and affirmations about what you want to do and about your ability to control your eating behavior; 5) repeating a personalized strong positive affirmation such as "I am strong and in complete control." Many other techniques can be used, but the most important factor to success is that the routine is personalized and is developed directly by the client. You can oversee this process and give feedback, but ultimately it needs to come from the client to effectively build their self-esteem and perceived efficacy about their ability to control their own eating behaviors under difficult personal circumstances that most likely will be experienced by them when making this behavioral change.

As the clinician, one should have clients decide what will work best mentally for them and practice it. The client will know when these difficult scenarios begin, whether or not they are mentally ready. Therefore, a clinician can have clients journal and evaluate their pre-meal routines and results. Often times, even in failure, journaling can help the client internalize their thoughts/choices and strength their commitments/resolve to change or make adjustments to succeed on their next attempt.

A skill-specific routine is used when the client needs a quick mental change in focus or confidence in their abilities. Almost every person has a situation that is different from most other aspects of their normal eating routines. Skill specific routines are short and focused specifically on the quick mental shift that is needed by the client. This could be done just before eating or when faced with cravings for a specific food and may only last for a few seconds. These routines should be precise and may include one

mental skill, a couple mental skills or even just a trigger word. The key to routines is to practice them, evaluate them, refine them, and to always use them. **Figure 1** is an example of a worksheet that practitioners can share with clients in an effort to assist with developing routines. The worksheet is designed to be read by clients; therefore, "you" statements are included throughout.

Figure 1: A Client Worksheet on Skill-Specific Routines

Here are some tips for you to design and consistently use a skill-specific routine.

1. Routines are the foundation for mental toughness and resilient thought processes. By using them, you are ready to overcome obstacles and difficult situations regardless of what is happening around you.

2. As you personalize your routines, combine the mental skills and add some variations. Do what will get you the best results.

3. Your pre-meal routine should address your biggest concerns. This will lower anxiety and increase your confidence. For example, if overcoming a craving is the problem, using established relaxation techniques and strong positive self-talk and affirmations may be the best use of time in your routine.

4. Routines can be used whenever you need them. You may want an eating routine for each meal, snack times, before bed, and anytime that you specifically struggle with food cravings.

5. Experiment with the length of time for each mental skill as well as completion of the total routine. A routine can last for a few seconds (right before eating) up to 30 minutes before eating. If hungry, waiting more than 20 minutes will typically help shut down the ghrelin and leptin induced hunger pains so simply understanding that process will be very helpful. Studying effective diet behavior techniques such as intermittent fasting can be very helpful for clients learning how their body signals and responds to food triggers. Often, clients will learn that if they can just break through the initially 10-20 minutes of craving, that their hunger is significantly reduced.

6. Write your routines down. Evaluate the effectiveness of your routines and modify them as needed. Once you have a routine that works, use it all the time.

7. Practice your routines before they are necessary to regain control over difficult situations. At first, they will require connecting preparation (routines) to results and making changes. Remember, the more you practice your routines, the more routine they will be!

8. Add a symbolic action or saying to your routines. This could be saying a personalized strong positive creed/motto, touching an object, or saying something positive to someone else.

9. Regardless of what other people do, have routines that work for you. You are responsible for your own behaviors (eating, exercise, sleep, coping with stress), no one else. Tell yourself often that you are in control. This means that you are also responsible for your own physical and mental preparation, no one else.

10. Your preparation for managing your eating behaviors and mastering mental skills (positive self-talk, affirmations, visualization, relaxation) will determine your success. Take control and responsibility of your preparation and you will greatly increase your odds of achieving your personal goals and consistent results.

Remember…

You can only reach your potential by your choices. No one can lead you to your potential or achieve it for you. Don't blame others, regardless of who they are, for your eating behaviors. Since blame keeps you from taking responsibility, it also keeps you from your potential by distracting you from making successful adjustments.

Use all of the resources available to you. Talk to others who are more skilled or more experienced for support and advice. Use coaches as resources. They have the knowledge and experience. Get over focusing on how they feel about you or what they think of you. Use them for information and feedback. Learn to ignore their personalities. Confidence comes from competence. When you improve your physical conditioning and mental skills, your confidence will increase.

Be your own best supporter. Don't wait for others to affirm your progress. The most successful people learn to evaluate their own performances, determine what will increase their success, and then do it. When you slip up or are not improving, relax, visualize, focus, and use positive self-talk and affirmations.

Keep your mind on what you want and what you CAN DO, and your progress will begin again. Enjoy the challenges and pride of success. Getting results and mastering self-control is fun. Keep your focus on the process and you will get good results over and over again.

Conclusions

Both eating and exercise have significant impacts on neurotransmitters, the limbic system (i.e., addiction center of the brain), and hormones that have profound influences on how one thinks and behaves. Research on hunger and metabolism hormones such as ghrelin and leptin do indicate that it is more difficult for some to choose to eat 'right' and lose weight. Fortunately however, there is an existing efficacious long-term solution to help clients regain hope in their perceived ability to 'stick with' behavioral modifications and to enjoy the process of change verses the perception that they are hopelessly destined to be obese. With a moderate initial investment to learning the holistic behavior change techniques such as mindfulness and MI and an open mind to improving our pre-existing communication and motivational techniques, clinicians can help patients struggling with obesity to regain hope and self-esteem.

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