

**VALUE BASED LIVING: ENCOURAGING HEALTHY BEHAVIOUR CHANGE IN  
OVERWEIGHT AND OBESE ADULTS**

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## **Abstract**

Obesity has reached epidemic status in Canada and many Westernized countries, as well as having impacts in third world countries for the first time in history. Adults who carry excess weight are at increased risk for a variety of physical and mental health risks. Interventions that target prevention of further weight gain have become increasingly popular, yet many participants do not learn skills to manage their weight and healthy lifestyle long term. As a result, individuals in weight management programs often lose motivation or fail to see the results they desire, which leads to high attrition rates and weight re-gain post program. This project will explore the impact of Acceptance and Commitment Therapy (ACT) with a special focus on Mindfulness Techniques. The project will also develop an 8-week program manual that can be used as a presentation tool in assisting willing individuals to take control over their health and learn to make positive choices based on their values and core beliefs.

*Keywords:* obesity, weight loss, weight gain, adult obesity, weight management, bariatric, ACT, Acceptance and Commitment Therapy, mindfulness, self-efficacy, physical activity, health behaviours

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## Chapter 1: Introduction

Treatment options for adults with obesity often result in high attrition rates, or participants regaining most, if not all weight back (Forman et al., 2009; Wing & Hill, 2001; Berman, Morton, & Hegel, 2015). Many commercial approaches suggest that individuals severely restrict calories, cut out entire food groups, or take a myriad of pills and concoctions to encourage weight loss. For some individuals, the aforementioned approaches work. However, many individuals, particularly those who have had lifelong struggle with obesity, do not see desirable long-term results in many commercial weight loss programs. Innovative approaches need to be developed in order to help individuals make positive changes to their health behaviours.

Obesity is an extremely complex issue that is severely lacking in the field of research. The negative impacts of obesity are becoming well researched and shared in the medical profession as well as media (Bombak, 2014). As a result, the evolving discourse often oversimplifies the etiology of obesity and being overweight. Adults who are overweight or obese are often stigmatized by the assumption that they suffer because they do not have control over their food consumption and lead sedentary lives. This stigma leaks into media and has detrimental effects on mental health, body image, and sizeism, thus perpetuating the issue (2014).

The purpose of this project is to explore how using Acceptance and Commitment Therapy (ACT) can provide a different approach to behaviour change that is not found in typical weight related behaviour change programs for adults. Emphasis on mindfulness and present awareness will be included with the discussion of ACT. The practical component to this project will be a manualized eight-week program titled *Value Based*

*Living*. This manual will explore how individuals can use acceptance and value exploration to encourage intrinsic motivation to apply to positive behaviour change. It is important to note that this project will explore weight-loss, but the intention of the eight-week program will not focus on weight loss as a primary goal. *Value Based Living* will encourage participants to weigh themselves regularly as it has been shown to have positive impact on encouraging long-term weight loss but will also explore other ways to acknowledge success in behaviour change (Bombak, 2014; Wing et al., 2008).

There is limited research on how ACT applies to obesity and weight loss in adults. This project will add to the literature and provide a valuable tool that can be used to guide future research. This project will benefit academia as it points out the severe lack of research successful interventions for obesity. This project will also benefit practitioners in both primary care as well as private settings. Obesity is a complex, multifaceted issue that is affecting millions worldwide. This project will be useful to anyone working with adults in the bariatric community. Lastly, this program will benefit individuals who have endured a long-term struggle with obesity. Many commercial programs scream success rates and stories of people who have had success, but have decreased success rates for others. This program will be for individuals who have tried (and failed) countless ‘fad-diets’, the people who have denied themselves certain things because of their weight, and people who are genuinely interested in making a positive change in their life.

This final project is inspired by a personal life long battle with weight. As someone who has successfully lost 100+ pounds, no one mentioned it would be possible (and extremely easy) to regain some of that weight back. As a result, countless hours



were spent researching obesity, weight gain, weight loss, and dieting. There have been personal trainers, intense workouts, intermittent fasting, commercial weight loss programs, to name a few, and still, not the desired results.

During my undergraduate studies, I explored the effectiveness of a bariatric clinic at a local hospital. It was during my time researching this clinic that it became apparent that something is still wrong with the system. People were getting invasive surgeries and regaining some, and sometimes all, of that weight back. It is apparent that every individual who is overweight or has obesity has a complex need and experience. There is not one “cure” that will fix all the problems. However, if people can begin to let go of the constant struggle or avoidant behaviours that can hinder behaviour change, then they might be able to see that their relationship with their weight does not have to include the term ‘battle’ or ‘struggle’ at all.

The intention of this project is to develop a safe place where individuals can explore their experiences and find support that other people are going through similar journeys. Additionally, this program will help people to explore what is truly meaningful to them and what it takes for them to live a vital, engaging life. If individuals can connect intimately to their values and core beliefs they can link those values to intrinsic motivation and introduce positive health behaviours into their life.

The second chapter of this project will focus on a literature review that explores the etiology of obesity as well as how obesity is present within North America. The literature review will also explore common approaches to weight management. Next, Chapter 2 will introduce ACT and mindfulness, and how each intervention can help promote weight management for individuals with obesity. Chapter 3 explores the

methodology and search terms that were utilized in creating and guiding this final project. Chapter 4 gives a brief overview of how practitioner and participant manuals were created and how ACT and mindfulness were incorporated into developing the comprehensive, yet easy to use manuals. Finally, Chapter 5 examines both the strengths and limitations to the manuals and this final project.

## Chapter 2: Literature Review

### Obesity

Obesity is currently one of the most preventable deadly diseases affecting millions of people worldwide (World Health Organization [WHO], 2016). The WHO recently reported that 1.9 billion adults aged 18 and older are considered to be overweight, and over 600 million of these individuals are considered to be obese. This accounts for 13% percent of the world's population (2016). For the first time in history, rates of rates of obesity are rising on every continent, even in third world countries. In addition to obesity rates doubling since the 1980's, this epidemic is killing more people every year than those who are considered to be underweight (WHO, 2016; Van Hout, Oudheusden, & Van Heck, 2004). Obesity is defined as excessive fat accumulation that leads to impaired health (WHO, 2016). The obesity epidemic is having devastating effects on the health of many individuals, therefore, it is imperative that effective interventions be developed to help people manage their weight and decrease the health risks associated with weight gain and obesity.

Metabolism and genetics have impact on weight gain and development; however, behavioural factors such as activity, diet, and mental health can also play a huge role in weight management. Addressing areas that can be modified such as thoughts and behaviours is becoming increasingly important to assist individuals in developing skills associated with long-term weight management. With obesity being largely recognized as an epidemic, more information is being presented through research that obesity is not simply a byproduct of sedentary lifestyle (Bombak, 2014). In fact, obesity is a complex combination of multiple factors to which there is no cure. Physiological, hormonal,

environmental, developmental, and psychological factors are all being explored as instigators to excessive weight gain, however, there is no ‘magic pill’ to reverse the effects each can play on weight gain.

Individuals who have found success have reported years of increased energy expenditure, and decreased energy consumption (Wing et al., 2008). Simply put, individuals who managed to maintain their weight-loss *consistently* and *consciously* moved more, and ate less as part of a complete lifestyle change. However, there are numerous barriers that become present according to these findings. These barriers will be discussed in detail in the following literature review. Obesity is an extremely complex issue. Strategies that work for one individual, might not work for another. It is important to exploring behaviour change is an understanding of the behaviour and how it impacts the life of an individual.

### **Body Mass Index**

As a way to help create a common discourse on obesity, a measurement scale was developed. As a result, obesity is currently divided into three classes based on Body Mass Index (BMI). BMI is a ratio measure of a person's height in comparison to their weight.

This paper will refer to the method accepted by both Health Canada and the World Health Organization - which is demonstrated by Table 1 (WHO, 2016).

Table 1

#### Description of BMI

Category	BMI (kg/m <sup>2</sup> )	Level of Health Risk
Underweight	<18.5	Increased

Normal	18.5 - 24.9	Least
Overweight	25.0 - 29.9	Increased
Obese - Class I	30.0 - 34.9	High
Obese - Class II	35.0 - 39.9	Very High
Obese - Class III	> 40.0	Extremely High

It is important to note that BMI is a generalized formula and does not take into account body fat percentage, ethnicity, and other instances such as those who are still growing or very tall/short. Therefore, BMI should only be used as a general tool that can determine a general level of risk in regards to the impact of weight on an individual and be used in association with other tools of measurement by a licensed health professional.

Research has revealed that programs focused on weight gain prevention are highly effective and more manageable for individuals who are overweight or obese (Kozica, Lombard, Teede, Illic, Murphy, & Harrison, 2015). A successful weight loss is considered to be a loss of at least 10% body weight, and to consistently keep that weight off for at least five years (Sing et al., 2008). However, many individuals lack the necessary skills to recognize behaviours that lead to weight gain, thus returning to their initial weight or surpassing it within 4-5 years. Individuals now face a number of barriers to living healthy lifestyles that were not present decades ago when obesity was less of a global issue. However, new research suggests that by targeting social contexts - such as group work and supports - weight management success can be increased and encourage a ripple effect.

Numerous programs are developed and tested each year to help individuals who have obesity, however, these programs are often under utilized, difficult to follow, and have extremely high attrition rates. Individuals who struggle with obesity are subject to having a tumultuous relationship with numerous fad diets leaving their metabolisms and minds tired.

Additionally, it is important to investigate each individual's readiness to change. As demonstrated by the Transtheoretical Model, behaviour change follows a series of six progressive steps, each represented by a moment in time. Every person will spend a varied amount at each stage; however, the tasks necessary to advancing to the next stage remains invariant (Prochaska & Norcross, 2001). The stages of change are as follows: precontemplation, contemplation, preparation, action, maintenance, and termination. By assessing an individual's readiness to change, interventions can be adjusted and modified to be most effective. Many programs assume that since an individual has entered the program that they might be in the 'action' stage, however, individuals might be vacillating between contemplation and preparation stage, not yet ready to move towards action. Individuals who have yet to enter the 'action' stages of change are less likely to engage in and follow through with behaviour change long enough to make a lasting transformation.

**Obesity in Canada.** In Canada alone, one in four adults is currently considered overweight or obese, and is therefore at a higher risk for additional health concerns. These extremely high rates have become so prevalent in society that obesity has now surpassed tobacco use as a leading cause of premature preventable death (AHS, 2013). This is having a devastating effect on the overall quality of life for many Canadians, as

well as putting extra strain on an already delicate health care system. Preventable diseases such as obesity put extensive strain on North American economies and have been projected to increase by over \$50 billion dollars by 2030 (Cornelius, Gettens, & Gorin, 2016).

In the Canadian population, males are at a higher risk for obesity than women (Navaneelan & Janz, 2014). Additionally, higher levels of obesity and overweight individuals are reported amongst smaller, rural cities, the Atlantic Provinces, the Prairies, and in the Territories. Obesity in Canada is statistically represented at 24.8 percent of the Canadian population according to 2011-2012 self-report data (2014). Rates of obesity continue to rise and present differently among sexes.

Obesity is now considered a chronic disease because it requires individuals to engage in lifestyle changes throughout their life. The body will fight to maintain a homeostatic state which is generally a higher weight (Sing et al., 2008; Niemeier et al., 2012). Because of this, many individuals will encounter difficulties when trying to lose weight (ie. plateaus), or will find themselves returning to their original weight before weight loss, or even surpassing their original weight and gaining more weight than before. This can lead to many emotions and feelings of hopelessness and frustration, which can lead to a cycle of negative behaviours and increased difficulties to reverse the weight gain.

**Obesity in Alberta.** In 2011, the province of Alberta reported that over 2 million people – both adults and children – were classified as either overweight or obese, with over 1 million individuals considered obese (AHS, 2013).

*Population Demographics.* Prevalence of overweight and obese individuals

continues to rise each year. Since the 1980's rates of obesity have more than doubled within the province (AHS, 2014). Currently, over 60% of Alberta's adult populations is considered to be overweight or obese based on self-report data conducted by Alberta Health Services, in addition, over 28% of the adult population is considered to be obese (AHS, 2012). Higher reports of obesity are also found in aboriginal populations, both on and off reservations. Within the first nations population, men tend to be more overweight than women (41.8 percent, 31.1, respectively), however, aboriginal women are more likely to be considered obese than aboriginal men (34.3 percent, 28.6 percent, respectively). In the general Albertan population, men are more likely to be considered overweight and obese than females (AHS, 2014).

### **Comorbid Conditions and Health Risks**

Being overweight or obese has been found to be correlated with at least 22 comorbidities such as type-2 diabetes mellitus, hypertension, dyslipidemia arthritis, and cancer among others that further decrease the quality of life in an individual (AHS, 2013; Elbelt, Schuetz, Knoll, & Burkert, 2015; Canadian Obesity Network, 2016). Levels of risk associated with obesity increase as individuals increase in weight and body fat percentage. With such high proportions of the population in Alberta being affected by obesity, it has now surpassed tobacco use as the leading cause of premature death. The negative impact of obesity can reduce life expectancy by as much as 2 - 10 years (AHS, 2014). A five to ten percent decrease in body weight can start to lower the risks associated with obesity and weight gain and being to reverse the impact of comorbid conditions such as diabetes and hypertension and cardiovascular disease (Sing et al., 2008). In addition to the physical health benefits of weight loss, psychological stressors



such as depression, anxiety, and overall mood can also be impacted in a positive way.

### **Obesity Interventions**

In the province of Alberta, over \$1.4 billion is spent annually on obesity related issues (AHS, 2013). The growing costs associated with obesity related illness has a negative impact on the economy, threatens the health care system, and can lead to a loss in work production - leading to further economic impacts (2013). To combat such high rates of obesity in the province, AHS launched an initiative to assist individuals with obesity related issues. In five large cities around the province, bariatric clinics were established to provide both medical (surgical) and non-medical (behaviour change) interventions. However, such programs are often difficult to follow long-term, involve intense medical interventions, and are susceptible to high attrition rates. Programs encouraging the prevention of weight gain and the introduction of small behaviours changes could provide greater long-term success for individuals (Ortner et al., 2015; Kozica et al., 2015).

To address this global epidemic, numerous structured interventions have been developed by health professions and popular commercialized programs, a majority of which is based in behaviour change. Behaviour modification programs focus on addressing eating behaviours, physical activity, and cognitions to encourage weight management. However, despite the intentionality of many of these programs, participants often fail to either lose weight or maintain the weight lost during the program for an extended period of time (Niemeier et al., 2012). Additionally as little as 20% of individuals who engage in a structured behavioural change program manage to keep the weight off long term (Caldwell, Baime, & Wolever,

2012; Elbelt et al., 2015).

What many individuals fail to recognize is that successful weight loss takes considerable effort over an extended period of time. Several commercialized programs boast of “quick-fix” approaches to weight loss and promise exceptional results in a short period of time. However, the reality of weight loss is statistically proven to take years (Sing et al., 2008; Niemeier et al., 2012). Feelings of hopelessness around successful weight loss in overweight individuals is common because the popular press regularly asserts that long-term weight loss can be achieved with a short-term program. In reality, significant weight loss can take anywhere from one to five years, and is largely dependent on the individual. Commercialized programs often centre on an unrealistic behaviour change that very few people can sustain over time (Wing & Hill, 2001). Long-term interventions that focus on lifestyle factors such as physical activity, increased nutritional awareness, and modified eating behaviours often result in higher rates of success (Singh et al., 2008).

Some of the most successful interventions include weekly, face-to-face meetings where an individual can access multidisciplinary professionals (Webber, Gabriele, Tate, & Dignan, 2010). Likewise, when treating mild to morbid overweight and obese individuals, those who attend structured, supervised programs have better success at losing weight. However, attrition rates are becoming increasingly higher for many programs, with several participants failing to maintain weight loss long-term (Williams et al., 1996).

**Physical activity.** An essential part to any healthy lifestyle is the adoption of regular physical activity. The *Canadian Physical Activity Guidelines* (2015) suggest that

adults should engage in at least 150-minutes of moderate to vigorous-intensity exercise activity per week. Additionally, by adopting a regular physical activity routine, individuals can greatly reduce the risk of heart disease, type-2 diabetes, overweight/obesity, and premature death. However, many Canadians are failing to meet these requirements regularly, which is resulting in the increased prevalence of overweight and obese individuals (Statistics Canada, 2015). Interventions that encourage and explain the importance of physical activity tend to help individuals have greater success. Likewise, physical activity has been associated with increased physical health, mental health, and also reduces the risk of disease and economic burdens. (Canadian Physical Activity Guidelines, 2015; Bull, Maslin, & Armstrong, 2009). Therefore, a fundamental part of any health promoting intervention is the encouragement of regular physical activity.

In a database review, Wing and Hill (2001) found that 91% of individuals who maintained a weight-loss of 10% body weight or more did so by engaging in regular activity. The amount of physical activity they reported engaging in was at least one hour per day, seven days per week. Activities ranged from walking to more vigorous activity. The reported activity from these individuals is much higher than what is recommended through the *Canadian Society for Exercise Physiology* (2011) and shows that a key influencer of sustained weight loss is regular, physical activity of at least 150 minutes per week with at least two days of weight training (Wing & Hill, 2001).

**Motivation.** Another key element to an individual's journey in weight loss is motivation. The human spirit is curious and self-motivated at its core, however, it can easily become crushed and discouraged as a result of various stressors (Richard & Deci, 2000). There are two factors that categorize motivation: *intrinsic motivation* and *extrinsic*

*motivation*. When an individual becomes *intrinsically* motivated, they are autonomous in their reason for change and are guided by internal cues and behaviours with little need or want for extrinsic encouragement. *Extrinsic* motivation is controlled and often guided by external demands (Webber, Gabriele, Tate, & Dignan, 2010). The more autonomy and control an individual feels over their behaviour change, there is increased likelihood that efforts to change will be met with success (Williams et al., 1996). Therefore, interventions might consider looking first at building up an individual's willingness to change by looking at ways to increase self-efficacy. If an individual believes they are capable of initiating and maintaining change behaviour, they might see increased rates of success.

**Self-Efficacy.** It is highly accepted that self-efficacy is a major contributing factor in adhering to behaviour change activities. Self-efficacy must be intricately associated with the specific desired behaviour change to be effective (Plotnikoff, Gebel, and Lubans, 2014; Webber, Gabriele, Tate, & Dignan, 2010). Self-efficacy, as defined by Bandura (2004), states that unless an individual truly believes they can create and maintain a desired outcome, their likelihood to persevere through adversity decreases. Therefore, it is essential to set goals that reflect an individual's core values. When goals are congruent with personal values, there is increased intrinsic motivation to carry through.

Behaviour change would be essentially simple and maintainable without facing adversity. Self-efficacy should be assessed by looking at how individuals perceive their ability to complete desired tasks (such as an exercise routine, and eating balanced, nutritious meals) in the face of barriers: stress, lack of money, transportation issues, bad weather, loss of interest, among others. Those with low self-efficacy will have a more

difficult time completing the task than those with higher levels of self-efficacy (Bandura, 2004). Additionally, Lee and Kim (2015) reported that self-efficacy was a key predictor in physical activity adherence in their database review. Therefore, by working to improve levels of self-efficacy and help to identify intrinsic motivation in individuals towards behaviour change, it is more likely that individuals will adhere to their change behaviour long-term. Likewise, individuals may be more likely to initiate change behaviour even after giving up because of the experience of increased self-efficacy in the past.

**Barriers to weight loss and weight maintenance.** There are a number of factors that hinder weight loss and contribute to weight regain. Some predictors include large initial percentage of weight loss, failure to engage in weight loss maintenance, hormonal issues, mental health, disinhibition, decreased self-efficacy and motivation, as well as behavioural changes in physical activity and dietary factors (Wing et al., 2008; Wing & Hill, 2001; Butryn, Phelan, Hill, & Wing, 2007; Williams et al., 1996). Likewise, Wing et al (2008) found that during an 18-month program individuals who weighed themselves regularly, engaged in physical activity, and cognitively differentiated between hunger cues and affective cues were better able to keep weight off long term.

Individuals who attend to emotional cues and display higher levels of cognitive restraint are more likely to resist engaging in maladaptive eating behaviours (Butryn et al., 2007). Alternately, a major contributing factor to the lack of success in many weight related programs is that every individual has a unique experience and it is difficult to account for that in generalized programs. A huge proportion of individuals who are overweight or obese, also struggle with binge eating behaviours, emotional eating, and cravings (O'Reilly, Cook, Spruijt-Metz, & Black, 2014). When an individual is driven to

eat by a reason other than hunger, it is more likely that unwanted weight gain will occur over time. Interventions that focus on addressing the motivating factors behind maladaptive eating behaviours can help individuals develop the necessary skills to not only recognize behaviours, but embark on a lifestyle change that is maintainable long term.

It is important to note that being overweight or obese is much more than a simple act of overeating. Rather, weight gain can be attributed to a multitude of causes, and because of this, it has become increasingly more difficult to design interventions that help individuals not only lose weight, but also keep it off. The process of becoming overweight or obese is multifaceted involving social, behavioural, genetic, environmental, and psychological factors (Van Berkel et al., 2014; Singh et al., 2008). Often, short-term weight loss interventions are focused on significantly reducing caloric intake and removing specific food groups, which is not always a realistic lifestyle. However, by reducing caloric intake to an appropriate amount and engaging in regular physical activity, individuals are better able to lose weight and keep it off. Importantly, individuals are also able to minimize the comorbidities associated with an unhealthy lifestyle (Caldwell, Baime, & Wolever, 2012). That being said, merely knowing *how* to lose weight is not adequate; rather, it is necessary to explore the psychological aspects that lead to weight gain initially (Tapper et al., 2009). Successful long term weight loss and maintenance involves a complete lifestyle change. Further, interventions for obesity are better off targeting cognitions and behaviours rather than only the behaviours of individuals. When the focus shifts from the actions to the cognitions guiding the behaviour, individuals can begin to learn their own deep-rooted habits and thoughts that

surround lifestyle behaviours. The next section will look at how Acceptance and Commitment Therapy and Mindfulness can be used to work with individuals who struggle with overweight and obesity related issues.

### **Acceptance and Commitment Therapy (ACT)**

ACT is recognized as a “third wave” with in the practice of behavioural therapies. This newer approach to cognitive therapy pays close mind to addressing the context and function of events through techniques such as mindfulness and acceptance rather than focusing solely on cognitions (Hayes et al., 2006). The goal is to focus on the emotional acceptance and understanding of private experiences rather than seek to control them. True to its name, ACT (pronounced “act”) focuses on values-based action that causes a reactionary inspired behaviour change (Hayes, Strosdahl, & Wilson, 2009).

ACT aims to start at the commonality of the human experience; everyone experiences pain. For some, this pain leads to engaging in destructive behaviours. This is not to say that people automatically experience a negative response to daily stressors, however, it is common for the mind to bring up a painful memory or engage in negative comparisons (i.e. “I’ll never be as good as him/her” “I’ve failed once, therefore, I am a failure”) at any moment. As a result, ACT sees the mind as neither a friend nor an enemy, but rather, a “complex set of interactive cognitive processes” (Harris, 2009, p.7). Since pain is an inevitable part of the human experience, it is important to gain the skills to use adaptive positive behaviours rather than engaging in destructive behaviours.

### **Six Core ACT Processes**

There are six core processes to use ACT as a means to change behaviours. These process involve having the individual explore their thoughts and feelings and learn to

accept who they are as a person, as well as their current situation. This can be difficult to start because people might be inclined to associate acceptance with liking or enjoying the situation, but ACT is quick to acknowledge that acceptance does not mean a person enjoys the pain, rather, they accept that it is a part of their life. By accepting the pain or struggle, a person can begin to explore behaviour change from a values based approach. This will be explore further in the coming paragraphs.

**Being Present.** Too often, the human mind gets distracted with thoughts, planning for the future, and ruminating on past experiences. This causes people to become disconnected from the present moment. When the mind is trained to be consciously in the moment, individuals can learn to connect to the present and disengage from habits of automaticity (Harris, 2009). Individuals who struggle with obesity might have behaviours that are linked to automatic thoughts and habits. Therefore, the purpose of being present would be to bring awareness to the body and the moment and refrain from consistently engaging in “auto-pilot”.

**Cognitive Defusion.** The essence of cognitive defusion is to separate oneself from the millions of thoughts that pass through the mind daily. It is common for individuals to get ‘caught up’ by their thoughts leading to a lack of perceived control over their behaviours. Because the mind can become habituated to negative thought processes, the act of cognitive defusion can help an individual allow the thoughts to come and go without giving them power. The process involves making contact with thoughts and experiences as they *are* rather than how they say they are (Hayes, Strosahl, & Wilson, 2012). An individual might refrain from joining a social activity (i.e. gym, sports team, art class, etc) because their mind has told them that people might judge them. This



thought, perceived as a fact, might encourage them to engage in a sedentary lifestyle which could have negative health consequences.

**Acceptance.** A key function of ACT is to resist the urge to fight negative thoughts or emotions. This might mean engaging in avoidance or resisting certain feelings. It is important to note that accepting an emotion does not equate to liking the emotion, but rather, allowing space for the emotion to be named and accepted without struggle. People often try to change, control, or escape unwanted feelings when the struggle may only increase discomfort and lead to increased negative behaviours (Lillis & Kendra, 2013).

**Conceptualizing the Self.** Too often, people can become trapped in definitive categories of themselves. From a developmental perspective, it is adaptive to understand the surrounding environment by placing things into categories. This can be restrictive when negative self-concepts emerge and events are distorted from the reality of the present. ACT assumes that a healthy alternative to restrictive self-concepts is to learn skills to become flexible in thinking and present in the moment (Hayes, Strosahl, & Wilson, 2012). If an individual were to believe that they were not worthy because of a negative self-concept, they might be more inclined to engage in a series of negative behaviours. For example, if an individual were to be diagnosed with Type II Diabetes Mellitus as a comorbid condition associated with obesity, yet had developed a negative self-concept of thinking they were unable to make changes to their lifestyle, they might not believe that making changes to their diet and activity could reverse the impact of diabetes in their life.

**Values.** Values are a driving force for the direction of an individual's life. When an individual makes lifestyle choices that are congruent with their values, they have increased motivation to achieve their goals. By experiencing incongruence, individuals are more likely to have increased stress and anxiety as they navigate through the disconnect of living a life that does not align with their values. Additionally, individuals are less likely to make effortful choices if they do not feel the goals associated with the effort align with a deep rooted value system (Forman & Butryn, 2015; Hayes, Strosahl, & Wilson, 2012)

**Committed Action.** ACT is deeply rooted in an individual's commitment to make behaviour changes in their own life. This takes effortful action and attentiveness to habitual behaviours that have been ingrained into the mind of an individual. Therefore, an important start point to see if an individual is ready to engage in effortful, action-focused behaviour change would be to assess readiness for change. If an individual is not in action, or at least close to or in a stage of planning, engaging in a program focused on behaviour change may not be a good fit. In this core element to ACT, individuals will learn what types of behavioural patterns work to fit their life best. In addition, individuals will explore how to align values and behaviours as well as set appropriate goals that are within their ability to change. ACT requires individuals to ‘vote with their feet’ which ultimately assess a person’s desire to take committed action to change their behaviours (Hayes, Strosahl, & Wilson, 2012; Harris, 2015).

### **ACT and Weight Management**

In recent years, an increase in weight management programs have surfaced from perspectives based on behaviour change. Many of these studies are successful in helping

participants make short term adjustments, however, they are less successful when looking at long term changes where many participants regain the weight, even those who accessed surgical interventions (Weineland, Arvidsson, Kakoulidis, & Dahl, 2012; Berman, Morton, & Hegel, 2016; Lillis & Kendra, 2012). When individuals do not address components of obesity related behaviours such as: emotional eating, inactivity, body dissatisfaction, and quality of life, there are increased chances that weight gain/re-gain. Additionally, comorbid factors such as mental health issues can have a negative impact on physical health. For example, adults with obesity are at a high risk of also being depressed (Pagoto et al. 2007; Simon et al. 2008; Berman, Morton, & Hegel, 2016).

Many behavioural intervention programs focus on teaching individuals who have obesity how to change their eating behaviours and increase their physical activity. Research has shown that most weight management programs have attrition rates of 30% and higher (Lillis & Kendra, 2012). Since the focus of these programs are on short term behaviour modification, they fail to create a strong link for long term intrinsic motivation. In response to the decreased efficacy of strictly behavioural interventions to obesity, a new direction needs to be established. ACT teaches individuals to accept their body, exactly how it is in the present moment, without judgement. ACT seeks to promote committed acceptance of healthy behaviour patterns that are based on an individual's core beliefs, thus encouraging the intrinsic motivation that is known to be a key factor in long term change (2012).

The focus of an acceptance based program is to assist individuals in reframing thoughts and beliefs regarding obesity, health, and behaviour change. The goal steps away from traditional treatments that focus on controlling one's shape, weight, or

emotions, but to build up adaptive skills to accept and adjust to fluctuations in motivation, mood, emotions, and negative thoughts and feelings. ACT is useful in treating obesity, because the focus would not be to lose weight. Instead, focus would be on exploring values based behaviours that will help in making positive health behaviours, therefore decreasing stress and frustration that can often come when an individual places emphasis on arbitrary numbers on a scale.

### **Mindfulness**

The practice of mindfulness has been around for centuries and is often associated with Buddhism. Mindfulness encourages the individual to “wake up from [the] sleep of automaticity and unconsciousness” (Kabat-Zinn, n.p., 1994). The construct of mindfulness is fairly simple and easy to understand, however, the difficulty lies in the implementation and regular practice of being mindful. Being mindful refers to slowing down automatic thoughts by increasing bodily awareness, and to approach experiences slowly and nonjudgmentally. Jon Kabat-Zinn (1994) states that when individuals fail to be present in their life, they risk becoming out of touch with themselves and become driven by automatic thoughts and cognitions that can become maladaptive.

In recent years, the practice of mindfulness has been explored as a form of mental health intervention. Since mindfulness promotes a heightened level of self-awareness and self-regulation, it has proven useful in treatments for stress and anxiety, depression relapse prevention, and clinical treatments (O’Reilly et al., 2014; Tapper et al, 2009). Within the structures of the brain, mindfulness training has shown to activate the prefrontal, parietal, and subcortical regions (Doll, Holzel, Boucard, Wohlschlager, & Sorg, 2015; Dickenson, Berkman, Arch, & Lieberman, 2013). Stress can affect the

amygdala, prefrontal cortex, and hippocampus, while mindfulness can work to reduce, and even reverse those negative effects over time (Bernstein, Bar, Ehrman, Golubic, & Roizen, 2013).

Bernstein et al (2013) explain the process of mindfulness as a series of contemplative and explorative steps into the individual's inner self. The steps are as follows: (a) *observing* (perceiving internal and external cues and stimuli in the surrounding environment); (b) *describing* (labeling environmental cues); (c) *awareness* (looking at one's own actions without defaulting to automatic behaviours); (d) *non-judging* (abstaining from placing a value judgment on thoughts, behaviours, and actions); (e) *non-reactivity* (allowing thoughts, behaviours, and judgments to pass by without losing focus to them). The focus of mindfulness is to develop the skills to become increasingly attentive to one's own thoughts, feelings, and behaviours without passing judgment on them.

Most often, individuals are motivated to engage in meditative practices such as mindfulness to relax, decrease the effects of stress, to achieve a certain pre-determined goal. However, when mindfulness is first met with a goal, problems can arise. By having expectations on mindfulness and looking for specific progress, an individual can quickly lose focus and abandon the endeavor (Kabat-Zinn, 1994). On the other hand, many clinical and mental health interventions incorporating mindfulness into their programs often do so by having clients set measurable and specific goals. This can be also problematic because if clients fail to see the progress they expected, they can easily become discouraged and abandon their goals. When mindfulness is met without expectation, the heightened level of awareness can overflow into facets of everyday life

and behaviours (Bernstein et al., 2013). Therefore, it is important to encourage individuals who engage in mindfulness to not use it as if it were a quick-fix treatment, but rather an important part of experiencing present moments and engaging in one's own life at an intimate level.

### **Mindfulness and obesity**

Recently, research studies have begun to investigate the impact of mindfulness-based therapy (MBT) on overweight and obese individuals (Van Berkel, 2014). Some have found that MBT may be a significant factor to weight loss intervention because it might help in addressing negative effects that lead to emotional eating or other maladaptive/automatic eating behaviours that have been associated with weight gain (Bernstein et al., 2014). Additionally, MBT is being explored as an effective intervention to a variety of mental health concerns because of its previous success in clinical and non-clinical efforts (Tapper et al., 2009).

Perhaps one of the most common mistakes of behavioural weight loss programs is that they often fail to address the reasons behind eating behaviours and physical activity implementation. Individuals who struggle with weight are often susceptible to eating behaviours such as externalized eating (i.e. emotional eating and giving in to cravings) (O'Reilly, Cook, Spruijt-Metz, & Black, 2014). Many programs tend to spend an insignificant amount of time addressing external and emotional eating, instead, they focus a small amount of time teaching individuals to restructure thoughts and ignore them. Likewise, many of these programs fail to address the reasoning behind eating behaviours that lead to weight loss, which in turn results in individuals unlikely to reduce weight long term.

Strategies such as acceptance-based therapies, mindfulness, and acceptance and commitment therapy (ACT) are found to be increasingly successful because they spend considerable amount of time on accepting all thoughts and feelings as they are, rather than merely supporting changes in thoughts (Niemeier et al., 2012; Tapper et al., 2009). By shifting focus to acceptance rather than change, an individual can begin to accept and experience negative thoughts and emotions as opposed to engaging in avoidant behaviours such as maladaptive eating (Tapper et al., 2009). Therefore, over-time, individuals can begin to focus their attention on behaviours that better align with personal goals and values, thus providing a more meaningful experience and increased likelihood for long-term change. The key to this approach is that individuals are taught that it takes time to be aware of experiences within the self, and that any change or modification to behaviours would also take considerable amounts of time.

When specifically applying mindfulness based strategies to weight loss and maintenance goals, individuals can be encouraged to become self-aware regarding their own internal cognitions. When applied to eating behaviours, mindfulness strategies encourage an individual to slow down and become cognizant of the surrounding environment and sensations occurring in the body. By slowing down, individuals who struggle with eating behaviours can become conscious of any patterns or externalized cues that foster emotional and maladaptive eating behaviours. Likewise, by attending to cognitions one can begin to differentiate between actual hunger cues and emotionally triggered cues that lead a person to eat without being hungry. In addition, such practices will help individuals to acknowledge cravings without feeling the need to give into them (Singh et al., 2008).

The key to applying mindfulness to eating behaviours is such behaviours are first observed and labeled without any judgment. Often, when individuals engage in maladaptive eating behaviours, there is increased negative self-talk and judgment placed on the behaviours, which can often result in individuals feeling less control over their own behaviours. By learning to attend to those thoughts and emotions in a non-judgmental way, individuals can begin to gain better control over their behaviours (Kabat-Zinn, 1994).

Singh et al (2008) reported in a case study the successful journey of one individual towards weight loss following a mindfulness-based program with key elements of behaviour change. This plan was supervised, but largely self-directed and influenced by the participant's own sense of intrinsic motivation - which was acknowledged as being an important part of the participants journey. The program had a physical activity component that focused on slowly building up stamina and efficacy necessary to incorporating the behaviour into a lifestyle. Likewise, this program was not focused around a specific diet, but rather on raising awareness and helping individuals make informed decisions regarding food choices. Lastly, the program focused on a mindful eating component and a meditation technique as foundational to the overall program success. The meditation technique encouraged the participant to shift focus from a feeling of hunger to an awareness of the present moment without positive or negative affect.

Larger studies have recently begun to explore the impact of mindfulness on eating behaviours. It is important to note that the goals of many of these programs are not aimed specifically at helping individuals lose weight, but to begin exploring the influences behind maladaptive eating behaviours so as to prevent further weight gain. Once an



individual is able to bring increased awareness to what influences their desire to engage in maladaptive eating behaviours, they can begin to develop the tools necessary to break those automatic habits.

Before an individual can focus on losing weight, they must first begin to understand what influenced the onset of their weight gain. Therefore, the focus of mindfulness when applied to eating behaviours is to develop skills that bring awareness to eating, emotions, and reducing automatic behaviours (Dalen et al., 2010). Mindfulness is an excellent approach to such exploration because it is based on acceptance and refraining from judgment. Since many individuals who struggle with their weight can also be susceptible to negative reactions to eating behaviours such as decreased self-efficacy, mindfulness can provide many tools that can be directly transferred into so many facets of life (Kabat-Zinn, 1994; Singh et al., 2008; Bernstein et al., 2014).

Tapper et al (2009) was among the first to examine mindfulness based approach to weight loss intervention. Participants who practiced mindfulness and attended the regular sessions not only lost weight, but also increased the amount of time engaged in physical activity. One factor that Tapper et al (2009) mentioned as a future direction was to assist individuals with identifying situations they feel most susceptible to engaging in a maladaptive eating behaviour. To assist individuals with finding a long term, maintainable intervention, a program should focus more on teaching mindfulness techniques that are applicable to all facets of life. Therefore, by making mindfulness a habit, individuals might feel increased control over those situations that provide stress and encourage unwanted behaviours.

The present final project will explore the impact of a mindfulness based intervention program on maladaptive eating behaviours, with a specific focus on individuals who are identified as being overweight or obese. The scope of the project will hopefully draw individuals who are overweight or obese and still struggle to keep weight off. In conjunction to mindfulness training, the project will provide participants with materials and skills to make informed decisions on nutrition and exercise. The project will add to the limited, but growing area of literature on mindfulness applications to weight loss and maintenance interventions. Though there are a growing number of individuals researching the positive effects of mindfulness, many studies that focus on mindful applications to weight management fail to measure mindfulness skills over time. Therefore, this project will measure mindfulness skills repeatedly throughout the intervention and explore whether increased mindfulness has positive effect on increasing health behaviours. In hopes, individuals will first learn to acknowledge maladaptive health behaviours associated body weight, accept thoughts and behaviours without judgment, and develop goals and skills that align with personal values. The project predicts that mindfulness will significantly impact participant abilities to display higher levels of self-efficacy and increase physical activity over time. Although the aim of the project is not to assist individuals with weight loss, the research is interested to see whether mindfulness shows a negative correlation with BMI over the course of this program.

### **Chapter 3: Methodology**

In this chapter, I will explore the research methods that were used to create this final research project and the accompanied manual (Appendix A). This chapter will explain and outline how data was collected, which databases were used, and specific search terms. The following information will guide the reader in understanding the formation of how this project came to completion as a research based practical tool for practitioners working with the bariatric community.

#### **Research Focus**

The research focused on the foundational elements of ACT as well as systemic factors and etiology of obesity and the bariatric community. The primary research databases were accessed through the University of Lethbridge online library catalogues. Key databases were found under the psychology collection as well as online medical journals. PsychINFO, PubMed, ScienceDirect, and SAGE journals online were utilized care core components to research collection.

Research compiled for the literature review included the following search terms: obesity, bariatric, weight loss, weight gain, weight maintenance, acceptance and commitment therapy, and mindfulness. Additionally, information was gained by reading books by Stephen Hayes and his colleagues who are leaders in the third wave of behavioural therapy. To gain better understanding of the foundation of mindfulness based therapy, books and articles by John Kabat-Zinn were also read. These books served as a foundation to developing the core of this project and the manual, they were then supported by evidence-based research on the utility and positive impact they can have on behaviour change.

These search methods helped reveal that there is a gap in knowledge and understanding of how to help individuals in the bariatric community find long-term success. To help provide a review of the literature and to add to areas for future research, this project came forth. Many researchers explore various behaviour changes, but not many explore how an acceptance-based program can provide the tools necessary to sustaining change. Numerous commercial weight loss programs boast success, but further research has revealed that many individuals do not maintain that change for long. Therefore, this project and the accompanied manual provide research- supported guidelines for values-based living.

To create the manual, information was gathered through research databases, books, and peer-reviewed articles. Information was integrated by following the suggested structure of ACT personal therapy. Mindfulness activities were adapted from both ACT handbooks, and common mindfulness based activities such as colouring, meditation, and visualization techniques. By integrating a variety of research based mindfulness activities, the manual provides users with a choice of practices.

### **Knowledge Transfer**

The manual is designed for Masters level practitioners who are familiar with ACT. For this reason, the manual provides the facilitators with guidelines of how the program is intended to be run, however, it leaves room for personalization. In order to maintain a natural feel, the facilitator is encouraged to use their own knowledge of ACT to build off of the manual's weekly class guidelines. The manual provides suggestions for discussion topics and has detailed activities and mindfulness techniques to be used each week.

As the author, I used the Publication Manual of the American Psychological Association (American Psychological Association, 2010) to guide writing standards and referencing. In the manual, I used creative expression, but still adhered to APA editing standards.

## **Chapter 4: Overview of Program Manual**

The program manual for *Value Based Living* is provided in Appendix A. Prior to providing this program; facilitators should have previous experience working in the bariatric community. Additionally, it is suggested that facilitators have a solid foundation in the process of ACT and mindfulness. Mindfulness exercises will be included in the program manual and should be thoroughly reviewed prior to starting the group. Suggestions for group structure, room considerations and community contacts will be provided. Session outlines with references are included to guide facilitators as well as provide additional education on the topics.

### **Group Structure**

Value Based Living is an eight-week psychoeducational group and the format will follow a group process model. Sessions will be lead by one facilitator, with room for more if preferred. Sessions will run weekly for two hours. It is suggested that group size remain small and not exceed 10 members to ensure that cohesiveness and comfort are maintained.

The purpose of the group is not to focus on weight loss, however, studies have shown that regular weigh-ins can have a positive impact on awareness and sticking to goals for individuals who are making health focused behaviour changes (Wing & Hill, 2001). Therefore, rooms should be equipped with bariatric scales and chairs. Bariatric resources should be determined well in advance to promoting the program. It is imperative that facilitators have previous experience working with the bariatric community, and remain sensitive and empathic to the struggles individuals face. The environment needs to be welcoming, inclusive, and safe for everyone.

The group meeting room should be located in a building that is accessible to bus routes, and have enough room for participants and activities. It is preferable that rooms contain a whiteboard and projector for any additional power point presentations that guest speakers might provide, however this is not mandatory. Participants should be fluent in English, however, the group is open to individuals from a variety of cultural backgrounds.

The skills and information taught in this program are can be applied to a variety of different presenting issues. Since the focus of this program is to support bariatric individuals, pre-screening should involve assessing BMI. This can be done by having participants interested in attending the program fill out a brief self-report questionnaire (see Appendix A). The questionnaire will assess BMI class, any identified mental health diagnoses, and identified gender. This program is appropriate for a variety of demographics, however, individuals with severe anxiety/depression and other DSM diagnoses should be referred to individual counselling prior to entering the program. If facilitators are more comfortable dividing groups between genders then it would be acceptable to do so as long as there is anyone who qualifies for the program is provided access.

### **Value Based Living**

The following brief outline will provide information to be covered each week as part of the program.

1. Introduction of ACT, Mindfulness, and group members
  - a. Purpose: The purpose of this session is to increase group connection and comfort in sharing with group members. The facilitator will lead icebreaker activities and provide education on ACT and mindfulness.
  - b. Activity: Participants will receive their handbook that they will be expected to bring to class each week.

- c. Mindfulness Exercise: Body Scan (Goldstein, 2016)
- 2. Personal Timeline
  - a. Purpose: This session will have participants explore their own personal history with their weight and how it has impacted their life. The historical exploration discussion will provide information for the facilitator on how the participants conceptualize the impact weight has on their life. The session will provide a foundation on how ACT can help participants reshape and explore the inner dialogue and emotions that are tied to their personal experience being overweight or obese (Harris, 2009, pg. 56).
  - b. Activity: Draw out personal timeline of how one's life has been impacted by weight. Next, participants will explore the thoughts, feelings, emotions, and sensations that are present when they begin to discuss weight, weight loss, and their experiences.
  - c. Mindfulness Exercise - Mindful Self Compassion (adapted from Neff, 2016).
  - d. Guest Speaker: Nutrition
    - i. Facilitator is responsible for finding a guest speaker willing to share knowledge and expertise on how participants can begin to make appropriate health decisions.
- 3. Exploring Personal Values
  - a. Purpose: Value exploration is a key factor in ACT. This session will guide participants in the exploration of their own personal values and learn the skills to recognize the role that identified values have on choices. This session will also bring to light when choices are not congruent to the participants reality. For further information, refer to the section on values in ACT in Chapter 2.
  - b. Activity: Value Exploration. Participants will work in small groups to explore provided lists of values and narrow their values down to a top 5. Participants will then create a visual representation of each value in their journal and on index cards that they can carry with them.
  - c. Mindfulness Exercise: Leaves on a Stream (Harris, 2009, pg. 113-144)
  - d. Guest Speaker: Physical Activity
    - i. Facilitator is responsible for finding a guest speaker willing to share knowledge and expertise on how participants can include appropriate amounts of physical activity into their daily routines
- 4. Goal Setting
  - a. Purpose: This session teaches participants to connect their values to their goals. In addition, this session helps to identify which goals are realistic, clear, and appropriate. This session will differentiate between values and goals.
  - b. Activity: Participants will develop SMART goals and will record these in their workbooks. As a group, the participants will share their goals and allow for accountability in sharing their goals with those in the group.
  - c. Mindfulness Exercise: Mindful Eating: Raisin Activity
  - d. Guest Speaker: Cooking Demo



- i. Facilitator is responsible for finding a guest speaker or leading the group in a cooking activity that demonstrates how to cook a healthy meal or prepare ‘freezer meals’ that can be used at a later date.
  - ii. Participants might also be encouraged to research some healthy meals that they would be interested in making.
- 5. Acceptance
  - a. Purpose: Acceptance is a foundational aspect of ACT. In this session, participants will understand that acceptance is not synonymous with compliance. Acceptance teaches individuals that pain is a part of life. Participants will also engage in a discussion on avoidant behaviours that might be used to decrease feelings of pain and discomfort, particularly ones that are connected to eating behaviours.
  - b. Activity: Journaling ‘antidotes’ to avoidant behaviours as demonstrated by identified values.
  - c. Mindfulness Exercise: Cravings Meditation
- 6. Connecting Values to Action
  - a. Purpose: The purpose of this week is to connect the values and goals that have been determined previously to an action plan. Participants will review their values, and their SMART goals, and will develop plans on how they will achieve their goals. Participants will have the chance to encourage and motivate other group members. As a group, the participants will share their goals, and
  - b. Activity: develop short, medium, and long term SMART goals as well as action plans to make them happen. Participants will record these goals in their journals. And create a visual representation (i.e. vision board) of their goals that can be posted somewhere they will see every day.
    - i. Facilitator will need fitness/health magazines, glue, and markers for this activity
  - c. Mindfulness Exercise: Mindful Colouring Activity
    - i. Facilitator is responsible for bringing a colouring book and pencil crayons to the session
- 7. Overcoming Barriers
  - a. Purpose: this session will teach participants to overcome barriers and to tie all the strategies together. Participants will practice accepting mistakes, and acknowledge the barriers that might come up that will prevent them from achieving their goals and living their values.
  - b. Activity: on index cards, write out goals → and on the other side, write out the possible excuses or barriers that they might have in association with their goals.
  - c. Mindfulness Exercise: developing a personal mantra
- 8. Maintenance
  - a. Purpose: this session will bring everything together and review. Participants will share what they have learned and what has made a difference. In addition, participants will share how they intend to continue this practice and how it will look post-program.

- b. Activity: Healthy Potluck
- c. Mindfulness Exercise: mindful letter writing to self

### **Summary**

Along with the facilitator manual (Appendix A), each participant in the program will be provided with an accompanying participant manual (Appendix B) to utilize each week. Each participant will be provided with a copy of weekly mindfulness activities and are encouraged to continue their practice in their own time as well as journal activities and opportunities for self-exploration. Both the facilitator manual and the participant manual include research and activities that are influenced by ACT and mindfulness strategies. The activities were chosen to compliment the session theme and to further the learning and self-exploration that is an integral part of behavior change.

## **Chapter 5: Conclusion**

The chapter explores the strengths and limitations of this final project, as well as recommendations for future research. The intended goal of creating this project was to serve as a continuation of the author's passion in helping members of the bariatric community develop the tools necessary to leading full and meaningful lives. The project was developed and guided from personal experience from both a bariatric point of view, as well as personal experience with numerous diets that did not result in long-term success. This project was created to increase awareness about the significance of values-based action on behaviour change.

The focus of this program was intentionally taken away from weight loss because the skills developed throughout the program will serve as stepping-stones to helping individuals reach long-term success. This program teaches individuals to explore acceptance and to work through pain by making room for it and refraining from engaging in devastating avoidant behaviours. The program is designed and intended to be led by facilitators who are passionate about ACT and believe in the transformational power of mindfulness on finding meaning and living in the present.

### **Strengths**

The most important strength of this project is the depth of peer-reviewed research that went into developing the literature review. The reader is introduced to the effects of obesity in a global, national, and provincial context. The reader is also introduced to the etiology and implications that individuals who live with obesity experience day to day. The etiology is by no means exhaustive, as each individual represents a unique story and point of view. However, important themes regarding obesity are discussed and supported

by research. In addition, the research and development of the literature review on ACT and mindfulness reveal how each tool is a valuable aspect of the manual.

Another strength of this project is the program development and detail that went into planning each of the eight weeks. The manual is designed to guide facilitators into leading a personalized program for members of the bariatric community who are ready to make a positive change. The manual is clear in that it provides a detailed account of how each class should be run, but also leaves room for creativity and personalization by the facilitator as they explore the foundation of ACT and mindfulness. The project also provides a journal workbook for individuals who join the program and has room to explore the weekly theme as well as mindfulness activities so that the program continues after the classes end.

### **Limitations**

One limitation to this project is that the information on obesity is not exhaustive. As stated previously, each individual will have their own detailed account of how obesity has affected their life. For this reason, important themes were discussed as made relevant through research. Additionally, there is limited research available on the positive impact that an ACT based therapy model would have on reversing the effects of obesity, for this reason, the manual and accompanied program model have undetermined amounts of success. It can only be hoped that the program will be an influential tool in encouraging positive behaviour change in obese adults.

### **Suggestions Future Research**

Since there is only a moderate amount of research available on this subject, future research could be designed upon the basis of the project's manual and subsequent

program. Research would provide valuable information of the effectiveness of the program and allow for valuable adjustments and revisions.

In addition, exploring how an acceptance and mindfulness based program would impact childhood and adolescent obesity would provide for a more in-depth exploration of the programs concept. If research were to be pursued, a longitudinal, mixed-methods approach would be most effective as it would follow participants over time and explore not only the quantitative results, but also personal success and barriers to each step of the program.

Finally, because of the parameters of the program and time-restraints, the program proposed was only eight weeks long. Research suggests that long-term programs that operate at a slower pace indicate higher rates of success when working with obese participants (Sing et al., 2008). This program would benefit from spending more time on the themes to ensure that participants gain a deep understanding of how ACT, mindfulness, and behaviour change might look in a more realistic setting.

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**Appendix A****Facilitator Manual****VALUE BASED LIVING: ENCOURAGING HEALTHY BEHAVIOUR CHANGE IN  
OVERWEIGHT AND OBESE ADULTS**

A Project

Submitted to the School of Graduate Studies  
of the University of Lethbridge  
in Partial Fulfillment of the  
Requirements for the Degree

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### **Note to Facilitator**

This manual uses strategies from Acceptance and Commitment Therapy (ACT) as a tool to encourage healthy behaviour change in adults in the bariatric community. It is important to note that this program is only a tool to foster acceptance and encourage behaviour change. This program does not aim to encourage weight loss specifically. Individuals who seek to join this program should also contact their family doctor to discuss treatment plans and whether this program is beneficial for them at the time.

This program is based largely on ACT (Hayes, Strosahl, & Wilson, 2012; Harris, 2009). ACT has been proven to successfully help individuals achieve behaviour change by learning to let go of the struggle for control over behaviours, and learning to make space for discomfort and pain as both are part of living a meaningful life (Harris, 2009). This manual encourages individuals to explore their values as well as painful experiences that might currently be preventing them from living their best life. It is important that participants are given a list of available resources in the community for additional supports should different needs be exposed. The program also has mindfulness based components to encourage individuals learn to be engaged in the present and not focused largely on the past or predicting the future.

Thank you for your willingness and desire to help individuals live their best life by connecting their actions to the values that guide their daily living. It has been a pleasure to develop this manual and it is my hopes that you gain valuable experience with each life you meet during this program.

For further information, direct any questions to myself at [boughtin@uleth.ca](mailto:boughtin@uleth.ca) .

Best,  
Brittany Boughtin

## VALUE-BASED LIVING: ENCOURAGING HEALTHY BEHAVIOUR CHANGE FOR BARIATRIC ADULTS

### PURPOSE

The purpose of this manual is to provide facilitators with the tools necessary to lead an 8-week psychoeducational group for bariatric adults. The manual will provide facilitators with weekly themes, discussion topics, activities, and mindfulness exercises broken down into eight individual sessions. Also included are the weekly handouts to give participants so they can complete work on their own and take notes for future use.

### FACILITATOR QUALIFICATIONS

It is necessary for the primary facilitator to be a master's level counsellor. In order for the facilitator to be successful, they must understand group processes, the therapeutic process and have a deep breadth of psychological processes. Additionally, the facilitator should be familiar and well versed in ACT as well as with the bariatric community. Facilitators must read the Chapters 1-5 of this project to fully understand the foundation of ACT as well as important contextual information for working with bariatric individuals.

This manual will serve as a guide to running the eight-week program. The facilitator will be provided with handouts and weekly guides that are important to program success; however, the facilitator is encouraged to use their own personal experience to enhance the program. Discussion topics will be provided to allow for the weekly theme to be covered.

### GROUP MEETINGS

Group meetings are intended to be 2 hours long and should run for the length of eight weeks. The group should not exceed 10 members. Meeting rooms should be accessible to bus routes and be equipped with bariatric scales and chairs. The room should have enough space for group members as well as additional room for activities and smaller group discussions. Each member is encouraged to discuss membership with their primary care physician and is required to fill out the self-report questionnaire (Appendix B) prior to program start date.

#### PLEASE NOTE

For each Mindfulness session, allow time for reflection on the exercise and allow group members to journal their experience.

### CAUTIONS AND LIMITATIONS

Group participants should be encouraged to be in contact with their primary care physician throughout the course of this program. This program is psychoeducational and should not replace formal health care. Participants are encouraged to attend every group



meeting; however, at any time, they may choose to leave or “pass” on an activity if they do not feel comfortable.

**WEEK 1**  
**THEME: INTRODUCTION TO ACT, MINDFULNESS, AND GROUP**

**PURPOSE**

The purpose of this session is to increase group connection and comfort in sharing with group members. The facilitators will lead a few icebreaker activities and introduce the group format.

**SUPPLIES NEEDED**

Nametags

Markers

Whiteboard

Dry-erase markers

**ACTIVITY TIMELINE**

Time	Activity
15 min	Ice Breakers/Name tags
15 min	Group Expectations/Ground Rules
15 min	Psychoeducation: ACT & Mindfulness
10 min	BREAK
20 min	Group discussion: Defining the <i>why</i>
15 min	Weigh-in
15 min	Mindfulness Exercise
05 min	Mindful Journaling
10 min	Homework/Questions

**GROUP INTRODUCTION**

**Icebreaker**

- The facilitator should have group members make name tags and wear them for the first few weeks
- Icebreaker activity suggestions:
  - Have group members partner up and introduce themselves. Give each member 5 minutes to share some information (career, family, pets, dream vacation, etc). Once the time is up, have the group member introduce the person they met to the rest of the group
  - Have each member answer the same 3 questions to the group, the facilitator should answer the questions first:
    - What is one app you can't live without
    - Where would we find you on a typical Wednesday evening?
    - What is the last movie you saw

### Group Expectations/Ground Rules

- Have members decide what they would choose for group expectations and have them visible for each session. Some examples include:
  - Confidentiality – what is said in the room, stays in the room
  - Respect – only one person talk at a time
  - Phones – should be put away/on silent
  - Be on time
  - Open mind - some topic might be difficult/painful, allow space for growth and experiencing emotions
  - Come to each meeting – let facilitator know if you will miss a session

### GROUP DISCUSSION

- The facilitator should use this time to explain the foundational aspects to ACT, particularly, the areas that will be covered throughout the duration of this program.
  - **ACT**: act is a form of behavioural therapy. It is about exploring your values and applying those guiding principles to action. ACT encourages you to explore what is truly meaningful, what really matters, and how you will live out those values in your daily life. ACT is also about gaining the skills to make room for pain and discomfort and normal, vital parts to life. ACT encourages us to let go of the struggle to control behaviours and avoid pain, and to make room for the emotions and feelings so that they have less impact on our daily lives<sup>1</sup>
  - **Values**: The facilitator will provide a brief overview of how our values impact our life and drive us into action
  - **Acceptance**: The facilitator will provide a brief overview on how we can learn to accept the pain and discomfort we feel in our lives
    - Brief discussion topic on painful emotions or discomfort that is associated with being over weight or obese
  - **Mindfulness**: Explanation on how mindfulness and attention to the present moment can be a valuable tool in acceptance and making decisions that align with goals and values

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<sup>1</sup> Adapted from Harris, R (2009). *ACT made simple: an easy to read primer on acceptance and commitment therapy*. Oakland, CA: New Harbinger Publications



## WEEK 2

### THEME: PERSONAL TIMELINE/GUEST SPEAKER (NUTRITION)

#### PURPOSE

The purpose of this session will be to have group members explore their own personal history and how their weight has impacted their lives.

#### SUPPLIES NEEDED

Whiteboard  
 Dry erase markers  
 Pencil crayons and/or pens

#### ACTIVITY TIMELINE

Time	Activity
10 min	Homework review/ reflection on week
20 min	Group discussion: Impacts of being overweight
10 min	Activity: draw out personal timeline
10 min	Weigh in
15 min	Mindfulness Activity
10 min	BREAK
45 min	Guest Speaker: Nutrition
10 min	Homework/Session Wrap Up

#### HOMEWORK REVIEW/REFLECTION

Have participants briefly review their week and their reflection on the homework. Discuss how their mindfulness practice went. Did they complete it? How many times? If they did not, why did they choose not to?

- Gently challenge the excuses that might be brought up during this time, bring them back to the 10 reasons they have decided to make their health a priority

#### GROUP DISCUSSION

##### **Topic: *My experience being overweight***

Be prepared as the facilitator to navigate the emotions that arise. As a skilled therapist, you will have the tools necessary to guide and direct the emotions. This is where foundational skills of acceptance and challenging uncomfortable thoughts will be introduced in *real time*. As the facilitator, you will begin to understand how the participants have conceptualized their life experience with their health behaviours. Write down the responses from participants on a whiteboard.

You might choose to start the discussion like this:

*We are all here today because we have struggled with our weight. Part of letting go of that struggle and learning to accept the discomfort that it might bring, is to fully understand and define how weight has impacted our lives. So I would like us to discuss this topic as a group. As we discuss, I will be recording themes on the board, feel free to take notes in your own workbook. I will start the group off with some common ideas and you can fill in the rest.*

*Example 1: as a child, I hated clothes shopping because I had to shop at a plus size store. They did not make very fashionable clothes and were designed for the adult population, so I never truly felt that I could express my love of fashion and did not feel that as an overweight individual, I could be a fashionable person.*

*THEME: clothes shopping, fashion, identity*

*Example 2: My in-laws love to go in the hot tub on special occasions; I am a bit self-conscious to go into the hot tub with everyone because of how I look in a bathing suit. They think I am being difficult because I don't want to be in the hot tub, but I am actually just embarrassed at what they might think of me.*

*THEME: relationships, self-esteem, impact on family activities*

**This discussion will need to be monitored and kept on track, as there is limited time**

#### **ACTIVITY: PERSONAL TIMELINE**

In smaller groups, have group members draw out a 'personal timeline' of their experience with their weight throughout their life. Have them highlight any times they remember a specific situation was impacted by their weight. Have they always been overweight? Did they gain weight as an adult? How many "diets" have they been on? Have they had any success in weight loss before?

**Purpose:** this exercise is to have participants reflect on how their weight has impacted their life. It will also help create a timeline to show any times they have tried to lose weight previously and will tie into future activities such as goal setting, value exploration, and acceptance.

## MINDFULNESS ACTIVITY

### *Mindful Self-Compassion Script<sup>4</sup>*

*\*note: "... " represents 5-10 second pause in speaking*

As we begin, make sure you are in a comfortable position. You can sit in a chair, with your legs planted firmly on the ground, or perhaps, you might choose to lay on the ground with your arms and legs gently relaxed on the firm foundation of the ground. Once you have chosen a comfortable position, close your eyes and take in 3 deep, relaxing breaths... as you breathe in through your nose, allow the air to fill your stomach, pushing it high. Now, exhale through your mouth, feeling the air leave your stomach and enter the world around you.

Place your hand on your heart. Allow this to remind you to be kind to yourself. Feel the gentle pressure as your hand rests above your heart. You might feel the beat of your own heart - as distinct as a fingerprint. This is the sound of your life - the sign that you are alive. You are here, in the moment. Present and aware. Take in 3 deep breaths with your hand over your heart...

Focus your attention on your feet. How do they feel? What sensations are present? Scan each toe ... now move to the other foot ... do you notice a difference? Move to the arches of your feet ... now the heels.... Take a moment to acknowledge all the work your feet do for you. They help you get from one place to the next. They carry you. They dance with you ... they walk you ... they support you...

Continue up the ankles ... the shins... your knees. Pause here. Become aware of your knees.... Place your hands on your knees and breath in 3 deep relaxing breaths. Bring in some compassion to your knees... if there is pain ... acknowledge that pain ... allow for gratitude to be present towards your knees... take a moment to be thankful for the strength that your knees have in helping you get around each day.... You climb stairs... you step ... you kneel... you bend.

Continue your scan up to your thighs ... pause here... your thighs are strong ... breathe in 3 deep relaxing breaths... breathe in gratitude to your thighs for the support and strength they give you each day...

Continue your scan to your stomach ... place one hand over your heart, and one over your stomach ... take a moment here to bring compassion and gratitude to this area of your body. For some you, your stomach might be an area that causes you pain... breathe into that pain... breathe compassion and gratitude into the organs that each day, work hard to process the food you eat... to turn the nutrients into fuel ... pause here and breathe deep compassionate breaths into your stomach... .. . . .

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<sup>4</sup> Adapted from Neff, K. (2016) *Compassionate body scan*. Retrieved from: [http://self-compassion.org/wp-content/uploads/2016/11/bodyscan\\_cleaned.mp3](http://self-compassion.org/wp-content/uploads/2016/11/bodyscan_cleaned.mp3)

Next move your scan to your shoulders ... Breathe in deep relaxing breaths ... Move slowly down your arms and hands ... your arms help you carry small children.... Pick up objects ... Drive ... swim ... balance ... eat ... push ... pull ... embrace ... hold ... grasp ... breath deep relaxing breaths of gratitude into these precious limbs ... Again ... if you notice any pain or discomfort ... acknowledge that pain ... it's okay to have pain ... pain is a part of life ... Breath in 3 deep relaxing breaths ...

Bring your attention to your neck .... your jaw .... Your forehead... relax these muscles ... we often clench and grind without noticing the tension we are carrying .... Breathe deep and relax .... now bring your scan to your head ... your mind .... Allow for kindness and respect for these important body parts.... Finally, rest your hand over your heart... take a moment to show gratitude, kindness, and respect for the body that carries you each day... gently bring your awareness back to the room.... Wiggle your toes, your ankles, and your fingers ... slowly open your eyes and bring your mind back to the present moment.

### **GUEST SPEAKER: NUTRITION**

*The facilitator is responsible for arranging guest speakers.*

### **HOMEWORK**

Group members will begin to learn more about understanding their values in the following weeks. Have them access the *VIA Values in Action*<sup>5</sup>. Challenge the members to explore in their own time the results, remembering to address the strengths and limitations of self-report questionnaires. The results are in no way exhaustive or concrete, but will give individuals a starting point to start reflecting on their own personal values.

There is also a *Healthy Eating Challenge* that members can try during the next week. The guest speaker is also welcome to add to this list of challenging group members to make healthier choices.

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<sup>5</sup> VIA Institute on Character (2016). Retrieved from:  
<https://www.viacharacter.org/survey/Account/Login?ReturnUrl=%2Fsurvey%2FSurveys%2FQuestions%2F4701197>





**WEEK 3**  
**THEME: EXPLORING PERSONAL VALUES/ PHYSICAL ACTIVITY GUEST**  
**SPEAKER**

**PURPOSE**

Value exploration is a foundational part of ACT. The session will guide group members to explore what is truly meaningful to them as they pursue health conscious behaviours. Individuals explore how their personal values have impact on their relationships, and choices they make<sup>6</sup>. In addition, individuals will discuss how it feels when they are making choices that do not reflect their values. Record responses on the whiteboard

**SUPPLIES NEEDED**

Pre-printed list of values  
 Pens/pencils  
 Whiteboard  
 Whiteboard markers

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
5 min	Homework Review/Reflection
20 min	Psychoeducation on defining and exploring personal values
15 min	Small group activity: exploring personal values
10 min	BREAK
50 min	Guest Speaker: Physical Activity
10 min	Mindfulness Activity
5 min	Homework
5 min	Weigh In

**HOMEWORK REVIEW/REFLECTION**

Have participants briefly review their week and their reflection on the homework.  
 Discuss how their mindfulness practice went. How was their healthy eating challenge?

**PSYCHOEDUCATION ON VALUES**

The facilitator will lead a psychoeducational discussion on the following topics:

*What are values?*

*How do we define values?*

*How do our values influence our choices? Our Relationships?*

*What happens when we do not make choices that reflect our values?*

*Etc...*

**ACTIVITY: PERSONAL TIMELINE**

<sup>6</sup> Harris, R. (2009). Know what matters. In *Act made simple*. Oakland, CA: New Harbinger Press

The facilitator will print out enough copies of sample value ideas for the group to work in pairs. Group members will be asked to write down the values they identify in their own life. Challenge them to make a top 10 list, and from there, narrow it down to a top 5. Have them record this in their journal workbook and we will refer back to the activity again during the *Goal Setting* activity and discussion in the following week.

### GUEST SPEAKER: PHYSICAL ACTIVITY

*The facilitator is responsible for arranging guest speakers.*

### MINDFULNESS ACTIVITY

Leaves on a Stream<sup>7</sup>

\* “...” represents a 10=15 second pause\*

Find a comfortable seated position. Allow your body to relax and plant your feet comfortable on the ground ... .. Now imagine you are sitting next to a gently flowing stream. Imagine that there are leaves floating past you in this stream... ..

For the next few moments, allow for thoughts to come freely into your mind. As each thought enters your mind, imagine placing that thought on a passing leaf in the stream. Let that leaf float away. It does not matter whether the thought is positive or negative ... painful or pleasurable ... just place the thought on a leaf and watch as it gently floats away from you... ..

If you happen to notice that your thoughts no longer enter your mind, just watch the stream for a few moments ... see how the water ripples and moves along the stream ... allow for the stream to flow at its own rate ... do not try to control or manipulate the flow ... allow the stream to flow however it wants to ...

Eventually, a thought will come along and you can place that thought on the stream where it can gently and peacefully float away...

If you find your thoughts saying *this is dumb ... why am I doing this .... This won't work ....* Place those thoughts on the leaves and watch them float away ...

If you notice a leaf does not float away, but rather ... gets stuck... or keeps coming back ... just allow for that leaf to stay where it is. Don't try and force the leaf to float away ... the leaf can stay if it wants ....

If you notice that you have feelings of boredom ... impatience ... frustration ... or doubt about this experience ... allow for those feelings to be present. Acknowledge those feelings ... place those words on the leaf ... let it float away from you ... down the stream ....

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<sup>7</sup> Harris, R. (2009). Know what matters. In *Act made simple*. Oakland, CA: New Harbinger Press



**WEEK 4**  
**THEME: GOAL SETTING/COOKING DEMO**

**PURPOSE**

This session will help group members to connect their values to their goals. During this session, individuals will see how they can connect their values and goals to set realistic and specific goals that will help them continue on their journey to making healthier decisions. As group members begin to understand how their goals should be designed, they will gain the necessary skills to continue to make decisions once they have finished this program and continue to make healthy choices everyday.

**SUPPLIES NEEDED**

Whiteboard

Dry erase markers

Cooking tools and supplies necessary for making the snack

Raisins for mindfulness activity

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
5 min	Homework Review/Reflection
15 min	Psychoeducation on goal setting
20 min	Activity: SMART goals
10 min	Group discussion on goals
10 min	BREAK
50 min	Guest Speaker
10 min	Mindfulness Activity
5 min	Homework
5 min	Weigh In

**HOMEWORK REVIEW/REFLECTION**

Have group members go around the circle or table and share how they engaged in their physical activity during the past week. Celebrate the victories and encourage the healthy choices the members are making. Allow for the group members to share how their choices connected to the values they identified the following week. If someone did not do the physical activity, gently challenge their decision and explore what prevented them from doing so.

**CONNECTING VALUES TO GOALS**

It is important for individuals to understand the connection and distinction between values and goals. Values are something we continually strive towards, but they are not a

concrete action that can be achieved. Goals can be achieved. Lead a discussion on this topic and have the group collectively explore the differences between values and goals. On a white board, go through what a SMART goal looks like<sup>8</sup>.

### ACTIVITY: SMART GOALS

Have group members work together in small groups to develop at least 3-5 SMART goals. Have them explore the steps they will need to take to ensure this goal can be met. Have them also connect this goal to a value they have declared. Encourage them to share these goals with the rest of the group and to post their goals somewhere they will be able to see everyday.

### GUEST SPEAKER: COOKING DEMO

*The facilitator is responsible for arranging guest speakers. For this class, perhaps have the group make some healthy snacks that they can use throughout the week! Make sure to check for any allergies and to ensure there is enough room, or an agreed upon meeting point for this class.*

### MINDFULNESS ACTIVITY

Mindful Eating: The Raisin Activity<sup>9</sup>

**Holding:** Hold the raisin in the palm of your hand. Imagine that you have never seen anything like it in your life before. Run your fingers over the raisin. How does the raisin look in your hand? How do the ridges feel on the tips of your fingers?

**Seeing:** Take your time as you place your entire attention on the raisin. Notice the ridges and the variations in the colour. Hold the raisin between your thumb and index finger and really examine it as if it were a diamond and you were an appraiser. Do you really see this raisin?

**Touching:** Close your eyes and explore the raisin through only your sense of touch. How do the ridges feel? How does the raisin respond to light pressure?

**Smelling:** Bring the raisin close to your nose. Take in a deep breath. Let the aroma of the raisin trickle into your nose. Does it engage any of your senses? Do you feel any reactions in your body? Is your stomach awakening? Is your mouth beginning to water?

**Placing:** Slowly bring the raisin to your mouth. Do you notice how the intricate mechanics of your body all worked together to complete this? How your arm and hand knew exactly where to place the raisin? Place the raisin on your tongue and hold it there. Without chewing, notice how the raisin feels in your mouth. Notice how your mouth

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<sup>8</sup> Harris, R. (2009). *Act made simple*. Oakland, CA: New Harbinger Press



**WEEK 5**  
**THEME: ACCEPTANCE**

**PURPOSE**

This session will explore the very first part ACT – *acceptance*. Participants will learn to understand that acceptance is not synonymous with compliance or liking the pain and discomfort. Rather, acceptance teaches us all to make room for the pain of life and not allow it to increase a desire for avoidant behaviours. The discussion will also focus on avoidant behaviours that the participants might engage in to decrease pain and discomfort. The goal is to learn to *make room* in their life to live alongside pain and discomfort as part an engaging and meaningful life.

**SUPPLIES NEEDED**

Index cards  
Pens/pencil crayons

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
5 min	Homework Review/Reflection
5 min	Midpoint check in
40 min	Group discussion on acceptance
10 min	BREAK
20 min	Group Discussion: Avoidant Behaviours
20 min	Activity: Avoidant Antidotes
10 min	Mindful Self Compassion Exercise
5 min	Homework
5 min	Weigh In

**HOMEWORK REVIEW/REFLECTION/CHECK IN**

This can be part of a midpoint check in for the group. How is everyone feeling? Have they been able to put the lessons they have learned into practice? Have they been having making time for physical activity? How has that impacted their days?

**GROUP DISCUSSION: ACCEPTANCE**

This part of the session will be largely psychoeducational and will allow for the facilitator to explain how acceptance works and how it will apply to healthy behaviour change. Consider pre-reading the information on acceptance in *Acceptance and Commitment*



*Therapy: The Process and Practice of Mindful Change*<sup>10</sup> to refresh your memory as you prepare for the session.

The discussion might look something like this for example:

*We have covered a lot of the personal timelines and histories of your life being overweight. We have identified some of the difficult feelings and emotions that have risen over the years as you have engaged in a struggle to control or to avoid the painful feelings. What are some of these difficult feelings and emotions that we have discussed (write these on the whiteboard).*

*Embarrassment*

*Shame*

*Guilt*

*Depression*

*Anger*

*Withdrawing from social situations*

*Emotional eating*

*Etc ....*

*Now what if I told you to **accept** these emotions as a part of your life. To make room for the pain and discomfort? Let go of the struggle? You might think I sound ludicrous when I say this. I am not saying that acceptance means that you like the pain and don't want to change it, but we are trying to shift the focus. To drop that constant struggle.*

*Imagine for a moment you are holding one of the painful emotions you have identified. Imagine it is glued to a wooden stick. If you have to carry this stick around with you everywhere, how will that impact your day? Will you be able to complete all your tasks? Will it create any problems?*

*Imagine now that we simply place this stick in a special pocket on your pants. The painful emotion is still with you, but you can move around a bit easier, you don't have to carry it around specifically, there is a bit of space. This is what we are talking about when we talk about acceptance.*

The facilitator will expand on this topic and lead the group in a meaningful conversation on acceptance and how that will look in the life of each group member.

---

<sup>10</sup> Hayes, S.C., Strosdahl, K.D., Wilson, K.G. (2010). *Acceptance and Commitment Therapy: The Process and Practice of Mindful Change*. New York, NY: Guilford Press.

## GROUP DISCUSSION: AVOIDANT BEHAVIOURS

### ACTIVITY: ANTIDOTES

For the activity, have group members write down some of the avoidant behaviours that they engage in regarding their eating and health habits on one side of an index card (up to 5 cards). Next, on the reverse sides of the cards, have the group write out *antidotes* to the avoidant behaviour. This could be a motivational quote, a series of steps or rituals to complete as a response, or anything else they can think of. Have the participants share their response as a group.

### MINDFULNESS ACTIVITY

Take a moment and sit comfortable in your chair and close your eyes.

\* “...” represents a 10=15 second pause\*

Take in 3 deep relaxing breaths... I want to ask you to do something that might sound counterproductive. I want you to think about your favourite food ... think about whatever it is that you crave most often ... is it a sugary treat? Your favourite cupcake? Chips? Ice cream? Anything. I want you to take a moment to really imagine this craving of yours. See it in your mind... what does it smell like? ... .. What is the texture? ... .. How does it feel in your mouth? ... .. How do you feel when you eat it? ....

Now, I want you to pull your attention away from this treat and focus again on your breath... take in 3 deep breaths .... Recognize any emotions or feelings that have become present since imagining this common craving ... did you feel excited by the prospect of eating this treat? Did you feel frustrated or angry that you could not have it and are instead .... Meditating .... Sit here for a moment and reflect on these sensations in your body.

Now imagine for a moment that you are sitting at home after a long day at work ... an important deadline is coming up and you have a bit of anxiety about it ... picture yourself sitting there ... and you have a craving for that special treat again ... you crave it so badly you can taste it ... it might even be sitting there on the table where you can see it ... smell it even ... now image removing that temptation from the room ... maybe even as far as throwing it out.... Visualize yourself taking in 3 deep breaths... you don't have to give into that craving... you can feel anxiety ... you can deal with stress.... It is a natural part of life ... it's all part of the human experience ... you do not have to give into the craving ... giving into that craving does not make you happy ... it does not fill the void you are trying to fill ... It is a temporary fix ... giving into your craving does not align with your values ... Breathe into that feeling ... allow room for the discomfort ... acknowledge the strength you have over this craving ... now ... Imagine that instead of giving into that craving ... you lace up your shoes and go for a 10 minute walk outside ...

Gently bring your attention back to the room and journal what it was like to visualize not giving into your craving.



**WEEK 6**  
**THEME: CONNECTING VALUES TO ACTION**

**PURPOSE**

This session will help the group connect their values to action oriented behaviour change. Participants will review their values and their goals and work together to create an action plan to ensure they know the steps that are necessary to achieving their goals.

**SUPPLIES NEEDED**

Magazines  
Glue  
Scissors  
Markers  
Pens/pencils  
Colouring books  
Coloured Pencils

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
10 min	Homework Review/Reflection
30 min	Group Discussion: Committed Action
10 min	BREAK
30 min	Activity: Vision Boards
15 min	Mindfulness Activity
10 min	Homework
10 min	Potluck Discussion
5 min	Weigh In

**HOMEWORK REVIEW/REFLECTION**

Review with group participants how they are doing on meeting their goals, completing their physical activity goals, and making healthier choices.

**GROUP DISCUSSION: COMMITTED ACTION/VALUE AND GOAL REVIEW**

The facilitator will lead a discussion on how to take values and goals, and turn them into action oriented behaviours. The facilitator will write a value on the whiteboard (ex. Health) and will write down a SMART goal that might be associated with the value (ex. 30 minute of daily exercise at least 5 times/week). Next, the group will brainstorm how to make that goal an action oriented behaviour. Ideas could include coming up with a weekly agenda or daily checklist that includes accomplishing the goal, or finding an accountability partner/group to be a part of (is there a walking group in the community?). As a group, each member will share their SMART goals and as a group, encourage one another to develop a series of steps to make this happen.

It is common for some goals and values to overlap; this will encourage the group to find the similarities and shared experiences of others.

### **ACTIVITY: VISION BOARDS**

Place the magazines and supplies in the center of the room and have the group members develop a vision board. A vision board is a visual representation that will allow for everyone to put their values and goals into a visual format they can place somewhere they will see regularly. This will engage the participants who connect to creativity and will give participants a strong reminder of the important work they completed during the program.

### **MINDFULNESS ACTIVITY**

Mindful colouring

### **POTLUCK PREPARATION**

The final group session will include a healthy potluck. Bring this to the attention of the group members and have them come up with healthy items they can bring.

The facilitator should keep in mind that some group members might have scarce resources and should therefore not be encouraged to make extravagant or expensive meals. This is intended to be fun and give group members ideas of healthy snacks.

The homework this week can involve researching healthy potluck ideas that they could bring, and the list will be comprised the following week.

### **HOMEWORK**

The homework this week will be:

- Track physical activity, aiming to reach 5 times/week (30 minutes or more)
- Practice mindfulness at least 10 minutes everyday
- Research healthy potluck ideas and write them down



**WEEK 7**  
**THEME: OVERCOMING BARRIERS**

**PURPOSE**

This session will focus on the fact that behaviour change is not easy - it will be hard. This session will tie together the many strategies that have been discussed in the previous sessions.

**SUPPLIES NEEDED**

Index cards  
Pens/pencil crayons  
Whiteboard  
Dry-erase markers

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
10 min	Homework Review/Reflection
30 min	Group Discussion: Accepting Mistakes
20 min	Developing a Personal Mantra
10 min	BREAK
15 min	Activity: Goals and Barriers
15 min	Mindfulness Activity
5 min	Potluck Preparation
10 min	Homework
5 min	Weigh In

**HOMEWORK REVIEW/REFLECTION**

The facilitator will guide a group reflection on the week, mindfulness practice, and healthy behaviour changes (i.e. healthy eating and physical activity goals).

**GROUP DISCUSSION: ACCEPTING MISTAKES**

Participants will explore the difficulties that occur in making a behaviour change.

*What if the scale doesn't move?*

*What if I eat something bad? Does it ruin my day?*

*What if I overeat?*

*What if I don't feel like doing any physical activity?*

There are many circumstances that come up when we are trying to make a new habit. We all have made numerous excuses to justify our avoidant or unhealthy behaviours. That sort of thinking has got us to where we are today. But, just as we have already learned, it doesn't have to be like that anymore. We do not have to listen to the voices in our mind

that tells us we should skip the gym, or that we worked hard and deserve a treat... but what if that treat leads to another treat ... and another... and another?

This is where acceptance and mindfulness comes in. Yes, it is uncomfortable to deny ourselves the things that have made us happy for so long, but does it meet our goals? Does it align with our values?

The facilitator will lead this discussion and allow for participants to respond and work through this ACT concept.

### **ACTIVITY: GOALS AND BARRIERS**

Have participants review their SMART goals.

Have them write down what sort of excuses that might come up that might prevent them or encourage them to not complete the goal.

Write these on index cards and have the group members carry this around with them as they develop a new habit and work towards their goals.

### **MINDFULNESS ACTIVITY: PERSONAL MANTRA**

Developing a “Personal Mantra”. Sometimes, when we make positive changes to our health behaviours, we can lose motivation or become frustrated when we don’t see results. To address the instances where it might be difficult to keep going, a personal mantra will serve as a simple reminder to stick to the values and goals we have discussed up to this point.

The group can develop one single mantra, or each person can develop their own. For example, one mantra might be *“It will be worth it – it might be hard now, but it will be worth it”* This mantra can be used when the person decides to say no to a unhealthy food item a coworker brought in, or when a person has really intense cravings.

Have the group members write down their mantras in a place that they can see.

### **POTLUCK PREPARATION**

Create a list on the whiteboard of what everyone will bring to the potluck in the following session.

Discuss if each item is healthy and nutritional.

Make sure to celebrate the success of making healthy choices!

### **HOMEWORK**

The homework this week will be:

- Track physical activity, aiming to reach 5 times/week (30 minutes or more)
- Practice mindfulness at least 10 minutes everyday
- Bring your potluck item to session next week





**WEEK 8**  
**THEME: MAINTENANCE**

**PURPOSE**

This week will focus on how to continue the work that has been addressed in the program. Participants will have the opportunity to reflect and share their experience with the group as well as process the end of the group. There will also be a healthy pot luck to show group members that although we often celebrate with food in western society, there can still be balance, mindfulness, and healthy choices.

**SUPPLIES NEEDED**

Pens/pencils  
Paper plates  
Plastic cutlery  
Disposable cups  
Serving utensils  
Napkins

**ACTIVITY TIMELINE**

<b>Time</b>	<b>Activity</b>
30 min	Reflection on the program
20 min	Mindfulness Activity
10 min	Final Weigh In
60 min	Potluck and session wrap up

**HOMEWORK REVIEW/REFLECTION**

The facilitator can take this time to normalize that goodbyes can be difficult and are a part of everyday life. The facilitator can also encourage group members to perhaps seek personal counselling or find a way in which they can continue to work on the changes that were discussed throughout the program. The 8 weeks might be over, but the work is not done. These 8 weeks were just the beginning and the real work will be to continue the work now that sessions are done.

The facilitator might also want to create a list or community resources that participants can utilize outside of the session.

Go around the group and have members answer these questions:

- What have you learned throughout this program?
- How will you continue these changes in your life?
- What will keep you accountable to your goals?
- How do you feel knowing this is our last session together?



Appendix B

**Participant Workbook**

VALUE BASED LIVING: ENCOURAGING HEALTHY BEHAVIOUR CHANGE IN  
OVERWEIGHT AND OBESE ADULTS

A Project

Submitted to the School of Graduate Studies  
of the University of Lethbridge  
in Partial Fulfillment of the  
Requirements for the Degree

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----- please return this to your facilitator -----  
 -----

## SELF- REPORT QUESTIONNAIRE

Name:

Age:

Date of Birth:

Gender:

*Preferred pronoun:*

Ethnicity:

## BMI

Please Circle your BMI

BMI (Body Mass Index) Chart																
BMI	Healthy					Overweight					Obese					
	19	20	21	22	23	24	25	26	27	28	29	30	35	40	45	50
Height	Weight in Pounds															
4'10"	91	96	100	105	110	115	119	124	129	134	138	143	167	191	215	239
4'11"	94	99	104	109	114	119	124	128	133	138	143	148	173	198	222	247
5'0"	97	102	107	112	118	123	128	133	138	143	148	153	179	204	230	255
5'1"	100	106	111	116	122	127	132	137	143	148	153	158	185	211	238	264
5'2"	104	104	115	120	126	131	136	142	147	153	158	164	191	218	246	273
5'3"	107	113	118	124	130	135	141	146	152	158	163	169	197	225	254	282
5'4"	110	116	122	128	134	140	145	151	157	163	169	174	204	232	262	291
5'5"	114	120	126	132	138	144	150	156	162	168	174	180	210	240	270	300
5'6"	118	124	130	136	142	148	155	161	167	173	179	186	216	247	278	309
5'7"	121	127	134	140	146	153	159	166	172	178	185	191	223	255	287	319
5'8"	125	131	138	144	151	158	164	171	177	184	190	197	230	262	295	328
5'9"	128	135	142	149	155	162	169	176	182	189	196	203	236	270	304	338
5'10"	132	139	146	153	160	167	174	181	188	195	202	209	243	278	313	348
5'11"	136	143	150	157	165	172	179	186	193	200	208	215	250	286	322	358
6'0"	140	147	154	162	169	177	184	191	199	206	213	221	258	294	331	368
6'1"	144	151	159	166	174	182	189	197	204	212	219	227	265	302	340	378
6'2"	148	155	163	171	179	186	194	202	210	218	225	233	272	311	350	389
6'3"	152	160	168	176	184	192	200	208	216	224	232	240	279	319	359	399
6'4"	156	164	172	180	189	197	205	213	221	230	238	246	287	328	369	410

Image retrieved from: <http://www.smart-heart-living.com/images/BMIchart2.jpg>

*Please Note:*

Your BMI is an arbitrary number that is overgeneralized and does not define you! This only serves to show where you started. BMI does not measure happiness, joy, fulfillment, and how valuable you are.







**WEEK 1**  
**THEME: INTRODUCTION TO ACT AND MINDFULNESS**

Circle your response to the following questions:

**COMMITMENT**

- 1- Not sure
- 2- Not at all
- 3- A little
- 4- A lot
- 5- Fully committed

1. How willing are you to make a positive change in your health behaviours?

1                      2                      3                      4                      5

2. Are you willing to put in the time necessary to implement the strategies of this program?

1                      2                      3                      4                      5

3. Are you willing to tell someone you trust to increase accountability?

1                      2                      3                      4                      5

**EATING BEHAVIOURS AND CRAVINGS**

- 1 – Never
- 2 – Rarely
- 3 – Sometimes
- 4 – Often
- 5 – Always

1. Do you eat breakfast?

1                      2                      3                      4                      5

2. Do you cook your own meals?

1                      2                      3                      4                      5

3. Do you eat fast food more than once/week?

1                      2                      3                      4                      5

4. Do you eat watching TV?

1                      2                      3                      4                      5

5. Do you eat standing up?

1                      2                      3                      4                      5

6. Do you get frustrated while dieting?  
1                      2                      3                      4                      5
7. Do you feel like the whole day is ruined if you eat one thing that wasn't a part of your "diet"?  
1                      2                      3                      4                      5
8. Do you feel supported by friends and family about making behaviour change?  
1                      2                      3                      4                      5
9. Do you ever eat so fast you forget to chew?  
1                      2                      3                      4                      5
10. Do you eat when you are bored?  
1                      2                      3                      4                      5
11. Do you eat too quickly?  
1                      2                      3                      4                      5
12. Have you ever choked on your food because you ate too fast?  
1                      2                      3                      4                      5
13. Do you eat when you are sad/anxious/depressed?  
1                      2                      3                      4                      5
14. Have you ever punished yourself for eating something that you felt you shouldn't?  
1                      2                      3                      4                      5





## **My Personal Timeline**





What have I learned from today's class?

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### MINDFULNESS ACTIVITY

*Mindful Self-Compassion Script*<sup>11</sup>

*\*note: "... " represents 5-10 second pause in speaking*

As we begin, make sure you are in a comfortable position. You can sit in a chair, with your legs planted firmly on the ground, or perhaps, you might choose to lay on the ground with your arms and legs gently relaxed on the firm foundation of the ground. Once you have chosen a comfortable position, close your eyes and take in 3 deep, relaxing breaths... as you breathe in through your nose, allow the air to fill your stomach, pushing it high. Now, exhale through your mouth, feeling the air leave your stomach and enter the world around you.

Place your hand on your heart. Allow this to remind you to be kind to yourself. Feel the gentle pressure as your hand rests above your heart. You might feel the beat of your own heart - as distinct as a fingerprint. This is the sound of your life - the sign that you are alive. You are here, in the moment ... present and aware. Take in 3 deep breaths with your hand over your heart...

Focus your attention on your feet. How do they feel? What sensations are present? Scan each toe ... now move to the other foot ... do you notice a difference? Move to the arches of your feet ... now the heels.... Take a moment to acknowledge all the work your feet do for you. They help you get from one place to the next. They carry you. They dance with you ... they walk you ... they support you...

Continue up the ankles ... the shins... your knees. Pause here. Become aware of your knees.... Place your hands on your knees and breath in 3 deep relaxing breaths. Bring in some compassion to your knees... if there is pain ... acknowledge that pain ... allow for gratitude to be present towards your knees... take a moment to be thankful for the strength that your knees have in helping you get around each day.... You climb stairs... you step ... you kneel... you bend.

Continue your scan up to your thighs ... pause here... your thighs are strong ... breathe in 3 deep relaxing breaths... breathe in gratitude to your thighs for the support and strength they give you each day...

<sup>11</sup> Adapted from Neff,K. (2016) *Compassionate body scan*. Retrieved from: [http://self-compassion.org/wp-content/uploads/2016/11/bodyscan\\_cleaned.mp3](http://self-compassion.org/wp-content/uploads/2016/11/bodyscan_cleaned.mp3)





HOMEWORK

Next week we will be looking at our values, please visit the website:

[www.viacharacter.org](http://www.viacharacter.org)

Once you have completed the questionnaire, write down your top 5 here:

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_

Healthy Eating Challenge:

*Cross off as many tasks as you can in the next week*

- |                                       |                                |
|---------------------------------------|--------------------------------|
| Eat breakfast                         | Try a new healthy recipe       |
| Pack your lunch for work              | Make a green smoothie          |
| Prepare healthy snacks                | Don't eat out in the next week |
| Drink 8+ oz of water in a day         | Try a "meatless" meal          |
| Eat a green vegetable with every meal | Drink less alcohol             |
| Plan your meals for the week          | Read all your food labels      |



**VALUES**

What do your values mean to you?

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What are your top values?

- 1. \_\_\_\_\_
- 2. \_\_\_\_\_
- 3. \_\_\_\_\_
- 4. \_\_\_\_\_
- 5. \_\_\_\_\_
- 6. \_\_\_\_\_
- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_

\*circle your **top 5** values

What have I learned from today's class?

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## MINDFULNESS ACTIVITY

### Leaves on a Stream<sup>12</sup>

\* “...” represents a 10=15 second pause\*

Find a comfortable seated position. Allow your body to relax and plant your feet comfortable on the ground ... .. Now imagine you are sitting next to a gently flowing stream. Imagine that there are leaves floating past you in this stream... ..

For the next few moments, allow for thoughts to come freely into your mind. As each thought enters your mind, imagine placing that thought on a passing leaf in the stream. Let that leaf float away. It does not matter whether the thought is positive or negative ... painful or pleasurable ... just place the thought on a leaf and watch as it gently floats away from you... ..

If you happen to notice that your thoughts no longer enter your mind, just watch the stream for a few moments ... see how the water ripples and moves along the stream ... allow for the stream to flow at its own rate ... do not try to control or manipulate the flow ... allow the stream to flow however it wants to ...

Eventually, a thought will come along and you can place that thought on the stream where it can gently and peacefully float away...

If you find your thoughts saying *this is dumb ... why am I doing this .... This won't work ....* Place those thoughts on the leaves and watch them float away ...

If you notice a leaf does not float away, but rather ... gets stuck... or keeps coming back ... just allow for that leaf to stay where it is. Don't try and force the leaf to float away ... the leaf can stay if it wants ....

If you notice that you have feelings of boredom ... impatience ... frustration ... or doubt about this experience ... allow for those feelings to be present. Acknowledge those feelings ... place those words on the leaf ... let it float away from you ... down the stream ....

You might find your thoughts are distracted, like you've left this exercise and are thinking about something on your to-do list ... as soon as you realize this, come back to the stream and start this exercise again .... (*repeat as many times as desired for the duration of the activity*)

---

<sup>12</sup> (adapted from Harris, 2009; pg 113-114)







## MINDFULNESS ACTIVITY

### Mindful Eating: The Raisin Activity<sup>13</sup>

**Holding:** Hold the raisin in the palm of your hand. Imagine that you have never seen anything like it in your life before. Run your fingers over the raisin. How does the raisin look in your hand? How do the ridges feel on the tips of your fingers?

**Seeing:** Take your time as you place your entire attention on the raisin. Notice the ridges and the variations in the colour. Hold the raisin between your thumb and index finger and really examine it as if it were a diamond and you were an appraiser. Do you really see this raisin?

**Touching:** Close your eyes and explore the raisin through only your sense of touch. How do the ridges feel? How does the raisin respond to light pressure?

**Smelling:** Bring the raisin close to your nose. Take in a deep breath. Let the aroma of the raisin trickle into your nose. Does it engage any of your senses? Do you feel any reactions in your body? Is your stomach awakening? Is your mouth beginning to water?

**Placing:** Slowly bring the raisin to your mouth. Do you notice how the intricate mechanics of your body all worked together to complete this? How your arm and hand knew exactly where to place the raisin? Place the raisin on your tongue and hold it there. Without chewing, notice how the raisin feels in your mouth. Notice how your mouth begins to react to the raisin. Explore the raisin with your tongue for a few moments and acknowledge the sensations that are occurring in your mouth as a direct reaction to this raisin

**Tasting:** Now, I want you to slowly begin to chew this raisin, without swallowing. Notice how your tongue gently directs the raisin to your teeth. Take two gently bites of this raisin. Notice how the raisin begins to change as you gently chew. How the mechanics of your mouth all work together to release the flavours of this raisin. Notice how the taste changes and becomes more intense as you chew. Try and determine which area of your tongue is tasting the raisin most intensely.

**Swallowing and Following:** Prepare to swallow the raisin. Notice how your mouth gets ready to prepare for the transportation of the raisin down your throat. Even the act of swallowing has become conscious. Swallow the raisin. Notice how the raisin gently glides down your throat into your stomach. Imagine you can see inside your body to watch this. Do you feel it? Notice how your body reacts to the raisin and any sensations you feel now that it has left your mouth.

Take a few moments to reflect on this experience. When you are ready, bring your attention back to the group and be ready to share some thoughts on how you felt during this exercise.

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<sup>13</sup> (adapted from Jon Kabat-Zinn, retrieved from: <http://www.refinery29.com/2014/02/61695/mindful-eating-exercise-jon-kabat-zinn>)







## MINDFULNESS ACTIVITY

Take a moment and sit comfortable in your chair and close your eyes.

\* “...” represents a 10=15 second pause\*

Take in 3 deep relaxing breaths... I want to ask you to do something that might sound counterproductive. I want you to think about your favourite food ... think about whatever it is that you crave most often ... is it a sugary treat? Your favourite cupcake? Chips? Ice cream? Anything. I want you to take a moment to really imagine this craving of yours. See it in your mind... what does it smell like? ... .. What is the texture? ... .. How does it feel in your mouth? ... .. How do you feel when you eat it? ....

Now, I want you to pull your attention away from this treat and focus again on your breath... take in 3 deep breaths .... Recognize any emotions or feelings that have become present since imagining this common craving ... did you feel excited by the prospect of eating this treat? Did you feel frustrated or angry that you could not have it and are instead .... Meditating .... Sit here for a moment and reflect on these sensations in your body.

Now imagine for a moment that you are sitting at home after a long day at work ... an important deadline is coming up and you have a bit of anxiety about it ... picture yourself sitting there ... and you have a craving for that special treat again ... you crave it so badly you can taste it ... it might even be sitting there on the table where you can see it ... smell it even ... now image removing that temptation from the room ... maybe even as far as throwing it out.... Visualize yourself taking in 3 deep breaths... you don't have to give into that craving... you can feel anxiety ... you can deal with stress.... It is a natural part of life ... it's all part of the human experience ... you do not have to give into the craving ... giving into that craving does not make you happy ... it does not fill the void you are trying to fill ... It is a temporary fix ... giving into your craving does not align with your values ... Breathe into that feeling ... allow room for the discomfort ... acknowledge the strength you have over this craving ... now ... Imagine that instead of giving into that craving ... you lace up your shoes and go for a 10 minute walk outside ...

Gently bring your attention back to the room and journal what it was like to visualize not giving into your craving.

## HOMEWORK

1. Track your physical activity for the week:

*\*try for 5 days/week for 30 minutes*

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_



















