Biological and Cultural Challenges During Weight Loss in Obese Individuals

From an outside perspective the idea of being unhealthily overweight seems contrary to what both the human body and mind desire; nonetheless it is a major contributor towards cardiovascular disease, the single largest cause of mortality in the United States. Even more confusing is that it can be prevented so easily through the adoption of a healthy lifestyle. Yet, despite the wealth of knowledge on the risks associated with obesity, it is still growing intra-nationally as food becomes cheaper and spreading internationally as countries continue to develop. Like so many diseases, prevention is the easy part when talking about the obesity epidemic. The hard part comes with reversing an already dominant lifestyle. There are a few schools of thought concerning obesity and why it is so hard to exit. These schools of thought can basically be broken down into two broad categories – external and internal influences. The internal influences can then be subdivided once more into psychological and biological factors. The following research attempts to reveal the reasons why obesity seems to be so difficult to exit.

Review of Literature
**Culture as the Inhibiting Factor**

Although it may initially seem counter intuitive, there is a strong case being made for external influences, like culture, rather than internal influences, like biology, being the obstacle that must be overcome in order to reverse obesity. When looking at cultural reasons why obesity is so hard to overcome, it is important to realize that obese individuals are not simply uninformed. In fact, obese individuals are equally as aware as individuals of normal weight of the cardiovascular risks associated with being obese (Per et al 275). It is important to realize that ignorance is not an adequate explanation because it reveals the complexity of the problem; people are knowingly killing themselves seemingly against their own will. So rather than being a problem of knowledge, another group of scientists believes the extensive availability of food in developed countries as well as insufficient external moderation are the major obstacles that obese individuals trying to lose weight face (Ferrer et al 49). Ferrer sought to measure the capability for healthy diet and exercise by using focus group studies as well as structured surveys to obtain his data. Focus groups and surveys are amazing tools for studying the challenges of losing weight because it separates itself from the science of addiction and focuses on the social challenges that individuals face.

Another argument that adds to the claim of “insufficient external moderation” compares the failing anti-obesity campaign to the success of the anti-smoking campaign; the central claim is that if we follow the anti-smoking campaign’s lead by taxing sugars and exerting more social pressures, people will lose weight (Callahan et al 34-40). Callahan essentially blames society for making it so hard for individuals to lose weight by allowing them to stay overweight. Callahan, however, is at least partially biased as he
used to be a smoker and credited the anti-smoking campaign with helping him to quit. Although this is a “bias” to his article, it is an intentional one meant to act as an example to get his point across. Childhood obesity further illustrates the dominating nature of external moderation. A study found that “mothers of overweight children would often describe their own parents’ feeding style as authoritarian or neglectful while their own as being more indulgent and better” (Kalinowski et al 434). Although an extreme example, Kalinowski’s research demonstrates the influence that improper external moderation – whether it be by a literal government or a parental government, can have on an individual’s ability to control his or her own diet and health. 

_Biology is Key_

As strong as the case is for external influences, they would be incomplete without taking internal influences into account – psychological and biological ones, specifically. A large section of research focuses on the biological reasons behind why losing weight is so hard. Some say that individuals are predisposed to getting fat because they are genetically programmed to have a hyper-efficient energy storage system, essentially “storing fat for a famine that never comes” (Newman 56). This theory has serious implications – hyper-efficient storage systems would make diet change a difficult way to lose weight since eating even a slight excess could lead to weight gain.

Most of the research on the internal factors affecting the challenges of weight loss in obese individuals focuses on the biological and psychological aspects of food addiction. A study on rats showed that rats exposed to delicious, rich foods were likely to ignore painful stimuli in order to keep eating while rats exposed to healthy, stock food were likely to respond to the stimuli and stop eating (Kenny et al). These findings are
analogous to food addiction found in humans and explain why it can be so hard to lose weight once an addiction has been established. Addiction has such an impact on self-moderation, in fact, that a cubic relationship between addiction and obesity has been proposed (Meule 508). Along with this biological side of addiction, comes the psychological side. Food addiction has been shown to contribute to binge eating as well as internalized weight bias – a psychological condition related to distress and poor weight loss outcomes (Burmeister et al 105-110). What these findings suggest is that obese individuals need to overcome their biological addiction while at a vulnerable psychological state in order to lose weight, which puts them at a lower success rate than obese individuals without internalized weight bias seeking to lose weight. It has also been found that there is a definite and positive correlation between the length of time spent obese and the difficulty faced when “exiting” obesity (Daouli et al). Part of the reason that exiting obesity can be so difficult is the attractiveness of palatable foods. It has been found that attractive foods do not necessarily out-weight the benefits of healthy foods in the minds of people losing weight but, rather, attractive foods can actually inhibit the thoughts of losing weight (Stroebe). Stroebe’s findings take what people already know – that “delicious” looking foods are tempting to eat despite caloric or fat content, but takes it a step further by shedding light on why even those with the strongest resolve can ignore warning signs and continue to eat poorly.

Further Exploring Cultural Roadblocks in Weight Loss

Obesity is a relatively new and confusing pandemic. Although there is a very clear cut scientific formula for weight loss, internal and external influences contribute to its persistence and the difficulty faced when individuals try to reverse obesity. A majority
of the current research focuses on the causes of obesity – seeing prevention as the key ingredient to curing it. This, however, does not do anything to shed light onto why people who are currently overweight have so much trouble losing it. Furthermore, the research that is devoted to exiting obesity focuses mainly on the aspect of food addiction, spending less time on the social and psychological barriers associated with it.

My research will focus on the psychology behind the decisions that obese individuals make in regard to diet. Although the intent of this paper is to focus on the factors that affect dietary changes, they are often accompanied by exercise, or other lifestyle changes. Due to their interconnectedness, there will be no attempt to divorce the two when acquiring data. To obtain this information I conducted two separate interviews – one with an expert psychologist and the other with someone who has first hand experience with weight loss. I also attended a self-help group in the form of Overeaters Anonymous (OA). Knowing why it is so difficult to exit obesity, not just biologically, but also socially and psychologically, could result in a more effective treatment program for patients and provide them with a more effective support group which would, in turn, elongate life span, decrease the cost of health care, and lead to lives that are both happier as well as healthier.

Methods

Personal Interview

An interview was set up with John Bateman, a University of Central Florida student who was previously overweight, yet overcame the adversity of weight-loss to change his dietary and lifestyle choices. The interview was conducted in the comfort of his home at 2:00pm on Friday March 14, 2014. The interview began on time and lasted
until 2:45pm. I chose to interview Mr. Bateman because of his personal experience with weight-loss. In high school, Mr. Bateman was overweight and, as a result, was suffering from poor health problems. Mr. Bateman realized that his lifestyle was not sustainable and sought to change it. Now, he exercises daily while consuming a high quantity of fruits and vegetables as well as moderating his sugar and fat intake. The focus of this particular interview was to discover what factors were the hardest to overcome in regards to weight-loss, and how he overcame them. The questions centered on his psychological response to the social pressures of weight-loss – with more attention being given to the area of dietary change. The intent of this interview was to acquire a personal account of the challenges of weight-loss from someone who was successful in it.

**Expert Interview**

An interview was set up with Norman Roberts, a psychologist who specializes in weight-loss counseling. Mr. Roberts received his masters for counseling in psychology at the Ohio State University and practices in Mount Vernon, Ohio. A phone interview was scheduled for Monday, March 17, 2014 at 10:30am. The interview began promptly and lasted for approximately 20 minutes. Mr. Roberts has extensive experience counseling individuals who have been both successful and unsuccessful in their endeavors to lead a healthier lifestyle. This interview focused on the traits present or lacking in individuals attempting to change their dietary and lifestyle choices. Questions surrounding this topic also touched on external moderation and the effect of support groups. The intent of this interview was to provide valuable insight as to what traits were more likely to produce success in diet change. In addition it was intended to provide the information necessary to compare the effects of different external influences on people with similar traits.
Self-Management Observation

I attended an Overeaters Anonymous (OA) meeting at 6:00pm on Wednesday March 19, 2014 at the CARE center in Orlando, Florida. In order to maintain the integrity of the group, there was no attempt to guide the discussion. Neither audio nor names were recorded due to the nature of the group; notes were, however, taken. The purpose of this was to gain multiple perspectives and to hear first hand what a large group of people had to say about their struggles. This method was also meant to provide a basis for comparison to the expert interview. I wanted to know whether there was a significant discrepancy between the information revealed to a support group as compared to the information revealed to a professional counselor.

Strengths and Limitations

The three sources being used: a personal interview, an expert interview, and the self-help observation are all invaluable methods of research that center around the psychological challenges of weight loss and diet change. Furthermore, the demographic is healthily diversified with the personal success story coming from a local college student; the expert interview coming from a counselor residing in the state of Ohio who sees a variety of patients from both lower and upper class demographics; and the self-help group which includes people of all ages.

The sources do, however, have their limitations. By nature, the research relies heavily on honesty and disclosure of intimate psychological stressors. For this reason, there may be information that is either intentionally or unintentionally left out by the interview subjects.

Results
Personal Story

After interviewing Mr. Bateman, a graduating senior at the University of Central Florida I felt more adequately informed as to the personal, psychological challenges of weight loss. Although the information that he presented to me is similar to previous research findings, Mr. Bateman supplied me with anecdotal evidence to build off of. Mr. Bateman revealed to me that from a very young age his parents pressured him to “finish his plate.” Although a good lesson in taking only what you need, a young mind is not as disciplined as a more mature one and he soon found himself eating copious amounts of food – sometimes because he wanted to, other times because he was obligated to finish his plate despite having a full stomach. When thinking about his childhood, he said “I was so hungry by the time dinner came around that I always just got carried away putting [food] on my plate. Halfway through my meal I’d get full but have to finish it before I could leave the table”. This quickly escalated and he soon began to view it as a challenge of sorts, stacking his plate higher and higher with every meal. Eventually, things started catching up to him and he found himself running out of breath doing simple things like walking between classes.

Mr. Bateman claimed that even as a kid he was aware of his health risks but found it hard to change a lifestyle that was so engrained. Finally, in high school, he decided to throw his weight around on the football team – eventually quitting and moving to track. Despite his athletics he did not find himself losing an appreciable amount of weight until he started controlling what he took in. He blames his parents for allowing his weight to spiral out of control and credits his friends and teammates for encouraging him to change. He said that he still feels temptations to binge but avoids situations that could
compromise him. Furthermore, Mr. Bateman says that a major contributor towards being able to change his diet was by first changing his view on food. He used to view food as nothing more than something to be consumed for enjoyment; the only difference between a strawberry and a Twix was the taste. Now he is more interested in the quality of the food he is eating and finds enjoyment in “building” super meals that focus on vegetables and lean or non-meat protein sources. The interview was transcribed and can be viewed in Appendix A.

Outside Perspective

Mr. Roberts, a counselor at Mt. Vernon, predominately sees patients that are attempting to lose weight, most of whom are struggling with the process – which is the exact demographic I am targeting. Mr. Roberts claimed that a majority of his patients struggle emotionally with weight-loss and the most successful ones cite supportive friends and family as the largest contributors towards their plight, regardless of whether or not addiction was the root of their problem. When asked about the psychological versus biological challenges that patients face, he responded by saying “biology and psychology are so connected that they can be hard to distinguish from each other” but went on to say that “although a lot of the psychological challenges stem from [addiction], [addiction] is by no means the exclusive cause of distress. A lot of [patients] feel alone and having a friend by their side can make the process that much easier”.

Later on in the interview I asked Mr. Roberts about diet change and the trouble that it may pose to people seeking a healthier life style to which he made a quick joke about how he did not want to get in trouble with any nutritionists before getting serious and continuing to say “the people who find it hardest to change their diet are also the
ones who have the most control over it”. What he meant by this is that people who are constantly faced with the decision “salad or wings” choose wings more often than someone who is not given a choice, and just told to eat salad. Although it sounds like a tough way to live, he claims that after a few weeks of eating a healthier diet, the body not only accepts the new, improved source of nutrients, but the mind actually starts to think more confidently and optimistically. Mr. Roberts added by saying “when you start eating healthier, you feel healthier, then you get involved in a cycle of positive feedback. It’s getting that cycle started that gives people so much trouble”. The interview was transcribed and can be viewed in Appendix B.

Overeaters Anonymous

Overeaters Anonymous (OA) included people from all walks of life – from a bulimic young mother to an overweight and financially successful father. Although some of the participants were not dangerously overweight, but rather underweight, their struggle did center on diet change for a healthier life style and, for this reason, were included in the research notes. One thing I found especially interesting was the way that a majority of the participants talked about food; whether anorexic or overweight, participants seemed to be repulsed by food and disgusted by their habits. On top of that, very few speakers talked extensively about external moderation – contrary to what the interview with Mr. Roberts would lead me to believe.

I did notice, however, that a significant portion of the overweight individuals, as opposed to underweight ones, claimed at least a partial biological basis for their problem. Afterwards, I talked to one of the speakers who paralleled his diet to his smoking habits. He claimed that “going out to eat after work really helps me wind down. I used to make a
habit of going to Burger King since it’s quick and directly on the way home but now I try to go a little farther out of my way to get something that’s not as bad for me”.

A lot of the speakers mentioned the convenience of fast food in their busy lives and complained about the difficulty involved with home cooking or the expense of eating at healthier locations.

Notes were taken and the important information transcribed, it can be viewed in Appendix C.

Discussion

Comparison of Primary and Secondary Research Results

Although both the primary and secondary research indicate that biology, psychology, and society are inseparably related in regards to weight loss, they disagree as to the strength of each aspect. The initial sources of research pointed towards a biological basis as the biggest factor hindering weight loss in individuals as well as the biggest cause of weight gain. The primary research conducted afterwards had biology incorporated within it but pointed towards social and psychological barriers as bigger factors influencing weight gain and weight loss.

A major contributor towards this discrepancy could be due to the methods undertaken by each type of research. A majority of the secondary research was taken from scientific journals and papers – which may be less inclined to publish opinions they deem to be biased. Contrary to that, the primary research embraced this bias as an essential component in analyzing the human psyche.

Biological and Psychological Communication

Despite focusing their efforts on different areas, both primary and secondary researches compliment each other. Mr. Bateman claims that he only began to eat copious
amounts of food because his parents demanded that he finish his plate, but before he knew it he was enjoying food and finding it hard to both lower his portions and eat healthier. This is an example of a social influence that led to a biological problem, addiction namely. Taking this a step further, members of the OA group made it clear that they would often crave sugary and fatty foods – even months after giving them up. This implies that biology and food addiction are very real obstructors of diet change. Mr. Roberts, however, asserted that the most successful weight loss candidates have been the ones provided with the strongest moral support. This reveals the importance of social pressures in overcoming the biological hurdles. Furthermore, the human psyche is an indispensable resource that should be given more emphasis when discussing weight loss challenges. By learning to enjoy food for it’s nutritional value rather than basing his decisions purely on taste, Mr. Bateman has been able to successfully change his diet. In his interview, Mr. Bateman stated, “I enjoy eating more than I used to. I didn’t cut down on food so much as change what I was eating. It feels good knowing I’m fueling my body for the day instead of weighing it down like I used to”. By simply changing his view of food he’s been able to make an incredible transformation without the struggle that most other people face when “dieting”.

Implications for healthcare

Cardiovascular disease (CVD) is the leading cause of mortality in the United States and continues to grow as a result of the spreading obesity epidemic. The obesity epidemic is often ignored and the victims are discarded as ignorant or irresponsible. However, after analyzing the research and reviewing the results, it becomes clear that these individuals are neither ignorant nor irresponsible, but rather victims of social
pressures and biological addictions. The problem arises, however, when their desire to lose weight is overshadowed by the voices and chemicals in their brain demanding that they order the savory bacon double cheeseburger with a large side of warm salty fries, rather than the Mediterranean-veggie spinach wrap with a side of mixed greens. Those voices, however daunting, can be shut out by a loving support group and those chemicals, however painful, can be expelled over time.

Although social pressures can lead to, and reinforce, a biological addiction they can also work alongside the human psyche to reverse obesity in a struggling individual. This dominating influence exerted by social pressures should be explored further in future studies for it’s potential value in decreases instances of obesity in communities. So next time a doctor speaks condescendingly towards someone with CVD, a worried wife harasses her overweight husband, or you give up on yet another weight loss program – try once more. Only instead of tackling it alone, try to communicate more empathetically with a partner or support group; instead of looking at your lean, vegetable based diet as a punishment you must endure, look at it as a way of rewarding and a means of preparing your body for the day; instead of looking at yourself as a failure, realize that it’s an uphill struggle – a battle between your primal, primitive urges and your higher, human intellect.
Works Cited


Appendix A: Interview with Mr. Bateman

S: Hi John, so you know what we’re here to discuss, correct?

B: Yep, I think so. Pretty much my weight loss story, right?

S: Yeah, pretty much. So let’s start at the beginning, when did you start gaining weight?

B: That’s kinda hard to answer since it was so early on but it had to of been when I was in early elementary school.

S: Why do you think that you started gaining weight so early on in your life?

B: Well I think part of it is that I’m predisposed to gaining weight, but more than that I think that my parents pressured me to finish food all the time and I’d always get big plates of food. I usually had lunch in school around noon then dinner wasn’t until 7 or 8pm. I was so hungry by the time dinner came around that I always just got carried away putting it all on my plate. Halfway through my meal I’d get full but have to finish it before I could leave the table. It kind of sucked at first but before I knew it big plates weren’t so hard to finish so I could make them even bigger. Every night was one of those all you can eat buffet challenges for me.

S: Right, so now would you mind telling me about your transition into weight loss?

B: Sure, I started having some problems around late middle school/early high school. Thinks like walking to class, up stairs, leisure bike rides all ran me out of breath. Me and my parents thought that it might be mono so we went to the doctor to check it out and it turned out I was just so fat that everyday activities were suddenly strenuous workouts.

S: It sounds like those are all physical pressures that caused you to lose weight. Did you face any social pressures?

B: Well there was some minor bullying but no more than anybody else in high school had to face. I was pretty good at standing up for myself so people didn’t bother me about it too much. Anyway, I joined a bunch of sports, football at first then track after that. Even with all the running, losing weight was a slow process. Once I combined it with a good diet though things started to happen a lot more quickly.

S: What kind of support groups did you have during this whole process and what impact did they have on you?

B: Surprisingly, most of it came from my friends. My parents encouraged me to take smaller portions but continued to pressure me to finish my plate if I did make the mistake of stacking it too high. I think that’s the real reason I got fat in the first place and it didn’t help me during weight loss either. My friends were all about eating well since they were big time athletes so I followed their lead. They loved eating whole grains, veggies, and
healthy proteins since they competed so often. Before I knew it I was loving those foods too.

S: Was it painful to give up those cheeseburgers for healthier alternatives? How do you feel about it now?

B: Well I definitely get cravings here and there but I’m better at keeping myself out of situations that could leave me vulnerable. I’m not going to go to BK for example because I know I’ll just wind up getting something stupid. As for how I like it, I enjoy eating more than I used to. I didn’t cut down on food so much as change what I was eating. It feels good knowing I’m fueling my body for the day instead of weighing it down like I used to.

S: That’s great, good for you. What do you think you’ll do in the future as a parent?

B: Well I think I’ll present healthier food to my kids to begin with. On top of that, I’ll encourage smaller portions as a means to reduce waste like my parents did. I’m not going to force anyone to finish anything if they’re not hungry anymore though. That doesn’t help anyone. The kids in Africa don’t benefit from my heart problems.

S: What would you recommend to people currently struggling to lose weight?

B: I’d definitely suggest surrounding yourself with a solid group of healthy people. Having people support you makes a huge difference. I think looking at food differently is also really important. I feel so much healthier now that I’m eating better. Even now when I occasionally binge I wind up feeling physically heavier and slower. It just doesn’t feel good to eat poorly once you’ve seen the other side.

S: Great, thanks a lot for your help.

B: Yep, no problem.
Appendix B: Interview with Mr. Roberts

S: Hi Mr. Roberts, so you know what we’re here to discuss, correct?

R: Hey Sean. Of course, you wanted to talk to me about why people have trouble losing weight, right?

S: Right. Do you mind if we start with some background though?

R: Yeah, no problem. What do you want to know?

S: Let’s talk about your education and your experience in the field. That should be enough.

R: Ok, let's see. I got my undergraduate degree in psychology at The Ohio State University then went straight into grad school there to get my degree in counseling. I got a job counseling students on campus right after graduating but moved to Mt. Vernon 2 years later and have been working here for 18 years now.

S: That’s a lot of time counseling in Mt. Vernon. Has it all been with people struggling to lose weight?

R: Not exactly. When I first moved here I actually counseled victims of drug addiction for 4 to 5 years. From there I was eventually transferred to weight counseling and have been here for 13 to 14 years.

S: So you’ve dealt with a lot of people it sounds like. Are there any patterns you’ve noticed among the ones who have been successful in their weight loss campaign as compared to those who have been, perhaps, less successful? What do you think of the biological verse psychological challenges that people are facing when losing weight?

R: Sure, you see behavioral patterns and similarities all the time when counseling. It’s actually part of the job to notice them so that you can help to change them if need be. It’s almost impossible to separate biology, and I’m assuming you’re talking about addiction here, from the thought processes that go through everybody’s mind. From what I’ve noticed, although a lot of the psychological challenges stem from this biological origin, it is by no means the exclusive cause of distress. A lot of the people I see feel alone and having a friend by their side can make the process that much easier. Ironically enough, the people who find it hardest to change their diet are also the ones who have the most control over it.

S: So what kind of advice do you tell your patients who are having an especially hard time changing their diet?

R: Well I just tell them the truth: That after a few weeks of eating a healthier diet, the body not only accepts the new, improved source of nutrients, but the mind actually starts
to think more confidently and optimistically. When you start eating healthier, you feel healthier, then you get involved in a cycle of positive feedback. It’s getting that cycle started that gives people so much trouble. And that brings us back to the benefits of having a support group. Having your family, girlfriend, best fried, or whoever by your side, helping you eat well until you get to the point where you want to eat well makes all the difference. Unfortunately my break is coming to an end and it looks like I have to go. Would you like to set up a second interview?

S: Thank you, you’ve been a huge help and no, that won’t be necessary. Have a great day.

R: Thanks, you too. Good luck on your paper. Bye.
Appendix C: Overeaters Anonymous Observational Sit-in

Looking around I noticed that not everybody was obese. In fact, only 6 of them seemed dangerously overweight, possibly obese, while 3 of them looked to be extremely skinny. The other 8 people ranged from a little overweight to just-barely not being obese.

All 3 of the participants who were unhealthily skinny were women. Of the obese individuals, 5 were men, 1 was a woman. Of the 8 overweight individuals who weren’t quite obese, 5 were men, 3 were women.

An obese man talked first and recounted his past and the events that led to his gaining weight. He claimed he had always eaten poorly and had been overweight since he was a little kid. As of now, he’s trying to lose weight and claims that he’s making progress. Afterwards, I talked to him and he claimed that he worked long hours and would stop at Burger King on the way home in lieu of cooking at home. He claimed that “going out to eat after work really helps me wind down. I used to make a habit of going to Burger King since it’s quick and directly on the way home but now I try to go a little farther out of my way to get something that’s not as bad for me”

A few other participants talked but a majority of the people there listen and supported rather than speaking.

One of the unhealthily skinny women took the stand. She was in her mid 40’s and claimed to be bulimic. She said that, although her habits disgusted her, her body disgusted her even more. What’s more, she claims to feel sick after eating if she doesn’t regurgitate it later.

A large man who fit into the above-weight class talked after the woman. He claimed to be a former athlete who gained weight because he didn’t change his eating habits, despite decreasing his exercise load. Similar to the first man, he claimed to never do much home cooking and opted again for the convenience of fast food.

Although there were a few more speakers, the ones that applied to my paper have already been recorded. The general trends, however, I will continue to note. 2 more speakers commented on their dislike of their eating habits, claiming in their own ways to be disgusted by food, yet unable to change their diet due to convenience as well as the unpalatable taste that comes with eating healthier foods.