EFFECTS OF STRUGGLE AND GOAL ACHIEVEMENT
IN WEIGHT-LOSS JOURNEYS ON SOCIAL MEDIA: INSTILLING HOPE
AND PROMOTING HEALTH BEHAVIORS

Chandler C. Carter

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Approved by:

Francesca Dillman Carpentier

Anne M. Johnston

Paschal Sheeran

ABSTRACT

Chandler C. Carter: Effects of Struggle and Goal Achievement in Weight-Loss
Journeys On Social Media: Instilling Hope And Promoting Health Behaviors
(Under the direction of Francesca Dillman Carpentier)

Weight-loss journeys are frequently depicted in social media attempting to inspire others to achieve their health goals. In a 3 X 2 experimental design, this thesis examines how social media posts about weight-loss goals achieved, in progress, or unattained, and that mention or do not mention struggle in the pursuit, affect self-efficacy, social comparison, target perceptions, hope and, in turn, intention to model the author's health behaviors. Mixed support arose for the predicted effects of social comparison and how struggle expressed in a weight-loss narrative and personal struggle interact to impact self-efficacy to perform modeled strategies. The findings support Social Cognitive Theory's main tenet that an individual's self-efficacy is central to whether or not a modeled behavior is emulated. The results suggest personal struggle with a weight-loss helps determine whether an individual will perceive similarity with and feel hopefulness in response to weight-loss narratives. Implications for health promotion are discussed.

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CHAPTER 1: EFFECTS OF STRUGGLE AND GOAL ACHIEVEMENT

Research supports the idea that social media can provide beneficial support and social opportunities, such as social support and community building (Chung, 2014; Dickins et al., 2016; Naslund et al., 2016), identity expression (boyd, 2007; Guta & Karolak, 2015) and access to important health messages (Moorhead et al., 2013). But social media also have a dark side that includes fake and misleading content (Allcott & Gentzkow, 2017), bullying (Hamm et al., 2015) and material that encourages negative social comparisons (Fardouly et al., 2015), which can harm a user's well-being. It is important to disentangle the social media content and features that can lead to improved health from those that have a detrimental effect on our health. Of course, people bring their own unique personalities, mindsets and behaviors to the table when interacting with social media, but there are also elements inherent in the content of social media that can either inspire and empower, decrease empathy or self-esteem, or promote hate. This thesis will use research primarily from Social Cognitive Theory (Bandura, 1986), Social Comparison Theory (Buunk, 2007; Festinger 1954; Smith 2000) and research about underdog narratives (Kim et al., 2008; Prestin, 2013) to explore the type of content on social media that can inspire individuals, with a specific focus on inspiration to achieve weight-loss goals.

This thesis will specifically examine how weight-loss goals are depicted within a social media narrative. Existing research has focused on how intention to model goal-related behaviors depicted in a narrative are explained by whether the goal is depicted as having been achieved (Lee & Shapiro, 2016; Lockwood, Jordan, & Kunda, 2002). In other words, the focus of the

existing research is on the goal outcome rather than on the nature of the pursuit of the goal. The thesis extends this research by considering how the outcome and the pursuit of a weight-loss goal are characterized in a social media narrative.

In a 3 (goal outcome) X 2 (target struggle) design, this thesis addresses both goal outcome and goal pursuit by examining how social media posts about weight-loss goals that are either achieved (success), in progress, or unattained (failure), and that either involve struggle or lack thereof in the goal pursuit, affect individuals in terms of their perceptions of the target, hopefulness and inspiration, and intention to model the weight-loss behaviors of the target.

The concept of struggle is central to the investigation of this thesis. Kaptein (2017), which proposes a characterization of struggle in the context of businesses and their employees, notes that struggle has not been clearly defined in academic literature. However, he proposes that struggle, which can be psychological or physical, is defined by four characteristics. The first is an object at stake that is deemed valuable. The second is that in a struggle, the object of value is not yet realized or guaranteed. The third is the risk of losing or not being able to realize something valuable is created by adversarial or opposing forces (e.g. human opponents, ideologies, internal thoughts). And the fourth is that struggle requires great effort in dealing with opposing forces. This thesis examines the role that struggle with a weight-loss goal, both expressed by a social media author and experienced by a reader, plays when reading about weight-loss journeys on social media with varying goal outcomes. The specific effects of goal outcome and goal struggle variables are derived from Social Cognitive Theory, Social Comparison Theory, and research into the underdog narrative. These areas of research are reviewed below, followed by the presentation of research questions and hypotheses.

Literature Review

Social Cognitive Theory

Social Cognitive Theory has been used to support research that examines how behaviors that are enacted by individuals or characters in narratives can influence a person's motivations to perform, or model, those behaviors (Lee and Shapiro, 2006; Nabi, 2009; Prestin 2013). This thesis uses Social Cognitive Theory as a theoretical framework to explain how and why people might model goal-related behaviors depicted in social media posts about weight loss. I first provide a brief description of the theory, and then I present the specific propositions of the theory that I am using to predict how differences in the pursuit and outcome of a weight-loss goal can influence perceptions of the target pursuing the goal, feelings of hopefulness and inspiration, and intentions to model the target's goal-related behaviors.

Social Cognitive Theory is an extension of Social Learning Theory, which was theorized by Albert Bandura in the 1960s (Bandura, 1971; Bandura 1986). Social Learning Theory, which reflects behaviorist learning theories such as classical conditioning, proposes that learning can occur by observing the behavior of others, as well as observing the consequences for those behaviors (Bandura, 1971; Bandura 1986). Observational learning is important because it allows individuals to adopt new behaviors without having to engage in trial and error that could lead to many negative consequences (Stajkovic & Luthans, 1998).

Bandura posited that individuals pay attention to models in their environment and may encode and recall these behaviors and outcomes at a later date (Bandura, 1986). This process can cause an individual to reproduce a behavior when they identify a similar context in the future (Bandura, 1986). Learning does not just occur through direct observation of real people but also

through models portrayed visually and auditorily through media (symbolic modeling, Bandura, 1986).

Social Cognitive Theory extends Social Learning Theory, building from the core tenet in Social Learning Theory that learning can occur without changing behavior. As such, Social Cognitive Theory extends beyond behavior imitation to explain the adoption of attitudes, feelings and motivations related to a behavior--further noting that evidence of learning from models can influence attitudes, feelings, and motivations without necessarily changing actual behavior (Bandura, 1986).

Social Cognitive Theory has been described as the bridge between behaviorist learning theories and cognitive theories. It is proposed that cognitive processes mediate the relationship between the modeled behavior/stimulus and imitation of the behavior (Bandura, 1986). These cognitive mediational mechanisms consist of attention and encoding/remembering (Bandura, 1986). Motivational mechanisms include whether or not the perceived outcome of the behavior (outcome expectancy) is deemed beneficial after a cost-benefit analysis and whether or not the individual perceives that they have the ability, or efficacy, to successfully perform the behavior that is modeled (self-efficacy) (Bandura, 1986).

Self-efficacy. Social Cognitive Theory posits that self-efficacy is at the center of a reciprocal interaction between a person, their environment and their behavior. Self-efficacy can affect how much effort people expend in pursuit of their goals, how persistent they are when faced with obstacles or failures, whether failures motivate or demotivate, what goals individuals choose to pursue and whether their efforts will produce positive outcomes or negative ones (Bandura, 1986). An individual's self-efficacy can increase through vicarious learning where the individual observes a similar or relevant model perform a desired behavior that produces a

positive outcome (Bandura, 1986). In studies about weight, self-efficacy was related to the concept of growth and fixed mindsets (Hooper et al., 2018).

A growth mindset or incremental view describes when an individual believes they have control over an issue, in this case their weight, and view weight as an incremental entity. A fixed mindset, or entity view, describes when an individual perceives little to no control over their weight and views weight as fixed (e.g. primarily determined by genetics) (Hooper et al., 2018). According to Social Cognitive Theory, high levels of self-efficacy would predict an increased motivation to model desired behaviors, compared to low levels of self-efficacy. Therefore, I predict that high self-efficacy will positively relate to intention to model the social media author.

Perceived similarity to the model. One other important factor that can influence whether or not a behavior is imitated is the similarity of a model to oneself (Bandura, 1986). Schunk (1987) reviewed 29 studies that either investigated perceived similarity in terms of the model's age, sex, competence, background, the number of role models presented, or a combination of these factors. There was mixed evidence for the effects of age and sex of the model on imitation. With respect to the model's background, Schunk (1987) reviewed one study where children's high perceived similarity to a model in terms of hometown, interests and clothing, increased modeled behaviors and recall of modeled behaviors compared to children in a low similarity condition (Rosekrans, 1967). However, the similarity and dissimilarity of the models were expressed very explicitly (e.g. "It looks as though he is not very much like you are at all"). Thus, it is possible that the effects of implicit indications of similarity would have weaker effects on modeling. Nonetheless, I predict a positive relationship between perceived similarity and intention to model a social media author's weight-loss strategy.

Schunk also reviewed studies that investigated similarity in terms of mastery models, who demonstrated flawless performance throughout a task, and coping models, who demonstrated fears and deficiencies that were gradually overcome to the point of improved performance and increased confidence (Schunk, 1987; e.g. Kornhaber & Schroeder, 1975; Schunk & Hanson, 1985; Vernon, 1974). Three of these studies (Kornhaber & Schroeder, 1975; Schunk et al., 1987; Vernon, 1974) suggested that children who experienced difficulties learning a skill and observed coping models experienced enhanced skills, compared to those who observed mastery models. Schunk notes that the results of mastery-coping effects are inconclusive because the reviewed studies only investigated perceived similarity in the context of reducing avoidance behaviors among fearful participants. However, given the more conclusive findings by Schunk, I predict that if a reader has struggled with weight loss and reads a social media post that also indicates struggle, that reader will have a greater intent to model the social media author because of that similarity in weight loss goal pursuit. To say this another way, I predict that readers' own levels of struggle will enhance the main effect of the presentation of struggle in the social media post on intentions to model by first increasing perceived similarity. This increased perceived similarity, in turn, will increase intentions to model.

It is important to note that other types of perceived similarity also exist, although perceived similarity based on struggle is the particular focus of this study. These other types, such as perceived similarity in body size with the social media author, are also important in the literature. Although not the focus of this study, these types of similarity are discussed in greater detail in the Social Comparison Theory section below.

Behavior reinforcement as behavior success. A third factor that influences modeling is the nature of reinforcement of a modeled behavior (Bandura, 1986). In other words, the

likelihood to model behaviors will also depend on whether or not the behavior is reinforced, punished or receives no consequences. Observing others receive positive reinforcement can create outcome expectancies that serve as positive motivators, whereas negative reinforcement can create negative outcome expectancies that discourage modeling. (Bandura, 1986)

Bandura studied reinforcement effects in his Bobo doll experiment in 1961, where children watched aggressive acts performed by an adult on a life-sized inflatable doll (Bandura, 1961). Children in three groups either saw the model rewarded, punished or receive no consequences for their aggressive behavior. Then, the children were given the opportunity to interact with the doll. The children in the reward or no-consequence groups imitated the model. However, the children in the punishment group were less aggressive toward the doll. Following this finding, Social Cognitive Theory predicts that reinforced behaviors are more likely to be imitated (Bandura, 1961; Bandura 1986).

Reinforcements can be external responses to a behavior (e.g. mom rewards her child with movie tickets for doing extra chores) or internal responses (e.g. the child feeling fulfilled after having completed extra chores). Some studies have examined reinforcement in terms of whether the model is a positive or negative role model (Lockwood et al., 2002; Lockwood, Marshall & Sadler, 2005). Positive models refer to those that have achieved success, and negative models have experienced misfortune (Lockwood et al., 2002). Positive role models can inspire by showing a desired self, achievements that one can strive for, and the means of achieving a goal, whereas negative role models can inspire individuals to avoid failures by showing a "to-be-avoided self" and mistakes to avoid (Lockwood et al., 2002, p. 854).

Social Cognitive Theory does not account for how the similarity/appeal of a model and reinforcement of a model's behavior interact in a way that leads to opposite predictions. What if

the model is well-liked but the outcome of the model's behavior is negative? For example, Nabi and Clark (2008) found that liked models that perform risky behaviors that have been negatively reinforced can influence individuals to imitate that behavior. It is possible that the similarity and/or appeal of the model had a greater effect on adopting modeled behavior than negative reinforcement. Alternatively, the observer may not have perceived the risky behavior or the outcome of the behavior as negative, or perceived the long-term outcome of the behavior to be positive.

Lockwood et al. (2002) found that negative role models were more influential than positive role models for individuals who were primed to think about a goal in terms of avoiding a negative academic outcome. However, for individuals who were primed to think about achieving a positive academic outcome, the positive role model was more motivating than the negative role model. The positive model illustrated successes and achievements, reflecting positive behavioral reinforcement or reward. The negative model illustrated failures and mistakes, reflecting negative behavioral reinforcement or punishment. Motivation was not measured in terms of motivation to engage in the actions of the model, but actions related to achieving academic success. Social Cognitive Theory suggests that individuals will be more likely to adopt the behavior of a positive model than a negative model, regardless of whether or not individuals think about attaining or avoiding an outcome.

This thesis will measure intention to model as it relates to the target's specific weight-loss strategies. Considering intention to model rather than motivation to engage in general goal-related behaviors, I predict a main effect of goal outcome on intention to model, such that goal success will produce stronger intentions to model than goal failure. Revisiting the motivational mechanisms proposed in Social Cognitive Theory, I predict that goal outcome will impact self-

efficacy, which in turn will impact intention to model. Readers who see a target succeed in their goal will feel more self-efficacy, which will predict greater intention. Readers who see a target fail will feel less self-efficacy, which will predict less intention.

Missing from Lockwood et al. (2002)'s study is a consideration of other ways of seeing the target as a potential model (e.g. the nature of the path leading towards a goal outcome) or what happens when a goal is in progress (versus achieved or unattained). Lee and Shapiro (2016), on the other hand, investigated in-progress goals in the context of weight loss. They examined the effects of narratives involving characters who had either achieved their diet goal, failed to achieve the goal, or indicated the goal was still in progress, on goal activation (in implicit memory) and (explicit) intention to model the target's diet behaviors. They found no differences in intention to model between goal achieved, goal in progress and goal failed conditions. Thus, the effects of reading about goals in progress are not clear.

Lee and Shapiro (2016) did find that, for the goal achievement condition only, the influence of exposure to the narrative on intention to model was moderated by similarity to the character. This finding leads to a similar prediction to the interaction noted above between similarity with struggle and depiction of struggle in a social media post. Namely, the depicted goal outcome will interact with the interaction of the reader's own level of struggle and the presentation of struggle in the social media post, such that readers with higher levels of struggle and who receive the post indicating struggle in the goal pursuit (similar weight loss experiences) will have a greater intention to model the author if the readers also read that the goal was attained, versus failed.

Nevertheless, Lee and Shapiro (2016) define their narratives in terms of goal achievement but not the nature of the goal pursuit, specifically. This thesis proposes that the way

that the path toward a goal is described might be additional information that helps us decide whether we want to emulate a particular target. For example, if someone is struggling with weight loss, a reader might recognize that experience as being similar to their own and view that target as a potential role model. In other words, intention to model behavior is not just about whether a behavior is rewarded, it is also about what happens on the path towards a goal outcome.

This thesis is interested in parsing out the path toward goal attainment (conveying a struggle or lack thereof) and how this interacts with goal outcomes (success, in progress, failure). Social Cognitive Theory alone is not sufficient to explain these effects. However, Social Comparison Theory, which will be discussed in the next section, can help predict how a model's similarity of struggle (or lack thereof) to the reader might interact with the model's goal outcome to predict perceptions of a target that might impact intention to model weight-loss behaviors.

Social Comparison Theory

Festinger (1954) posited that there is a drive to self-evaluate, in other words, to evaluate one's opinions and abilities. He explained that holding inaccurate opinions or inaccurate appraisals of one's abilities can prove maladaptive and thus, individuals must use others to satisfy their needs to obtain accurate information about themselves. This explanation is the basis for Social Comparison Theory, which provides predictions for how individuals will compare themselves to others (Festinger, 1954). Downward social comparisons occur when individuals compare themselves to others they perceive to be inferior. Upward social comparisons occur when individuals compare themselves to others they perceive as superior. Collins (1996) suggests that lateral/neutral comparisons can occur to targets that are perceived as neutral. Although Festinger's theory proposed more active selection of comparison targets, studies have

suggested that these social comparisons can occur automatically and subconsciously (Gilbert, Giesler, & Morris, 1995; Wood, 1989).

Applying Social Comparison Theory to this study, if a social media post indicates a weight-loss goal failure, readers might see that author as inferior and engage in a downward social comparison. If a social media post indicates a weight-loss goal success, however, readers might see that author as inspiring and engage in an upward social comparison. Therefore, I predict a main effect of goal outcome on readers' self-reported directions of social comparison measured after seeing the social media post, in that goal success will produce social comparison ratings that indicate upward comparisons or lateral/neutral comparisons where the target is deemed neither superior nor inferior, while goal failure will produce social comparison ratings that indicate downward comparisons or lateral comparisons. Logically, I would then argue that if a reader feels their own self is better than a potential model, that reader will not want to emulate the potential model. In other words, the more a reader upwardly compares themselves to a target, the more likely the reader will intend to model that target.

An important emphasis of Social Comparison Theory is that comparisons are more likely to occur when a target--a potential point of comparison--is similar to oneself. Wood (1989) reviewed research testing this "similarity hypothesis" proposed by Festinger (1954). Research supports both the idea that an individual is more likely to compare themselves to a target who is similar on the dimension being evaluated as well as related dimensions regarding performance, physical attributes, personality, gender and a number of other dimensions. It also shows that individuals seeking to learn about their status on an unfamiliar attribute may compare themselves to others who are dissimilar to them on that attribute (Wood, 1989). Heinberg and Thompson (1992) found that female students rated their peers as more important targets of appearance

comparison than celebrities. However, subsequent studies suggest that social comparison can occur in relation to self-relevant others rather than just physically similar others (such as women comparing themselves to much thinner models who reflect a relevant body ideal) (e.g. Kruglanski & Mayseless, 1990). In this thesis, relevance of losing weight is measured in terms of whether or not readers have, themselves, ever set a weight-loss goal and what the outcome of their goal is/was (achieved, failed, in progress). These measures are given prior to seeing the social media post and can therefore be used to see how the relevance of the weight loss goal interacts with aspects of the social media post to affect post-stimulus measures, such as intention to model. (The specific measure of the reader's own struggle was discussed as similarity of struggle in the Social Cognitive Theory section.) Perceived similarity measures that are given after the social media post is viewed include perceived similarities in appearance, experiences and personality, and aspects of the depicted weight loss pursuit as being like the reader's own experiences.

Early research on Social Comparison Theory assumed that upward, rather than downward, comparisons led to negative effects on mood and self-esteem. However, subsequent research demonstrates that both upward and downward directions of comparison can lead to positive and negative affect because comparisons in each direction can be either contrasting or assimilative (Buunk et al., 1990; Collins, 1996). Contrasting comparisons refer to comparisons for which self-evaluations are contrasted away from a given standard, emphasizing the difference between the self and the target. Assimilative comparisons refer to comparisons for which self-evaluations are assimilated toward a given standard, emphasizing sameness between the self and the target. Therefore, if a person is engaged in an upward social comparison that is assimilative, that person might feel better about themselves, in contrast to the usual assumption that upward

social comparisons lead to lower self-esteem. If a person is engaged in a downward social comparison that is assimilative, that person might actually feel worse (e.g. experience fear, anxiety, etc.) because they will see themselves as more similar to the lower-status target.

Although Festinger did not capture specific motivations for social comparison in his theory, others have honed in on motivations that relate to the four types of social comparisons: contrasting upward and downward, and assimilative upward and downward (e.g. Collins, 1996; Wills, 1981; Wood 1989). Among these motivations are the needs for self-enhancement (motives to protect or enhance one's self-esteem) and self-improvement. Self-enhancement is a motive for contrasting downward social comparison (individuals see themselves as superior to an inferior other) (Wills, 1981; Wood, 1989). Wills (1981) reviewed research suggesting that people frequently engage in downward social comparisons when they experience misfortune or threat. Thus, individuals are motivated to improve their self-esteem and do so by making comparisons to "lesser" others. On the other hand, assimilative upward social comparison (to "superior" others) can reflect a motive for self-improvement (Collins, 1996; Wood, 1989). Smith (2000) attempts to outline the emotions that result from upward and downward, contrasting and assimilative comparisons. Smith (2000) proposes that upward assimilative comparisons can result in positive emotions such as admiration, optimism and inspiration. Hope and inspiration as a product of exposure to narratives reflecting struggle will be discussed in the underdog narrative section below.

Similarity in social comparison. Research shows that there are many factors that can influence whether people assimilate to or contrast away from comparison standards (e.g. Lockwood & Kunda, 1997). Mussweiler, Ruter, and Epstude (2004) conducted five studies that provide evidence that assimilation and contrast depend on whether one's initial assessment of the

target of comparison based on pre-existing self-knowledge leads to perceptions that the target is similar or different. If the initial assessment is that the target is similar, the individual will engage in similarity testing (testing the hypothesis that the target is similar), which leads them to make an assimilative comparison. Information used to test this similarity hypothesis is argued to be conducive to finding similarity because, much like confirmation bias, the comparison increases the accessibility of knowledge that points to similarities (Corcoran, Crusius, & Mussweiler, 2011). Thus, similarities between the individual and the target will form the basis of their self-evaluations. In other words, if a person finds a potential social comparison target to be similar to themselves, that person will likely engage in an assimilative social comparison.

An initial assessment that the target of comparison is dissimilar, however, leads to dissimilarity testing, which utilizes information relating to differences as the basis of self-evaluation. The result is a contrasting social comparison. Although, one study found that when a target is moderate compared to extreme on a dimension, then similarity testing is more likely to occur (Diel & Hofmann, 2019). This thesis is interested in whether or not narratives that involve targets who have endured weight loss struggles produce assimilative social comparisons. It should be noted that this thesis does not measure the weight-loss goal status of the individual reading about the model. It may be important to consider this variable to better understand the comparisons that they make with respect to their weight-loss journey. The individual's own goal outcome can help predict whether or not the target will be perceived as inferior or superior in response to an achieved, in progress or unattained goal. However, this is outside of the scope of this particular thesis and thus, is one of its limitations.

This leads to the prediction that when readers' own levels of struggle align with the social media post they read, the readers will rate their similarity with the social media author higher

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after reading the post. This is an interaction between readers' struggles, assessed before reading the post, with the presentation (versus absence) of struggle in the post on perceived similarity measured after reading. This is the same interaction effect hypothesized based on the perceived similarity literature reviewed above, this time derived from Social Comparison Theory.

Social comparison tendency. Social comparison has been investigated extensively in the context of appearance-related comparisons. Grabe, Ward & Hyde (2008) conducted a meta-analysis of body image studies, which revealed that media exposure has small to moderate negative effects on women's body dissatisfaction or body-focused anxiety. These studies (e.g. Halliwell & Dittmar, 2004; Tiggemann & McGill, 2004) have shown that social comparison mediates the relationship between media exposure and body-focused anxiety (Grabe, Ward and Hyde, 2008). One variable that is widely utilized in media and body-focused anxiety research to predict how vulnerable individuals might be to the effects of idealized body images is social comparison tendency (Dittmar & Howard, 2004; Myers & Crowther, 2009). Individuals who are low in social comparison tendency are less likely to compare themselves to others, while those high in social comparison tendency are more likely to do so. Body image research has found greater negative effects of media exposure on individuals that are more likely to make comparisons to others. Thus, this thesis measures social comparison tendency as a control variable because a person's social comparison tendency might weaken any impact of upward or downward social comparisons on outcomes such as intent to model.

Underdog Narratives

Both Social Cognitive Theory and Social Comparison Theory were used to explain the results of a study in which "underdog" film narratives about characters who overcame struggle instilled hope in viewers and in turn, motivated goal-directed behavior (Prestin, 2013). Social

Cognitive Theory explained that individuals attended to similar characters performing relevant behaviors that were positively reinforced, which served as positive models that promoted goal-oriented behavior. Social Comparison Theory explained that participants made upward assimilative social comparisons to the underdog characters, which produced hopeful feelings that motivated goal-directed behavior. This literature on the effects of underdog narratives is also useful in supporting the explanation of how social media narratives conveying struggle might affect feelings of hope and intention to model the target's goal-related behaviors.

Underdog narratives involve "characters who overcame seemingly unbeatable odds or triumphed against superior adversaries" (Kim et al., 2008). Three fundamental attributes to underdogs are 1) situational elements beyond their control; 2) deficiency in areas vital to the success of their pursuit; and 3) compensation for their deficiencies with tenacity, persistence and effort (as cited in Prestin, 2013). Research has illustrated an "underdog effect" where individuals tend to root for underdogs, especially when rivals are involved (Vandello et al., 2007). Kim et al. (2008) demonstrated that participants even showed more rooting, sympathy and identification with exposure to animated clips of struggling geometric shapes that reflected underdog narratives than non struggling ones that easily attained their goal (Kim et al., 2008). In a subsequent study, they found self-relevance and consequences of behavior moderated the relationship between exposure to narratives and support of the underdog (Kim et al., 2008). This further suggests that similarity of the target is an important determinant of whether or not individuals are inspired by a model's weight loss behaviors. In addition to supporting the prior prediction that a match between the presentation of struggle in the social media post and the reader's own struggles with weight loss will predict greater intentions to model the author's behavior, this literature also

suggests the interaction between reader struggle and presented struggle in the post will predict greater liking of the author.

Prestin (2013) tested whether or not underdog narratives evoked two positive emotions: inspiration and hope. Hope has been defined as the "feeling of yearning for an outcome that the odds do not favor" and has been shown to serve as "an emotional fuel that motivates individuals to sustain efforts to manage stressors and act in pursuit of their goals" (Lazarus, 1991; Prestin, 2013). In Prestin's (2013) study, participants were assigned to treatment conditions that viewed 5-minute video clips for 5 consecutive days of either underdog narratives, comedy, or nature scenes (others were assigned to a no-media control condition). The underdog group felt more hopeful (measured as a composite of hopefulness and inspiration) and reported greater motivation to pursue their own goals compared to the comedy, nature scenes and no-media conditions. Hopefulness remained elevated above baseline three days after the final media exposure. The study suggests that the "action tendency" or "emotional fuel" of hope may inspire individuals to invest more effort into achieving their goals (Lazarus, 1991; Prestin, 2013). The results also revealed that the struggle of the underdog character was better at predicting hope than goal achievement. Underdog research clearly points to the power of narratives that indicate struggle and achievement to instill hope and inspiration. This thesis aims to determine the effects of narratives indicating struggle when goals are still in progress on hope and inspiration, as well as intentions to model a target's behavior. Namely, I predict that readers' own struggle level will interact with the presentation (versus absence) of struggle in a post, leading to higher ratings of hope and inspiration, regardless of the goal outcome indicated in the post.

Although the entertainment literature reviewed here support fictional narrative effects, it can provide guidance for this thesis in examining non-fictional content effects in the social media

environment that describe weight-loss attempts. Studies have shown that social media including the blogosphere, Twitter, Facebook and Instagram are used to share weight-loss attempts (Leggatt-Cook & Chamberlain, 2012; Pagoto et al., 2014). The hashtag "#weightlossjourney" appears on 32 million Instagram posts (Instagram, 2019). The goal of this thesis is to test the effects of Instagram narratives portraying weight-loss journeys that either convey struggle or not. Social Cognitive Theory, Social Comparison Theory and underdog narrative studies provide an important framework for conceptualizing how observing models in this media environment who have either achieved, failed or are in goal pursuit, affect an individual's feelings about a target, about the goal, and about intentions to model the target's weight-loss related behaviors.

Research Questions and Hypotheses

Based on this review of literature, a series of hypotheses and research questions are introduced. Social Cognitive Theory argues that positive role models and targets who achieve their goals are more likely to increase intentions to model the target's behavior compared to negative role models and targets who fail to achieve their goals. The outcome of intention to model goal related behaviors is considered because it is important to understand how health targets or influencers that model specific strategies can pass on those strategies. Research shows that concrete, specific goals (subordinate goals) are important to producing goal attainment (Locke & Latham, 2002). In this thesis, all the social media posts/feeds show the target following a specific 3-strategy plan to achieve their weight-loss goal. Intentions to model goal-related behaviors is measured in terms of these three strategies. Using specific but plausible strategies rather than general ones also ensures that participants think about strategies modeled by the target rather than their own potential strategies for weight-loss.

Figure 1 shows the hypothesized path from reading about a target's weight-loss journey to intention to model the target's behaviors. First, Hypotheses 1a , 1b and 1c (H1a, H1b and H1c) predict that when viewing social media posts about a target's weight-loss pursuit, participants will have higher intentions to model goal-related behaviors (H1a: diet; H1b: cardio and H1c: yoga) when the target has achieved their weight-loss goal compared to when the target has failed to achieve their weight-loss goal. These hypotheses represent a direct effect of goal outcome on intention to model, which is not shown in Figure 1.

Hypotheses 2 and 3 reflect a proposed main effect of the outcome of the goal depicted in the target's weight-loss journey on self-efficacy (H2) and social comparison (H3). Reading about goal success will predict higher levels of self-efficacy, compared to reading about goal failure. Goal success will predict upward rather than downward social comparisons, compared to goal failure.

Hypotheses 4 and 5 reflect a proposed interaction between a reader's struggle with weight loss and the target's depicted struggle with weight loss on perceived similarity (H4) and hope/inspiration (H5). Perceived similarity will be highest when a reader has experienced high levels of struggle and the target has also indicated struggle (a struggle match). Also, a reader will feel more hope/inspiration after reading about a weight-loss journey if that journey has indicated struggle and the reader has also experienced higher levels of struggle (again, a struggle match).

Then, Hypotheses 6 (a, b, and c), 7 (a, b, and c), 8 (a, b, and c), and 9 (a, b, and c) predict a positive relationship between self-efficacy (H6), perceived similarity (H7), hope/inspiration (H8), and intention to model diet (a), cardio (b), and yoga (c). Hypothesis 9 (H9) predicts a negative relationship between (upward) social comparison and intention to model diet (a), cardio (b), and yoga (c). As suggested in the literature, self-efficacy, perceived similarity, and social

comparison are proposed to be mechanisms by which the social media post about weight loss impacts intention to model. I am adding hope as another potential predictor of intention to model, given that feelings of hope might make a person feel more open to considering another person's behavior as successful or good. Therefore, these four variables are being tested as mediators, as shown in Figure 1.

As noted in the review of literature, few studies on positive and negative role models and goal outcomes have considered outcomes outside of success and failure. However, Lee and Shapiro (2016) examined the effects of story character's goal success, goal failure and goal pursuit on intentions to model diet-related behaviors and found no differences between the conditions. In addition, the results indicated that perceived similarity only moderated the effects of goal outcome on intentions to model when the goal was achieved. Therefore, the effects of in-progress goals will be posed as Research Question 1 (R1): how will goals in progress interact with intentions to model weight-loss strategies through the proposed mediators and in interaction with a reader's personal struggle and the target's depicted struggle?

Target Struggle
(No Struggle vs.
Struggle Mentioned)

**Personal Struggle
with Own Weight**
(Low to High)

Goal Status
(Failed vs. Achieved)
(Failed vs. In Progress)

Self-Efficacy
(Low to High)

Perceived Similarity
(Low to High)

Hope/Inspiration
(Low to High)

Target Appeal
(Low to High)

State Social Comparison
(Upward to Downward)

Intention to Model
(Low to High)
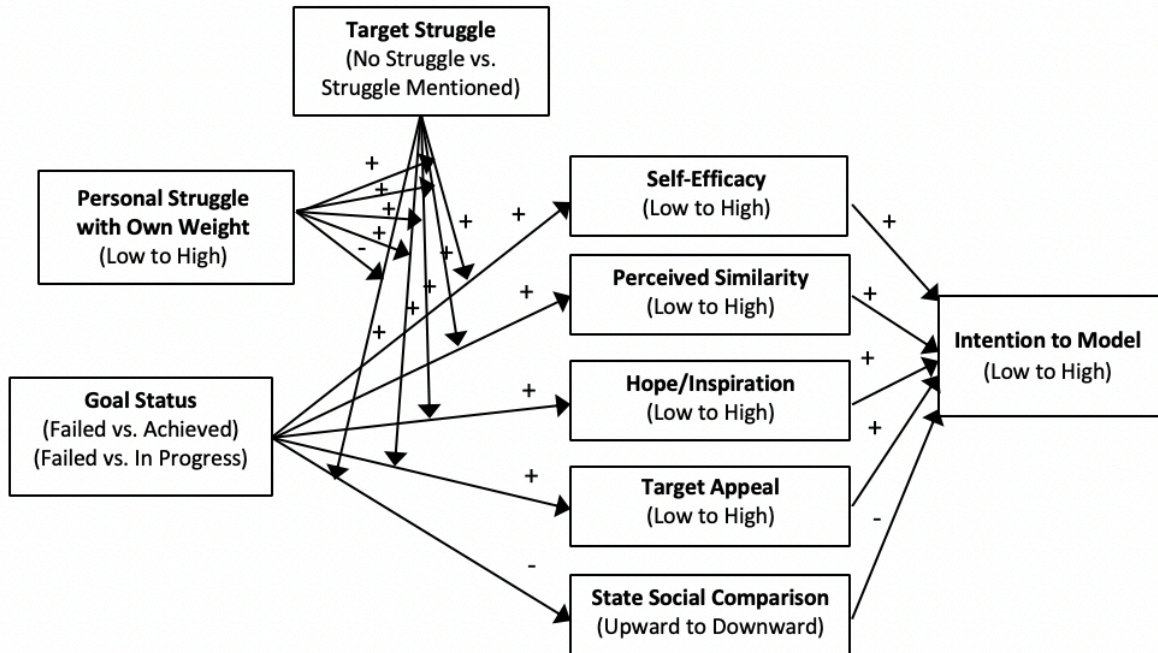
Figure 1. Moderated parallel mediation model predicting intention to model: effect of goal status, goal pursuit and reader's own struggle with weight loss (assessed prior to reading the social media content) on self-efficacy, perceived similarity, hope/inspiration, target appeal and state social comparison, and, indirectly, on intention to model.

Research question 2 (RQ2) introduces the idea that general positive feelings about a target might be, itself, a mechanism for intending to model behavior in a social media post. In other words, in addition to self-efficacy, perceived similarity, hope/inspiration, and social comparison direction, there might be something about having a general positive feeling about the target from reading their post that also predicts intent to model. Therefore, RQ2 asks how will target appeal interact with intentions to model weight-loss strategies through the proposed mediators and in interaction with a reader's personal struggle and the target's depicted struggle?

Finally, the goal orientation of individuals in their own lives might impact intentions to model weight-loss related behaviors regardless of whether or not these individuals see the social media target as similar and/or appealing. Goal importance and goal self-efficacy serve as control variables. Finally, social comparison tendency can have an impact on whether or not individuals

engage in comparisons regardless of the content of a social media post (Dittmar & Howard, 2004; Myers & Crowther, 2009). Lower tendencies for social comparison should reduce any impact of the goal outcomes presented in the social media post on self-reported social comparison after reading the post. Therefore, social comparison tendency is also considered as a control variable.

CHAPTER 2: STUDY METHODS

Design

To investigate the effects of goal outcome (achieved, in progress, failed) and goal path (involving struggle or lack thereof) on intention to model goal-related behaviors through self-efficacy, perceived similarity, hope/inspiration, target appeal and state social comparison, Study 1 employed a 3 X 2 between subjects experimental design using a Qualtrics survey instrument to collect data from participants. Simulated Instagram posts about a woman's weight-loss journey were created and used as stimuli in each condition. The simulated Instagram posts used the same photo but varying captions. After exposure to the post, all participants were shown the same screenshot of the target's weight-loss plan. To improve external validity, Study 2 attempts to replicate the findings of Study 1 using simulated Instagram feeds (containing 4 posts) for each condition rather than singular Instagram posts. All procedures were approved by the University of North Carolina Institutional Review Board (February 2020).

Table 1. Study design.

3 X 2 Factorial Design		Goal Outcome (IV_1)		
		Goal Achieved (A_1)	Goal In Progress (A_2)	Goal Failed (A_3)
Goal Path (IV_2)	No Struggle (B_1)	A_1B_1	A_2B_1	A_3B_1
	Struggle (B_2)	A_1B_2	A_2B_2	A_3B_2

Sample

  Study 1. Two hundred participants who identified as female were recruited through Amazon Mechanical Turk (MTurk). Participants were paid $2 dollars for their participation. Participants who did not identify as female were excluded because the individual depicted in the study's stimuli appears to be female in gender. Three participants were excluded from the sample because they indicated a gender identity that was not female (1 male and 2 trans women). An attention check was included towards the end of the Qualtrics survey. Participants were asked how they were feeling and were given various emotions as response options. They were instructed to ignore the question and select "None of the above." Participants who failed the attention check (N=4) were excluded from the sample. As a result, 193 participants remained. The age of women in the sample ranged from 23 to 72, with a mean age of 41.01 ($SD = 12.06$). The distribution of worldwide Instagram users above age 45 is low (13%; Statista, 2020), and thus, participants who were above the age of 45 (37% across the two studies) were less likely to be familiar with the platform, which may have impacted their engagement with the stimuli. However, research has shown that older adults do turn to social media to engage with weight-loss information (Ballantine & Stephenson, 2011). Thirty-five percent of participants in a study about social support through the Weight Watchers Facebook page were above the age of 41 and results showed no differences by age in the type of social support sought from the site (high versus low informational/emotional support) and communication style exhibited (active versus passive) (Ballantine & Stephenson, 2011).

  Of these, participants indicated the following ancestry/heritage: 90.2% White, 9.3% Black/African American, 4.7% American Indian/Native Alaskan, 3.1% Asian and 2.1% Latinx. An a priori power analysis was conducted using G*Power3 (Faul, Erdfelder, Lang, & Buchner,

2007) to ensure that the sample size of 200 participants was sufficient to obtain a small effect size at Power = .80 and alpha at .05.

Study 2. Participants (N=200) were recruited and paid in the same manner. One participant was excluded from the sample because they indicated a male gender identity. Three participants failed the attention check and were excluded from the sample. One hundred ninety-six participants remained. The age of women in the sample ranged from 22 to 73, with a mean age of 41.49 (*SD* = 12.02). Of these, 86.7% were White, 8.7% Black/African American, 4.6% Asian, 2.6% Latinx and 2.0% American Indian/Native Alaskan.

Procedure

Study 1. Participants followed the link to the Qualtrics survey from the recruitment post on Mturk. Then participants were directed to the consent form, which assured them that the study was completely anonymous and voluntary.

The first set of survey questions was used to determine individual differences in social comparison tendency and goal/weight orientation (goal setting, goal outcome, personal struggle level, goal self-efficacy in their goal pursuit, and attitudes toward diet/exercise behavior). Then, the participants were randomly assigned to one of six conditions. Participants were exposed to the Instagram post associated with their treatment condition. Next, participants were asked rate their feelings of hopefulness/inspiration, perceived similarity to the target in the Instagram post, the target's appeal, and state social comparison.

Following these questions, participants in each condition were exposed to a screenshot of the same simulated Instagram post that described a specific 3-strategy weight-loss plan that the social media post target participated in (yoga, cutting bad carbs and cardio). At this point, participants who indicated that they had set a weight-loss goal were asked questions about their

self-efficacy for using each of the target's strategies to achieve their own weight-loss goal. All participants were then asked about their intention to model the target's weight-loss related strategies to achieve their own weight-loss goal. Participants who did not *currently* have a weight-loss goal, were asked to imagine how they would rate their self-efficacy and intention to perform the target's strategies if they currently had a weight-loss goal. Finally, participants completed a social desirability scale, demographic questions and were debriefed.

Study 2. Study 2 replicated the procedures in Study 1 with the exception that participants were randomly assigned to one of six Instagram f*eed* conditions instead of Instagram *post* conditions. Four Instagram posts were included in each feed. Each feed revolved around a single Instagram target (the same target as in Study 1). Two posts reflected the treatment condition (one post was the same as in Study 1), while the remaining two posts reflected positively valenced content and did not involve a goal (e.g. vacation, going to a concert).

A pilot test was conducted to assess the questionnaire design, measures and manipulations for each study. Manipulation checks were conducted to ensure that the simulated Instagram posts and feeds looked realistic and that the captions and photos matched. Instagram posts/feeds were also evaluated in terms of the extent to which they conveyed goal pursuit (struggle or lack of struggle) and goal outcome (achieved, in-pursuit and failed).

Materials

Study 1. Six Instagram posts were created to reflect each of the six conditions of the experiment. The same public Instagram image was used in each condition (see Appendix B). A free Adobe Photoshop Elements Instagram template was used to create simulated Instagram posts with custom text (e.g. caption, handle, etc.). The image portrays a woman, who is Caucasian in appearance, with an ambiguous facial expression, wearing a sports bra and workout

pants (see Appendix B). The captions beneath the photo reflected the status of the woman's goal to lose weight and indications of struggle or no struggle during her weight-loss journey.

The goal achieved/no struggle condition post caption read: "*I've achieved my weight-loss goal*! I was able to *resist temptations to overindulge in my favorite comfort foods: pizza, pasta and cookies*. I made sure I had *no excuses to skip my workout* and always gave it *my full effort* and *eventually I reached my goal.*"

The goal achieved/struggle condition read: "*I've achieved my weight-loss goal*! Along the way, there were many moments where I was very doubtful that I could do it. On some days, I gave *into temptations to overindulge in my favorite comfort foods, pizza, pasta and cookies,* which made me feel terrible and discouraged. Or some days, I would *find excuses to skip my workout* or put in a *fraction of the full effort*. On many of these days, I felt like a failure and if I couldn't shake off feelings of hopelessness, the entire week was filled with attempts to motivate myself to get back on track. Even though it was always difficult to get back up, I chose to get back up enough times that *I eventually reached my goal*."

The goal in progress/no struggle condition post read: "*Working on reaching my weight-loss goal.* That means *resisting temptations to overindulge in my favorite comfort foods: pizza, pasta and cookies.* Also, making sure I have *no excuses to skip my workout* and that I'm always giving it *my full effort*."

The goal pursuit/struggle condition post read: "*Working on reaching my weight-loss goal.* There are many moments where I am very doubtful that I can do it. On some days, I give into temptations to *overindulge in my favorite comfort foods: pizza, pasta and cookies,* which makes me feel terrible and discouraged. Or some days, *I find excuses to skip my workout* or put in a *fraction of the full effort*. On many of these days, I feel like a failure and if I can't shake off

feelings of hopelessness, the entire week is filled with attempts to motivate myself to get back on track. *Even though it is always difficult to get back up, I try my best to do it***.**"

The goal failed/no struggle condition post read: "*Well, I didn't achieve my weight-loss goal*. I *resisted temptations to overindulge in my favorite comfort foods: pizza, pasta and cookies*. I made sure I had *no excuses to skip my workout* and always gave it *my full effort* but *wasn't able to achieve my goal*."

The goal failed/struggle condition post read: "*Well, I didn't achieve my weight-loss goal.* Along the way, there were many moments where I was very doubtful that I could do it. On some days, I *gave into temptations to overindulge in my favorite comfort foods: pizza, pasta and cookies,* which made me feel terrible and discouraged. Or some days, I would *find excuses to skip my workout* or put in a *fraction of the full effort.* On many of these days, I felt like a failure and if I couldn't shake off feelings of hopelessness, the entire week was filled with attempts to motivate myself to get back on track. It was always difficult to get back up and I tried my best to do it but I *wasn't able to reach my goal*."

After participants answered questions about perceptions of the target and hope/inspiration, they saw a screenshot of the text portion of a second post that outlined the three strategies the target used/is using to lose weight (see Appendix B). This caption read: "My three weight-loss strategies: 1) Do yoga 1x or 2x per week, 2) Cut out "bad" carbs: pizza, pasta and dessert, from my diet and 3) Do a high intensity cardio workout 1x or 2x per week."

Study 2. Six Instagram feeds were created using public Instagram images. Photoshop was used to create captions for each post and splice posts together. Each feed contained 2 posts (one of which was the same post as in Study 1) that reflected the treatment condition and 2 posts that reflected no goal but were positively valenced (being on vacation and at a concert) (see

Appendix B). The additional treatment image was a selfie that depicted the post author's legs and feet from her point of view. Her sneakers and a foam roller rest next to her feet (see Appendix B).

The caption for the no struggle conditions read: "Finished my workout and managed to resist the plate of cookies on the counter. Went for some healthy snacks instead. And the weight-loss journey continues!

The caption for the struggle conditions read: "Feeling like my workout didn't count for much since I gave into some 'bad' carbs that were tempting me afterwards. It's frustrating because I reached for so many health snacks that should have satisfied me, but I still ended up eating cookies. I just don't know if I have the self-control to lose weight. I'll keep trying but it's hard not to feel hopeless sometimes."

Preliminary Measures

Goal/weight orientation

- *Goal setting*. Participants were asked if they had ever set a weight-loss goal. Response choices were: Yes, within the last year (Study 1: 70.5%, $N =136$; Study 2: 69.7%, $N =$ 138); Yes, over a year ago (Study 1: 24.9%, $N = 48$; Study 2: 21.7%, $N = 43$); No, never (Study 1: 4.7%, $N = 9$; Study 2: 7.6%, $N = 15$).

- *Own goal importance.* Participants who had ever set a weight-loss goal were asked how important the weight-loss goal was to them (Study 1: $M = 3.45$; $SD = 1.20$; Study 2: $M = 4.20$; $SD = 0.86$).

- *Personal struggle level*. Participants who set a weight-loss goal were asked about the extent to which they struggled/were struggling with their goal on a 5-point scale (1- Not at all to 5-Very much so) (Study 1: $M = 3.45$; $SD = 1.20$; Study 2: $M = 3.45$; $SD = 1.18$).

- ***Attitudes toward diet/exercise behaviors.*** Participants were asked to rate their interest in the following diet and exercise behaviors on a 5-point scale (1-Not at all interested to 5-Very interested): a) running (Study 1: $M = 2.41$, $SD = 1.42$; Study 2: $M = 2.37$, $SD = 1.45$); b) yoga (Study 1: $M = 3.02$, $SD = 1.43$; Study 2: $M = 3.18$, $SD = 1.41$); c) lifting weights (Study 1: $M = 3.04$, $SD = 1.32$; Study 2: $M = 2.86$, $SD = 1.39$); d) being on a diet (Study 1: $M = 3.26$, $SD = 1.32$; Study 2: $M = 3.18$, $SD = 1.32$).

- ***Own goal self-efficacy (confidence).*** Participants who had ever set a weight-loss goal were asked what their level of confidence was in being able to attain the goal on a 5-point scale (1 - Not at all confident, 5 - Very confident) (Study 1: $M = 3.47$, $SD = 1.02$; Study 2: $M = 3.39$, $SD = 1.18$). They were asked to think about the most recent time they set a weight-loss goal.

Social Comparison Tendency. This thesis used Strowman's (1996) 8-item comparison-to-models questionnaire to capture social comparison tendency. This set of questions consisted of how often participants compare themselves to models (especially models who appear to match their gender identity) in media content in general, in terms of exercise habits and physical appearance, among other items on a 5-point scale. The wording of these questions was updated to reflect the variety of platforms that are currently used to access media content. This measure was used as a control measure to account for variance in the dependent measures due to individual differences in the tendency to socially compare with others. The eight items were averaged to form a scale of social comparison tendency in Study 1 (Cronbach's $\alpha = 0.89$, $M = 2.68$, $SD = 0.92$) and Study 2 (Cronbach's $\alpha = 0.91$, $M = 2.67$, $SD = 0.97$).

Social Desirability Scale. This thesis used 6-items from Crowne and Marlowe's (1960) social desirability scale. Participants were asked to rate the following items on a 5-point scale (1-

Strongly disagree to 5-Strongly agree): a) are you always willing to admit when you make a mistake; b) do you sometimes try to get even rather than forgive and forget (reverse coded); c) are you always courteous, even to people who are disagreeable; d) are you always a good listener, no matter whom you are talking to. This scale was subsequently dropped from the analyses because the alpha level was below .80 (Study 1: Cronbach's α = 0.691 and Study 2: Cronbach's α = 0.716).

Dependent Measures

State Social Comparison. To understand how participants compared themselves to the target of the social media posts, participants were asked to indicate the type of comparisons they made based on experiences managing their weight, their appearance and their personality. Participants were asked how their experiences with managing their weight compared to those of the target on a 5-point scale (1-Much worse, 2-Slightly worse, 3-Neither better nor worse, 4-Slightly better and 5- Much better) (Study 1: M = 3.30; SD = 0.95; Study 2: M = 3.35; SD = 1.02). Scores below the midpoint of the scale (below 3) indicated an upward social comparison. Scores above the midpoint of the scale (above 3) indicated a downward social comparison. In Study 1, 17% made upward comparisons, 43% neutral (midpoint) and 40% downward. In Study 2, 17% made upward comparisons, 41% neutral (midpoint) and 42% downward.

Participants were also asked how ideal or not ideal their body was compared to the target's body on a 5-point scale (1-Much less ideal, 2-Slightly less ideal, 3-Neither more nor less ideal, 4-Slightly more ideal, 5-Much more ideal) (Study 1: M = 3.07, SD = 1.25; Study 2: M = 3.22, SD = 1.37). As with the above item, scores below the midpoint of the scale (below 3) indicated an upward social comparison. Scores above the midpoint of the scale (above 3) indicated a downward social comparison. In Study 1, 36% made upward comparisons, 21%

neutral (midpoint) and 44% downward. In Study 2, 31% made upward comparisons, 15% neutral (midpoint) and 54% downward.

Lastly, participants were asked how appealing or not appealing their own personality was compared to the target's personality (1-Much less appealing, 2-Slightly less appealing, 3-Neither more nor less appealing, 4-Slightly more appealing, 5-Much more appealing) (Study 1: $M = 3.19$, $SD = 0.79$; Study 2: $M = 3.25$, $SD = 0.96$). Scores below the midpoint of the scale (below 3) indicated an upward social comparison. Scores above the midpoint of the scale (above 3) indicated a downward social comparison. In Study 1, 13% made upward comparisons, 60% neutral and 27% downward. In Study 2, 16% made upward comparisons, 56% neutral (midpoint) and 28% downward.

Target appeal. Participants rated how likeable the target was on a 7-point scale (1-Very unlikeable to 7-Very likeable) (Study 1: $M = 3.73$, $SD = 0.89$; Study 2: $M = 3.70$, $SD = 0.98$).

Perceived similarity. Participants were asked to rate their perceived similarity to the subject of the Instagram post/feed on a 5-point scale (1-Strongly disagree to 5-Strongly agree). The following general items were rated: a) She seems similar to the person I am; b) She thinks like me; c) Her exercise habits are similar to mine; d) her eating habits are similar to mine. The following appearance items were rated: e) Her body seems similar to mine; f) She looks like me. The following items about weight management experiences were rated among those who had ever set a weight-loss goal: g) Her experiences during her weight-loss journey are similar to my experiences; h) The outcome of her weight-loss journey is similar to the outcome of mine. The eight general items and weight-management items were averaged to form a scale of perceived similarity in Study 1 (Cronbach's $\alpha = .88$, $M = 2.98$, $SD = 0.93$) and Study 2 (Cronbach's $\alpha = .89$, $M = 2.85$, $SD = 0.93$).

Self-efficacy. To measure the self-efficacy in weight loss that participants felt after seeing their Instagram stimulus, participants were asked what their level of confidence was in being able to use each of the target's three weight-loss strategies (yoga, dieting and cardio) to achieve their own weight-loss goal on a 5-point scale (1 - Not at all confident, 5 - Very confident). Participants reported the following scores for each of the following weight-loss strategies: yoga 1x or 2x per week (Study 1: $M = 3.01$, $SD = 1.47$; Study 2: $M = 3.04$, $SD = 1.38$), cutting out "bad" carbs (pizza, pasta, dessert) (Study 1: $M = 3.52$, $SD = 1.17$; Study 2: $M = 3.64$, $SD = 1.23$), and a high intensity cardio workout 1x or 2x per week (Study 1: $M = 3.01$, $SD = 1.47$; Study 2: $M = 3.31$, $SD = 1.30$).

Hopefulness/inspiration. This measure comes from Prestin's (2013) study and asked participants how inspired they felt on a 5-point scale (1- Not at all inspired to 5-Very inspired). The same scale was used to measure how hopeful participants felt. Hopefulness and inspiration were averaged to form a scale of hope/inspiration in Study 1 (Cronbach's α = .84, $M = 3.10$, $SD = 1.09$) and Study 2 (Cronbach's α = .88, $M = 2.76$, $SD = 1.13$).

Intention to model behavior. Participants were asked to rate how much they would model the target's weight-loss strategies on a 7-point scale (1-Extremely unlikely to 7-Extremely likely): a) I would participate in a free yoga class once or twice per week (Study 1: $M = 3.81$; $SD = 2.17$; Study 2: $M = 3.88$; $SD = 2.16$); b) I would cut out "bad" carbs (pizza, pasta and dessert) from my diet (Study 1: $M = 5.24$; $SD = 1.75$; Study 2: $M = 5.40$; $SD = 1.64$); c) I would do a high intensity cardio exercise once or twice per week (Study 1: $M = 4.62$; $SD = 1.93$; Study 2: $M = 4.62$; $SD = 1.98$).

CHAPTER 3: STUDY 1 RESULTS AND DISCUSSION

Study 1 Results

Manipulation Check – Goal Status. Participants were asked to indicate the goal status of the woman in the Instagram post they viewed, based on their memory of the post. Participants who failed the goal status manipulation check (N=14) were either in the goal achievement conditions or the goal failure conditions, but not the goal in progress conditions. This also occurred in Study 2, which may reflect a systematic bias. Thus, participants who failed the goal status manipulation check were excluded from subsequent analyses and 180 participants remained.

Manipulation Check – Struggle. An independent samples t-test revealed that participants viewed the social media posts as conveying more struggle in the struggle conditions than in the no struggle conditions ($M_{\text{Struggle}} = 4.16$, $SD = .77$ versus $M_{\text{NoStruggle}} = 3.49$, $SD = .84$, $t(178) = 5.59$, $p < .001$, $d = .83$).

Hypothesis Testing. To test the hypotheses (Table 2, See Appendix C), a conditional process analysis was conducted to examine the hypotheses represented by the moderated mediation model in Figure 1. Specifically, Hayes' PROCESS tool for SPSS (Hayes, 2013) was used to evaluate the model using ordinary least squares regressions. Indirect effects were estimated with 5,000 bootstrapping samples.

Three separate models were used in the analysis; first, intention to model diet, then intention to model cardio, and finally intention to model yoga. For each model, intention to

model was entered as the outcome variable (Y). Goal outcome was entered as the predictor

variable (X) with the goal achieved and goal in-progress conditions as indicator groups and the

goal failed condition as the reference group. Self-efficacy (relevant to the intention), perceived

similarity, hope/inspiration, target appeal, and social comparison measures were entered as

parallel mediators (M). Regarding self-efficacy, only the relevant self-efficacy measure specific

to the intention (i.e., self-efficacy for diet, for cardio, and for yoga) was included in the model.

Target struggle was entered as a moderator (W) of the relationship between goal outcome and

each mediator, as well as on intention to model. Readers' own struggle was entered as a second

moderator (Z), interacting with target struggle to impact the effect of goal outcome on each

mediator and on intention to model. (See Table 3 in Appendix C for bivariate correlations of

Study 1 variables)

Intention to model diet. Figure 2 shows the results of the model predicting intention to

model the target's diet. Hypotheses 1a, 1b and 1c specified that after viewing the stimulus,

participants in the achieved condition would have higher intentions to model the target's weight-

loss strategies (diet (H1a), cardio (H1b) and yoga (H1c)) than those in the failed condition. The

final regression model predicting intention to model the diet strategy (Table 6, See Appendix C),

where the goal failed condition serves as the reference group, indicates that the target's goal

achieved (versus failed), $B = .18$, SE $B = .79$, $p = .816$, did not predict participants' intention to

model the diet strategy. Therefore, H1a was not supported.

The final regression model predicting intention to model the diet strategy (Table 6, See

Appendix C) showed no indication of a main effect of goal outcome (failure versus success) on

self-efficacy. H2 was not supported. However, supporting H6, self-efficacy did have a significant

positive relationship with intention to model diet. Also, described in more detail below, a

significant goal outcome (failure versus success) X personal struggle interaction predicted self-efficacy, which was not hypothesized.

There was a main effect of goal outcome (failure versus success) on social comparison of one's weight management experience, $B = -1.04$, SE $B = .47$, $p < .01$. Goal achievement predicted upward comparison of one's weight journey, while goal failure predicted downward comparison. H3 was supported specifically for the weight management social comparison measure.
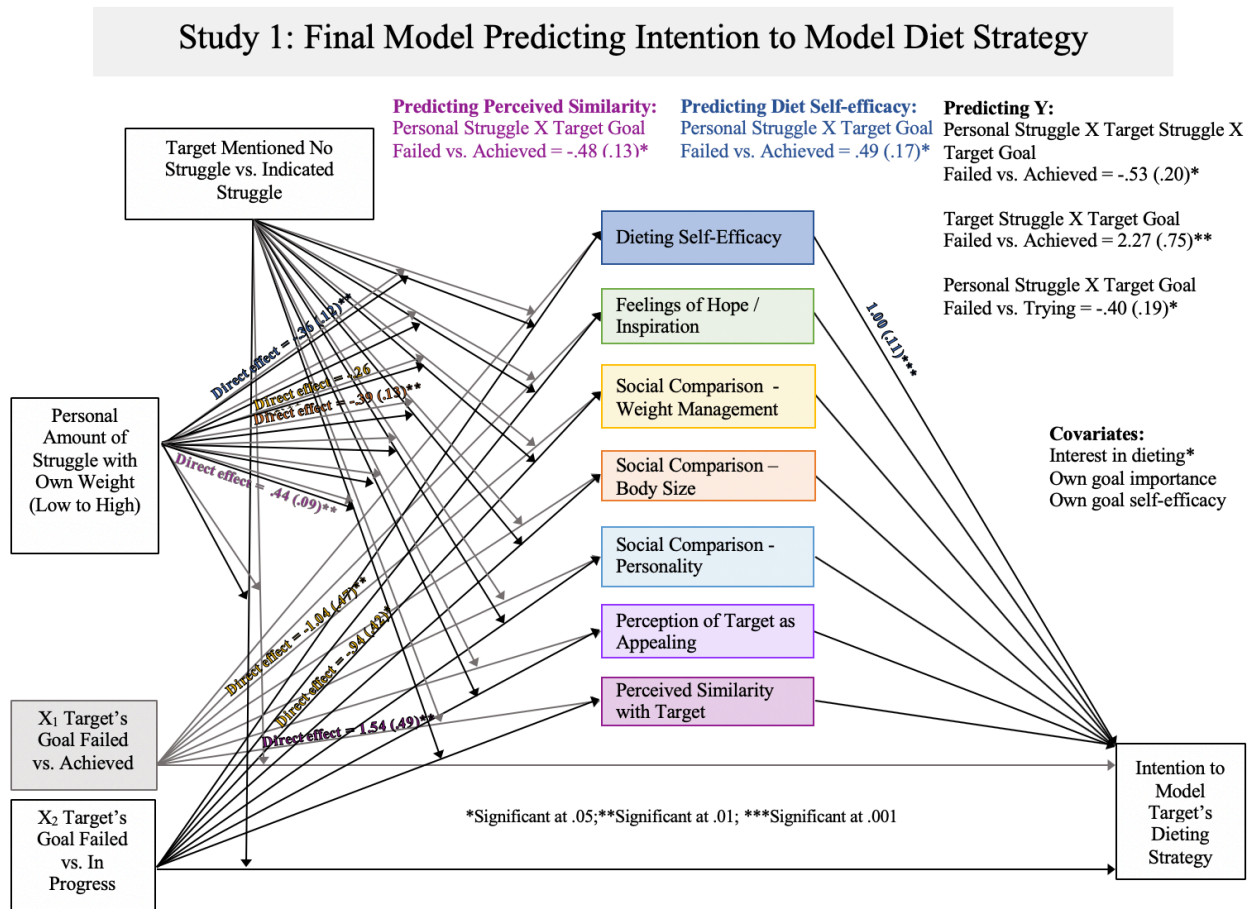
Figure 2. Study 1: Final model predicting intention to model the diet strategy: $R^2 = .60$, $F(21,150) = 9.83$, $p < .001$. Relative conditional indirect effects of goal failed vs. achieved on intention to model: Through diet self-efficacy when target struggle = -1 and personal struggle = 5, $B = 1.26$, SE $B = .46$, CI$_{95}$ [.439, 2.22]; Through diet self-efficacy when target struggle = 1 and personal struggle = 5, $B = 1.11$, SE $B = .50$, CI$_{95}$ [.103, 2.10].
Relative conditional indirect effects of goal failed vs. in progress on intention to model: None.

Bootstrapped (5000) confidence intervals include zero for index of moderated mediation and conditional moderated mediation by target struggle for all mediators.

Personal struggle did have an impact on perceived similarity (described in more detail below). However, the hypothesized match between personal and target struggle did not work to elevate perceived similarity, as the interaction between personal struggle and target struggle was not significant for this measure (Table 5, See Appendix C). H4 was not supported. Given no relationship between perceived similarity and intent, H7 was also not supported.

Neither struggle variable, nor the interaction between struggle variables predicted hope/inspiration. H5 (which predicted the match in struggle would elevate hope/inspiration) was not supported. Likewise, hope/inspiration did not predict intent. Thus, H8 was not supported.

A three-way interaction between goal outcome (failure versus success), personal struggle, and target struggle (the match) was predicted to impact social comparison measures. Although goal outcome and personal struggle had main effects on some of the social comparison measures, as described below, no interactions emerged. Social comparison measures did not predict intent, and thus, H9 was not supported.

RQ1 regarding goals in progress and RQ2 regarding the role of target appeal are discussed in light of the remaining findings of the model as follows. First, there was no significant effect of target appeal on intention to model the diet strategy. The initial regression predicting target appeal indicated that the interaction between target struggle and own struggle was not significant, $B = -.05$, SE $B = .09$, $p = .538$.

The final regression model predicting intention to model the diet strategy (Table 6, See Appendix C) indicated that there was a significant three-way interaction between target's goal achieved (versus failed), own level of struggle and target struggle, $B = -.53$ SE $B = .20$, $p < .05$.

However, the interaction indicates that when the target's goal is achieved (versus failed), higher levels of struggle and an indication of the target's struggle (versus no struggle) will predict lower intention to model the diet strategy. This reflects the opposite relationship than was anticipated.

The model shows direct effects of goal achieved (versus failed) on two mediators: weight management social comparison and perceived similarity (Table 5, See Appendix C). Goal in progress (versus failed) also had a direct effect on weight management social comparison. Personal struggle had direct effects on four mediators: perceived similarity (Table 5, See Appendix C), body social comparison, weight management social comparison and diet self-efficacy. Target struggle had no direct effects on any of the mediators. The covariate, interest in dieting, was a significant predictor of intention.

Diet self-efficacy was the only mediator that predicted intention to model the diet strategy, with intention to model increasing as diet self-efficacy increased. There was also a significant interaction between own struggle and goal achieved (versus failed) on diet self-efficacy (Table 5, See Appendix C).

The conditional indirect effects of goal outcome on intention to model diet through diet self-efficacy indicated that for goal achieved (versus failed), at high levels of personal struggle, diet self-efficacy increased. By contrast, the direct effect of own struggle on diet self-efficacy indicated a decrease in diet self-efficacy. The 5,000 bootstrapped confidence intervals for the moderated mediation model and conditional moderated mediation by target struggle included zero and, thus, were estimated to be nonsignificant. (Figure 2)

When examining interactions directly predicting intention to model diet (Y), there was a significant interaction between target struggle and goal achieved (versus failed) indicating a positive relationship with intention to model. When target struggle was not mentioned, intention

to model was lower in the goal achieved condition than the goal failed condition. The results also showed a significant three-way interaction between own struggle, target struggle and goal achieved (versus goal failed). When the target struggle was mentioned and own struggle was high, intention to model the diet strategy was lower in the goal achieved condition than the goal failed condition. When target struggle was mentioned and personal struggle was low, intention to model was lower in the goal achieved condition than the goal failed condition. And when target struggle was not mentioned and personal struggle was at mid-levels, intention was also lower in the goal achieved condition than the goal failed condition.

There was also a significant negative relationship with intention to model for the interaction between own struggle and goal in progress (versus failed). As personal struggle increased, the goal in progress condition predicted lower intention than the goal failed condition.

Intention to model cardio. Figure 3 illustrates the full model predicting intention to model cardio. The final regression model predicting intention to model the cardio strategy (Table 8, See Appendix C), where the goal failed condition served as the reference group, indicates that the target's goal achieved (versus failed), $B = 2.43$, SE $B = .69$, $p < .05$, did predict participants' intention to model. Therefore, H1b was supported.

Goal outcome (failure versus success) did not have a main effect on either self-efficacy or social comparison measures. H2 and H3 were not supported. However, the negative relationship between goal failed versus achieved and weight journey social comparison approached significance ($p = .054$). Personal struggle and target struggle did not interact (as a match) to impact perceived similarity or hope/inspiration. H4 and H5 were not supported. Self-efficacy did predict intent to model, which supports H6 and corroborates the finding about diet intentions. However, perceived similarity, hope/inspiration, and social comparison measures did not predict

intent to model cardio, which means H7, H8, and H9 were not supported. This also corroborates

the diet findings.

Study 1: Final Model Predicting Intention to Model Cardio Strategy
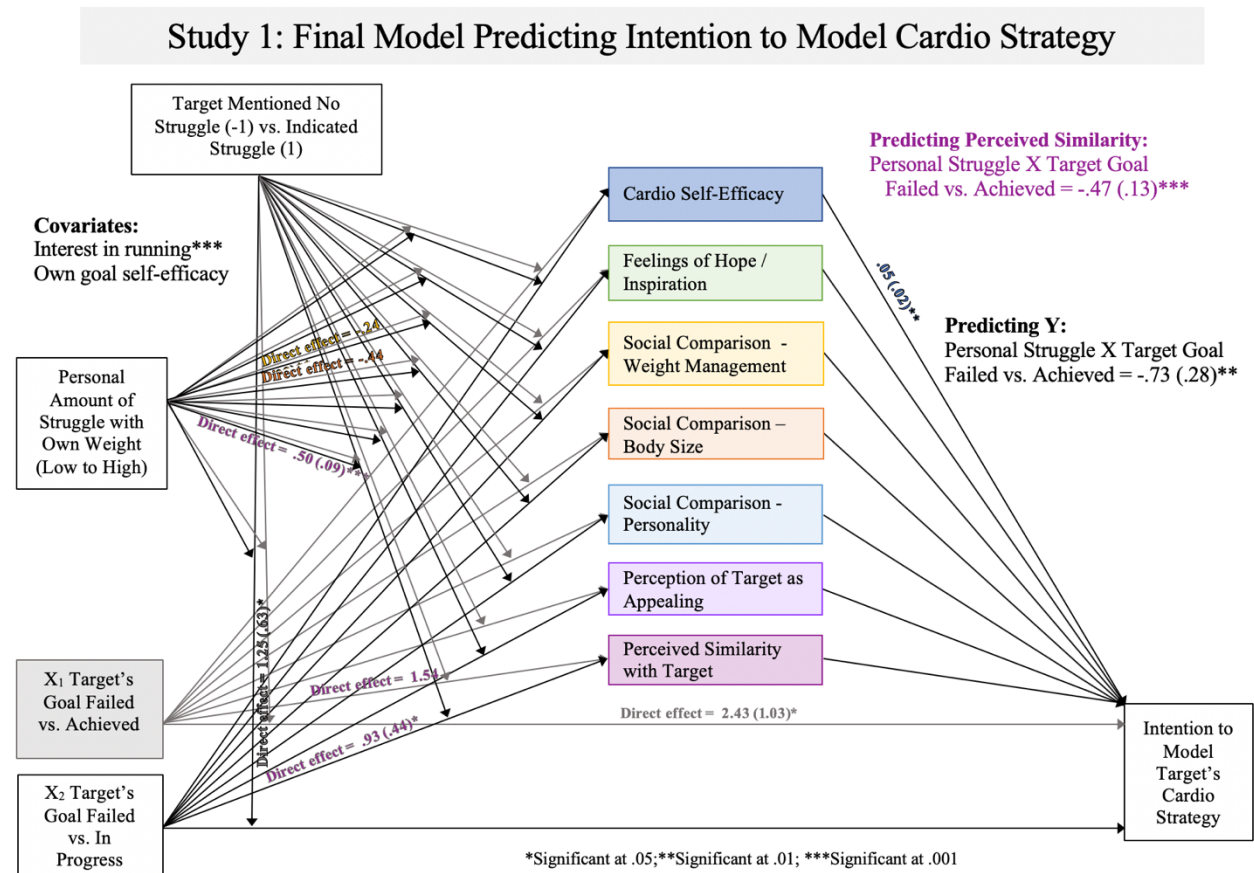
Figure 3. Final model predicting intention to model the cardio strategy: $R^2 = .40$, $F(20,151) = 5.02$, $p < .001$. Relative Conditional indirect effects of goal outcomes on intention to model: None. Bootstrapped (5000) confidence intervals include zero for index of moderated mediation and conditional moderated mediation by target struggle for all mediators.

Turning to the research questions and other findings, the final regression model

predicting intention to model the cardio strategy (Table 8, See Appendix C) indicated that there

was no significant effect of target appeal on intention to model the cardio strategy. The initial

regression model predicting target appeal, where the goal failed condition served as the reference

group, was not significant, $(R^2 = .11, F(13,158) = 1.43, p = .151)$.

As Figure 3 illustrates, the model shows direct effects of goal outcome on the mediator, perceived similarity; goal achieved (versus failed) and goal in progress (vs failed). Personal struggle had direct effects on three mediators: weight management social comparison, body social comparison and perceived similarity (Table 7, See Appendix C). Target struggle had no direct effects on any of the mediators. However, target struggle had a direct effect on intention to model the cardio strategy such that the struggle condition predicted greater intention to model. The covariate, interest in running, was also a significant predictor of intention to model cardio.

Cardio self-efficacy was the only mediator that predicted intention to model the cardio strategy with intention increasing as cardio self-efficacy increased. However, there were no significant main effects or interactions predicting cardio self-efficacy.

When examining interactions directly predicting intention to model (Y), the results showed a significant interaction between own struggle and goal outcome. As personal struggle increased, goal achievement predicted decreased intention to model the cardio strategy, while goal failure predicted increased intention.

Intention to model yoga. As Figure 4 shows, the final regression model predicting intention to model the yoga strategy (Table 10, See Appendix C), where the goal failed condition served as the reference group, indicates that the target's goal achieved (versus failed), $B = .20$, SE $B = .79$, $p = .368$), did not predict participants' intention to model the yoga strategy. Therefore, H1c was not supported. There were also no significant interactions between goal achieved (versus failed), own level of struggle and target struggle on intention.

Goal outcome (failure versus success) had no main effect on self-efficacy or social comparison measures. H2 and H3 were not supported. However, the negative relationship between goal failed versus achieved and weight journey social comparison approached

significance ($p = .053$). The hypothesized interaction between personal struggle and target struggle did not predict perceived similarity or hope/inspiration. H4 and H5 were not supported. Self-efficacy predicted intent to model, again supporting H6. However, the other hypothesized mediators did not predict intent to model cardio. H7, H8, and H9 were not supported.

Study 1: Final Model Predicting Intention to Model Yoga Strategy
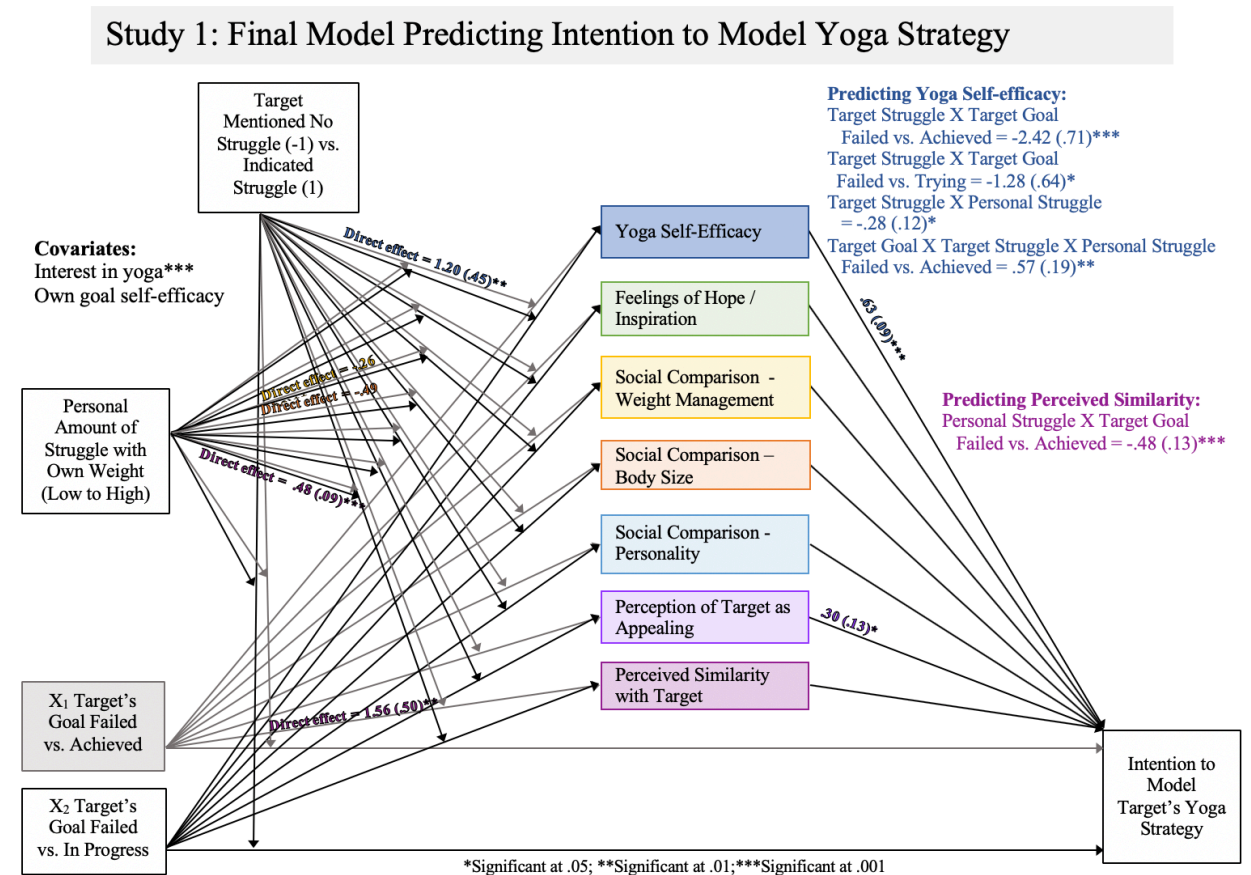
Figure 4. Final model predicting intention to model the yoga strategy: $R^2 = .72$, $F(20,151) = 19.50$, $p < .001$. Relative conditional indirect effects of goal failed vs. achieved on intention to model: Through yoga self-efficacy when target struggle = -1 and personal struggle = 2, $B = 1.11$, SE $B = .38$ (SE), CI$_{95}$[.443, 1.95]; Through yoga self-efficacy when target struggle = -1 and personal struggle = 3, $B = .78$, .SE $B = 25$, CI$_{95}$ [.332, 1.33]. Index of moderated mediation: Through yoga self-efficacy: $B = .36$, SE $B = .13$, CI$_{95}$ [.106, .626]. Conditional moderated mediation by target struggle: Through yoga self-efficacy when personal struggle = 2, $B = -.80$, SE $B = .26$,CI$_{95}$[-1.34, -.335]; Through yoga self-efficacy when personal struggle = 3, $B = -.45$, SE $B = .16$, CI$_{95}$ [-.788, -.142].

Relative conditional indirect effects of goal failed vs. in progress on intention to model: None. Bootstrapped (5000) confidence intervals include zero for index of moderated mediation and conditional moderated mediation by target struggle for all other mediators.

Addressing RQ2, the final regression model predicting intention to model the yoga strategy (Table 10, See Appendix C) indicated that there was a significant effect of target appeal on intention to model the yoga strategy. Increased target appeal predicted greater intention to model yoga. However, there were no main effects or interactions of goal outcome, target struggle or personal struggle on target appeal.

Figure 4 shows that there were no main effects or interactions of goal outcome, target struggle or personal struggle on intention. The model shows direct effects of goal achieved (versus failed) on the mediator, perceived similarity. However, perceived similarity did not predict intention to model yoga. Goal in progress (versus failed) did not have any direct effects on the mediators.

 Personal struggle had direct effects on three mediators: weight management social comparison, body social comparison and perceived similarity (Table 9, See Appendix C). Yoga self-efficacy predicted intention to model. Increased yoga self-efficacy predicted greater intention. There was a significant three-way interaction between goal achieved (versus failed), own struggle and target struggle on yoga self-efficacy (Table 9, See Appendix C). The 5,000 bootstrapped confidence interval for the index of moderated mediation did not include zero and thus, was estimated to be significant. The conditional moderated mediation by target struggle at low and mid-levels of yoga self-efficacy did not include zero and thus, were also estimated to be significant. The conditional indirect effects of goal outcome on intention to model yoga through yoga self-efficacy indicated that in the goal achieved condition, when participants did not see struggle, at mid and low levels of personal struggle, yoga self-efficacy increased and in turn, intention increased. (Figure 4)

Addressing RQ1, goal in progress did not play a role in this model. There were no significant main effects or interactions of goal in progress (versus failed) predicting intention to model the yoga strategy. Finally, the covariate, interest in yoga, was a significant predictor of intention to model yoga.

Study 1 Discussion

Study 1 tested the effects of the weight-loss goal outcomes depicted in singular Instagram posts on intention to model the target's weight-loss strategies through the mediators of perceived similarity with the post author, state social comparison (of weight management experiences, body appearance and personality), target appeal, and feelings of hope/inspiration. Own struggle level with one's weight-loss goal and mention of struggle (versus no mention of struggle) in the post were examined as moderators of the relationship between the target's weight-loss goal outcome and each of the mediators as well as the direct relationship between goal outcome and intention to model.

First, it is important to emphasize that interest in these weight-loss strategies were significant predictors of all of the intention to model strategies in Study 1. In other words, what participants came to the table with in terms of their current weight-loss strategies and interests played a large role in determining their intentions.

The findings of Study 1 largely did not support the hypothesis that seeing social media authors achieve their weight-loss goals would lead to higher intentions to model their weight-loss strategies. While there was no direct effect of goal achievement on intention to model the diet and yoga strategies, there was a direct effect of goal achievement on intention to model the cardio strategy. Participants who saw the weight-loss goal achieved reported greater intention to model the cardio strategy compared to those who saw goal failure. This is consistent with Social

Cognitive Theory, which predicts that observing positive role models will be more likely to lead to the adoption of the model's behavior compared to negative role models. However, findings for the diet and yoga models are consistent with those of Lee and Shapiro (2016) that a story character's goal achievement does not directly predict intention to model diet related behaviors. Lee and Shapiro (2016) did find that as perceived similarity increased, intention to model increased when the target achieved their goal. However, perceived similarity did not predict intention to model in any of the Study 1 models.

For the diet strategy, personal struggle had a direct effect on self-efficacy (to use the weight-loss behavior to achieve one's own goal). The more personal struggle one had with weight-loss, the lower one's self-efficacy related to the target's diet strategy. However, there was no relationship between personal struggle for cardio and yoga.

Study 1 also revealed some support for the predicted effect of goal outcome on social comparison. Achieved goals predicted upward weight journey comparison in the model predicting diet, while failed goals predicted downward comparison. Further, goal outcome (failure versus success) approached a significant negative relationship on weight journey comparison for the cardio and yoga models. Overall, the average weight journey social comparison was negative for the achieved conditions (M = -.15 SD = .97) and positive for the failed conditions (M = .66, SD = .91). This reflects Social Comparison Theory's argument that upward comparisons occur in response to others perceived to be superior and downward comparisons in response to inferior others. However, goal outcome did not relate with any of the other social comparison variables (body and personality) in any of the three models. This may reflect women being just as likely to make lateral comparisons to the failed conditions as the achieved conditions. Notably, between upward, downward and neutral comparisons, neutral

comparisons made up 36% to 60% of the social comparisons made (43% weight journey; 21%, body; 60% personality). Some neutral comparison might reflect a social desirability bias where participants believe it is socially acceptable to refrain from labeling the target as worse off in some way. The social desirability measures that were to be used in both studies did not produce a reliable scale and were thus, dropped from the analyses. Although, 40-44% were not afraid to downwardly compare themselves to the model with respect to weight journey and body size comparisons.

Study 1 tested the prediction that when a participant's own levels of struggle matched the target, they would rate their similarity with the target higher after reading the post compared to participant's whose struggle level did not match that of the target. Research around Social Cognitive Theory has suggested that a target whose background is similar (e.g. in terms of hometown, interests and clothing) will increase perceived similarity and, in turn, modeled behaviors (e.g. Schunk, 1987). However, the participant and target alignment of struggle with weight-loss did not predict perceived similarity. It is possible that participants weigh explicit target traits (e.g. skin color, body type, etc.) more heavily in their evaluation of the similarity of a target.

The three models predicting intention all produced an interaction between goal achieved (versus failed) and personal struggle on perceived similarity. As personal struggle increased, goal achievement (versus failure) predicted lower perceived similarity regardless of whether or not struggle was mentioned in the post. It appears that whether or not a social media author expresses struggle in the pursuit of a goal achieved that observers with higher levels of personal struggle will perceive more similarity with targets who fail to achieve their goal. This could reflect recognition of an implicit continuation of struggle in the failed/struggle condition,

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whereas both goal achieved conditions may implicitly or explicitly convey struggle as having happened in the past. And thus, participants high in struggle may relate more to the author in the failure condition and those low in struggle may relate more to the author in the achievement condition. Assumed or anticipated struggle may characterize the failed/no struggle condition in the participant's eyes leading participants high in struggle to, again, relate more to the author in the failed condition, while participants low in struggle relate more to the lack of struggle conveyed by the author in the achievement condition. It should be noted that the author's caption in the no struggle condition mentioned easily avoiding or tackling obstacles. The acknowledgement that obstacles were present at all could suggest that the author omitted their struggle or struggled in the past rather than not having struggled at all.

The match between participant struggle and target struggle did not predict hope/inspiration and nor did target struggle itself. The underdog literature found that struggle in underdog film narratives (versus comedy, nature scenes or no media) predicted hope and inspiration above and beyond goal outcome (Prestin, 2013). However, the 5-minute film clips are substantially different stimuli from the social media posts/feeds in this study in terms of length, detail and complexity of their narratives and the explication of the obstacles within them, among other elements. Thus, brief exposure to a social media post with a shorter, potentially less detailed narrative may do little to elicit these feelings.

The model predicting yoga shows a significant main effect of target appeal on intention to model. The more appealing the target, the greater participants' intentions are to model the yoga strategy. However, there was no interaction between target struggle, own struggle and target appeal in predicting intention, which is consistent with the diet and cardio strategies.

Additionally, there was no indication that target appeal related to intention in the case of diet and cardio.

Surprisingly, a three-way interaction between goal achieved (versus failed), own struggle level and the target's indication of struggle (versus no mention of struggle) predicted lower intention to model the diet strategy. As struggle level increased and mention of struggle was seen in the Instagram post, participants were less likely to model the diet strategy when they saw that the target had achieved their goal compared to when the target experienced goal failure. However, this three-way interaction was not significant in predicting intention to model the cardio and yoga strategies.

Study 1 asked how goals in progress fit into each model to predict intention. For the diet model, goals in progress predicted upward comparison, while goal failed predicted downward comparison. However, there were no interactions involving goals in progress (versus failed) for the cardio and yoga strategies. The cardio model showed an interaction between goal outcome (in progress versus failed) and personal struggle on perceived similarity such that as personal struggle increased goals in progress (versus failed) predicted lower intention to model. However, again, there were no such interactions in the other two models.

Study 1 illustrates that goal outcome does not directly predict self-efficacy as Social Cognitive Theory would predict. However, the model describing intention to model the yoga strategy provides evidence of moderated moderated mediation such that seeing achievement without mention of struggle increased self-efficacy for participants at mid to low levels of personal struggle, which, in turn, increased intention to model. This is consistent with Social Cognitive Theory's argument that models who achieve their goals can increase self-efficacy and,

in turn, increase the adoption of goal-related behaviors. However, evidence of moderated moderated mediation through self-efficacy was not found for intention to model diet or cardio.

The most consistent finding across the three intentions was the significant, positive relationship between self-efficacy perceived about the modeling behavior and intention to model that behavior. Further indications of self-efficacy as a mediator between the media event and intentions to model are seen with the conditional indirect effects estimated for intentions to diet and practice yoga (but not cardio). However, as noted in the specific findings, the nature of the interactions between goal outcome, personal struggle, and target struggle in predicting intent indirectly through self-efficacy is complicated and without a clear pattern across intentions. Study 2 attempts to add clarity to these findings.

CHAPTER 4: STUDY 2 RESULTS AND DISCUSSION

Study 2 Results

Manipulation Check – Goal Status. As in Study 1, participants who failed the goal status manipulation check (N=28) were either in the goal achievement condition or the goal failure conditions, but not the goal in progress conditions, which seemed to reflect a systematic bias. Thus, participants who failed the goal status manipulation check were excluded from subsequent analyses and 168 participants remained.

Manipulation Check – Struggle. Participants viewed the social media posts as conveying more struggle in the struggle conditions than in the no struggle conditions ($M_{Struggle} = 4.09$, $SD = .96$ versus $M_{NoStruggle} = 3.37$, $SD = .87$, $t(166) = 5.11$, $p < .001$, $d = .79$).

Hypothesis Testing. The same conditional process analysis used in Study 1 was conducted in Study 2 to examine the hypotheses (Table 2, See Appendix C) represented by the moderated mediation model in Figure 1 for intention to model diet, intention to model cardio and intention to model yoga in response to Instagram *feeds*. (See Table 4 in Appendix C for bivariate correlations of Study 2 variables)

Intention to model diet. Figure 5 shows the results of the model predicting intention to model the target's diet. Hypotheses 1a, 1b and 1c specified that after viewing the stimulus, participants in the achieved condition would have higher intentions to model the target's weight-loss strategies (diet (H1a), cardio (H1b) and yoga (H1c)) than those in the failed condition. The final regression model predicting intention to model the diet strategy (Table 12, See Appendix

C), where the goal failed condition serves as the reference group, indicates that the target's goal achieved (versus failed), $B = -1.94$, SE $B = .85$, $p < .05$, predicts participants' intention to model the diet strategy. Therefore, H1a was supported.

The final regression model predicting intention to model the diet strategy (Table 12, See Appendix C) showed no indication of a main effect of goal outcome (failure versus success) on either self-efficacy or social comparison measures. H2 and H3 were not supported. However, supporting H6, self-efficacy did have a significant positive relationship with intention to model diet.

Figure 5. Study 2. Final model predicting intention to model the diet strategy: $R^2 = .52$, $F(21,132) = 6.69$, $p < .001$. Relative Conditional indirect effects of goal outcome on intention to model: None. Boot strapped (5000) confidence intervals include zero for index of moderated mediation and conditional moderated mediation by target struggle for all mediators.

The hypothesized match between personal and target struggle did not work to elevate perceived similarity, as the interaction between personal struggle and target struggle was not significant for this measure. H4 was not supported. Given no relationship between perceived similarity and intent, H7 was also not supported.

Neither struggle variable predicted hope/inspiration. The interaction between goal outcome (failure versus success) predicted hope/inspiration. (Table 11, See Appendix C) When personal struggle was high, participants in the achieved condition reported more hope/inspiration than those in the failed condition. The interaction between personal struggle and target struggle was not significant for this measure. H5 was not supported. Likewise, hope/inspiration did not predict intent. Thus, H8 was not supported. Social comparison measures also did not predict intent and thus, H9 was not supported.

RQ1 regarding goals in progress and RQ2 regarding the role of target appeal are discussed in light of the remaining findings of the model. The model does not show any direct effects of goal outcome, personal struggle or target struggle on any of the mediators.

Diet self-efficacy was the only mediator that predicted intention to model the diet strategy with intention to model increasing as diet self-efficacy increased.

There was no significant effect of target appeal on intention to model the diet strategy. The initial regression predicting target appeal indicated that the interaction between target struggle and own struggle was not significant, $B = .03$, SE $B = .11$, $p = .817$.

The final regression model predicting intention to model the diet strategy (Table 12, See Appendix C) indicated there were significant main effects of goal achieved (versus failed) and goal in progress (versus failed) on intention. Goal achievement predicted lower intention to model than goal failure. Goal in progress also predicted lower intention than goal failure. There

was also a significant interaction between target's goal achieved (versus failed) and personal struggle, $B = .51$, SE $B = .24$, $p < .05$. As personal struggle increased, goal achievement predicted greater intention to model, while goal failure predicted lesser intention. The covariate, interest in dieting, was not a significant predictor of intention.

Intention to model cardio. Figure 6 illustrates the full model predicting intention to model cardio. The final regression model predicting intention to model the cardio strategy (Table 14, See Appendix C), where the goal failed condition served as the reference group, indicates that the target's goal achieved (versus failed), $B = -1.46$, SE $B = .83$, $p = .079$, did not predict participants' intention to model the cardio strategy. Therefore, H1b was not supported.

As figure 6 illustrates, goal outcome (failure versus success) did not have a main effect on either self-efficacy (Table 13, See Appendix C) or social comparison measures. H2 and H3 were not supported. Personal struggle and target struggle did not interact to impact perceived similarity or hope/inspiration. H4 and H5 were not supported. Self-efficacy did predict intent to model, which supports H6 and corroborates the finding about diet intentions in Study 1 and 2. However, perceived similarity, hope/inspiration, and social comparison measures did not predict intent to model cardio, which means H7, H8, and H9 are not supported. This also corroborates the diet findings in Study 1 and 2.
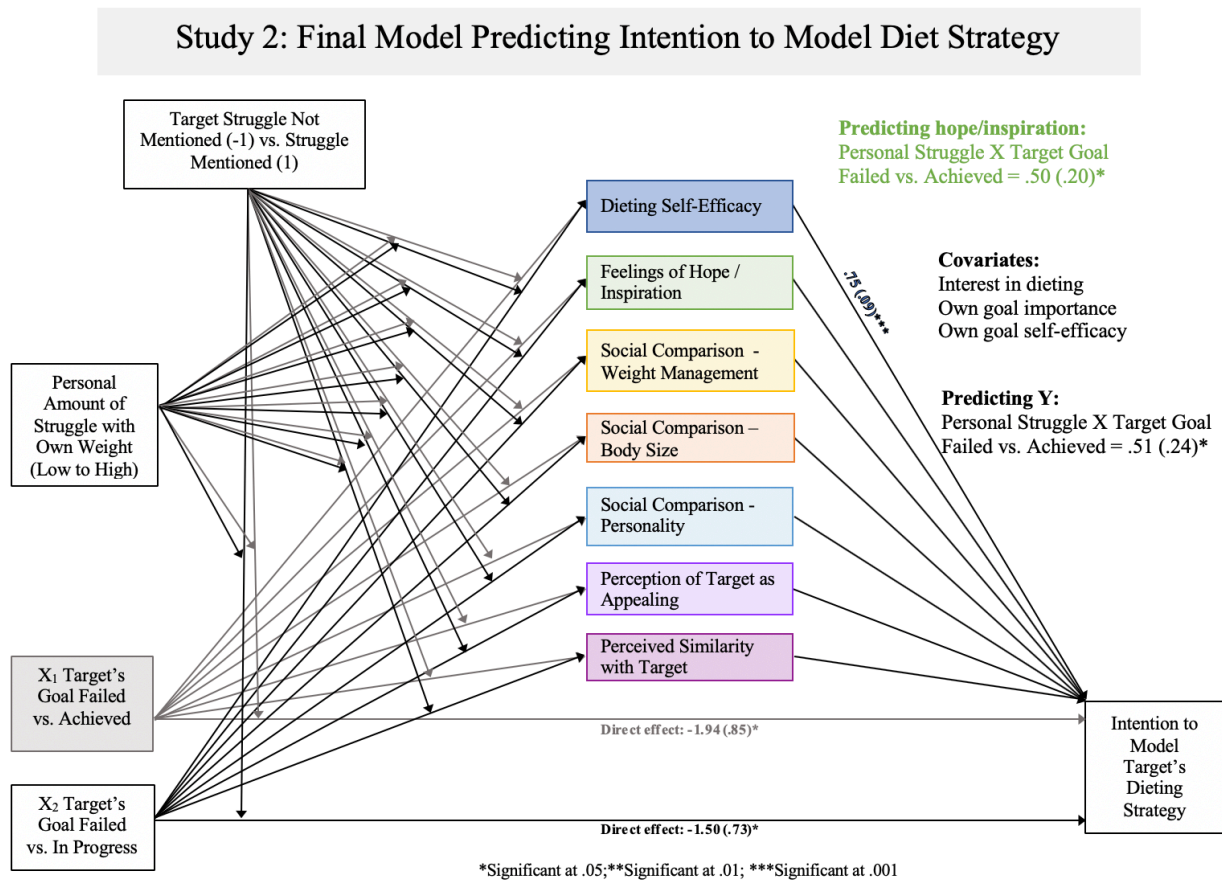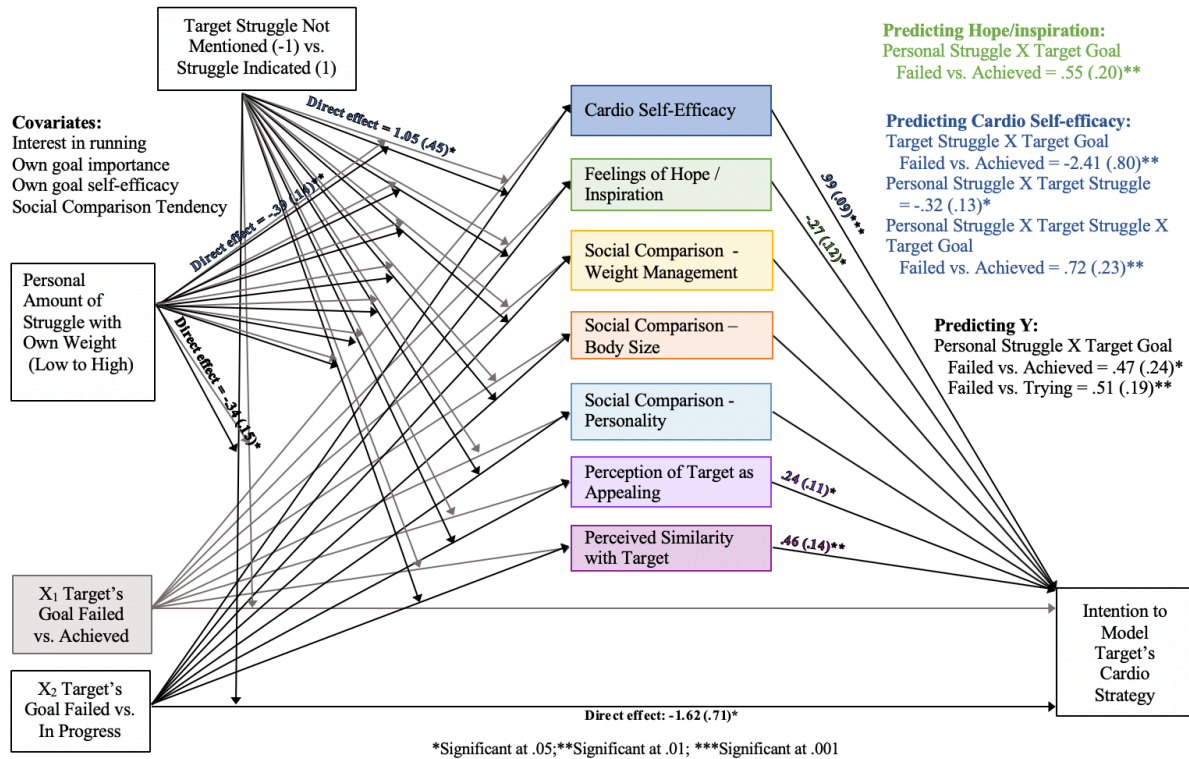
Figure 6. Study 2: Final model predicting intention to mode the cardio strategy, $R^2 = .69$, $F(21,132) = 14.30$, $p < .001$. Relative conditional indirect effects of goal failed vs. achieved on intention to model: Through hope/inspiration when target struggle = -1 and personal struggle = 5, $B = -.48$, SE $B = .25$, CI_{95} [-1.05, -.064]; Through hope/inspiration when target struggle = 1 and personal struggle = 5, $B = -.38$, SE $B = .21$ (SE), [-.854, -.049];

Relative conditional indirect effects of goal failed vs. achieved on intention to model: Through perceived similarity when target struggle = -1 and personal struggle = 3, $B = .30$, SE $B = .18$, CI_{95} [.001, .717].

Relative conditional indirect effects of goal failed vs. achieved on intention to model: Through self-efficacy when target struggle = 1 and personal struggle = 2, $B = -1.39$, SE $B = .44$, CI_{95} [-2.22, -.505]; Through self-efficacy when target struggle = 1 and personal struggle = 5, $B = 1.96$, SE $B = .70$, CI_{95} [.631, 3.35].

Relative conditional indirect effects of goal failed vs. in progress on intention to model: Through hope/inspiration when target struggle = -1 and personal struggle = 3, $B = -.22$, SE $B = .14$, CI_{95} [-.554, -.016]; Through hope/inspiration when target struggle = -1 and personal struggle = 5, $B = -.26$, SE $B = .18$, CI_{95} [-.684, -.006].

Index of moderated mediation for goal failed vs. achieved: Through self-efficacy, $B = .70$, SE $B = .24$, CI_{95} [.265, 1.22].

Indices of conditional moderated mediation by target struggle for goal failed vs. achieved: Through self-efficacy when personal struggle = 5, $B = 1.15$, SE $B = .49$, CI_{95} [.260, 2.17]; Through self-efficacy when personal struggle = 2, $B = -.96$, SE $B = .36$, CI_{95} [-1.720, -.289].

Turning to the research questions and other findings, the final regression model predicting intention to model the cardio strategy (Table 14, See Appendix C) indicated that there was a significant effect of target appeal on intention to model the cardio strategy. However, the initial regression model predicting target appeal, where the goal failed condition served as the reference group, was not significant, ($R^2 = .14$, $F(15,138) = 1.47$, $p = .124$).

As Figure 6 illustrates, personal struggle and target struggle each had a direct effect on one mediator, cardio self-efficacy. Cardio self-efficacy predicted intention to model such that as self-efficacy increased intention to model increased. The conditional indirect effects of goal outcome on intention revealed that when the target mentioned struggle, low levels of self-efficacy predicted lower intention and high levels of self-efficacy predicted greater intention. The index of moderated moderated mediation through self-efficacy was estimated to be significant because the bootstrapped confidence intervals did not include zero.

There was a significant interaction between own struggle and goal achieved (versus failed) on feelings of hope and inspiration, $B = .49$, SE $B = .20$, $p < .05$ (Table 13, See Appendix C). Hope/inspiration also predicted intention. Unexpectedly, as hope/inspiration increased, intention to model decreased. The conditional indirect effects of goal outcome (failed vs achieved) on intention to model diet through hope/inspiration indicated that for goal achieved (versus failed), at high levels of personal struggle, intention to model decreased. The 5,000 bootstrapped confidence intervals for the moderated mediation model and conditional moderated mediation by hope/inspiration included zero and, thus, were estimated to be nonsignificant.

When examining interactions directly predicting intention to model (Y), the results showed a significant interaction between own struggle and goal outcome (failure versus success). As personal struggle increased, goal achievement predicted increased intention to model the

cardio strategy, while goal failure predicted increased intention. This relationship predicted decreased intention to model the cardio strategy in Study 1. There was also a significant interaction between personal struggle and goal outcome (in progress versus achieved). As personal struggle increased, goal in progress predicted greater intention, while goal failure predicted lesser intention. The covariate, interest in running, was not a significant predictor of intention to model cardio contrary to the finding in Study 1.

Intention to model yoga. As Figure 7 shows, the final regression model predicting intention to model the yoga strategy (Table 16, See Appendix C), where the goal failed condition served as the reference group, indicates that the target's goal achieved (versus failed), $B = -.40$, SE $B = .89$, $p = .656$, did not predict participants' intention to model the yoga strategy. Therefore, H1c was not supported.

Goal outcome (failure versus success) had no main effect on self-efficacy or social comparison measures. H2 and H3 were not supported. The hypothesized interaction between personal struggle and target struggle did not predict perceived similarity or hope/inspiration (Table 15, See Appendix C). H4 and H5 were not supported. Self-efficacy predicted intent to model, again supporting H6. However, the other hypothesized mediators did not predict intent to model cardio. H7, H8, and H9 were not supported.

Addressing RQ1, goal in-progress did not play a role in this model. Figure 7 indicates no direct effects of goal outcome on intention to model the yoga strategy or any of the mediators. There were also no direct effects of personal struggle or target struggle. There was one interaction between goal outcome (failure versus success) on hope/inspiration (Table 15, See Appendix C). As personal struggle increased, goal achievement predicted increased intention to

model, while goal failure predicted decreased intention. The covariate, interest in yoga, was a not a significant predictor of intention to model yoga.

Addressing RQ2, the final regression model predicting intention to model the yoga strategy (Table 16, See Appendix C) indicated that there was no significant effect of target appeal on intention.
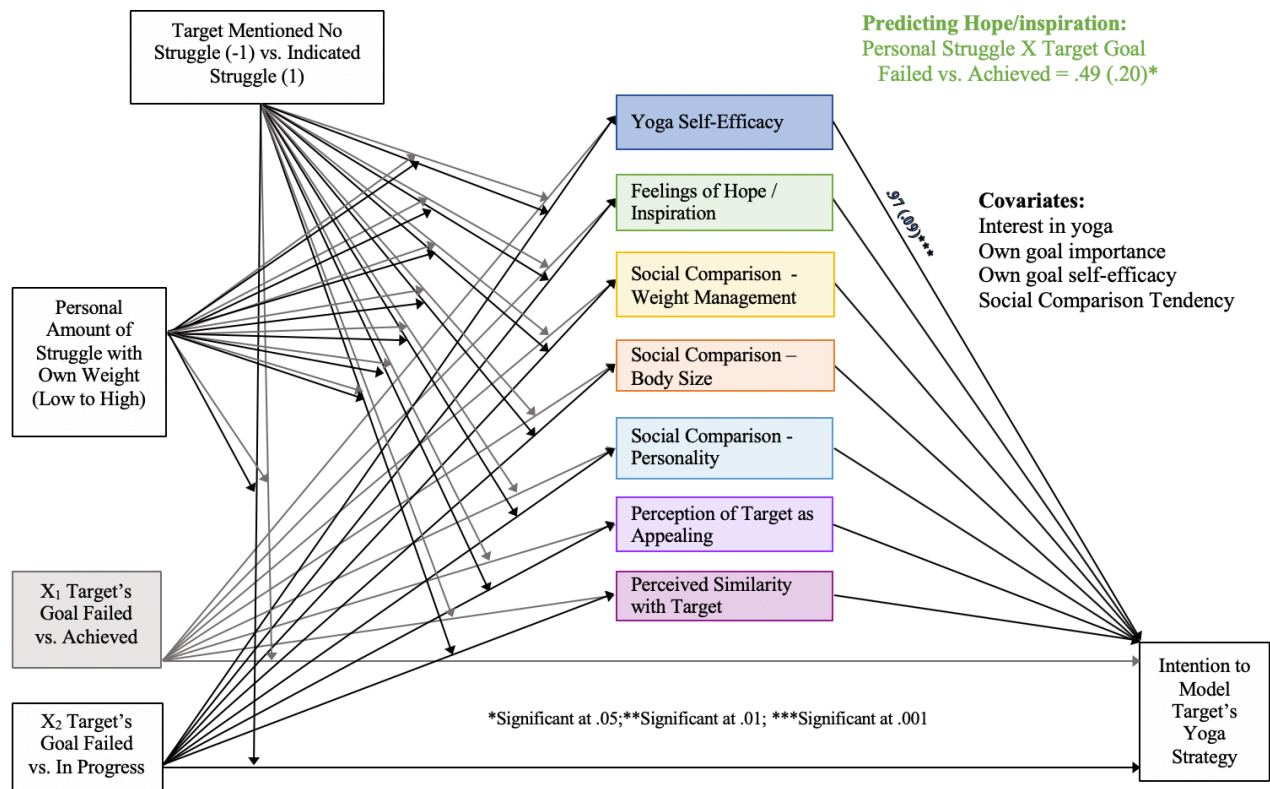
Figure 7. Study 2. Final model predicting intention to model the yoga strategy: $R^2 = .72$, $F(22,131) = 15.25$, $p < .001$. Relative conditional indirect effects of goal outcomes on intention to model: None. Bootstrapped (5000) confidence intervals include zero for index of moderated mediation and conditional moderated mediation by target struggle for all mediators.

Study 2 Discussion

Study 2 tested the same hypotheses as Study 1 among Instagram feeds (rather than singular posts) that reflected the target's goal outcome and target's struggle (indication of struggle versus no indication) across two posts. The two remaining posts interspersed in the feed attempted to emulate typical non-weight loss related posts on an Instagram profile. One post was about a vacation taken and the second, captured a concert attended. In contrast with Study 1, interest in weight-loss strategies were not significant predictors of any of the intention to model strategies in Study 2.

Similar to Study 1, the findings of Study 2 do not provide support for the hypothesis that seeing a social media author achieve their weight-loss goal leads to greater intention to model the author's weight-loss strategy. This aligns with the findings of Lee and Shapiro (2016). In Study 2, however, the diet model showed a direct effect of goal achievement (versus failure) on intention to model. Inconsistent with Social Cognitive Theory, participants who saw the post where the Instagram author achieved her goal were less likely to have intentions to model the diet strategy she shared. This finding may reflect the idea that participants perceive the target as having a fixed weight, while their own weight mindset might be incremental (perception that their weight is under their control). As a result, participants may believe that adopting the target's strategies will lead to success for them rather than the failure they observed. This may coincide with an avoidance motivation where individuals are motivated to avoid an undesirable event or possibility rather than being directed by the benefit of a desirable event or possibility (approach motivation) (Elliot, 1999). Alternatively, it is possible that seeing a goal failed may reduce fear of personal failure when attempting to use the same strategy, while seeing goal

success may elicit fear of personal failure. However, there were no direct effects of goal achievement (versus failure) on intention in the cardio and yoga models.

Study 2 consistently shows that goal outcome (failure versus success) does not have a main effect on the social comparison measures. This contrasts with Study 1, where the diet model exhibited significant main effects of goal outcome (failure versus success) on weight management social comparison, specifically, and this relationship approached significance for the cardio and yoga models.

Study 1 and Study 2 results did not support an effect of struggle match on perceived similarity. As discussed previously, it may be that more explicit traits such as body type and skin color weigh more heavily in the evaluation of perceived similarity than struggle. Between the two studies, the cardio model in Study 2 was the singular model in which perceived similarity predicted intention to model. Consistent with Social Cognitive Theory, as perceived similarity increased, intention increased.

The models predicting intention in Study 2 did not reveal any interaction between goal achieved (versus failed) and personal struggle on perceived similarity, while each model in Study 1 exhibited this effect. By contrast, in each Study 2 model, an interaction between goal achieved (versus failed) and personal struggle on hope/inspiration emerged. As personal struggle increased, goal achievement (versus failure) predicted higher hope/inspiration regardless of whether or not struggle was mentioned in the post. This contrasts with the underdog narrative literature, which supports target struggle as the primary predictor of hope/inspiration above and beyond goal outcome (Prestin, 2013). As in Study 1, the match between participant struggle and target struggle also did not predict hope/inspiration and nor did target struggle itself. However, as

discussed previously, the 5-minute film clips used in Prestin (2013) are substantially different from the stimuli of this thesis.

In addition, the image itself portrays a female who reflects an average or above average weight and realistic, non-ideal body shape. The social comparison body measure indicated that only 13% (Study 1) and 16% (Study 2) of women deemed the social media author's body to be less ideal than their own. The majority found their bodies just as ideal or more ideal. It is possible that her non-ideal body size and shape was not inspiring and therefore, women did not desire to emulate her strategies.

Surprisingly, in Study 2, hope/inspiration had a negative relationship with intent with respect to the cardio model. This contrasts with the findings of Prestin (2013) that hope/inspiration resulting from exposure to narratives about struggle would predict intention to model. However, all other models between Study 1 and 2 indicated no relationship between hope/inspiration and intention.

The two studies illustrate that the social comparison variables (weight management, body and personality) do not directly predict intention to model. While the diet model in Study 1 found an effect of goals in progress on social comparison, Study 2 did not find any such effects.

Turning to goals in progress, Study 2 found main effects of goals in progress (versus failed) for the diet and cardio models such that in-progress goals predicted lesser intention to model. An interaction between goal outcome (failed versus in progress) and personal struggle emerged for the cardio model. As personal struggle increased, goals in progress (versus failed) predicted greater intention to model. This finding may also reflect an incremental mindset (versus fixed weight belief about the target) and/or an avoidance motivation.

In Study 1, the model predicting yoga shows a significant main effect of target appeal on intention to model. Study 2 also shows this main effect for the cardio strategy. The more appealing the target, the greater participants' intentions to model. However, across the two studies, there were no main effects or interactions predicting target appeal.

Across the two studies, there were no main effects of goal outcome (failure versus success) on self-efficacy. The most consistent finding between Study 1 and 2 was the significant, positive relationship between self-efficacy perceived about the modeling behavior and intention to model that behavior. Further, indications of self-efficacy as a mediator between exposure to the social media post/feed are seen with the conditional indirect effects estimated for intentions to diet and practice yoga in Study 1, and cardio in Study 2. However, between the two studies the nature of the interactions between goal outcome, personal struggle, and target struggle in predicting intent indirectly through self-efficacy remains unclear with varied patterns across intentions.

The diet strategy model in Study 1 indicated that when personal struggle was high, goal achievement (versus failure) would predict more self-efficacy and, in turn, predict greater intention regardless of whether struggle was mentioned in the Instagram post. By contrast, the yoga strategy model in Study 1 indicated that when struggle was not mentioned and personal struggle was low, goal achievement predicted higher self-efficacy and, in turn, lead to greater intention. Finally, in Study 2, the cardio strategy model indicated that when struggle was indicated in the post and personal struggle was low, goal achievement predicted decreased self-efficacy and lead to decreased intention. Whereas when struggle was indicated and personal struggle was high, goal achievement predicted increased self-efficacy, which lead to greater intention. For participants in the struggle condition, this reflects the idea that a struggle match

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predicts higher self-efficacy when the target's goal is achieved (versus failed), while a mismatch predicts lower self-efficacy (and ultimately intention). Although the literature suggests that this match increases perceived similarity, this was not supported by the model.

Both studies revealed an interaction between goal outcome and personal struggle on intention to model. All strategy models in Study 1 exhibited this relationship, whereas in Study 2, the cardio model illustrated this relationship. However, this relationship was positive in two models and negative in two models, rendering the pattern of effects unclear. Study 1 identified a significant three-way interaction between goal achieved (versus failed), personal struggle and target struggle (versus no mention of struggle) that predicted lower intention to model the diet strategy. Whereas Study 2 did not exhibit this three-way interaction effect for any of the intention to model variables (diet, cardio and yoga).

CHAPTER 5: GENERAL DISCUSSION

This thesis examines how social media posts about weight-loss goals that are either achieved (success), in progress, or unattained (failure), and that either involve struggle or lack thereof, affect women in terms of their perceptions of the social media author, hopefulness and inspiration and intention to model the weight-loss behaviors of the author. These effects were investigated through the lens of Social Cognitive Theory, observing symbolically modeled behavior of a target whose behavior may or may not be reinforced, Social Comparison Theory, evaluating the similarity and status of the self in relation to others, and underdog narratives, motivating the adoption of modeled behavior through hope and inspiration. The two studies support one of Social Cognitive Theory's main tenets that an individual's self-efficacy around a modeled behavior is central to whether or not that individual intends to emulate or adopt that behavior. Both studies showed that regardless of exposure to the Instagram posts/feeds, self-efficacy helps determine intention. The studies provide some evidence that exposure to an Instagram post about a weight-loss journey can affect intention to model a social media author's weight-loss strategies through an interaction between the author's goal outcome, the author's mention (or lack thereof) of struggle and the reader's own level of struggle. Together, these factors seem to impact the self-efficacy of the reader and, in turn, impact the reader's intention to adopt the author's weight-loss strategy. However, the pattern explaining these interactions were inconsistent between the two studies and thus, remains unclear. Further research is needed to

better understand the effects of these social media weight-loss narratives on self-efficacy and intentions to model health behaviors.

Study 1 provided evidence that goal outcome (failure versus success) and personal struggle interact to impact perceived similarity. Higher personal struggle with weight-loss predicted less perceived similarity when the social media author's goal was achieved (versus failed); however, lower personal struggle predicted more perceived similarity with the author. As discussed earlier, this could reflect recognition of an implicit continuation of struggle in the failed/struggle condition, while both goal achieved conditions implicitly or explicitly convey struggle as having ended (i.e. as a thing of the past). In addition, participants might assume that struggle has occurred in the failed/no struggle condition even though it was not explicitly mentioned. This may be particularly plausible given that the author's caption in the no struggle condition mentioned easily avoiding or tackling obstacles. Thus, the acknowledgement that obstacles were present at all could suggest that the author omitted their struggle or struggled in the past rather than not having struggled at all. This is a limitation of the thesis that could be addressed in future research to clarify these effects.

Whereas Study 1 provided evidence for the goal outcome X personal struggle interaction that predicted perceived similarity, Study 2 provided evidence for the same interaction predicting hope/inspiration. Thus, there is no replicated support for either interaction across the studies. Thinking about hope/inspiration, it is possible that because the feed conditions contained multiple posts describing the author's journey that this higher level of exposure was able to elicit such feelings. Alternatively, it is possible that seeing more of the process of the author's weight-loss journey, provided more opportunity to root for the author and elevate hopefulness along the way. By contrast, seeing a single post may have conveyed the end of a journey that no longer

provided an opportunity to root for the target. In other words, the post versus feed stimuli may actually reflect a manipulation of goal status as an implied completion of the goal versus a goal in progress. With respect to perceived similarity, it is less clear why interactions with perceived similarity did not appear in the feed conditions.

The findings around social comparisons were mixed. Study 1 suggested that seeing a social media author achieve their weight-loss goal was more likely to elicit upward social comparison related to one's weight journey, while goal failure was more likely to predict downward comparison related to one's weight journey. This is consistent with Social Comparison Theory. However, Study 2 did not corroborate these findings. Goal outcome mostly did not relate to social comparison of one's body or personality across the two studies (with the exception of the Study 1 diet model).

Although, Social Comparison Theory suggests that women looking at successful health models would make upward comparisons motivated by self-improvement that would lead to the intention to adopt the model's health strategies, these studies consistently found no relationship between social comparisons and intention to model. This may reflect the large numbers of neutral and downward comparisons that were made on each comparison dimension. Between the two studies, only 13% to 36% made upward comparisons across the three comparison dimensions. These women generally felt that their weight-loss journeys, bodies and personalities were more ideal or neither more nor less ideal than those of the author, perhaps reflecting higher self-esteem. As discussed previously, the author does not represent a mainstream body ideal and has an average to above average body size. As a result, they may not have seen the social media author as someone they wanted to emulate.

These studies also provide evidence that an interaction between one's personal struggle with weight-loss and the weight-loss outcome of the Instagram author directly impact one's intention to model the author's weight-loss strategies. However, the findings in Study 1 are the opposite of those in Study 2. Surprisingly, in Study 1, the interaction of personal struggle with weight-loss and weight-loss outcome on intention to model was negative. As personal struggle increased, seeing weight-loss goal failure predicted greater intention to model than goal achievement. Perhaps, this reflects higher avoidance motivation in individuals with high personal struggle. In Study 2, the relationship was positive. Goal achievement predicted greater intention than goal failure as personal struggle increased. In this case, it seems possible that high personal struggle indicated low self-efficacy and seeing goal achievement increased self-efficacy for those individuals even if avoidance motivation was high. For individuals with low personal struggle, higher self-efficacy may have amplified their avoidance motivation such that they were confident that they could do better than the author who failed to achieve their goal. Future research could examine the role of approach versus avoidance motivation in these relationships.

Additional limitations of these studies should be considered. Several participants were removed from both studies (n = 14 from Study 1 and n = 28 from Study 2) because they failed the manipulation check verifying which goal outcome they had seen. These participants were only in the goal achieved and failed conditions. This, and the sample size in general, might have made these studies underpowered and therefore unable to find statistical significance. The low sample size also limits the generalizability of these studies to the larger population. The study also only sampled female participants. Thus, generalizability does not extend to populations that do not identify as female, although these populations certainly encounter social media content about weight-loss journeys. Future studies may want to examine these effects among males and

include male social media post authors. In addition, the role of age could be investigated given that younger and older adults may differ in their approach to their body image, weight-loss strategies and engagement with weight-loss related media.

These studies are also limited by their stimuli. As discussed earlier, the author's caption in the no struggle condition mentioned easily avoiding or tackling obstacles. The acknowledgement that obstacles were present at all could suggest that the author omitted their struggle or struggled in the past rather than not having struggled at all. Thus, a future study could compare posts reflecting these two modes. However, it would first need to examine, the realism of a fail/struggle post that omits any mention of obstacles.

Although Study 2 attempts to increase exposure to the amount of social media content, exposure is still limited to two Instagram posts over the course of a few minutes. In reality, individuals may encounter much more weight-loss related content at any one time. Finally, there might be important differences in the type of presentation of weight-loss journeys in social media that this study did not adequately take into account with measurement. Specifically, there might be differences in how readers interpret a post versus a feed that lead them to different conclusions about the experiences of the social media author. There might also be differences based on the images used, the number of images posted, or other forms of social media beyond the post and feed examples used in this study. Future studies are needed to examine these potential differences based on social media presentation to see which differences might affect intentions to model an author.

Despite these limitations, the main contribution of these studies is the exploration of how exposure to narratives about struggle and experiences of struggle interact to affect our intentions to model certain health behaviors. The concept of struggle has received little attention in the

literature. More research is needed to provide clear conclusions about the role that struggle plays in influencing perceptions of models of health behavior and intentions to adopt their health strategies. However, these findings still have implications for fitness and health influencers on Instagram and other social media platforms who talk about their own weight-loss journeys to inspire others to adopt healthy habits.

While these studies did not identify an impact of hope and inspiration on intentions to model health behaviors, they do indicate that a health post about a model that indicates goal achievement will elicit feelings of hope and inspiration among individuals who struggle with that goal. However, those with low struggle may feel more hopeful and inspired when the health model is unsuccessful and the message incites a sense of competition. Perhaps for these individuals, observing goal success provokes worry that they will not be able to attain the same success, while goal failure inspires them (perhaps in combination with an avoidance mindset) to be able to use these strategies to a positive end. And of course, there is the question of whether or not these feelings can energize individuals into action.

In terms of the similarity and relatability of the author, health influencers may consider that health models who achieve success may be more relatable to individuals experiencing low levels of struggle, while models who experience failures may be more relatable to individuals experiencing high levels of struggle. But again, there is an unanswered question of how this relatability impacts intention to emulate health behaviors.

This thesis points to the importance of boosting self-efficacy in the process of persuading individuals to emulate healthy behaviors. Perhaps, this is through expressing confidence in an individual's ability to emulate these behaviors or decreasing anxieties about potential obstacles. However, it remains to be seen whether or not messages relaying struggle have a positive or

negative impact on self-efficacy, whether their impact depends on the individual's own struggle with a goal, or whether they have no effect on self-efficacy whatsoever. Future research can further explicate the role of struggle in health messaging on social media, which can also help inform messaging by health communicators, more broadly, around the promotion of health behaviors.

APPENDIX A: QUESTIONNAIRE

Questionnaire

Before you proceed to the survey, please complete the CAPTCHA below.
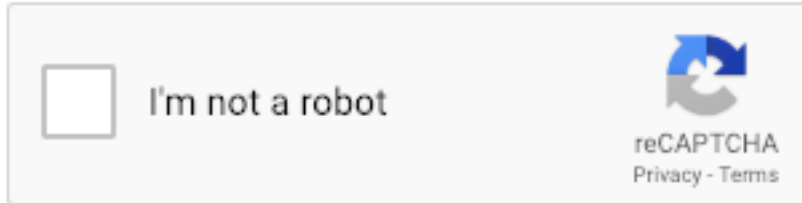
Consent to Participate in the Social Media/Selfie Study

IRB Study # 19-3161

Title of Study: Social Media/Selfie Study

Principal Investigator: Carter, Chandler

Faculty Advisor: Dillman Carpentier, Francesca

CONCISE SUMMARY

The purpose of this research study is to understand how people respond to social media posts/selfies related to weight management. The study will take no more than 20 minutes. Participants will complete an online questionnaire, which includes viewing, reading and giving your opinions about social media posts/selfies. The study also includes questions about personality characteristics, body image and media use behaviors.

We anticipate few risks in this study. Should you feel uncomfortable answering any questions you can discontinue your participation at any time.

What are some general things you should know about research studies? You are being asked to take part in a research study. To join the study is voluntary. You may choose not to participate, or you may withdraw your consent to be in the study, for any reason. Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study.

You must be **18 years old or older** and identify as **female** to participate in this study.

What is the purpose of this study? The purpose of this research study is to understand how people respond to social media posts/selfies related to weight management.

How many people will take part in this study? There will be approximately 400 women in this research study.

What will happen if you take part in the study? Your participation will last no more than 20 minutes. During this study, you will complete an online questionnaire, which includes viewing, reading and giving your opinions about social media posts/selfies related to weight management. The study also includes questions about personality characteristics, body image and media use behaviors.

What are the possible benefits from being in this study? Research is designed to benefit society by gaining new knowledge. You will not benefit personally from being in this research study.

What are the possible risks or discomforts involved from being in this study? We anticipate few risks in this study. Should you feel uncomfortable answering any questions you can discontinue your participation at any time.

How will your privacy be protected? MTurk worker IDs will not be shared with anyone outside of the research team and will not be linked to survey/study responses. Note that Amazon.com has stated that the MTurk platform is NOT meant to support participant anonymity. MTurk worker IDs are linked to Amazon.com public profiles. Amazon.com may disclose worker information. Additionally, worker information may be available to others (who submit a request) for tax reporting purposes.
MTurk worker IDs will only be collected for the purposes of distributing compensation and will not be associated with survey responses. This means that there will be no way for anybody to ever link your data or the results of the study to your identity. MTurk worker IDs will be erased from our records after compensation has been distributed.
Participants' de-identified data may be used for future research without additional consent.

What if you want to stop before your part in the study is complete? You can withdraw from this study at any time.

Will you receive anything for being in this study? Will it cost anything? You will receive a monetary compensation of $2.00 after completing this study. At the end of the survey, you will receive a code that will enable you to receive compensation for taking the survey. There are no

costs associated with being in the study.

What if you have questions about this study? You have the right to ask, and have answered, any questions you may have about this research. If you have any questions, complaints or concerns about this study, you should contact the researcher listed below:
Chandler Carter – chanclay@live.unc.edu

What if you have questions about your rights as a research participant? All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns, or if you would like to obtain information or offer input, please contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Please note that you must be 18 years old or older and identify as female to participate in this study.

By clicking "I consent" below and advancing to the next page, you are agreeing to be a participant in this study.
   I consent

Goal Orientation – goal setting

Thank you for participating! First, we will ask you about your health goals and attitudes. Please answer as best as you can. There are no right or wrong answers.

Have you ever set a goal to lose weight?

- Yes, within the last year
- Yes, over a year ago
- No, never

Goal Orientation – Own goal self-efficacy, personal struggle, goal importance

Overall, how confident are you that you can/were you that you could achieve your weight-loss goal?

		Moderately		
Not at all confident		confident		Very confident
1	2	3	4	5

Are you/were you struggling to achieve this weight-loss goal?

Not at all		Moderately so		Very much so
1	2	3	4	5

How important is/was this weight-loss goal to you?

Not at all important		Moderately important		Very important
1	2	3	4	5

Attitudes toward diet/exercise

How interested are you in the following diet and exercise behaviors?
Running?

Not at all interested		Moderately interested		Very interested
1	2	3	4	5

Yoga?

Not at all interested		Moderately interested		Very interested
1	2	3	4	5

Lifting weights?

Not at all interested		Moderately interested		Very interested
1	2	3	4	5

Being on a diet?

Not at all interested		Moderately interested		Very interested
1	2	3	4	5

Social Comparison Tendency

Now, we would like to ask you about your engagement with media content.

When you see individuals in media content (e.g. social media, magazines, TV), especially those who appear to match your gender identity, how often do you compare yourself to them...

In general?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of career success?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of eating habits?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of exercise habits?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of happiness?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of intelligence?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of physical appearance?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

In terms of popularity?

Never	Once in a while	About half of the time	Most of the time	Always
1	2	3	4	5

Stimuli Post Intro

On the next page, you will be shown an image and some text. Please look at the image and read the entire text. Then, press the arrow to continue.

End of Block: Stimuli Intro

Stimulus Feed Intro

On the next page, you will be shown four images and some text. Please look at the four images and read all of the text. Then, press the arrow to continue.

[SEE APPENDIX B FOR POST AND FEED STIMULI]

Start of Block: Post-Exposure - Hopefulness/Inspiration

Post-Exposure - Hopefulness/Inspiration

Now, we would like to ask you a couple questions about how you are feeling right now after seeing the Instagram [post/feed].

How hopeful do you currently feel after having seeing the Instagram [post/feed]?

Not at all hopeful		Moderately hopeful		Very hopeful
1	2	3	4	5

How inspired do you currently feel after having seeing the Instagram [post/feed]?

Not at all inspired		Moderately inspired		Very inspired
1	2	3	4	5

Post-Exposure1 - State Social Comparison

The next questions will ask about the woman in the Instagram [post/feed] we just showed you.

Thinking about your experiences managing your weight, which of the following best describes how you think your experiences with managing your weight compare to those of the woman in the Instagram [post/feed] we showed you?

My experiences managing my weight have been...

Much worse	Slightly worse	Neither better nor worse	Slightly better	Much better
1	2	3	4	5

Which of the following best describes how you think your **body size** compares to the body size of the woman in the Instagram [post/feed] we showed you?

My body size is...

Much less ideal	Slightly less ideal	Neither more nor less ideal	Slightly more ideal	Much more ideal
1	2	3	4	5

Which of the following best describes how you think your **personality** compares to the personality of the woman in the Instagram [post/feed] we showed you?

My personality is...

Much less appealing	Slightly less appealing	Neither more nor less appealing	Slightly more appealing	Much more appealing
1	2	3	4	5

Post-Exposure1 – Target Appeal

In your opinion, how likable is the woman in the Instagram [post/feed]?

Not at all likeable		Moderately likeable		Very likeable
1	2	3	4	5

Post-Exposure1 - Perceived Similarity - Person

How much do you agree or disagree with the following statements about the woman in the [post/feed], on a scale from 1-Strongly disagree to 5-Strongly agree?

She seems similar to the person I am

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

She seems to think like me

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

Post-Exposure1 - Perceived Similarity - Body_Eating

How much do you agree or disagree with the following statements about the woman in the Instagram [post/feed]'s body and health habits?

She seems to have exercise habits that are similar to mine

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

She seems to have eating habits that are similar to mine

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

Her body seems similar to mine

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

She looks like me

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

Post-Exposure1 - Perceived Similarity - Journey

How much do you agree or disagree with the following statements about the woman's weight-loss journey?

Her experiences during her weight-loss journey seemed similar to mine

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

The outcome of her weight-loss journey seems similar to mine

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

Reading Check

Before the final set of questions, we'd like to get a sense of how you're feeling.

Recent research on decision making shows that choices are affected by context. Specifically, we are interested in whether you are reading directions; if not, some results may not tell us very much about the real world. To show that you have read the instructions, please ignore the question below about how you are feeling and instead check only the "none of the above" option as your answer. Thank you very much.

Please check all the words that currently describe how you are feeling.

Distressed	Enthusiastic	Nervous
Excited	Proud	Attentive
Upset	Irritable	Jittery
Scared	Alert	Afraid
Hostile	Inspired	None of the above

Final Stimuli - ThreeStrategy Post

On the next screen, you will see a screenshot of an Instagram caption that was created by the woman whose Instagram [post/feed] we showed you earlier. Please read the entire text and then press the arrow to continue.

[SEE APPENDIX B FOR STRATEGY STIMULI]

Post-Exposure2 - Self-efficacy

These next set of questions ask how you might achieve a current weight-loss goal. If you do not have a current weight-loss goal, please imagine what you might answer if you had one.

Thinking about the woman's strategy to do **yoga once or twice per week**, how **confident** are you that you could use this strategy to achieve your weight-loss goal? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

		Moderately		
Not at all confident		confident		Very confident
1	2	3	4	5

Thinking about the woman's strategy to **cut out "bad" carbs: pizza, pasta and dessert**, how **confident** are you that you could use this strategy to achieve your weight-loss goal? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

		Moderately		
Not at all confident		confident		Very confident
1	2	3	4	5

Thinking about the woman's strategy to do **a high intensity cardio workout once or twice per week**, how **confident** are you that you could use this strategy to achieve your weight-loss goal? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

		Moderately		
Not at all confident		confident		Very confident
1	2	3	4	5

Post-Exposure2 -
Intentions

Thinking about the woman's strategy to do **yoga once or twice per week**, how **likely or unlikely** would you be to use this same strategy to lose weight? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

Extremely unlikely			Neither likely nor unlikely			Extremely likely
1	2	3	4	5	6	7

Thinking about the woman's strategy to **cut out "bad" carbs (pizza, pasta and dessert) from her diet**, how **likely or unlikely** would you be to use this same strategy to lose weight? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

Extremely unlikely			Neither likely nor unlikely			Extremely likely
1	2	3	4	5	6	7

Thinking about the woman's strategy to **participate in a high intensity cardio workout once or twice per week**, how **likely or unlikely** would you be to use this same strategy to lose weight? (*If you do not have a current weight-loss goal, please imagine what you might answer if you had one.*)

Extremely unlikely			Neither likely nor unlikely			Extremely likely
1	2	3	4	5	6	7

Manipulation
Check

For the following questions, please answer based on your memory of the first Instagram [image(s)] and [caption(s)] we showed you.

Based on your memory of the first Instagram [image(s)] and [caption(s)] we showed you, which of the following describes the woman in the Instagram [post/feed]?

- She achieved her weight-loss goal
- She failed to achieve her weight-loss goal
- She is trying to achieve her weight-loss goal

Based on your memory of the first Instagram [image(s)] we showed you, how much do you think the woman in the Instagram [post/feed] [struggled/is struggling] to achieve her weight-loss goal?

Did not struggle at all/not at all struggling		Somewhat struggling/struggled		Struggling/Struggled a lot
1	2	3	4	5

How likely do you think you would be to find [a similar type of post/similar types of posts] on Instagram?

Not at all likely		Somewhat likely		Very likely	I am not knowledgeable about Instagram
1	2	3	4	5	

How much did you think the Instagram [image(s)] matched [its/their] [caption(s)]?

Did not match at all		Somewhat matched		Completely matched
1	2	3	4	5

How much do you think the Instagram [image(s)] might have been altered before being posted on Instagram?

Not at all altered	Slightly altered	Moderately altered	Heavily altered	Completely fake
1	2	3	4	5

Did the format (e.g. font, colors, symbols) of the [post/feed] match what you would expect to see on Instagram?

- Yes
- No
- I am not knowledgeable about Instagram

Desirability Scale

You are next going to read a series of statements. Please indicate how much you agree or disagree with each statement.

I am always willing to admit when I make a mistake.

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

I sometimes try to get even rather than forgive and forget.

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

I am always courteous, even to people who are disagreeable.

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

I am always a good listener, no matter whom I am talking to.

Strongly disagree		Neither agree nor disagree		Strongly agree
1	2	3	4	5

Demographics -
Debrief

Thank you! Now, we just have some final questions for you.

Which of the following best describes your gender?
- Man
- Woman
- Trans man
- Trans woman
- Genderqueer or gender fluid
- Not listed

- Prefer not to disclose

What is your current age? Please type in the number below.

If you had to choose, which of the following best represents your ancestry or heritage? Please choose all that apply.

American Indian or Alaskan Native	Native Hawaiian or Pacific Islander
Asian	White
Black or African American	Latinx

Thank you very much for your participation in this research study!

For this study, it was important to withhold some information about the purpose of the study. Now that your participation is completed, I will describe the withheld information to you.

IRB Study # 19-3161
Title of Study: Social Media/Selfie Study
Principal Investigator: Chandler Carter
Principal Investigator Email Address: chanclay@live.unc.edu

What you should know about this study
The goal of this study is to determine the effects of exposure to social media posts describing weight-loss journeys. This is important in order to understand what motivates people to achieve their weight-loss goals. We asked you to look at a social media post(s) as well as to indicate how you compare yourselves to the individual in the post(s), your perception, emotions and your intention to emulate the individual's weight-loss strategy.

Answering questions that involve comparing yourself to other people can cause distress. Collecting this information, however, can help us understand how to better inspire individuals to achieve their weight-loss goals. Please remember that social media can often reflect a positivity bias where people put forward their best or ideal selves and omit their struggles, their negative experiences and their authentic selves.

If you have questions
You may contact me at chanclay@live.unc.edu. If you have any questions or concerns regarding your rights as a research participant in this study, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Please do not disclose research procedures and/or purpose to anyone who might participate in this study in the future as this could affect the results of the study.

If you have concerns
If you feel upset after having completed the study or find that some questions or aspects of the study were distressing, talking with a qualified clinician may help. If you feel you would like assistance, please use the American Psychological Association's psychologist locator,

locator.apa.org, to find someone qualified near you.

Thanks again!

End of Block: Demographics

APPENDIX B: EXAMPLES OF INSTAGRAM POST/FEED STIMULI

Health Behavior Stimuli – Study 1 Instagram Post Version

get_jazzed22

get_jazzed22 Well, I didn't achieve my weight-loss goal. I resisted temptations to overindulge in my favorite comfort foods: pizza, pasta and cookies. I made sure I had no excuses to skip my workout and always gave it my full effort but wasn't able to achieve my goal.

30 minutes ago

Health Behavior Stimuli – Study 2 Instagram Feed Version

get_jazzed22

get_jazzed22 Well, I didn't achieve my weight-loss goal. Along the way, there were many moments where I was very doubtful that I could do it. On some days, I gave into temptations to overindulge in my favorite comfort foods, which made me feel terrible and discouraged. Or some days, I would find excuses to skip my workout or put in a fraction of the full effort. On many of these days, I felt like a failure and if I couldn't shake off feelings of hopelessness, the entire week was filled with attempts to motivate myself to get back on track. It was always difficult to get back up and I tried my best to do it but I wasn't able to reach my goal.

1 hour ago

get_jazzed22

46 likes
get_jazzed22 Miss you, Belize!
View all 10 comments
chels.johnson Beautiful!! Why wasn't I invited??
1 week ago

get_jazzed22

37 likes
get_jazzed22 Feeling like my workout didn't count for much since I gave into some "bad" carbs that were tempting me afterwards. It's frustrating because I reached for so many health snacks that should have satisfied me, but I still ended up eating cookies. I just don't know if I have the self-control to lose weight. I'll keep trying but it's hard not to feel hopeless sometimes.
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get_jazzed22

87 likes
get_jazzed22 Best concert ever! Such a great voice and every song is my favorite song! #talented
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red.jacket.ray talented?? hmmmmmmmm
4 weeks ago

88

Health Behavior Stimuli – Study 1 and 2: Weight-Loss Strategy Post

get_jazzed22 My three weight-loss strategies:
1) Do yoga 1x or 2x per week,
2) Cut out "bad" carbs: pizza, pasta and dessert, from my diet
3) Do a High Intensity Interval Training (HIIT) workout 1x or 2x per week

1 hour ago

APPENDIX C: TABLES

Table 2. Hypothesis table.

Hypothesis	Supported: Yes (Y)/No (N)/Partial(P)	
	Study 1: Post	Study 2: Feed
H1a – direct effect of goal outcome on diet intent (success = higher intent)	N	N (Opposite)
H1b – direct effect of goal outcome on cardio intent (success = higher intent)	Y	N
H1c – direct effect of goal outcome on yoga intent (success = higher intent)	N	N
H2 – main effect of goal outcome on self-efficacy (success = higher efficacy)	N	N
H3 – main effect of goal outcome on social comparison (success = upward comparison)	P (Weight management social comparison; Diet only)	N
H4 – struggle match (personal X target struggle) on (higher) perceived similarity	N	N
H5 – struggle match (personal X target struggle) on (higher) hope/inspiration	N	N
H6a – self-efficacy to diet intent (positive)	Y	Y
H6b – self-efficacy to cardio intent (positive)	Y	Y
H6c – self-efficacy to yoga intent (positive)	Y	Y
H7a – perceived similarity to diet intent (positive)	N	N
H7b – perceived similarity to cardio intent (positive)	N	Y
H7c – perceived similarity to yoga intent (positive)	N	N

Table 2 cont. Hypothesis table.

Hypothesis	Supported: Yes (Y)/No (N)/Partial (P)	
	Study 1: Post	Study 2: Feed
H8a – hope/inspiration to diet intent (positive)	N	N
H8b – hope/inspiration to cardio intent (positive)	N	N (Opposite)
H8c – hope/inspiration to yoga intent (positive)	N	N
H9a – social comparison to diet intent (upward-positive)	N	N
H9b – social comparison to cardio intent (upward-positive)	N	N
H9c – social comparison to yoga intent (upward-positive)	N	N

Table 3. Bivariate correlations for Study 1 variables.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Social comparison - weight management	1										
2. Social comparison - body	.54**	1									
3. Social comparison - personality	.36**	.23**	1								
4. Perceived similarity	-.06	-.16*	-.04	1							
5. Hope/inspiration	.06	.11	.01	.40**	1						
6. Target appeal	.03	-.01	-.26**	.40**	.41**	1					
7. Yoga self-efficacy	.06	.16*	.07	.14	.34**	.17*	1				
8. Diet self-efficacy	.20**	.12	.25**	.06	.27**	.08	-.01	1			
9. Cardio self-efficacy	.13	.10	.04	0	.04	0.09	.12	-.05	1		
10. Intention to model yoga	.12	0.11	0	.16*	.25**	.24**	.73**	-.02	.11	1	
11. Intention to model diet	.18*	0.07	.23**	.17*	.21**	.03	-.13	.68**	-.06	-.16*	1

Table 3 cont. Bivariate correlations for Study 2 variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12. Intention to model cardio	.19*	.22**	.05	.19*	.17*	.08	.05	.10	.26**	.05	.07	1						
13. Interest in yoga	.12	.14	.05	.08	.14	.13	.57**	-.08	.10	.74**	-.16*	-.01	1					
14. Interest in dieting	.09	-.13	.19**	.28**	.14	-.02	-.04	.32**	-.03	-.12	.36**	.07	-.07	1				
15. Interest in running	.25**	.27**	.08	.10	.13	-.02	.07	-.01	.13	.10	-.12	.47**	.08	.12	1			
16. Social comparison tendency	-.01	.04	.09	.27**	.26**	.13	.21**	.13	.03	.21**	.12	.22**	.22**	.34**	.21**	1		
17. Own goal self-efficacy	.46**	.36**	.25**	-.02	.24**	.19*	.18*	.28**	.15*	.18*	.19*	.19*	.10	.21**	.22**	.01	1	
18. Own goal importance	.01	-.18*	.08	.14	.09	.07	-.04	.12	-.05	-.06	.18*	.14	.05	.36**	.08	.10	.26**	1
19. Personal struggle	-.41**	-.41**	-.08	.30**	001	-.02	.07	-.16*	-.11	.11	-.08	-.08	.14	.14	-.10	.19*	-.45**	.11

Table 4. Bivariate correlations for Study 2 variables.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. Social comparison - weight management	1										
2. Social comparison - body	.54**	1									
3. Social comparison - personality	.39**	.21**	1								
4. Perceived similarity	-.01	0	.02	1							
5. Hope/inspiration	-.22**	-.32**	-.12	.52**	1						
6. Target appeal	-.11	-.04	-.21**	.46**	.36**	1					
7. Yoga self-efficacy	0	.06	.10	.19*	.20*	.20**	1				
8. Diet self-efficacy	.24**	.09	.20**	.21**	.05	.06	.06	1			
9. Cardio self-efficacy	.15	.17*	.11	.27**	.26**	.17*	.25**	.30**	1		
10. Intention to model yoga	.01	.01	.05	.24**	.24**	.18*	.78**	.08	.20*	1	
11. Intention to model diet	.20*	.09	.15	.21**	.10	.00	.06	.64**	.12	.04	1

Table 4 cont. Bivariate correlations for Study 2 variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
12. Intention to model cardio	.12	.11	.11	.29**	.34**	.26**	.23**	.16*	.77**	.19*	.04	1						
13. Interest in yoga	.15	.11	.04	.22**	.14	.17*	.51**	.03	.12	.63**	.03	.14	1					
14. Interest in dieting	-.01	-.08	.01	.23**	.37**	.15	.23**	.24**	.34**	.13	.32**	.24**	.10	1				
15. Interest in running	.23**	.36**	.07	.28**	.18*	.10	.11	.16*	.36**	.06	.10	.36**	.21**	.20*	1			
16. Social comparison tendency	.12	.05	.06	.18*	.32**	.02	.22**	.08	.26**	.22**	.10	.27**	.33**	.36**	.36**	1		
17. Own goal self-efficacy	.44**	.33**	.32**	.30**	-.09	.06	.10	.33**	.26**	.13	.28**	.25**	.23**	.15	.29**	.16	1	
18. Own goal importance	.12	-.07	.06	.18*	.15	.20*	.07	.23**	.19*	.04	.27**	.18*	.13	.33**	.17*	.16	.28**	1
19. Personal struggle	-.37**	-.32**	-.31**	.01	.27**	.15	.09	-.10	-.12	.09	.03	-.09	.05	.21**	-.11	.16	-.41**	.19*

Table 5. Study 1: Initial regressions of goal outcome on intention to model the diet strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and diet self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes regressions predicting diet self-efficacy and perceived similarity.

Predictor	B	SE B
Diet self-efficacy		
Failed vs. achieved	-1.26	.64
Failed vs. in progress	-.79	.57
Target struggle	-.31	.41
Failed vs. achieved X Target struggle	.37	.64
Failed vs. in progress X Target struggle	-.19	.57
Own struggle	-.36**	.12
Failed vs. achieved X Own struggle	.49**	.17
Failed vs. in progress X Own struggle	.29	.16
Own struggle X Target struggle	-.05	.11
Failed vs. achieved X Own struggle X Target struggle	-.09	.17
Failed vs. in progress X Own struggle X Target struggle	.01	.16
Own goal importance (covariate)	-.05	.10
Own goal self-efficacy (covariate)	.19	.10
Interest in dieting (covariate)	.28***	.07
$R^2 = .25, F(14,157) = 3.70, p < .001$		
Perceived similarity		
Failed vs. achieved	1.54**	.49
Failed vs. in progress	.81	.44
Target struggle	.24	.31
Failed vs. achieved X Target struggle	-.28	.49
Failed vs. in progress X Target struggle	-.45	.44
Own struggle	-.44***	.09
Failed vs. achieved X Own struggle	-.48***	.13
Failed vs. in progress X Own struggle	-.21	.12
Own struggle X Target struggle	-.05	.08
Failed vs. achieved X Own struggle X Target struggle	.15	.13
Failed vs. in progress X Own struggle X Target struggle	.15	.12
Own goal importance (covariate)	.05	.08
Own goal self-efficacy (covariate)	.07	.07
Interest in dieting (covariate)	.11*	.05
$R^2 = .27, F(14,157) = 4.13, p < .001$		

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as $0 =$ failed, $1 =$ achieved, $2 =$ in progress. Target struggle is coded as $-1 =$ no struggle, $1 =$ struggle; *$p < .05$. **$p < .01$. ***$p < .001$.

Table 6. Study 1: Final regression model predicting intention to model the diet strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and diet self-efficacy are mediators, and own struggle and target struggle are moderators.

	B	SE *B*
Intention to model diet (DV)		
Failed vs. achieved	.18	.79
Failed vs. in progress	1.03	.69
Target struggle	-.86	.47
Failed vs. achieved X Target struggle	2.27**	.75
Failed vs. in progress X Target struggle	.44	.66
Own struggle	.14	.16
Failed vs. achieved X Own struggle	-.28	.21
Failed vs. in progress X Own struggle	-.40*	.19
Own struggle X Target struggle	.24	.13
Failed vs. achieved X Own struggle X Target struggle	-.53**	.20
Failed vs. in progress X Own struggle X Target struggle	-.10	.18
Social comparison weight management	-.07	.14
Social comparison body	.03	.10
Social comparison personality	.00	.01
Self-efficacy diet	1.00***	.09
Target appeal	-.11	.13
Perceived similarity	.11	.13
Hope/inspiration	.07	.11
Own goal importance (covariate)	.10	.12
Own goal self-efficacy (covariate)	-.05	.12
Interest in dieting (covariate)	.21*	.09
$R^2 = .58, F(21,150) = 9.83, p < .001$		

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p* < .05. **p* < .01. ***p* < .001.

Table 7. Study 1: Initial regressions of goal outcome on intention to model the cardio strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and cardio self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes the regression predicting perceived similarity.

Predictor	*B*	SE *B*
Perceived similarity		
Failed vs. achieved	1.54**	.49
Failed vs. in progress	.93*	.44
Target struggle	.23	.32
Failed vs. achieved X Target struggle	-.44	.49
Failed vs. in progress X Target struggle	-.44	.44
Own struggle	.50***	.09
Failed vs. achieved X Own struggle	-.47***	.13
Failed vs. in progress X Own struggle	-.24	.12
Own struggle X Target struggle	-.05	.08
Failed vs. achieved X Own struggle X Target struggle	.19	.13
Failed vs. in progress X Own struggle X Target struggle	.15	.12
Own goal self-efficacy (covariate)	.09	.05
Interest in running (covariate)	.11	.07
$R^2 = .26$, $F(13,158) = 4.21$, $p < .001$		

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 8. Study 1: Final regression model predicting intention to model the cardio strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and cardio self-efficacy are mediators, and own struggle and target struggle are moderators.

	B	SE B
Intention to model cardio strategy		
Failed vs. achieved	2.43*	1.03
Failed vs. in progress	.55	.91
Target struggle	1.25*	.63
Failed vs. achieved X Target struggle	1.50	.98
Failed vs. in progress X Target struggle	-1.36	.87
Own struggle	.23	.21
Failed vs. achieved X Own struggle	-.73**	.28
Failed vs. in progress X Own struggle	-.16	.25
Own struggle X Target struggle	-.28	.17
Failed vs. achieved X Own struggle X Target struggle	-.49	.27
Failed vs. in progress X Own struggle X Target struggle	.29	.24
Self-efficacy cardio	.05**	.02
Target appeal	-.07	.17
Perceived similarity	.28	.18
Hope/inspiration	.15	.15
Social comparison weight management	.04	.18
Social comparison body	.08	.13
Social comparison personality	.01	.02
Own goal self-efficacy	.12	.15
Interest in running	.45***	.10

$$R^2 = .40, F(20,151) = 5.02, p < .001$$

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 9. Study 1: Initial regressions of goal outcome on intention to model the yoga strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and yoga strategy are mediators, and own struggle and target struggle are moderators. The table includes regressions predicting yoga self-efficacy and perceived similarity.

	B	SE B
Yoga self-efficacy		
Failed vs. achieved	.44	.71
Failed vs. in progress	-.69	.64
Target struggle	1.20**	.45
Failed vs. achieved X Target struggle	-2.42***	.71
Failed vs. in progress X Target struggle	-1.28*	.64
Own struggle	-.04	.13
Failed vs. achieved X Own struggle	.03	.19
Failed vs. in progress X Own struggle	.25	.18
Own struggle X Target struggle	-.28*	.12
Failed vs. achieved X Own struggle X Target struggle	.57**	.19
Failed vs. in progress X Own struggle X Target struggle	.29	.18
Own goal self-efficacy (covariate)	.18	.10
Interest in dieting (covariate)	.56***	.06
$R^2 = .42, F(13,158) = 8.7, p < .001$		
Perceived similarity		
Failed vs. achieved	1.56**	.50
Failed vs. in progress	.87	.45
Target struggle	.28	.32
Failed vs. achieved X Target struggle	-.33	.50
Failed vs. in progress X Target struggle	-.55	.45
Own struggle	.48***	.09
Failed vs. achieved X Own struggle	-.49***	.13
Failed vs. in progress X Own struggle	-.23	.13
Own struggle X Target struggle	-.07	.09
Failed vs. achieved X Own struggle X Target struggle	.17	.13
Failed vs. in progress X Own struggle X Target struggle	.18	.13
Own goal self-efficacy (covariate)	.12	.07
Interest in dieting (covariate)	.04	.05
$R^2 = .24, F(13,158) = 3.90, p < .001$		

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 10. Study 1: Final regression model predicting intention to model the yoga strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity and hope/inspiration are mediators, and own struggle and target struggle are moderators.

	B	SE *B*
Intention to model yoga strategy		
Failed vs. achieved	.20	.79
Failed vs. in progress	-.63	.69
Target struggle	.46	.47
Failed vs. achieved X Target struggle	-.05	.79
Failed vs. in progress X Target struggle	-.20	.68
Own struggle	-.04	.16
Failed vs. achieved X Own struggle	.03	.21
Failed vs. in progress X Own struggle	.30	.19
Own struggle X Target struggle	-.09	.13
Failed vs. achieved X Own struggle X Target struggle	-.09	.21
Failed vs. in progress X Own struggle X Target struggle	.01	.19
Social comparison weight management	.21	.14
Social comparison body	-.13	.10
Social comparison personality	.-.01	.01
Self-efficacy yoga	.63***	.09
Target appeal	.30*	.13
Perceived similarity	.06	.14
Hope/inspiration	-.09	.12
Own goal self-efficacy	.07	.12
Interest in yoga	.72***	.08
$R^2 = .72$, $F(20,151) = 19.50$, $p < .001$		

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 11. Study 2: Initial regressions of goal outcome on intention to model the diet strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and diet self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes the regression predicting hope/inspiration.

Predictor	*B*	SE *B*
Hope/inspiration		
Failed vs. achieved	-1.03	.70
Failed vs. in progress	.54	.60
Target struggle	-.17	.40
Failed vs. achieved X Target struggle	.57	.70
Failed vs. in progress X Target struggle	-.16	.60
Own struggle	-.04*	.12
Failed vs. achieved X Own struggle	.50	.20
Failed vs. in progress X Own struggle	.04	.16
Own struggle X Target struggle	.08	.11
Failed vs. achieved X Own struggle X Target struggle	-.20	.20
Failed vs. in progress X Own struggle X Target struggle	-.02	.16
Own goal self-efficacy (covariate)	.31**	.09
Own goal importance (covariate)	.01	.11
Interest in dieting (covariate)	.16*	.07
$R^2 = .26$, $F(14,139) = 3.53$, $p < .001$		

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p* < .05. ***p* < .01. ****p* < .001.

Table 12. Study 2: Final regression model predicting intention to model the diet strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and diet self-efficacy are mediators, and own struggle and target struggle are moderators.

Predictor	B	SE B
Intention to model diet strategy		
Failed vs. achieved	-1.94*	.85
Failed vs. in progress	-1.50*	.73
Target struggle	-.16	.48
Failed vs. achieved X Target struggle	.54	.86
Failed vs. in progress X Target struggle	-.12	.73
Own struggle	-.08	.15
Failed vs. achieved X Own struggle	.51*	.24
Failed vs. in progress X Own struggle	.38	.20
Own struggle X Target struggle	.02	.13
Failed vs. achieved X Own struggle X Target struggle	-.15	.24
Failed vs. in progress X Own struggle X Target struggle	.11	.20
Social comparison weight management	-.01	.13
Social comparison body	.07	.09
Social comparison personality	.05	.12
Self-efficacy diet	.75***	.09
Target appeal	-.17	.12
Perceived similarity	-.02	.14
Hope/inspiration	.12	.13
Own goal importance	.15	.13
Own goal self-efficacy	.06	.13
Interest in dieting	.14	.09

$R^2 = .52, F(21,132) = 6.69, p < .001$

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 13. Study 2: Initial regressions of goal outcome on intention to model the cardio strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and cardio self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes regressions predicting cardio self-efficacy and hope/inspiration.

	B	SE B
Cardio self-efficacy		
Failed vs. achieved	-1.28	.80
Failed vs. in progress	-1.16	.68
Target struggle	1.05*	.45
Failed vs. achieved X Target struggle	-2.41**	.80
Failed vs. in progress X Target struggle	-.15	.68
Own struggle	-.39**	.14
Failed vs. achieved X Own struggle	.42	.23
Failed vs. in progress X Own struggle	.33	.19
Own struggle X Target struggle	-.32*	.13
Failed vs. achieved X Own struggle X Target struggle	.72**	.23
Failed vs. in progress X Own struggle X Target struggle	.02	.19
Own goal self-efficacy (covariate)	-.02	.11
Own goal importance (covariate)	.16	.12
Interest in running (covariate)	.25***	.07
Social comparison tendency (covariate)	.23	.12
$R^2 = .29, F(15,138) = 3.77, p < .001$		
Hope/inspiration		
Failed vs. achieved	-1.10	.70
Failed vs. in progress	.44	.60
Target struggle	-.04	.70
Failed vs. achieved X Target struggle	.26	.59
Failed vs. in progress X Target struggle	-.17	.12
Own struggle	-.03	.20
Failed vs. achieved X Own struggle	.54**	.20
Failed vs. in progress X Own struggle	.08	.16
Own struggle X Target struggle	.03	.11
Failed vs. achieved X Own struggle X Target struggle	-.09	.20
Failed vs. in progress X Own struggle X Target struggle	-.001	.16
Own goal self-efficacy (covariate)	.03	.10
Own goal importance (covariate)	.25	.10
Interest in running (covariate)	.16*	.06
Social comparison tendency (covariate)	.05	.10

Table 13 cont. Study 2: Initial regressions of goal outcome on intention to model the cardio strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and cardio self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes regressions predicting cardio self-efficacy and hope/inspiration.

	B	SE B

$$R^2 = .28, F(15,138) = 3.61, p < .001$$

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as $0 =$ failed, $1 =$ achieved, $2 =$ in progress. Target struggle is coded as $-1 =$ no struggle, $1 =$ struggle; *$p < .05$. **$p < .01$. ***$p < .001$.

Table 14. Study 2: Final regression model predicting intention to model the cardio strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and cardio self-efficacy are mediators, and own struggle and target struggle are moderators.

Predictor	*B*	SE *B*
Intention to model cardio strategy		
Failed vs. achieved	-1.46	.83
Failed vs. in progress	-1.62*	.71
Target struggle	.11	.47
Failed vs. achieved X Target struggle	-.04	.86
Failed vs. in progress X Target struggle	.06	.70
Own struggle	-.34*	.15
Failed vs. achieved X Own struggle	.47*	.24
Failed vs. in progress X Own struggle	.51**	.19
Own struggle X Target struggle	-.02	.13
Failed vs. achieved X Own struggle X Target struggle	-.04	.24
Failed vs. in progress X Own struggle X Target struggle	-.12	.19
Social comparison weight management	.05	.13
Social comparison body	-.01	.10
Social comparison personality	.14	.12
Self-efficacy cardio	.99***	.09
Target appeal	.24*	.11
Perceived similarity	.46**	.14
Hope/inspiration	-.27*	.12
Own goal importance (covariate)	-.02	.12
Own goal self-efficacy (covariate)	.06	.12
Social comparison tendency (covariate)	.07	.12
Interest in running (covariate)	.11	.08

$R^2 = .69$, $F(21,132) = 14.30$, $p < .001$.

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p < .05. **p < .01. ***p < .001.

Table 15. Study 2: Initial regressions of goal outcome on intention to model the yoga strategy when state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and yoga self-efficacy are mediators, and own struggle and target struggle are moderators. The table includes the regression predicting hope/inspiration.

Predictor	B	SE B
Hope/inspiration		
Failed vs. achieved	-.90	.70
Failed vs. in progress	.63	.60
Target struggle	.-.15	.40
Failed vs. achieved X Target struggle	.58	.70
Failed vs. in progress X Target struggle	.10	.60
Own struggle	-.04	.12
Failed vs. achieved X Own struggle	.49*	.20
Failed vs. in progress X Own struggle	.05	.16
Own struggle X Target struggle	.05	.11
Failed vs. achieved X Own struggle X Target struggle	-.18	.20
Failed vs. in progress X Own struggle X Target struggle	-.07	.16
Own goal self-efficacy (covariate)	.25*	.10
Own goal importance (covariate)	.05	.10
Interest in yoga (covariate)	.15*	.07
Social comparison tendency (covariate)	.08	.10
$R^2 = .28$, $F(15,138) = 3.52$, $p < .001$		

Note. Only significant models are included (at $p < .05$). Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *$p < .05$. **$p < .01$. ***$p < .001$.

Table 16. Study 2: Final regression model predicting intention to model the yoga strategy when goal outcome is the focal predictor, state social comparison (weight management, body, personality), target appeal, perceived similarity, hope/inspiration and yoga self-efficacy are mediators, and own struggle and target struggle are moderators.

Predictor	B	SE B
Failed vs. achieved	-.40	.89
Failed vs. in progress	-.65	.76
Target struggle	.12	.49
Failed vs. achieved X Target struggle	-.85	.90
Failed vs. in progress X Target struggle	-.46	.78
Own struggle	-.01	.16
Failed vs. achieved X Own struggle	.09	.25
Failed vs. in progress X Own struggle	.09	.21
Own struggle X Target struggle	.01	.14
Failed vs. achieved X Own struggle X Target struggle	.22	.26
Failed vs. in progress X Own struggle X Target	.15	.21
Social comparison weight management	.001	.14
Social comparison body	-.08	.10
Social comparison personality	-.11	.13
Self-efficacy yoga	.97***	.09
Target appeal	-.13	.12
Perceived similarity	.10	.15
Hope/inspiration	.16	.14
Own goal self-efficacy (covariate)	.12	.13
Own goal importance (covariate)	-.14	.13
Interest in yoga (covariate)	.45***	.09
Social comparison tendency (covariate)	-.19	.13

$$R^2 = .72, F(22,131) = 15.25, p < .001$$

Note. Goal outcome is indicator coded as 0 = failed, 1 = achieved, 2 = in progress. Target struggle is coded as -1 = no struggle, 1 = struggle; *p* < .05. **p* < .01. ***p* < .001.

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