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DO COLLEGE STUDENTS PERCEIVE STIGMA THE SAME WAY EXPERTS DO?  
AN EXPERIMENTAL TEST OF LAY PERCEPTIONS OF BODY-SIZE STIGMA

BY

ANDIE MALTERUD

A thesis submitted in partial fulfillment of the requirements for the

Master of Science

Major in Communication Studies & Journalism

Specialization in Communication Studies

South Dakota State University

2017

DO COLLEGE STUDENTS PERCEIVE STIGMA THE SAME WAY EXPERTS DO?  
AN EXPERIMENTAL TEST OF LAY PERCEPTIONS OF BODY-SIZE STIGMA.

This thesis is approved as a creditable and independent investigation by a candidate for the Master of Science in Communication Studies & Journalism degree and is acceptable for meeting the thesis requirements for this degree. Acceptance of this does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

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This thesis is dedicated to my husband for providing me with endless support and motivation throughout this transformative part of my life. Also to my friends who shared in this experience and became a constant source of encouragement.

Thank you!

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## ABSTRACT

DO COLLEGE STUDENTS PERCEIVE STIGMA THE SAME WAY EXPERTS DO?  
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ANDIE MALTERUD

2017

Personal experience with weight-based stigma is negatively associated with self-esteem (Myers & Rosen, 1999). This study examined how self-esteem is affected by exposure to weight-based stigma communication that is directed at another person. Using Smith's (2007a) stigma communication framework, I created a 2 (Stigma Level: high, low) x 2 (Gender of stigmatized person: male, female) x 2 (Body Size of stigmatized person: large, small) posttest-only experiment. Participants' self-esteem was not impacted after viewing stigmatizing messages directed at another person. This suggests that self-esteem is more stable than some researchers indicate (Wagner, Lüdtke, and Trautwein, 2016). My results suggest that stigma communication message features, marking and personal responsibility, are more obvious in high stigma level conditions. Furthermore, results indicate that aspects of stigma are recognized in larger bodies more often than small bodies. These results suggest that perceptions about stigma communication vary by the stigma level and the stigma target's attributes, namely body size. Implications are discussed.



## Chapter 1

### Introduction

In 2008, 33.8% of adults were considered obese (Flegal, Carroll, Ogden, & Curtin, 2010). Even with growing efforts to combat obesity (Bowen, Bryant, Hess, McCarty, & Ivey, 2014), the rates have remained consistent around 34.9% since 2003 (Ogden, Carroll, Kit & Flegal, 2014). Alongside this, there is a perception for a need to be thin (Balacetis, Cole, Chelberg, & Alicke, 2013). These two extremes make for an unhealthy society and contribute to stigmatizing messages towards individuals who do not have an “ideal” body type (Pearl, Dovidio, Puhl, & Brownell, 2015; Ura & Preston, 2015). These stigmatizing messages cause negative physical and psychological outcomes, such as lowered self-esteem (Brockmeyer, Holtforth, Bents, Kämmerer, Herzog, & Friederich, 2013; Schvey, Puhl, & Brownell, 2011; Shentow-Bewsh, Keatine & Mills, 2015).

Researchers have extended Goffman’s (1963) work on stigma theory to provide a way to recognize when a message is stigmatizing by identifying key themes that are present in stigmatizing messages (Link & Phelan, 2001; Smith, 2012a). Other scholars have used the model of stigma communication (Smith, 2007a) in the communication field (Anderson & Bresnahan, 2013) and have demonstrated this model is an effective way to analyze body-size stigma communication. In this study, I explored the effects of weight-based stigmatizing messages on non-stigmatized audience members, regarding their perceptions of the stigmatizing message components and the effects of the messaging on their self-esteem. To accomplish this, I focused on three central concepts; stigma, weight-based stigma, and self-esteem. These three concepts were critical in understanding stigmatizing messages and stigma communication.

## **Introduction**

The media have played a crucial role in shaping what the “ideal” female body looks like (Pearl et al., 2015; Ura & Preston, 2015) and the perceived pressure to be thin is in part due to the media influence (Dohnt & Tiggemann, 2006). This desire to be thin can lead to a heightened awareness of how one’s body does not conform to the media’s portrayal of an ideal body (Puhl & Brownell, 2006; Shentow-Bewsh et al., 2015). Exposure to these media “ideals” could lead to negative outcomes such as body dissatisfaction (Shentow-Bewsh et al., 2015), the development of an eating disorder (Stice, Schupak-Neuberg, Shaw, & Stein, 1994), and lowered self-esteem (Dohnt & Tiggemann, 2006). These negative implications can be long lasting and devastating for an individual’s physical and mental health (Brockmeyer et al., 2013; Dohnt & Tiggemann, 2006).

The media’s “ideal” body not only creates the desire to be thin but also contributes to the idea that fat is bad to negative fat attitudes (Bowen et al., 2014). Media have the ability to influence millions of people at once (Pearl et al., 2015). With continuous exposure to media messages, it is easy for the layperson to adopt these attitudes the media is portraying as normal and acceptable (Bowen et al., 2014; Brochu, Pearl, Puhl, & Brownell, 2014). The negative portrayals of overweight and obese people in television, movies, and within the news, justifies these negative thoughts about overweight and obese people (Bowen et al., 2014). Some of these negative thoughts include assumptions that obese people are lazy, stupid, unhappy, and lacking in self-discipline and control (Crandall, 1994; Puhl & Brownell, 2006). Anti-fat attitudes are

observed in children as young as age three; they think negatively about overweight people and these beliefs strengthen as they age (Cramer & Steinwart, 1998; Puhl & Brownell, 2006; Tiggemann & Anesbury, 2000).

The media's "ideal" body negatively impacts those who do not have the "ideal" body (Balcetis et al., 2013). Women are often highly aware of how their bodies do not conform to the media's portrayal of body ideals (Shentow-Bewsh et al., 2015; Stice et al., 1994), which can lead to body dissatisfaction (Puhl & Brownell, 2006; Shentow-Bewsh et al., 2015). Puhl and Heuer (2010) have observed how the media's "thin ideal" negatively affects overweight and obese women. However, Anderson & Bresnahan (2013) discuss how a variety of women's body types are criticized, such as muscular, extremely thin, and curvy women. Additionally, their study also included a variety of men's body shapes which were also criticized (Anderson & Bresnahan, 2013). The psychological toll this criticism can have reached well beyond just overweight or obese individuals and can affect anybody, male or female that is different from the "ideal" (Anderson & Bresnahan, 2013; Brockmeyer et al., 2013).

Unfortunately, the combination of the perceived pressure to be thin, negative fat attitudes, and the variety of bodies affected by this, has created a severe problem of stigmatization (Bowen et al., 2014; Brockmeyer et al., 2013). Goffman (1963) originally defined stigma as a "spoiled identity, being disqualified from full social acceptance by others, a personal mark of disgrace and contaminated social identity" (p. 2). Stigma that is directed at someone because of their weight is known as weight-based stigmatization (Hunger & Major, 2015). Weight-based stigma is defined as implicit or explicit messages about obesity, and it has become one of the last socially accepted forms of bias and

stereotypes (Puhl & Heuer, 2010). The effect of stigmatization has been studied by researchers and it has been determined when exposed to stigma, self-esteem is lowered (Crocker, 1999). Rosenberg (1979) defines self-esteem as personal and global feeling of self-worth, self-regard, or self-acceptance. However, few studies have been conducted to determine if laypersons recognize stigma (Smith, 2012a) and if their self-esteem is affected by stigmatizing messages directed at another individual.

### **Statement of the Problem**

The stigmatization of groups or persons dates back to the branding of criminals, slaves, and traitors in ancient Greece to let the rest of society know such persons were to be avoided (Goffman, 1963). Today, stigmas have evolved to include people with physical disabilities, mental illness, diseases, and even over- or underweight status (Brown, Macintyre, & Trujillo, 2003). Weight-based stigmatization has developed into a harmful trend supported in media messages (Pearl et al., 2015), and affects a variety of body types and both sexes (Anderson & Bresnahan, 2013; Puhl & Brownell, 2006). The devastating effects of weight-based stigma have been studied by many scholars (Murakami & Latner, 2015; Pearl et al., 2015; Puhl & Brownell, 2003; Puhl & Heuer, 2009; Puhl & Heuer, 2010; Shentow-Bewsh et al., 2015). There is significant research which leads scholars to suggest weight-based stigma can severely affect the self-esteem of those exposed to it (Brockermeier et al., 2013; Myers & Rosen, 1999).

**Stigma.** Goffman (1963) describes stigma as “an attribute that is deeply discrediting,” explaining that stigmatization happens when “an individual becomes discredited in the eyes of others due to a particular condition or state” (p. 3). In his work, Goffman (1963) described three types of people. First, he described the “own” (p. 30);

these are individuals who are also stigmatized. Second, is the “wise” (p. 19), and these individuals, while not a part of the stigmatized group, are sensitive to the stigmatized people. Lastly, the “normals” (p. 5) are not a part of the stigmatized group, and are not sensitive to the stigmatized people and endorse the stigma. Goffman (1963) also describes seen and unseen stigmas. Seen stigmas are visible marks that can lead to stigmatization, such as leprosy. Unseen stigmas are invisible and cannot be identified unless the stigmatized person discloses their stigma with another person. HIV/AIDS is an example of an unseen stigma.

Stigma is a highly complex social function that was once necessary to the survival of humans (Major & O’Brien, 2005). Individuals who were a threat to the survival of the group for example, because they contracted a contagious disease, would be shunned from the group to prevent the spread of the disease (Smith & Hughes, 2014). The survival of humans depended on this use of stigma but is no longer necessary as humans have made advances in medicine and have an increased knowledge to stop the spread of diseases (Link & Phelan, 2001; Smith & Hughes, 2014). Stigma has also been studied in a large variety of contexts by many scholars with different disciplinary backgrounds, which has contributed to the substantial amount of literature about stigma (Link & Phelan, 2001).

**Weight-based stigma.** Much of the research about weight-based stigma has contradicting results (Pearl et al., 2015). For example, Shentow-Bewsh et al. (2015) state, “exposure to obesity-related messages may motivate heavier women to reduce their food consumption” (p. 21). Also, Shentow-Bewsh et al. (2015) describe messages highlighting the dangers of obesity may cause women to remember the health risks with overeating, so

they do not eat as much after being exposed to the message. Conversely, Puhl and Brownell (2006) found that some women cope with these messages by eating more food.

Another area of contradiction is how weight-based stigma impacts the intention to exercise. Pearl et al. (2015) state, “exposure to weight stigmatizing media may instead lead to greater reports of exercise intentions, motivation, and behavior, because of this pathological drive for thinness encouraged by the media content” (p. 1005). Other research found women may use body acceptance as a reason to avoid exercise (Murakami & Latner, 2015). Worse yet, weight-based stigmatization messages that encourage exercise may promote exercise behavior and weight loss results; however, the long-term consequences are unknown and could have serious health implications later on (Pearl et al., 2015). This contradicting evidence could be promoting messages that could be considered stigmatizing. Encouraging overweight individuals to exercise may be helpful to some, but others may find the suggestion itself to be stigmatizing, insinuating that due to the individual's weight it is assumed they do not exercise. This uncertainty of not knowing how a message will be perceived affirms the need to further research stigmatizing messages and how they are perceived to prevent further stigmatization in the future.

Not all evidence surrounding weight-based stigmatization has been contradictory. Schvey et al. (2011) found that weight stigmatization for overweight women was more detrimental than for normal-weight women, presumably because of lower self-worth, especially when exposed to weight stigmatization. There is also the media-driven need to be thin, which can lead to body dissatisfaction among women. This affects overweight women just as often as it does obese women (Puhl & Brownell, 2006; Shentow-Bewsh et

al., 2015). Pearl et al. (2015) support this idea, “It is possible that individuals who have experienced frequent weight- stigmatization in the past may demonstrate an amplified immediate response to weight stigma exposure” (p. 1005). There is agreement throughout the literature that weight stigmatization has some part in harming psychological health, eating habits, or self-esteem (Pearl et al., 2015; Puhl and Brownell, 2006; Shentow-Bewsh et al., 2015).

**Self-esteem.** There is agreement throughout the literature that weight-based stigmatization has some part in harming psychological health (Brockmeyer et al., 2013; Friedman, Reichmann, Costanzo, Zelli, Ashman, & Musante, 2005; Myers & Rosen, 1999; Pearl et al., 2015; Puhl & Brownell, 2006; Shentow-Bewsh et al., 2015). The stigmas discussed can lead to poor psychological health and lowered self-esteem, especially due to Western society cultivating the idea that thin is beautiful and equates to success in many aspects of life (Dohnt & Tiggemann, 2006; Franzoi & Shields, 1984). The psychological effects of weight-based stigma are daunting. Individuals exposed to weight-based stigma are susceptible to psychological issues such as depression, body dissatisfaction, unhealthy eating behaviors, and lowered self-esteem (Pearl et al., 2015; Puhl & Brownell, 2003). It is known that self-esteem is impacted by many factors (Greenleaf, Petrie & Martin, 2014), one of these factors being stigmatization (Myers & Rosen, 1999).

Many stigmatized groups experience decreased self-esteem after being stigmatized (Brockmeyer et al., 2013; Friedman et al., 2005; Molina, & Ramirez-Valles, 2013; Myers & Rosen, 1999; Wright, Fronfein, & Owens, 2000). However, stigmatization is more common among obese individuals, more so than normal weight

individuals, and the more they weigh, the more stigma they experience (Myers & Rosen, 1999). Despite overweight and obese individuals experiencing more stigma than normal weight individuals, underweight individuals experience decreased self-esteem as well (Brockmeyer et al., 2013). Persons who have an eating disorder have lower self-esteem than those without (Brockmeyer et al., 2013).

Regarding weight-based stigma, it is unclear whether weight-based stigma leads to psychological distress, or individuals who experience psychological distress report greater levels of stigmatization (Friedman et al., 2005; Myers & Rosen, 1999). Still, the personal experience of stigma is negatively associated with self-esteem. However, it is unknown how exposure to the stigmatization of another person might affect one's self-esteem.

### **Background and Need**

Stigmatizing messages and weight-based stigma affect a wide variety of people and lead to psychological issues, specifically, lowered self-esteem (Myers & Rosen, 1999; Roehrig & McLean, 2010). Scholars have made huge leaps in understanding how stigma can affect a person, who is affected, and how stigma impacts other areas of an individual's life (Murakami & Latner, 2015; Pearl et al., 2015; Ura & Preston, 2015). Scholars also have determined stigma has developed from a necessity for survival, but is unnecessary in today's society, so it must be eradicated (Smith, 2012b). Weight-based stigma is faced by individuals who do not fit the media's "ideal" body (Pearl et al., 2015), and as a result suffer from reduced self-esteem (Puhl & Heuer, 2010). Stigma, weight-based stigma and self-esteem are interconnected, and it is vital to understand more about how these three factors induce negative effects.



**Stigma.** The research about stigma has mostly revolved around what makes a person (or group) stigmatize another person (or group); however, this is not enough to fully understand the process and consequences of stigma (Link & Phelan, 2001). This way of looking at stigma can make it seem one-dimensional and restrict further understanding of stigma (Link & Phelan, 2001). To better understand stigma, researchers should look at the larger scale of who is affected by stigma rather than an individualistic approach. Additionally, it is beneficial to look at how stigma is used to control stigmatized people, which is known as stigma power.

Stigma power is used when people want to keep others down, in, or away (Link & Phelan, 2014). Stigma power aids in serving the interest of the stigmatizers; however, it is often difficult to discover the motives or interests of the stigmatizers (Link & Phelan, 2014). Often stigmatizers will want to be set apart from the stigmatized people, making the stigmatized group part of a lower status (Link & Phelan, 2014); this has severe consequences for the stigmatized group. With obesity stigma, the effects are severe: obese individuals are passed up for jobs, less likely to attend college, and more likely to face difficulties advancing in their career (Crandall, 1994). Obesity stigmatization is an example of how stigmatizers keep the stigmatized group down. It is vital to discover more about what is considered stigmatizing by laypeople to combat stigma power. Having a more developed conceptualization of what is considered stigmatizing will help avoid unintentional stigmatization, reduce global stigma, and counter the effects of stigma power.

**Stigma communication.** One way to help combat stigma is to understand how people communicate about stigma. Stigma communication is defined by Smith (2007a),

as “messages spread through communities to teach their members to recognize the disgraced (i.e. recognizing stigmata) and to react accordingly” (p. 464). A major aspect of Smith’s (2007a) model of stigma communication is the message effects, which include sharing stigma message with a network. Sharing stigma messages contributes to the spread of stigma attitudes which creates certain behavioral reactions that are then seen as normal (Smith 2007a). This is observed in the attitudes towards obese individuals, which are predominately negative (Crandall, 1994) and has been described as “one of the last socially acceptable forms of discrimination” (Puhl & Brownell, 2002, p. 108). Because of these attitudes that are considered normal, it is imperative to take steps in reducing stigma, which can be done with the use of the model of stigma communication (Smith, 2007a). That is, by recognizing what makes a message stigmatizing, steps can be taken to avoid, reduce, and eliminate unintentional stigmatization. See Appendix A for Smith’s (2007a) model of stigma communication figure.

**Weight-based stigma.** Stigmatization of individuals who do not meet the media’s “ideal” body standards is common (Puhl & Heuer, 2010). However, some of the messages could be unintentionally stigmatizing. Anderson and Bresnahan (2013) discussed the various word choices participants used to describe male and female bodies. While some of the language in Anderson & Bresnahan’s (2013) article is obviously negative, “participants described this person’s body as having” too much extra fat,” and “overweight to an extreme,” while other language was more ambiguous, with terms like “chunky,” “pear,” and “fluffy” (p. 611). Some researchers have tried to determine what is considered stigmatizing by conducting qualitative research with overweight or obese individuals and having them describe times they felt stigmatized (Puhl, Moss-Racusin,

Schwartz, & Brownell, 2007). However, it is unknown if some words or phrases are more stigmatizing than others or if some words may have a positive effect. Testing laypeople's perceptions of specific stigmatizing word choices could help determine if some messages are perceived as more stigmatizing than others. By knowing this information, progress can be made to reduce the amount of unintentional stigmatizing messages.

**Self-Esteem.** Research has been conducted to understand the relationship between weight and self-esteem (Annis, Cash, & Hrabosky, 2004). Self-esteem is a predicting factor for a multitude of other psychological issues such as depression, body dissatisfaction, and eating disorders (Pearl et al., 2015; Puhl & Brownell, 2003; Roehrig & McLean, 2010). Most of these psychological issues are not seen independently; for instance, when an individual is experiencing depression, self-esteem is often also low (Dohnt & Tiggemann, 2006). Additionally, when a person internalizes a perceived pressure to be thin, several psychological issues may be present (Brockmeyer et al., 2013). Although causality is difficult to establish, previous research suggests a negative relationship between the self-esteem and the experience of being stigmatized, such that greater stigmatization is associated with lower self-esteem (Crocker, 1999). However, no research to date has discussed if a layperson's self-esteem is impacted by viewing a stigmatizing message directed at another individual.

Further knowledge about how laypeople identify stigma for both genders and various body types is needed to avoid unintentional stigma. It is also necessary to determine how a layperson's self-esteem is impacted when they witness someone else being stigmatized. This information could show that unintentional stigmatization affects the self-esteem of not only those being stigmatized but those who witness it as well. With

this information, scholars can work in relation to mass media and health campaigns to reduce stigmatizing messages, and the overall amount of stigma or weight-based stigma individuals may experience. Therefore, research should be conducted to determine if the lay-person can identify what scholars deem stigmatizing and if the layperson's self-esteem is impacted when viewing these messages.

### **Purpose of the Study**

The purpose of this study was to understand the layperson's perception of stigma and to determine if stigmatizing message directed at another person would affect the layperson's self-esteem. Stigma, weight-based stigma, and self-esteem are all key parts of understanding how to combat stigmatizing messages. To make progress in reducing stigma, knowing more about how stigma is perceived is vital. There is a clear need to understand more about the role stigma has on a wider audience. This study included laypeople to understand these effects, rather than just the stigmatizer and the stigmatized people. Additionally, research about what language is perceived as stigmatizing is unclear. Therefore, this study also included different levels of stigma (high and low). It is also imperative to include large and small bodies as well as males and females, as stigma could be perceived differently for each. Lastly, self-esteem is a well-studied concept by researchers; however, little is known about how a secondary individual's self-esteem could be impacted by stigmatizing messages directed at a target individual. Included was Rosenberg's (1979) self-esteem scale to measure the participant's self-esteem after they viewed the stigmatizing message directed at another individual.

To conduct this study, I created a survey for college-aged males and females to complete. The survey included a photograph of a person who is either male or female and

overweight or underweight. Under these photographs was a fictitious message from a physician containing high or low stigma. A variety of previously created scales (Malterud & Anderson, 2016) were used to measure participants' perceptions of message stigma. At the end of the survey, a self-esteem scale was included. The purpose of this study was to determine the extent to which a lay-person will identify the stigmatizing elements of the messages and how exposure to these messages affects their self-esteem. The hypotheses and research questions for the study are presented at the end of chapter two.

## Chapter 2

### Review of Literature

Previous researchers' work has not explored how people who are *not* stigmatizing or being stigmatized are affected by stigmatizing messages, specifically regarding their self-esteem. Stigma, weight-based stigma, and self-esteem are vital in understanding stigmatizing messages and how they affect the lay-person's perception of stigma, as well as their self-esteem. In this literature review, I first focused on stigma and the model of stigma communication, which assisted in the understanding of stigmatizing messages. Then, I discussed lay versus expert perceptions of stigma. Next, I reviewed previous research on weight-based stigma. Finally, I discussed self-esteem and how it is impacted by stigmatizing messages and adverse implications of this.

#### Stigma

Goffman (1963) described stigma as “an attribute that is deeply discrediting,” explaining that stigmatization happens when “an individual becomes discredited in the eyes of others due to a particular condition or state” (p. 3). Goffman (1963) went on to describe two types of stigma, seen and unseen, and both are subjected to prejudice. Seen stigmas are the visible marks that others see (Goffman, 1963), such as obesity. However, Goffman (1963) elaborates by explaining that a stigma, such as a speech impediment, is not seen but perceptible after one speaks; therefore, seen may also equate “perceptibility” or “evidentness” (p. 48). Unseen stigmas are undetectable by others (Goffman, 1963), such as a person living with HIV/AIDS (PLHA). Individuals with an unseen stigma are at liberty to disclose their stigma at will. Such is not the case with an individual whose body does not conform to the “ideal” since they have a seen stigma that is difficult, if not

impossible, to hide. Additionally, the more obese an individual is, the more stigmatizing experiences they endure (Friedman et al., 2005; Myers & Rosen, 1999), possibly because the stigmatized condition becomes increasingly difficult—if not impossible—to conceal.

Stigmas once contributed to human evolution and survival; people who were perceived as a threat to the group's survival such as a member showing signs of a contagious disease were ostracized from the group to prevent spreading the disease (Smith & Hughes, 2014). However, in modern times, society no longer relies on stigmatization for survival thanks to advancements in medicine; therefore, stigma serves no known purpose (Smith & Hughes, 2014). Despite this, several stigmas are still present in our current U.S. culture: HIV/AIDS (Beaulieu, Adrien, Potvin, & Dassa, 2014), infectious diseases (Smith & Hughes, 2014), certain cancers (Bresnahan, Silk & Zhuang, 2013), and weight (Puhl & Brownell, 2006) are all stigmatized. There is no reliable or consistent way to remove a stigma, which complicates the matter (Smith, 2011). The inability to remove a stigma makes combating stigmatization a complicated task. Smith (2007a) explains “one reason why stigma messages are so powerful is that the features of stigma messages make attitudes accessible, encourage attitude formation, and automatically predispose certain behavioral reactions” (p. 468). Exposure to media messages encourages audiences to see these messages as normal and acceptable; however, these effects can lead to long-term, negative implications for the stigmatized group (Brockmeyer et al., 2013; Brochu et al., 2014). Such implications could even lead to blaming individuals for their stigma.

Blaming individuals, or holding them responsible for their stigma, is a common occurrence for many stigmatized groups (Bresnahan et al., 2013). Diseases that are

thought of as controllable are often stigmatized, examples of such diseases are; HIV/AIDS, lung or liver cancer, eating disorders, and obesity (Bresnahan et al., 2013; Cramer & Steinwart, 1998; Roehrig & McLean, 2010). When an individual becomes stigmatized, they often become reclusive and decrease interactions with family and friends, who could potentially be a support group; they also receive less public support (Bresnahan et al., 2013). HIV/AIDS is a highly-stigmatized condition and people living with HIV/AIDS are often avoided and blamed for their condition (Beaulieu et al., 2014; Phillips, Moneyham & Tavakoli, 2011). This is similar to the results found in weight-based stigma research; that individuals are responsible for their weight (Maddox, Back, & Liederman, 1968; Murakami & Latner, 2015; Myers & Rosen, 1999). Likewise, Phillips et al. (2011) found stigma affects people with HIV/AIDS by having a negative impact on mental, physical, social, and spiritual health as well as, quality of life and life satisfaction; similar to the negative impacts of weight-based stigma (Brochu et al., 2014; Brockmeyer et al., 2013).

### **Stigma Communication**

Smith (2007a) created a model of stigma communication by adapting Link and Phelan's (2001) model of stigma. Link and Phelan (2001)'s stigma model included four components that are present when stigma is present: 1) labeling people's differences, 2) linking people to stereotypes, 3) using "us versus them" language, and 4) labeling people experiencing status loss and discrimination. To become stigmatized, a person or group must be labeled; that is, people must use specific word choices to cast them as 'other.' The second component, linking to stereotypes, involves attaching a label with undesirable characteristics that create a stereotype (Link & Phelan, 2001). An example of this



component is labeling someone a mental patient and then ascribing the stereotype that they are dangerous. The third component, “us versus them” language, is a way to create separation from the stigmatized (Link & Phelan, 2001). Finally, stigma affects the labeled people by causing them to experience status loss and discrimination. Status loss refers to being placed lower in a social hierarchy, due to some stigmatized characteristic like a disease status, race, or weight. Discrimination can be direct or indirect. Direct discrimination occurs through intentionally avoiding or dismissing the stigmatized person or group; indirect discrimination occurs through relying on social hierarchies that already disadvantage the stigmatized group. For example, Link and Phelan (2001) explain: “employers (more often white) rely on the personal recommendations of colleagues or acquaintances (more often white and more likely to know and recommend white job candidates) for hiring decisions” (p. 372). This type of indirect discrimination still affects the stigmatized individual.

Smith (2007a) turned the focus of the stigma experience to the communication of stigma, emphasizing that stigma arises from, and is shared through, communication. She expanded on Link and Phelan’s (2001) model by explaining that stigma communication needs to garner attention quickly, encourage stereotyping, and shun the stigmatized from the community for self-preservation. For these reasons, being stigmatized is detrimental to the humane treatment of stigmatized people. Smith (2007a) also discussed how stigma messages are quickly spread to others, which spreads the negative attitudes towards the stigmatized person or group. How people communicate and create messages about stigma shape general perceptions of stigmatized groups, so it is important to analyze if stigmatizing messages are perceived as stigmatizing.

## Message Functions

Stigma communication, as defined by Smith (2007a), is “messages spread through communities to teach their members to recognize the disgraced (i.e., recognizing stigmata) and to react accordingly” (p. 464). Smith’s (2007a) model of stigma communication builds on Link and Phelan’s (2001) stigma model but focuses on the messages that convey stigma, as well as their effects. As such, Smith’s (2007a) model explicates four functions that stigma messages serve (marking, labeling, assigning personal responsibility, and linking to social peril), two types of audience reactions to stigma messages (cognitive and emotional), and three effects of stigma messages (forming stigma attitudes, intentions to isolate or remove the target of stigma, and sharing the stigma message). The following sections provide more detail on these aspects of the stigma communication model.

**Distinguish or mark people.** Smith (2007a) described marking someone as a “sociofunctional process, using cues that evoke automatic reactions for quick recognition, learning potential, and suggest social response” (p. 468). Goffman (1963) described how ancient Greek officials would brand criminals or slaves essentially marking them; Smith (2007a) expanded on this idea by describing marks as having two qualities, concealment and disgust. Some marks are easily visible and are therefore hard to conceal, such as physical deformities. Marks that are not easily concealed provide a greater chance of being recognized. Easily recognized marks led to an increased risk of being stigmatized (Smith, 2007a).

Disgust is the second aspect of Smith’s (2007a) marking requirement for stigmatizing messages. Marks that elicit disgust lead to individuals avoiding, rejecting or

removing the stigmatized from their presence (Smith, 2012a). For example, someone who is diagnosed with leprosy may evoke disgust, as their stigma is visible and difficult to conceal in later stages. Marking has been shown through various research to have negative consequences for the stigmatized (Rosenfield, 1997). Often, individuals who are marked and stigmatized are seen only as their mark and are stereotyped because of it, such as the thinking that fat people are lazy, lacking in self-control, and unhappy (Crandall, 1994; Puhl & Brownell, 2002).

**Label people.** Smith (2007a) described that labels of stigmatized groups often include the mark and that there is a labeling process which includes: a) bringing attention to the group's stigma, b) indicating the stigmatized is a separate social entity, and c) differentiating the stigmatized from "normals" (Smith, 2007a, p. 469). Labeling is dangerous for the stigmatized person or group as it keeps the threat imminent and encourages separation from the non-stigmatized. For example, labeling someone as their stigma, such as calling someone with Leprosy a "Leper," reinforces the idea that the individual is different and should be avoided. Smith (2007a) also discussed how labeling encourages the "us versus them" language as described by Link and Phelan (2001).

**Assign personal responsibility to people.** Responsibility is centered around the idea of choice and control (Smith, 2007a). Some people may believe that individuals choose to be a part of a stigmatized group (Bresnahan et al., 2013). The idea of holding the stigmatized people personally responsible reduces the chances of evoking sympathy and could lessen the likelihood of help being provided to the stigmatized group (Smith 2007a). Control is just as damaging of an assumption as choice is. When people believe that individuals are in control of their stigma, such as the case with weight (Cramer &

Steinwart, 1998; Puhl & Brownell, 2006; Tiggemann & Anesbury, 2000), people are less likely to be empathic towards the stigmatized people and may actually blame the stigmatized for their condition (Bresnahan et al., 2013).

**Link people to social peril.** Social peril is when a stigmatized group is thought to pose a threat to the rest of the community (Smith, 2007a). Linking a stigma to social peril suggests that individuals should take care to avoid the stigmatized group. This idea is exemplified in many ways that individuals may not even be aware of, such as in films when patients with a mental illness are shown as dangerous and portrayed in ominous lighting, encouraging people to fear those who are mentally ill (Smith, 2007a). Some stigmatized groups are avoided because they are thought to be dangerous, either because individuals fear the stigmatized themselves or are afraid they may also become one of the stigmatized if they interact with them; which could lead to the stigmatized becoming isolated and without a support group (Bresnahan et al., 2013). Another example of a stigmatized group being linked to social peril is obese individuals. Obese individuals are linked to social peril through physical health concerns and being blamed for rising health care costs (Campos, Saguy, Ernsberger, Oliver, & Gaesser, 2006). The concern of obese individuals as the cause of rising health care costs contributes to the perceived threat obese people pose to the community, which aligns with Smith's (2007a) description of linking people to social peril.

### **Message Reactions**

There are also two kinds of reactions individuals have when exposed to stigmatizing messages, cognitive and emotional reactions (Smith, 2007a). Cognitive reactions include adopting social attitudes towards the stigmatized, such as fearing the

mentally ill (Rosenfield, 1997), as well as adopting stereotypes, such as believing all obese people are lazy (Puhl & Brownell, 2006). The second reaction is emotion (Smith, 2007a). These emotional reactions are disgust, anger, and fear (Smith, 2007a). Disgust, as discussed as a part of marking, is when people are repulsed by the mark stigmatized people bear, such as when people are grossed out by obese individuals (Crandall, 1994). Anger and fear are likely to be a reaction when the stigmatized are considered to be a barrier to a wanted outcome, which leads to the non-stigmatized to act aggressively out of fear or anger to remove the stigmatized (Mackie & Smith, 2002). Fear may also occur when the non-stigmatized are threatened by the idea of becoming one of the stigmatized (i.e., catching a contagious disease). Smith (2007a) explains how these emotional reactions; fear, anger, and disgust are natural emotions passed along through evolution to ensure survival for humans by avoiding individuals who may have been a social threat.

### **Message Effects**

After looking at the message choices (mark, label, responsibility, and peril) and the message reactions (cognitive or emotional), the last part of the model of stigma communication is message effects. These message effects are: a) developed stigma attitudes, b) isolate and remove the target, and c) share stigma message with a network (Smith, 2007a). Developing stigma attitudes happens when those exposed to a stigma message have a reaction (fear, anger, and/or disgust) and from what Smith (2007a) calls stigma attitudes. In other words, the reactions people experience about the stigma messages causes them to develop an attitude about the stigmatized. Attitudes are defined as a positive or negative evaluation of an object or individual (Ajzen, 2001). These attitudes then lead to people wanting to isolate or remove the stigmatized people.

Isolation happens when interaction with the stigmatized are avoided (Smith, 2007a).

Lastly, individuals share the stigma message with a network (Smith, 2007a). That is, the messages are spread through the non-stigmatized group to teach others how to recognize and react to the stigmatized (Smith, 2007a).

### **Testing the Stigma Communication Model**

An early study of stigma communication (Smith, 2007b) examined the characteristics of messages that stigmatized diseases and observed two important features that led to isolation and avoidance of stigmatized individuals. First, messages about HIV/AIDS, for example, were often directed at people *without* HIV/AIDS, rather than people with the disease. This messaging strategy resulted in more isolation of the stigmatized group. Second, in contrast to messages about non-stigmatized conditions like breast cancer, which featured messages about hope and unity, stigmatizing messages featured “us versus them” language. This linguistic choice contributes to stigma by promoting avoidance of the stigmatized group (Smith, 2007b).

More recent studies test the model of stigma communication by manipulating messages using the four criteria (mark, label, personal responsibility, and social peril). Smith (2012a) conducted a study that created a fictitious message regarding a disease transmitted by rats. This message included variations in labeling individuals, marking, peril, and transmission, as well as cognitive and emotional, reactions (Smith, 2012a). The variations were manipulated in different messages by including high or low labeling, marking, and peril, as well as the high or low risk of transmission. High risk is described as highly contagious between people and low risk being only contagious through contact with rats or their feces. Additionally, the message included information that the person

infected with this fictitious disease showed symptoms with open sores on their body; this was the high marking condition. In contrast, the low marking condition described the infected without visible signs of infection. Smith (2012a) discussed how the manipulation of the message influenced participant's emotional reactions (anger, fear, and disgust). Specifically, the peril and transmission manipulations affected the cognitive reactions, the higher the threat of social peril the more the participants were willing to isolate or remove the hypothetical sick people (Smith, 2012a). Additionally, Smith (2012a) found "negative affect and stronger perceptions of infected persons as dangerous was positively related to all three dependent variables: stigma, beliefs, intervention, support, and dissemination likelihood. Exposure to the high-peril (versus low-peril) content predicted both stronger stigma beliefs and greater intervention support" (p. 533).

Another study was also conducted in which the message was manipulated. However, this message differed from Smith's (2012a) study and instead referred to a hypothetical acquaintance as opposed to a social group of infected persons (Smith, 2014). This study was an extension of the Smith (2012a) study and included similar manipulations of messages with high and low levels of marking, labeling, peril, and transmission (Smith, 2014). The results from this study were similar to the study conducted by Smith (2012a). Conditions that expressed the high marking, labeling, peril, and transmission resulted in negative emotional and cognitive reactions, even though the illness was contracted by a hypothetical acquaintance. This suggests that stigmatization is not limited to strangers, and people will stigmatize people with whom they are acquainted.

These two tests of the model of stigma communication indicate that the model is a good way to determine if stigma is present in a message. Using the model of stigma communication allows scholars to observe what should be present in stigmatizing messages, which provide a method to manipulate messages. The ability to manipulate messages allows two things to be tested; perceptions of stigma in a message and emotional reactions to messages. Previous research has focused on the perceptions of the emotional and cognitive reactions (anger, fear, and disgust). This study expanded on this research by testing if people can identify the elements of stigmatizing messages (mark, label, social peril, and responsibility) and if exposure to a stigmatizing message directed at another individual affected the audience's self-esteem.

### **Lay vs. Expert Perceptions of Stigma**

Laypeople and experts perceive health differently (Crawford & Campbell, 1999; Prior, 2003). A layperson's definitions of health and a healthy weight can be drastically different than what a physician would consider a healthy weight (Crawford & Campbell, 1999). When it comes to looking at their health, the individuals who do not recognize themselves as having an unhealthy weight may disregard messages about how to obtain a healthy weight (Crawford & Campbell, 1999). This variance in definitions between experts and the layperson can lead to health complications for the layperson (Crawford & Campbell, 1999). Prior (2003) expanded on this, acknowledging that the layperson has knowledge about their bodies, but they are not experts about risks or the management of illnesses or diseases. Additionally, it is not uncommon for people to under- and over-report their weight; this is more common in overweight and obese individuals (Crawford & Campbell, 1999; Nawaz, Chan, Abdulrahman, Larson & Katz, 2001). It is clear that



while laypeople may have knowledge about their bodies, they do not understand health in the same way experts do.

Countering this idea is the work by Segall and Roberts (1980), who conducted a study that compared the level of medical knowledge patients have and what physicians believed the patients' medical knowledge to be. Segall and Roberts (1980) determined that laypeople have a greater understanding of medical terms than the physicians estimated. However, while laypeople may understand medical terms, their 'expertise' only comes from their experiences and is limited (Prior, 2003). The research on lay and expert perceptions come down to laypeople having some knowledge, mostly limited to their experiences about health. Laypeople lack the expertise to make judgments about another individual's health, to diagnose health issues, and how to manage illness and diseases (Crawford & Campbell, 1999; Prior, 2003). What can be drawn from this research is that lay and experts see health differently. While there is significant research about weight-based stigmatization and how to recognize it (Anderson & Bresnahan, 2013; Link & Phelan, 2001; Smith, 2007a), it remains unknown if laypeople and experts perceive stigma in the same way.

Scholars work directly with those who have been stigmatized to understand stigmatization (Lewis, Thomas, Blood, Castle, Hyde & Komesaroff, 2011; Puhl, Moss-Racusin, & Schwartz, 2007) by conducting interviews or surveys. These methods draw upon lay experiences to shape how scholars conceptualize weight-based stigmatization (i.e., what is considered stigmatizing, what types of stigma individuals endure and how stigma affects them). This would lead to the belief that experts and the layperson should perceive stigma the same; however, no research has been conducted to ensure this is the

case. Considering that laypeople and experts are often at odds with how they perceive health (Crawford & Campbell, 1999; Prior, 2003), it is vital to know if stigma is recognizable as experts have defined it. To use Prior's (2003) argument, if the layperson has experienced stigma themselves (they have knowledge about their experiences), they should have knowledge about how to recognize it. What remains to be seen is if a layperson who has no personal experience with stigma can still recognize it when it happens. Due to the various findings of laypeople and experts recognizing health differently, this study used a fictitious physician (expert) to deliver a stigmatizing message to a fictitious patient. The participants of this study then became the laypeople interpreting if the stigma communication aspects established by Smith (2007) were present. This study attempted to explain further if laypeople observe health the way experts do.

### **Weight-Based Stigmatization**

Contemporary attitudes towards overweight and obese individuals are overwhelmingly negative in Western society (Puhl & Heuer, 2010). Harmful stereotypes surround these individuals, with many people considering overweight people to be lazy, unhappy, weak-willed, unsuccessful, stupid, unattractive, and lacking in self-discipline and control (Crandall, 1994; Lewis, Cash, Jacobi, & Bubb-Lewis, 1997; Puhl & Brownell, 2001; Puhl & Heuer, 2010). Overweight and obese individuals face these prejudices and stereotypes in many aspects of their lives; at work, home, the doctor's office, school, and within the media (Crandall, 1994; Puhl & Heuer, 2010). Furthermore, overweight individuals are disparaged by employers, parents, health care workers, peers, romantic partners, children, and even themselves (Crandall, 1994; Puhl & Brownell,

2006). Perhaps the worst part of these stereotypes is their prevalence and that these ideas are rarely challenged, leaving overweight and obese individuals open to unfair treatment and injustice (Puhl & Heuer, 2009).

However, overweight or obese people are not the sole target of stigma. Thin and overweight men are also targets of stigmatization (Anderson & Bresnahan, 2013; Puhl & Brownell, 2006) as well as thin women (Anderson & Bresnahan, 2013; Roehrig & McLean, 2010). Individuals who have an eating disorder are often blamed and said to be seeking attention or responsible for their illness (Roehrig & McLean, 2010). This idea of blame is similar to other forms of stigma (Bresnahan, Silk & Zhuang, 2013) and is also seen in overweight and obese individuals, where they are seen as in control of their weight and disorder (Cramer & Steinwart, 1998; Puhl & Brownell, 2006; Tiggemann & Anesbury, 2000). Controllability is a major part of the weight-based stigma that individuals face. Being blamed for stigma reduces the ability to garner sympathy from the public, which could reduce the amount of support individuals have and leads to “blaming the victim” for their stigma (Bresnahan, Silk, & Zhuang, 2013).

What sets individuals with an eating disorder apart from overweight or obese individuals is the expression of envy. Researchers found that some people admire those with an eating disorder, specifically Anorexia Nervosa, which is not the case with other stigmatized disorders such as schizophrenia, depression, or obesity (Roehrig & McLean, 2010). This could be due to the desire and perceived pressure to be thin created by the media (Stice et al., 1994), making eating disorders a romanticized idea; yet thin individuals are still targets of weight-based stigma (Anderson & Bresnahan, 2013). Both overweight and underweight individuals are stigmatized, yet the desire to be thin makes

the idea of an eating disorder attractive, contributing to the idea that pressure to have an “ideal” body is extreme.

This weight-based stigma becomes a severe issue because it shows the two extreme effects of the media’s “ideal” body. It can cause some individuals to develop eating disorders that are then highly stigmatized (Roehrig & McLean, 2010; Stice et al., 1994). Additionally, it can cause people to develop anti-fat attitudes, which leads to the stigmatization of overweight or obese individuals (Robinson, Bacon, & O’Reilly, 1993). This shows thin individuals and overweight or obese individuals, regardless of gender (Anderson & Bresnahan, 2013), experience weight-based stigma brought upon by the media’s “ideal” body standards which causes psychological issues (Anderson & Bresnahan, 2013; Pearl et al., 2015; Shentow-Bewsh et al., 2015; Roehrig & McLean, 2010). Due to these research findings, small and large bodies were used in this study to determine if there would be a difference in perceived stigma level by body size.

### **Self-Esteem**

Self-esteem is the personal and global feelings of self-worth, self-regard or self-acceptance (Rosenberg, 1979) and is a large factor in predicting health (Ura & Preston, 2015). Ura and Preston (2015) stated “optimistic self-image helps individuals to feel confident and perceive themselves as more attractive and thinner” (p. 22). On the other hand, low self-esteem can be a predicting factor for other problems such as depression (Haaga, Dyck, & Ernst, 1991), and appearance avoidance (Ura & Preston, 2015). In female adolescents, low self-esteem is linked to the development of eating disorders (Cervera, Lahortiga, Martinez-Gozalez, Gaul, & Irala-Estevez, 2003). Because of this, it

becomes apparent that self-esteem can play a huge part in how someone feels about themselves (Greenleaf et al., 2014).

When exposed to these media messages about the “ideal” body, individuals can experience a strong urge to meet this “ideal” (Ura & Preston, 2015). However, for many people, these “ideals” are unrealistic and just not possible (Balcetis et al., 2013). How individuals view their body is an indicator for self-esteem, especially because our society places a high emphasis on physical appearance (Franzoi & Shields, 1984). When an individual’s body does not conform to the “ideal”, it can lead to body dissatisfaction, appearance avoidance, and low self-esteem (Dohnt & Tiggemann, 2006, Murakami & Latner, 2015). When an individual perceives that society is telling them they are not attractive they will internalize this view (Annis et al., 2004). More so, even when women who were once overweight are now considered normal weight, they were still preoccupied and anxious about their weight and appearance (Annis et al., 2004). This shows the lasting negative implications of being stigmatized and could suggest that the negative experiences overweight women face never truly fade (Annis et al., 2004). These negative implications of the media “ideal” in combination with the stigma some individuals face show that self-esteem can be significantly impacted. Due to previous research making a well-supported claim that self-esteem can be impacted by stigma, a self-esteem measure was included in this study.

### **Study Rationale**

Previous research (Anderson & Bresnahan, 2012; Smith, 2007a; Smith, 2012a) indicated that stigmatizing messages contain four crucial elements: marking, labeling, linking to social peril, and assigning personal responsibility. Additionally, research

indicated that exposure to stigma directed at oneself is negatively related to one's self-esteem (Brockmeyer et al., 2013; Friedman et al., 2005; Molina, & Ramirez-Valles, 2013; Myers & Rosen, 1999) and that viewing media messages that promote a thin ideal is negatively associated with body satisfaction (Puhl & Brownell, 2006; Shentow-Bewsh et al., 2015). However, it remains unclear how an observer's self-esteem will be affected by exposure to weight-based stigmatization, with all four elements identified by Smith (2007a), that is directed toward another person. Furthermore, it is unclear the extent to which a lay audience will recognize the four characteristics of stigma messages and perceive these messages as stigmatizing. See Appendix B for created stigma messages which were used in the survey.

Additionally, this study also examined how variations in those messages might affect perceptions of the message elements and the message effects. The messages are told from a patient who has an interaction with a physician who focuses on the patient's weight. Three variables are manipulated in these messages: 1) the intensity of the language used to stigmatize the patient [high v. low stigma], 2) the gender of the patient [male v. female], and 3) the body size of the patient [large v. small]. Gender and body size were manipulated because men and women with very large and very small body size experience weight-based stigma (Anderson & Bresnahan, 2013; Puhl & Brownell, 2006). This creates eight message conditions, and the opportunity for main effects (for stigma intensity, patient gender, and patient body size), as well as 2- and 3-way interaction effects, on the five dependent variables. The dependent variables included participant self-esteem and participant perceptions of the four stigma communication message characteristics (marking, labeling, personal responsibility, and social peril).

## Hypotheses

Previous research about laypeople's experiences of stigma has shaped the ways that researchers conceptualize stigma (Annis et al., 2004; Crandall, 1994; Crocker, 1999), which suggests that when an expert creates a stigmatizing message, lay audiences would recognize it as such. Additionally, previous research has demonstrated that manipulating the four criteria for stigma communication messages affects perceptions of the message (Smith 2012a, 2014). Thus, in the current study, it was expected that the intensity of the stigmatizing language would affect laypeople's perception of the overall stigma of the message, as well as the four specific stigmatizing features (mark, label, personal responsibility, and peril). Hence, I posited the following hypotheses:

H1: Participants' perceptions of *marking* will be higher in the high stigma conditions compared to the low stigma conditions.

H2: Participants' perceptions of *labeling* will be higher in the high stigma conditions compared to the low stigma conditions.

H3: Participants' perceptions of *personal responsibility* will be higher in the high stigma conditions compared to the low stigma conditions.

H4: Participants' perceptions of *social peril* will be higher in the high stigma conditions compared to the low stigma conditions.

## Research Questions

In addition to testing laypeople's perceptions of the overall stigma and specific stigma elements in the messages, the proposed study examined how the gender and body size of the patient (being stigmatized) affected laypeople's perceptions of the messages. Hence, I posited the following research questions:

RQ1: How will the gender of the patient affect perceptions of marking, labeling, personal responsibility, and social peril?

RQ2: How will the body size of the patient affect perceptions of marking, labeling, personal responsibility, and social peril?

Furthermore, this study examined how stigma level, gender, and body size interact to affect message perceptions.

RQ3: How will the 2-way interaction between stigma level and patient gender affect perceptions of marking, labeling, personal responsibility, and social peril?

RQ4: How will the 2-way interaction between stigma level and patient body size affect perceptions of marking, labeling, personal responsibility, and social peril?

RQ5: How will the 2-way interaction between patient gender and patient body size affect perceptions of marking, labeling, personal responsibility, and social peril?

RQ6: How will the 3-way interaction between stigma level, patient gender, and patient body size affect perceptions of marking, labeling, personal responsibility, and social peril?

Finally, this study examined how the participant's self-esteem was affected by all of the message manipulations.

RQ7: How will participant self-esteem differ by stigma level (high, low)?

RQ8: How will participant self-esteem differ by patient gender (male, female)?

RQ9: How will participant self-esteem differ by patient body size (large, small)?

RQ10: How will the 2-way interaction between stigma level and patient gender affect participant self-esteem?



RQ11: How will the 2-way interaction between stigma level and patient body size affect participant self-esteem?

RQ12: How will the 2-way interaction between patient gender and patient body size affect participant self-esteem?

RQ13: How will the 3-way interaction between stigma level, patient gender, and patient body size affect participant self-esteem?

## **Chapter 3**

### **Method**

This method section begins with an overview of my in-depth survey design and positivistic approach. Then, I discuss the procedure I used to recruit participants and the characteristics of the sample. I also explain the instrumentation discussing how I manipulated the messages. In addition, I explain the use of covariates and dependent variables in this study. Lastly, I explain how the data was analyzed. Throughout, I provide explanations and support for my research design while also examining potential limitations.

### **Design**

I used surveys to measure the extent to which lay audiences perceive stigmatizing features in messages. All study materials and procedures were approved by the institutional review board. All participants provided their consent for completing the study prior to their exposure to study materials. This study used an experimental design using a 2 (gender: male, female) x 2 (body size: large, small) x 2 (stigma level: high, low) posttest only design to test if stigmatizing messages towards specific body types were considered stigmatizing by laypeople. Participants were randomly assigned to one of eight conditions. Participants then answered questions regarding perceptions of stigmatizing content and self-esteem.

An experimental design was the best design for this study. An experimental design was chosen because it was the best way to incorporate several conditions that allowed observation of main and interaction effects related to message features. First, the messages were manipulated to have stigmatizing content, using features established in

previous research (Smith, 2007a, 2012a, 2012b). This ensured I measured the extent to which lay audiences found the messages stigmatizing. Second, I observed the effects of the gender, body size, and the stigma level, by comparing the participant's answers across conditions.

### **Procedure**

Participants accessed the survey through a link they received in a recruitment e-mail. See Appendix C for a copy of this letter. After clicking on the link, participants were directed to the online survey on QuestionPro.com. After viewing the consent form and clicking "next" to indicate consent, the participants were randomly assigned to one of eight conditions. Then, the participants answered demographic questions; gender, age, height, weight, and race. On the next page, participants viewed the message manipulation (described in a subsequent section) and answered questions related to their perceptions of the stigmatizing functions and their self-esteem. Finally, the survey automatically sent participants to a separate survey where they entered their personal information (name, section #, and SPCM 101 or SPCM 201 instructor). Using a separate survey to gather this information ensured that the data collection was anonymous.

**Sample.** Participants in this study included male and female undergraduate college students. Several demographics were measured such as gender, age, height, weight, and race. This group of individuals was ideal because they have been exposed to media messages depicting what an "ideal" body looks like (Lowery, Kurpius, Befort, Blanks, Sollenberger, Nicpon, & Huser, 2005). Additionally, they are exposed to messages about fat and skinny shaming from the media and have most likely experienced or participated in fat talk (Pearl et al., 2015).

Participants were N=363 undergraduate students at a medium-sized, Midwestern public university. The sample was predominantly Caucasian 86.9%. ( $SD = 3.41$ ).

Participants were 51.2 % male and 48.8% female. The participant's average age was 19 years ( $SD = 3.41$  years). The average Body Mass Index (BMI) was 23.85 ( $SD = 5.33$ ), which is in the "normal" (Centers for Disease Control & Prevention, 2015) weight range; 49% of the participants were in the "normal" weight category. The second most common category was "overweight" (32.5%), then "obese" (15.7%), and "underweight" (1.1%).

These participants were students enrolled in the Fundamentals of Speech 101 and Interpersonal Communication 201 course. Students took the survey for extra credit towards their final grade. I used a volunteer sample, which is a form of non-random sampling (Cresswell, 2014). I posted the survey on QuestionPro, a website designed to create and share surveys, and students chose to participate. A sample size of least 30 participants per condition was needed to test for significance. Each condition met more than the minimum 30.

I chose the college student population because of the ease of gathering a large number of participants, and using the students enrolled in the Fundamentals of Speech 101 and Interpersonal Communication 201 course simplified recruiting. This sample provided information about how stigmatizing messages are received by a generation that will soon enter the workforce. Some of these students will be creating these potentially stigmatizing messages in the media. Others could be targeted by these messages, and some could pass these messages on to their family, friends or strangers. Having a better understanding of what this generation considered stigmatizing, scholars can work to reduce stigma and avoid unintentional stigmatization in health campaigns, work to

change how future generations are exposed to stigma, and reduce their use of stigmatizing language.

There are a few limitations when using this population. Because of the location of South Dakota State University, it is difficult to generalize findings to other colleges. Cultural differences are a major concern when looking at stigma; collectivist and individualistic cultures view certain stigmas differently (Shin, Dovidio & Napier, 2013). This study was primarily represented by mid-western U.S. culture and may not represent the rest of the country or other countries. Another limitation is the lack of diversity in this sample; due to South Dakota being a predominately Caucasian population, 85.5% Caucasian compared to 77.1% nationwide (United States Census Bureau, 2010), this sample did not represent other races equally. Antin and Hunt (2013) discussed how African American women are not immune to stigma or body dissatisfaction despite researchers saying they report lower amounts of eating disorders (Grogan, 2008). The researchers suggested more research is needed to understand how women of different ethnicities are impacted by weight-based stigma. Because of this, this study did not provide an accurate view of how races, other than Caucasians in the midwestern U.S., view stigma.

### **Instrumentation**

**Message Manipulation.** In each condition, participants saw a picture of a person's body. The pictures were gathered from an Internet search engine, were edited to black and white, and were cropped to show from the neck to just below the hips. The photos included Caucasian males and females in underwear, with the females wearing a sports bra. The four pictures were used to cross gender and body size: large male, small

male, large female, and small female. In the eight conditions, participants saw—on the same page—the picture, as well as, a brief message describing that person’s recent interaction with a physician. See Appendix D for edited pictures which were used in the survey.

The message was written from the point of view of the fictitious patient (i.e., the person pictured) who anonymously posted the story online. The story described an interaction with a physician that focused on the patient’s weight. Eight different messages were created to go along with each of the eight conditions. The messages were manipulated to have either high or low stigmatizing content; then they were tailored to the body size (large or small) and gender (male or female) of the fictitious patient. Thus, a message might be highly stigmatizing toward a small-bodied female or low stigmatizing toward a large-bodied male. In addition to stigma intensity, the language of the messages varied based on the patient’s body size, such that different terminology was used for the large body (e.g., obese) than the small body (e.g., underweight). The physician’s message was gender-neutral and did not vary based on the patient’s gender. Thus, there were four messages: high stigma for a large body, low stigma for a large body, high stigma for a small body, and low stigma for a small body.

To determine if the bodies used in the photos would be considered large or small by the participants, a pre-test was conducted. A sample of 59 participants enrolled in the Fundamentals of Speech 101 course were asked to view each of the four photos of large and small males and females. The participants all volunteered to fill out the survey and were not penalized or rewarded for their participation or lack thereof. Participants’ responses were all kept anonymous. Participants were asked to choose by circling one

word to describe each of the four bodies. The word options included; very small, small, medium, large, and very large. The results were shown to support the usage of “large” for the large bodies and “small” for the small bodies.

The messages described an interaction with a physician that focused on the patient’s weight. A physician was included because they are often the source of stigmatizing messages about weight (Friedman et al., 2005; Puhl & Brownell, 2006), despite the fact that stigmatization has routinely been denounced as an ineffective and unethical approach to motivating weight loss or any other health behavior change (see Puhl & Heuer, 2010 for an extensive review). The physician in the fictional encounter addressed the fictional patient with a message that contained language corresponding to the four elements of a stigmatizing message (Smith, 2007): mark, label, personal responsibility, and social peril.

## **Measures**

**Covariates.** In addition to participant demographic variables (age, participant gender, race, participant weight), also measured was the participants’ perceptions of the fictitious patient and the manipulated message as a whole. A single item measured participants’ perceptions of the attractiveness of the fictitious patient (from the picture). The item used a seven-point scale ranging from (1 = *very unattractive* to 7 = *very attractive*). Participants then rated the extent to which the interaction in the manipulated messages was realistic, rude, truthful, and helpful. These characteristics were measured with single items stating “Rate the extent to which you agree that this message was... [realistic/rude/truthful/helpful] and use a 5-point Likert-type response scale (1 = *strongly*

*disagree* to 5 = *strongly agree*). Next, the dependent variables were measured. See Appendix E for a full list of the survey questions and measures.

**Dependent variables.** After covariates had been measured, the following dependent variables were measured: perception of marking, labeling, assigning personal responsibility, social peril, and participant self-esteem. A previously created scale was used (Malterud & Anderson, 2016), including 4-item scales to measure the presence of each stigma function in the messages. Each scale began with the stem “Did it seem like the doctor...” followed by a statement that corresponded to that stigmatizing component. Participants used 5-point Likert-type response scales (1 = *strongly disagree* to 5 = *strongly agree*). Higher scores indicated a greater presence of the stigmatizing component. See Appendix E for a full list of the measures.

Perceptions of the extent to which the physician ‘marked’ the patient were measured with items such as “Did it seem like the doctor brought too much attention to the person’s weight?” This scale was reliable,  $\alpha = .89$  in a previous study (Malterud & Anderson, 2016). Perceptions of the extent to which the physician ‘labeled’ the patient were measured with items such as, “Did it seem like the doctor used this person’s weight to categorize them?” This scale 4-item was reliable,  $\alpha = .90$  in a previous study (Malterud & Anderson, 2016). Perceptions of the extent to which the doctor placed ‘personal responsibility’ on the patient for the stigmatized condition were measured with items such as “Did it seem like the doctor made the person personally responsible for their weight?” This scale was reliable,  $\alpha = .92$  in a previous study (Malterud & Anderson, 2016). Perceptions of the extent to which the doctor linked the patient with ‘social peril’ were measured with items such as “Did it seem like the doctor thought the person’s



weight would cause some negative effects?” This scale was reliable,  $\alpha = .89$  in a previous study (Malterud & Anderson, 2016).

**Self-esteem as a dependent variable.** Rosenberg’s (1965) self-esteem was used to measure self-esteem. This 10-item scale used a 4-point Likert-type response scale (1 = *strongly disagree* to 4 = *strongly agree*), where higher scores indicated greater self-esteem. The scale included items such as “On the whole, I am satisfied with myself” or “At times, I think I am no good at all” (reverse-coded). This scale has been analyzed for validity and shows to be accurate with reliability ranging from  $\alpha = .72-.88$  (Gray-Little, Williams & Hancock, 1997; Malterud & Anderson, 2016).

### **Analysis**

Prior to conducting hypothesis tests, the data were examined for potential covariates. Following the guidelines of Tabachnick and Fidell (1996), included was a variable as a covariate in the analysis if we observed a significant, linear relationship between a continuous variable and an outcome variable or if a categorical variable produced significant differences in the outcome variable. Based on these criteria, participant gender was used as a covariate for ‘mark’ and ‘personal responsibility’ message components, as well as self-esteem. Participant BMI was included as a covariate for self-esteem. Participants’ perceptions of patient attractiveness were used as a covariate for general stigma, mark, and social peril. Finally, in terms of message perceptions, perceived message rudeness was used as a covariate in *all* analyses; perceived message helpfulness was used as a covariate for general stigma, mark, label, and personal responsibility; and truthfulness was used as a covariate for general stigma, mark, label, social peril and personal responsibility.

One-way Analyses of Covariance (ANCOVA) were used to test the hypotheses and answer the research questions. The full-factorial model (2 [stigma level: high, low] x 2 [gender: male, female] x 2 [body size: large, small]) was used in each test to observe main and interaction effects. The significance level was set at  $p = .05$ .

## **Chapter 4**

### **Results**

The hypotheses in this study deals with one dependent and independent variable. For example, H1 predicts if participants will perceive marking, which is the dependent variable, to be higher in the high stigma condition, stigma level being the independent variable. The research questions in this study deals with one independent variable and multiple dependent variables. For example, RQ1 asks how patient gender, the independent variable, affects perceptions of the four features of the stigma communication model. Each of the four features, marking, labeling, personal responsibility, and social peril, are a dependent variable. Additionally, each ANCOVA includes all the independent variables and only one dependent variable. Therefore, results are reported based on each statistical test (ANOVA). Each statistical test answers one hypothesis and one element of each research question. See Appendix F for a table of the results.

#### **Marking**

An ANCOVA was used to test H1, RQ1-5 where marking was the dependent variable. The control variables in this model were participant gender, patient attractiveness, participant perception of message rudeness, truthfulness, helpfulness, and realism, as well as their overall perception of the realism of the interaction. The theoretical variables in this model were patient gender, patient size, and stigma level. This was a full factorial model that tested main effects, as well as the two-way and three-way interactions.

**Main effects.** H1 predicted that perceptions of marking would be higher in the high stigma condition than the low stigma condition. This hypothesis was supported. There was a significant main effect for stigma level on perceptions of marking,  $F(1, 322) = 10.56, p < .001, \eta^2 = .032$ , where high stigma levels were perceived to be more marked ( $M = 3.81, SD = .06$ ) than the low stigma level bodies ( $M = 3.52, SD = .06$ ). RQ1 asked whether there would be differences in marking based on the patient's gender. There was no significant main effect for patient gender on marking,  $F(1, 322) = .006, p = .939$ . RQ2 asked whether there would be differences in marking based on patient size. There was a significant main effect for patient size on perceptions of marking,  $F(1, 322) = 5.02, p = .026, \eta^2 = .015$ , where large bodies were perceived to be more marked ( $M = 3.65, SD = .90$ ) than the low stigma level bodies ( $M = 3.65, SD = .73$ ).

**Interaction effects.** RQ3 asked whether there would be differences in marking based on the interaction between the stigma level and the patient's gender. There was not a significant interaction effect for Stigma Level x Patient Gender on marking,  $F(1, 322) = .071, p = .790$ . RQ 4 asked whether there would be differences in marking based on the interaction between the stigma level and patient size. There was not a significant interaction effect for Stigma Level x Patient Size on marking,  $F(1, 322) = 1.47, p = .227$ . RQ 5 asked whether there would be differences in marking based on the interaction between the patient's gender and the body size. There was not a significant interaction effect for Patient Gender x Body Size on marking,  $F(1, 322) = .331, p = .566$ . RQ6 asked whether there would be differences in marking based on the interaction between the stigma level, the patient's gender, and body size. There was not a significant interaction

effect for Stigma Level x Patient Gender x Body Size on marking,  $F(1, 322) = .165, p = .685$ .

### **Labeling**

An ANCOVA was used to test H2, RQ1-5 where labeling was the dependent variable. The control variables in this model were participant gender, patient attractiveness, participant perception of message rudeness, truthfulness, helpfulness, and realism, as well as their overall perception of the realism of the interaction. The theoretical variables in this model were patient gender, patient size, and stigma level. This was a full factorial model that tested main effects, as well as the two-way and three-way interactions.

**Main effects.** H2 predicted that perceptions of labeling would be higher in the high stigma condition than the low stigma condition. This hypothesis was not supported. There was not a significant main effect for stigma level on perceptions of labeling,  $F(1, 322) = 3.75, p = .054$ . RQ1 asked whether there would be differences in labeling based on the patient's gender. There was no significant main effect for patient gender on labeling,  $F(1, 322) = .590, p = .443$ . RQ2 asked whether there would be differences in labeling based on patient size. There was a significant main effect for patient size on perceptions of labeling,  $F(1, 322) = 8.77, p = .003, \eta^2 = .027$ , where large bodies were perceived to be more labeled ( $M = 4.11, SD = .68$ ) than the low stigma level bodies ( $M = 3.99, SD = .73$ ).

**Interaction effects.** RQ3 asked whether there would be differences in labeling based on the interaction between the stigma level and the patient's gender. There was not a significant interaction effect for Stigma Level x Patient Gender on labeling,  $F(1, 322)$

= .072,  $p = .399$ . RQ4 asked whether there would be differences in labeling based on the interaction between the stigma level and patient size. There was not a significant interaction effect for Stigma Level x Patient Size on labeling,  $F(1, 322) = 1.09, p = .298$ . RQ5 asked whether there would be differences in labeling based on the interaction between the patient's gender and the body size. There was not a significant interaction effect for Patient Gender x Body Size on labeling,  $F(1, 322) = .304, p = .582$ . RQ6 asked whether there would be differences in labeling based on the interaction between the stigma level, the patient's gender, and body size. There was not a significant interaction effect for Stigma Level x Patient Gender x Body Size on labeling,  $F(1, 322) = .121, p = .729$ .

### **Personal Responsibility**

An ANCOVA was used to test H3, RQ1-5 where personal responsibility was the dependent variable. The control variables in this model were participant gender, participant race, participant perception of message rudeness, truthfulness, helpfulness, and realism, as well as their overall perception of the realism of the interaction. The theoretical variables in this model were patient gender, patient size, and stigma level. This was a full factorial model that tested main effects, as well as the two-way and three-way interactions.

**Main effects.** H3 predicted that perceptions of personal responsibility would be higher in the high stigma condition than the low stigma condition. This hypothesis was supported. There was a significant main effect for stigma level on perceptions of personal responsibility,  $F(1, 328) = 21.27, p = .000, \eta^2 = .061$ , where high stigma levels were perceived to be more personally responsible ( $M = 4.20, SD = .06$ ) than the low stigma

levels bodies ( $M = 3.77$ ,  $SD = .06$ ). RQ1 asked whether there would be differences in personal responsibility based on the patient's gender. There was no significant main effect for patient gender on personal responsibility,  $F(1, 328) = 1.96$ ,  $p = .162$ . RQ2 asked whether there would be differences in personal responsibility based on patient size. There was a significant main effect for patient size on perceptions of personal responsibility,  $F(1, 328) = 10.74$ ,  $p = .001$ ,  $\eta^2 = .032$ , where large bodies were perceived to have more personal responsibility ( $M = 4.11$ ,  $SD = .06$ ) than the low stigma level bodies ( $M = 3.86$ ,  $SD = .05$ ).

**Interaction effects.** RQ3 asked whether there would be differences in personal responsibility based on the interaction between the stigma level and the patient's gender. There was not a significant interaction effect for Stigma Level x Patient Gender on personal responsibility,  $F(1, 328) = .572$ ,  $p = .450$ . RQ4 asked whether there would be differences in personal responsibility based on the interaction between the stigma level and patient size. There was not a significant interaction effect for Stigma Level x Patient Size on personal responsibility,  $F(1, 328) = 1.09$ ,  $p = .298$ . RQ5 asked whether there would be differences in personal responsibility based on the interaction between the patient's gender and the body size. There was not a significant interaction effect for Patient Gender x Body Size on personal responsibility,  $F(1, 328) = .960$ ,  $p = .328$ . RQ6 asked whether there would be differences in personal responsibility based on the interaction between the stigma level, the patient's gender, and body size. There was not a significant interaction effect for Stigma Level x Patient Gender x Body Size on personal responsibility,  $F(1, 328) = .364$ ,  $p = .547$ .

## Social Peril

An ANCOVA was used to test H4, RQ1-5 where personal responsibility was the dependent variable. The control variables in this model were participant perception of message rudeness, truthfulness, helpfulness, and realism, as well as their overall perception of the realism of the interaction. The theoretical variables in this model were patient gender, patient size, and stigma level. This was a full factorial model that tested main effects, as well as the two-way and three-way interactions.

**Main effects.** H4 predicted that perceptions of social peril would be higher in the high stigma condition than the low stigma condition. This hypothesis was not supported. There was not a significant main effect for stigma level on perceptions of social peril,  $F(1, 334) = 2.43, p = .120$ . RQ1 asked whether there would be differences in social peril based on the patient's gender. There was no significant main effect for patient gender on social peril,  $F(1, 334) = .897, p = .344$ . RQ2 asked whether there would be differences in social peril based on patient size. There was a significant main effect for patient size on perceptions of social peril,  $F(1, 334) = 26.82, p = .000, \eta^2 = .074$ , where large bodies were perceived to have more social peril ( $M = 4.37, SD = .55$ ) than the low stigma level bodies ( $M = 4.11, SD = .59$ ).

**Interaction effects.** RQ3 asked whether there would be differences in social peril based on the interaction between the stigma level and the patient's gender. There was not a significant interaction effect for stigma level x patient gender on social peril,  $F(1, 334) = 1.35, p = .246$ . RQ4 asked whether there would be differences in social peril based on the interaction between the stigma level and patient size. There was not a significant interaction effect for Stigma Level x Patient Size on social peril,  $F(1, 334) = .476, p =$



.491. RQ5 asked whether there would be differences in social peril based on the interaction between the patient's gender and the body size. There was not a significant interaction effect for Patient Gender x Body Size on social peril,  $F(1, 334) = 1.11, p =$

.293. RQ6 asked whether there would be differences in social peril based on the interaction between the stigma level, the patient's gender, and body size. There was not a significant interaction effect for Stigma Level x Patient Gender x Body Size on social peril,  $F(1, 334) = .329, p = .566$ .

### **Self-Esteem**

An ANCOVA was used to test RQ7, RQ8-13 where self-esteem was the dependent variable. The control variables in this model were participant BMI, participant gender, participant perception of message rudeness, truthfulness, helpfulness, and realism, as well as their overall perception of the realism of the interaction. The theoretical variables in this model were patient gender, patient size, and stigma level. This was a full factorial model that tested main effects, as well as the two-way and three-way interactions.

**Main effects.** RQ7 asked whether there would be differences in self-esteem based on stigma level. There was no significant main effect for stigma level on self-esteem,  $F(1, 324) = .190, p = .663$ . RQ8 asked whether there would be differences in self-esteem based on patient gender. There was not a significant main effect for patient gender on self-esteem,  $F(1, 324) = 1.80, p = .180$ . RQ9 asked whether there would be differences in self-esteem based on patient body size. There was not a significant main effect for patient body size on self-esteem,  $F(1, 324) = .253, p = .615$ .

**Interaction effects.** RQ10 asked whether there would be differences in self-esteem based on the interaction between the stigma level and the patient's gender. There was not a significant interaction effect for Stigma Level x Patient Gender on self-esteem,  $F(1, 324) = .033, p = .856$ . RQ11 asked whether there would be differences in self-esteem based on the interaction between the stigma level and patient size. There was not a significant interaction effect for Stigma Level x Patient Size on self-esteem,  $F(1, 324) = .002, p = .961$ . RQ12 asked whether there would be differences in self-esteem based on the interaction between the patient's gender and the body size. There was not a significant interaction effect for Patient Gender x Body Size on self-esteem,  $F(1, 324) = 1.46, p = .228$ . RQ13 asked whether there would be differences in self-esteem based on the interaction between the stigma level, the patient's gender, and body size. There was not a significant interaction effect for Stigma Level x Patient Gender x Body Size on self-esteem,  $F(1, 324) = .449, p = .503$ .

## **Chapter 5**

### **Discussion**

The current study investigated the effects of weight-based stigma messages on the self-esteem of non-stigmatized audience members and investigated their perceptions of the stigmatizing message components using Smith's (2007a) stigma communication model. The findings have implications for stigma, weight-based stigma, and stigma communication. Specifically, this study draws attention to an under-studied aspect of the stigma experience: its individual-level effects on a third-party observer, i.e., someone other than the stigmatized person. Previous research typically focused on the effects of stigma on stigmatized people (Puhl & Brownell, 2006; Puhl & Heuer, 2010) or suggested ways that stigmatization of groups can affect observers' attitudes and emotions toward the stigmatized both at the collective and individual levels (Link & Phelan, 2001; Smith, 2007a). On an individual level, exposure to stigmatizing messages can generate negative (Smith, 2012a) or positive (Smith, 2014) emotions and cognitions toward the stigmatized person. The current study focused on the effects of observing stigmatization toward another person, but instead of considering the emotional or cognitive reactions directed toward the stigmatized person, it found that observing the stigmatization of another person has no significant effect on the observer's self-esteem. However, this study does provide partial support for Smith's (2007a) stigma communication model.

#### **Perceptions of Stigma Communication Message Features**

Participants' perceptions of the features of stigma communication messages varied based on the level of stigma and the body size of the stigmatized patient. In general, the results of this study suggest that features of stigma communication messages

are perceived differently based on the intensity of the stigma communication and the body size of the target of the stigma message. These results have implications for stigma communication theory as well as body size stigma.

The body size findings in this study are consistent with previous research on weight stigma and stigma communication (Anderson & Bresnahan, 2013). This study found large bodies were thought to be more marked, labeled, thought to be more personally responsible, and more linked to social peril than small bodies. These findings are similar to previous weight stigma research which found weight stigmatization was more prevalent for overweight or obese individuals (Meyers & Rosen, 1999; Schvey et al., 2011). Therefore, the findings of this study add to the literature about weight stigma by expanding on body size stigma and how stigma is generally perceived.

Regarding the effects of stigma level on perceptions of message features, the results of this study were largely consistent with Malterud and Anderson (2016). First, marking and personal responsibility varied by stigma level. There was a main effect on marking by stigma level. The participants in the high stigma level conditions perceived patients to be more marked than low stigma level conditions. Similarly, there was a main effect on personal responsibility by stigma level. The participants in the high stigma level conditions perceived patients to be more personally responsible for their weight compared to the low stigma level conditions. These findings of marking and personal responsibility support the stigma communication model (Smith 2007a) because they indicate that laypeople perceive differences in messages based on the intensity of the stigma in the messages. This was also found to be the case in Smith's (2012a) study where manipulated levels of high or low marking, labeling, personal responsibility, and

social peril affected cognitive and emotional reactions. From the findings from Smith (2012a) and this study, stigma level has a role in perceived stigma and message reactions.

The implications of these findings have implications for the stigma communication model (Smith, 2007a). Due to the finding that stigma level affects the perceptions of message features (marking, labeling, personal responsibility, and social peril) and message reactions, future researchers should consider the stigma level when testing this theory. These stigma levels are not limited to high/low. Levels could include, high, medium, low, and no stigma. It would be especially important to incorporate the no stigma level, i.e., a control condition, to further test the effects of the stigma levels. Moreover, it could be argued that stigma level should be added to Smith's (2007a) stigma communication model because it has a direct effect on when aspects of the model are perceived and to what intensity individuals react to the stigma.

The results of this study were consistent with Malterud and Anderson (2016), who found that perceptions of social peril did not differ significantly by stigma level. One explanation for this result could be due to the health issue used in this study. That is because weight is non-contagious; laypeople do not link weight to social peril as they do with other types of stigmatized conditions such as contagious diseases (Smith, 2007a; Smith 2012a). This suggests that the stigma communication model may need to be refined to account for the stigma being contagious or not. Future studies should study this further by testing other non-contagious diseases, such as lung cancer or mental illness, to see if results are consistent. Another possible explanation for this effect may be measurement used in the two studies. This study linked the patients to social peril by insinuating that the patient's weight was driving up health care costs. This may not have

been the best conceptualization of social peril for college students because they do not have a sense of health care cost at this age, they are usually on their parents' insurance plans, or not covered at all (Nicholson, Collins, Mahato, Gould, Schoen, & Rustgi, 2009).

Future studies could use the negative implications for children born to overweight or underweight parents to link patients with weight-based stigmatized conditions to social peril, as children are more likely to mimic eating habits from their parents' continuing cycle of unhealthy body weight. This link to social peril may relate to college students more as they could think of their parents, siblings, or their future children. Another suggestion is using reproduction to link patients to social peril. Linking women of a certain weight to the inability to carry a healthy child, or any child at all, to term, may be an effective way to link weight and social peril. Men could also be linked to the inability to perform sexually due to their weight, which may be a comparable way to link males to social peril.

In contrast with previous research (Malterud & Anderson, 2016), stigma level did not produce significant differences in perceptions of labeling. However, this effect was extremely close to statistical significance ( $p = .054$ ), so this finding may just be a statistical artifact or Type II error, rather than indicating that there is truly no effect for stigma level on perceptions of labeling. However, it might be that stigma level does not affect perceptions of labeling for this stigmatized condition. One explanation may be that, for this stigmatized condition, marking and labeling are so close conceptually that they are confounded in the operationalization, i.e., message manipulations and measurement. Marking was established using the terms *fat/emaciated*, and labeling was established using the terms *morbidly obese/underweight*. This challenge of distinctly operationalizing

marking and labeling may suggest refining the model by combining marking and labeling. Alternatively, this may be a way that weight-based stigma communication functions uniquely from other types of stigma communication, so this is a context where the model does not provide an excellent fit to the data. Future research should continue to examine these issues by testing weight-based stigma using other terms for marking and labeling.

**Patient size.** Patient size affected perceptions of marking, labeling, personal responsibility, and social peril throughout the study. First, there was a main effect on perceptions of marking depending on patient size. Large bodies were considered to be more marked than small bodies. It is unclear why the word “fat” would be considered more marking than the word “emaciated,” or simply asking “How is your weight maintenance going?” would be more marking for large bodies than small.

A main effect was also seen with labeling, where large bodies were seen as more labeled than small bodies. Labels included “*morbidly obese/obese/underweight*” depending on the stigma level and body size. This finding was consistent with previous literature that large bodies were perceived to be more labeled than small bodies (Anderson & Bresnan, 2013). This example speaks to the cultural expectations for physical appearance that motivate stigma in the first place (Link & Phelan, 2015) as well as the ways that those expectations affect perceptions about weight-based stigma.

Media influence may explain why large bodies were perceived as more labeled than small bodies. The perceived “ideal” body contributes to the anti-fat attitudes adopted by laypeople (Brochu et al., 2014), particularly when they are exposed to negative portrayals of overweight people in popular culture (Bowen et al., 2014). These negatives

attitudes could explain why participants perceived the large bodies to be more labeled than the small bodies. Furthermore, negative stereotypes of overweight individuals are rarely challenged, (Puhl & Heuer, 2009) which could have been another contributing factor for participants perceiving large bodies to be more labeled. Perhaps participants more easily recognized the label of the large bodies because they had been exposed to overweight or obese people being labeled in a similar way in the past.

A third main effect was seen for personal responsibility. Again, large bodies were considered to be more personally responsible for their weight than small bodies. Previous research suggests that overweight individuals should be able to control their weight (Cramer & Steinwart, 1998; Puhl & Brownell, 2006; Tiggemann & Anesbury, 2000) and it seems to be the case here as well. Participants were holding the larger bodies more personally responsible than the small bodies. The literature did suggest that people with Anorexia or who were underweight were also thought to be personally responsible for their weight (Roehrig & McLean, 2010). However, a possible explanation could be the concept of body envy that was discussed in chapter two. Roehrig and McLean (2010) noted that some people admire individuals with an eating disorder. It may be that because participants were mostly in the “normal” or “overweight” BMI range, they were envious of the small bodies and therefore did not see them as personally responsible. This explanation could be further supported by considering the perceived pressure to be thin perpetuated by media (Stice et al., 1994).

Fourth, a main effect was seen for social peril. While participants did not perceive greater social peril in the high stigma conditions as predicted in H5, large bodies were thought to be linked to more social peril than the small bodies regardless of stigma level.



This may have been the case due to the lay versus expert perceptions of stigma. Perhaps laypeople and experts see health in a similar way. Prior (2003) explained that laypeople's medical knowledge comes from past experiences. This study's stigma messages were crafted to seem like a real encounter coming from a real physician, so perhaps participants were relating this fictitious instance to their real encounters. Future studies should continue to investigate this phenomenon by controlling for participants who have encountered similar situations with a physician. This could be accomplished by asking participants if they have experienced stigma because of their weight.

Future studies involving weight should also consider the weight of the stigmatized individual. Larger bodies were considered to be more marked, labeled, personally responsible, and linked to more social peril than small bodies. It would be beneficial for the development of the stigma communication model to test if these results are consistent for other body sizes, such as large versus very large bodies. These findings could expand the model of stigma communication to include a body size scale when looking at stigmatized individuals. Future studies could apply these findings to other stigmatized conditions. For example, future studies could determine if weight increases stigma in people with cancer, mental illness, HIV/AIDS, and other stigmas. There may be several implications linked to people who experience combined stigmas, such as decreased psychological health.

### **Stigma and Self-Esteem**

Extensive research detailed the negative effects stigma has on self-esteem (Annis et al., 2004; Dohnt & Tiggemann, 2006; Murakami & Latner, 2015). Because of the negative effects stigma has directly on a stigmatized person, it was thought there could be

an effect on self-esteem after participants saw a stigmatizing message directed at another person. However, the results observed in this study did not support that prediction. There were no main effects or interaction effects on self-esteem. Although no significant effects were observed in this study, this finding is largely consistent with results from Malterud and Anderson (2016), who found that self-esteem was highest when participants viewed the small bodies in the high stigma condition, as compared to all other conditions. It is unclear whether this is a true effect that was not observed in the current study, or whether this is not a true effect and the previous study observed this effect due to a statistical error. Additional research should be done to determine the true nature of this effect..

A possible explanation could be that self-esteem is more stable than previously thought (Kernis, 1993). Kernis (1993) explained that self-esteem can experience short-term or long-term fluctuations and may take multiple measures of self-esteem to determine a baseline self-esteem measurement. This process of a baseline change is a slow process and happens over an extended amount of time (Rosenberg, 1986). These findings could illustrate why a single instance of viewing stigma directed at another person had no effect on participant self-esteem in this study. Additionally, Wagner, Lüdtke, and Trautwein (2016) found that self-esteem is mostly stable in young adults, with similar stability in males and females. Their 10-year longitudinal study contained a large sample size of 4,532 participants (Wagner et al., 2016). Considering Kernis (1993) suggested self-esteem should be measured multiple times, and the Wagner et al. (2016) study had a time span of ten years, self-esteem may not be affected by a single observation of stigma towards another person. If this research is correct, it could explain why self-esteem of participants in this study was not impacted. Additionally, self-esteem

could be measured before viewing a stigmatizing message to determine if self-esteem has a role in determining what laypeople consider stigmatizing and to what extent a message is stigmatizing. Self-esteem may impact perceptions of stigma rather than the reverse causal order predicted in this study. Future studies should continue to test this by measuring participants' self-esteem prior to them seeing a stigmatizing message.

### **Gender**

A major aspect of the literature review was gender. Previous research discussed the major impact media had on shaping the “ideal” female body (Pearl et al., 2015; Ura & Preston, 2015), and how the women are aware when their bodies do not meet this “ideal” (Shentow-Bewsh et al., 2015; Stice et al., 2015). Additional research has examined how the “ideal” body negatively impacts overweight and obese women who do not meet the body “ideal” (Puhl & Heuer, 2010). Anderson and Bresnahan (2013), discuss how men and women both experience negative impacts when their bodies do not meet an “ideal”. This suggests that male bodies are also experience stigma. Due to this research, fictitious male and female patients were included in this study.

This study attempted to determine if laypeople would recognize stigma and asked if there would be differences in gender on stigma level and body-size. In this study, it was observed that there were differences in body satisfaction and a relationship between BMI and body satisfaction that differed by gender. For these reasons participant gender was controlled for in all statistical tests. However, there were not differences in the ways that participants perceived stigma directed toward patients of different genders.

The message manipulation of gender may be a possible explanation for why differences in gender effects was not observed. Perhaps, the attempts to keep gender as

controlled as possible in the survey, through the use of language in the messages and photographs of the fictitious patients, gender was not manipulated strongly enough to produce gender effects. The gender-neutral messages were used in order to provide sameness for the male and female patients. The photographs were purposefully edited to avoid sexualization of the patients. This was done by photoshopping a sports bra onto the small female body; in the original photo, the model was wearing a bikini swimsuit. These changes may have led to gender not being manipulated strongly enough for differences in gender to be observed.

Future studies should keep message manipulation in mind when designing a study. It is suggested that gender specific messages are created, while still attempting to keep the stigma language aspects (mark, label, personal responsibility, and social peril) comparable. This could be done by utilizing the previous suggestion of linking women to social peril through fertility, and men being unable to perform sexually. Similar gender specifications can be made for marking, labeling, and assigning personal responsibility. This slight change could produce significantly different results than this study.

### **Limitations**

The main limitation of this study is the photos used. The photos of the fictitious patients did not show the persons' faces, which may have affected the photos' realism for the participants. The decision to crop the images was made to create similarity among all the patients and was seen as necessary to control for facial expression differences. The original images of the small bodies were already cropped at the face. The original images of the large bodies featured the female smiling while the male had a serious expression. However, this choice may have influenced responses. It was thought that differences in

smiling faces versus serious faces could affect the perceived happiness of the patient. This could have influenced participants to interpret the patient's serious face with dissatisfaction for their weight and vice versa.

Also, photos only contained images of Caucasian individuals. This was done to relate to the Caucasian majority of the population the sample was drawn from (United States Census Bureau, 2010). Future research should explore using photos of various other races in place of Caucasian photos. This should be done to test for differences in perceived stigma based on race as it may influence participants' perceptions of stigmatization. As discussed, stigma is not limited to Caucasians, and other races are also subject to being stigmatized (Antin & Hunt, 2013). However, due to some researchers' findings that African-American women are less likely to embrace the thin ideal than white women (Fujioka, Ryan, Agle, Legaspi, & Toohey, 2009; Grogan, 2008), participants may not recognize weight-based stigma directed at African Americans.

Additionally, this study's participants were predominantly Caucasian. Therefore, these results can only be generalized to a small portion of the population. Some research has also pointed that different races have different standards for beauty, stating African-American women are less likely to experience body-size dissatisfaction than Caucasians (Fujioka et al., 2009; Powell & Kahn, 1995). Additionally, Powell and Kahn (1995) found black women experience less pressure to be thin. To expand on this study, future studies can include a more diverse sample.

Another limitation is the interaction between the fictitious patient and physician who focused primarily on the BMI as an indicator of health or, at the very least, fat. As Anderson (2012) argued, the BMI is an imperfect instrument—even when used

properly—it should never be used to determine a person’s overall health. The BMI was used here specifically for that reason: it diminishes a very complex issue, such as overall health, into a rigid system that creates labels and, therefore, easily stigmatizes individuals based on their weight. However, it remains to be seen whether using different tools to assess, for example, an individual’s adipose tissue about other health indicators might also serve to stigmatize patients with respect to their body size. Future studies should examine differences in perceived stigmatization due to the healthcare provider’s method of making claims about the patient’s health based on weight, i.e., using the BMI or another method.

Lastly, this study only explored the effects of two body sizes. It would be beneficial to the future research of stigma to determine if additional body sizes would change the results. As Anderson and Bresnhan (2013) found, multiple body types, muscular women, extremely obese males and females, and extremely underweight male and females are also subject to stigma. It would be beneficial to know how the stigma communication model applies to various other body sizes.

## **Conclusion**

The results of this study generally support Smith’s (2007) stigma communication model. The results suggest that participants’ perceptions of marking and personal responsibility are affected by not only the intensity of the stigma messages but also the stigma target’s attributes, i.e., body size. Viewing a stigmatizing message directed at another individual did not affect participant self-esteem. While this was a surprising result, research is contradictory on how and what affects self-esteem. This study

expanded and supported the literature that self-esteem may be more stable than initially thought.

This study also supported the consideration of expanding on Smith's (2007) stigma communication model. This study and the previous Malterud and Anderson (2016) study used the same messages to determine if laypeople can identify stigma message aspects. Participants in both studies observed certain aspects of the stigma communication model, specifically marking and personal responsibility features. However, it is unclear if laypeople can consistently identify when someone is being labeled in a stigmatizing way. It seems that social peril is not consistently seen by laypeople in relation to weight (Malterud & Anderson, 2016). Due to this, it is recommended that a separate stigma communication model is created for weight-based stigmatization or non-contagious diseases. A revised or separate model would provide the opportunity to explore stigma communication further.

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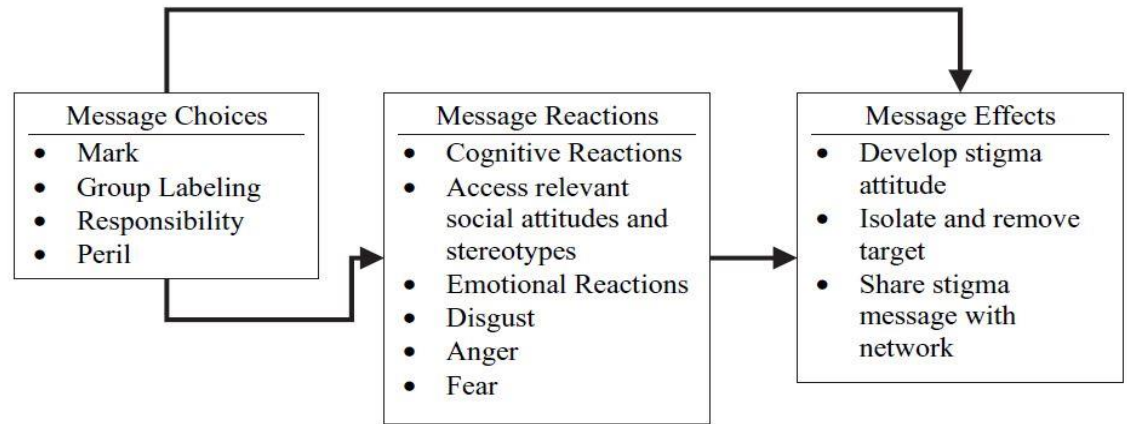
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Appendix A

Figure 1. *Model of Stigma Communication*



Note: Reproduced from Smith (2007a) p. 463

## Appendix B

Table 1. *Stigma Messages*

Stigma	Message
Level	
High	<p>I went to the doctor today, and the first thing Dr. Jones said to me was: “How did you get that [<b>mark:</b> fat/emaciated]? You should be ashamed of yourself (<b>personal responsibility</b>).” Then the doctor proceeds to tell me, “You’re what we would call [<b>label:</b> ‘morbidly obese’/ ‘underweight’]. Because you are [<b>label:</b> morbidly obese/underweight], we’ll have to test you for [<b>social peril:</b> Type II diabetes/malnutrition] and who knows what else. Plus, it wouldn’t kill you to [<b>personal responsibility:</b> exercise a little self-control/eat a little more].” Then, as I was leaving, I heard Dr. Jones say to another doctor, “This patient is why our health care costs are so high (<b>social peril</b>).” And I bet Dr. Jones was talking about me.</p>
Low	<p>I went to the doctor today, and the first thing Dr. Jones said to me was: “How is your weight maintenance (<b>mark</b>) going? You should be concerned about your health. (<b>personal responsibility</b>)” Then the doctor proceeds to tell me, “According to the Body Mass Index (BMI) chart, your weight in is the [<b>label:</b> obese/underweight] category. Because you’re obese, I’m recommending we test for [<b>social peril:</b></p>

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Type II diabetes/malnutrition] and other weight-related health issues.

Plus, adding [**personal responsibility**: exercise/high-calorie foods] to your [routine/diet] could be helpful.” Then, as I was leaving, I heard Dr. Jones say to another doctor, “Weight-related health problems are really driving up the cost of health care (**social peril**).” And I bet Dr. Jones was talking about me.

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Note: These messages appeared identical for both the male and female patients. The brackets present the alternate text for the large and small bodied patients, respectively. The message features are listed in bold; these did not appear in the messages viewed by participants.

## Appendix C

## Recruitment Letter

Dear Student:

I, Andie Malterud, am conducting a research project entitled "Lay and Experts Perceptions of Stigma" as part of my research on communication at South Dakota State University.

The purpose of the study is to understand if laypeople perceive stigma the same as scholars as experts.

You, as a student, are invited to participate in the study by completing this survey. It will take you approximately 15-20 minutes of your time. Your participation in this project is voluntary. You may withdraw from the study at any time without consequence.

There are no known risks. You may choose not to answer any question on the survey.

There are no direct benefits to your participation in the study.

As incentive for your participation, **you will receive 10 extra credit points for completing the survey.**

Your responses are strictly confidential. When the data and analysis are presented, you will not be linked to the data by your name, title or any other identifying item.

**At the bottom of this email, you will find the link to take the survey.** Please click on that link and complete the survey, and the results will be sent directly to the researchers upon your successful completion.

Your consent is implied by completing the questionnaire. Please copy and paste this letter into a document to keep for your information. If you have any questions, now or later, you may contact me at the number below. Thank you very much for your time and assistance. If you have any questions regarding your rights as a research participant in this study, you may contact the SDSU Research Compliance Coordinator at 605-688-6975, SDSU.IRB@sdstate.edu.

This study has been approved by the SDSU Research Compliance Office IRB-1701001-EXM

Sincerely,

Project Director Andie Malterud.  
320 Pugsley Center  
Andrea.Malterud@sdstate.edu  
605-688-6131

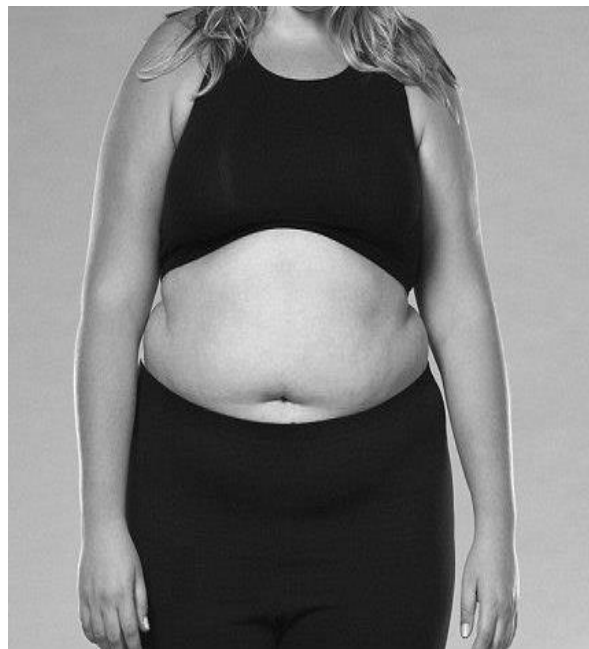
**Link to survey:**

Appendix D

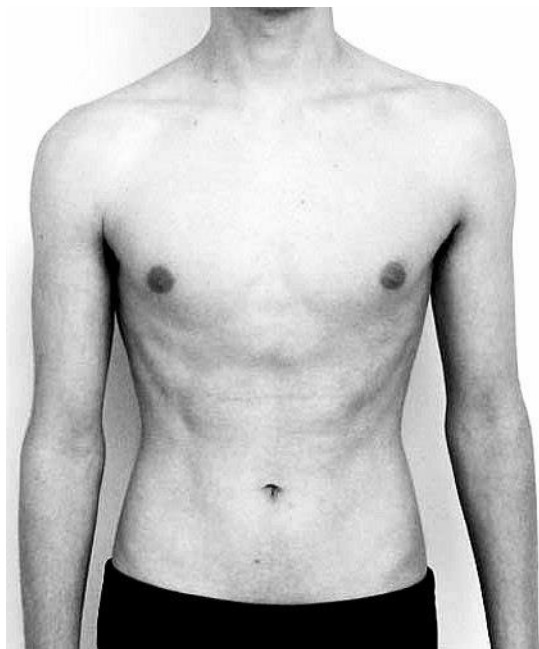
Figure 2. *Images of patient bodies used in the message manipulation*



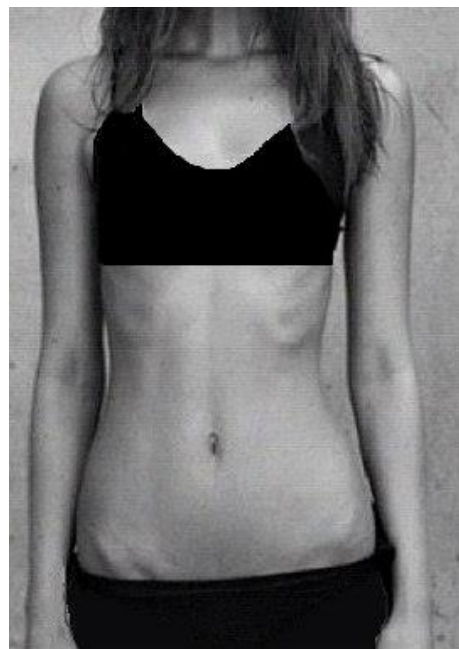
Large Male Body



Large Female Body



Small Male Body



Small Female Body

## Appendix E

Table 2. *Survey and Measures***Instructions to participants:**

*Rate how attractive you find the person in this picture on a scale of 1 (very unattractive) to 7 (very attractive).*

**Instructions to participants:**

*On a scale of 1 (strongly disagree) to 5 (strong agree) do you think this interaction was...*

1. Realistic
2. Rude
3. Truthful
4. Helpful

**Instructions to participants:**

*On a scale of 1 (strongly disagree) to 5 (strongly agree) rate the extent to which the physician was stigmatizing the individual.*

**Instructions to participants:**

*On a scale of 1 (strongly disagree) to 5 (strongly agree) rate the extent in which it seemed like the doctor...*

*Marking*

1. Brought too much attention to the person's weight?
2. Was fixated on the person's weight?
3. Focused only on the person's weight?
4. Zeroed in on the person's weight?

*Group Label*

5. Put the person into a group based on their weight?
6. Assumed that the person was in a certain health category based on their weight?
7. Used this person's weight to categorize them?
8. Grouped this person based on their weight?

*Social Peril*

9. Thought the person's weight would cause some negative effects?
10. Thought this person had health risks based on their weight?

11. Associated this person's weight with health risks?
12. Assumed this person's weight was unhealthy?

*Personal Responsibility*

13. Made the person personally responsible for their weight?
14. Thought this person was responsible for their weight?
15. Suggested that this person was responsible for their weight?
16. Put responsibility on the person for their weight?

**Instructions for the participants:**

*Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.*

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.
9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.



## Appendix F

Table 3. Table of Results

DV	Main Effects			Two-Way Interactions			3-Way Interaction
	Stigma Level	Patient Gender (RQ1)	Patient Size (RQ2)	Stigma x Gender (RQ3)	Stigma x Size (RQ4)	Gender x Size (RQ5)	Stigma x Gender x Size (RQ6)
Marking	H1 SUPPORTED High>Low High: M = 3.81 (SD = .06) Low: M = 3.65 (SD = .73)	Not Supported	SUPPORTED Large Body > Small Body Large: M = 3.65 (SD = .90) Small: M = 3.65 (SD = .73)	Not Supported	Not Supported	Not Supported	Not Supported
Labeling	H2* Not Supported	Not Supported	SUPPORTED Large Body > Small Body Large: M = 4.11 (SD = .68) Small: M = 3.99 (SD = .73)	Not Supported	Not Supported	Not Supported	Not Supported
Personal Responsibility	H3 SUPPORTED High>Low High: M = 4.20 (SD = .06) Low: M = 3.77 (SD = .06)	Not Supported	SUPPORTED Large Body > Small Body Large: M = 4.11 (SD = .06) Small: M = 3.86 (SD = .05)	Not Supported	Not Supported	Not Supported	Not Supported

Social Peril	H4 Not Supported	Not Supported	<b>SUPPORTED</b> Large Body > Small Body Large: M = 4.37 ( <i>SD</i> = .55) Small: M = 4.11 ( <i>SD</i> = .59)	Not Supported	Not Supported	Not Supported	Not Supported
Self-Esteem	Not Supported (RQ7)	Not Supported (RQ8)	Not Supported (RQ9)	Not Supported (RQ10)	Not Supported (RQ11)	Not Supported (RQ12)	Not Supported (RQ13)

\*This one was extremely close:  $F(1, 322) = 3.75, p = .054, \text{partial } \eta^2 = .012$ . This was consistent with the hypothesis.