# WHICH FACTORS WILL HELP WOMEN TO SET MORE REALISTIC WEIGHT LOSS GOALS



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#### **Abstract**

The goal of this master thesis is to discover which factors can help women set a more realistic weight loss goal. The first part of the thesis, the literature research of the False Hope Syndrome, shows six important factors that influence the perception of women about losing weight. This research aims to identify which of the following six factors influence the weight loss goal set by women: general overconfidence; individuals' thinness ideal; the newness of the taken approach compared to the previous approaches; individuals' internal locus of control; and the number of previous weight loss attempts. In the study 244 women who wanted to lose three kilograms or more have participated. Of these participants 35% set an unrealistic weight loss goal. With a regression analysis the influence of the independent variable on the dependent variable: BMI Point loss was tested. The analysis showed that only two factors seem to have a significant effect on the weight loss goal setting by women. The variables: perceived newness of the new diet and number of previous attempts showed to have an influence at the weight loss goal settings by women. To help women set a more realistic weight loss goal it is important to give them a realistic overview about their own abilities and strengths. They shouldn't be influenced by the perceived newness of a new diet and the promises that this new diet gives.

# **Preface**

The following master thesis is written as part of the master Consumer, Economics and Management studies at Wageningen University. The subject of the thesis is realistic weight loss goal setting by women and is written for the Marketing Consumer Behaviour department. I worked on this thesis with pleasure and I enjoyed carrying out a small research by myself.

The results of this master thesis were made possible by various people who helped me throughout. I would like to thank these people for their time and effort.

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I hope you will enjoy reading my master thesis.
Kind regards,
Rudy Ruijter

#### summary

#### Introduction

People have the tendency to keep making new dieting plans even despite their previous unsuccessful attempts. The failure of a lot of diets is due to the fact that dieters have unrealistic high expectations of the amount of weight they can lose. A more realistic weight loss goal will help women in losing their weight. The theory of the false hope syndrome describes a couple of key factors that influence women's perception of losing weight. This research aims to identify which of those key factors will have an influence at weight loss goal setting by women. The factors used in this research are: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts.

#### Theoretical background

People with high confidence tend to have a superior and extensive positive view about themselves. This self-image can turn into overestimating themselves, leading to a higher confidence in succeeding at their new weight loss attempt and this overconfidence in turn leads to a high and unrealistic weight loss goal. People are constantly exposed to thinness standards in media and from peers, these set a norm that women have to be thin in order to be seen as attractive and successful. Off course most women want to be attractive and successful therefore they will set higher weight loss goals. Women have a lot of faith in new diets and diet gurus who make women believe that the perfect body is around the corner. With the faith women put in these new diets and diet gurus they will make even higher weight loss goals. Women with an internal locus of control believe they can influence their own future and can protect themselves more easily from external temptations. Women with an internal locus of control will set a lower weight loss goal for themselves. While people with an external locus of control believe that the reasons why they failed were outside their control. They believe that things in live happen by chance or luck and will make higher weight loss goals. Women who already tried to lose weight a couple of times, are better in setting a realistic weight loss goal. They learned from their previous weight loss attempts and will make a more realistic plan in their new weight loss attempt.

#### Method

For this research a survey was conducted with as dependent variable: the amount of BMI points that women want to lose. In this survey the dependent and the independent variable were measured independently from each other. The survey was sent to a mailing list of Wageningen University and was put online at social media (Facebook). A regression analysis was performed to analyse the influence of the independent variable on the dependent variable.

#### Results

In this study 244 women who wanted to lose more than three kilograms participated. Of these 244 women 35% wanted to lose more than 10% of their initial weight and set an unrealistic weight loss goal for themselves. In general women in the sample suffered from general underconfidence instead of general overconfidence. The influence of general overconfidence at BMI Point loss could not be proven. Both of the variables internal locus of control and external locus of control were not reliable enough to show any influence. The independent variables, perceived newness of a new diet and number of previous weight loss attempts both showed a significant effect in the regression analyse at the BMI Point loss with women. On the other hand, the independent variable thinness ideal had no significant effect at the BMI Point loss.

### **Discussion and conclusion**

Women in this study are influenced by the perceived newness of a new diet. Although women believe that they are not influenced by the believes and promises made by a diet guru or advertisement campaign of a new diet, unconsciously they will set a higher weight loss goal for themselves. The observable thing is that women unconsciously get influenced by new diets and diet gurus, they do not get influenced by the western sociocultural norm of being thin. A possible explanation could be that media and society still emphasize the importance of being thin but relate it to health instead of emphasizing being thin as a beauty ideal. When women get older they are more aware of their own abilities and what is realistic and what is not. After trying multiple times to lose weight, women will get a better idea of their own capabilities and will set more realistic weight loss goals. Women often underestimate their own performance level and instead of feeling confident in their weight loss attempt

they will suffer from underconfidence. The general underconfidence found in this sample of women is the reason why there is no significant effect found with general overconfidence at the BMI Point loss. 35% of the women set an unrealistic high weight loss goal, it is important to help them set a realistic weight loss goal and increase the possibility to succeed at their new weight loss attempt. This could be done by helping women to give a realistic view about their own abilities and strengths and to not let them get influenced by the perceived newness of a new diet and the promises that this new diet gives.

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#### 1. Introduction

Overweight and obesity are still considered to be one of the main health problems. In 2000 around 250 million people were obese in the world, and the World Health Organization estimated that in 2025, 300 million people around the world is obese (Visscher, & Seidell, 2001). Obesity is not only a global problem but is also a local problem in the Netherlands (Seidell, De Groot, Van Sonsbeek, Deurenberg, & Hautvast, 1986). In the Netherlands 56.4% of the male population is overweight and 48.7% of the female population. Of those 56.4% over weight men in the Netherlands is 18.1% obese and 19.5% of the female population in the Netherlands is obese (World Health Organization, 2013). The prevalence of overweight and obesity increases when people get older. Data shows that 67% of the women who are older than 50 are overweight and 65% of the males who are over 50 years old are overweight. The awareness of this important health issue among the Dutch population has increased (van den Hurk, Van Dommelen, van Buuren, Verkerk & HiraSing, 2007). Due to the increased awareness, the prevalence of overweight people in the Netherlands slightly decreased in the last couple of years (World Health Organization, 2013). National data collected in 2011 presented that 51% of the males and 42% of the women in the Netherlands are overweight, of which 10% of the males are obese and 12% of the females are obese. Although the percentages of overweight men and women slightly decreased in the last couple of years, still almost half of the Dutch population need to lose weight (Van de Hurk, et al., 2007).

Besides the physical limitation for people who are overweight and obese, another common consequence is an increased body image dissatisfaction (Jackson, Grilo & Masheb, 2000). This dissatisfaction is related to changes in the body during puberty the social and cultural norm of being thin, peer acceptance and media influences (Cupola, Orsel, Akdemir & Ozbay 2005). People who are teased about their weight and shape have a higher risk of depression and lower self-esteem and are more insecure and dissatisfied with their bodies (Jones, Vigfusdottir, & Lee, 2004). Body image dissatisfaction is a frequent and an important motive for people to try to lose some weight.

While almost half of the population in the Netherlands is overweight or obese, a new global trend of healthy eating and dieting is rising (Neumark-Sztainer, Wall, Larson, Story, Fulkerson, Eisenberg, & Hannan, 2012). 91% of the population tried to lose weight previously and even 72% tried to lose weight repeatedly (Klem, Wing, McGuire, Seagle & Hill, 1997). In the survey of Klem, et al., (1997) 43% of the population found it very difficult to lose weight and maintain at their ideal body weight. While dieting seems like the perfect means to lose weight, 90% of the dieters regain their weight lost in the following years (Germov & Willimans, 1996). Only 10% of the dieters will succeed in their dieting attempt. Before people succeed in their weight loss attempt, they try a couple of times (Polivy & Herman, 1999). 25% of people who start dieting will abandon their diet attempt in the first week. But every next attempt they start with new hopes and high expectations of the positive impact of the new alteration of their new diet attempt.

This cycle of failure and renewed efforts to try again is called the False Hope syndrome (Polivy & Herman, 2000). The False Hope Syndrome refers to the tendency of people, despite the unsuccessful dieting attempts in the past, this does not decrease the likelihood of planning a new attempt in the future (Polivy & Herman, 2002). There is a lot of evidence that a lot of the self-change attempts, including dieting, fail eventually (Polivy & Herman, 2002). Weight management is a significant public health challenge. 82% of the dieters who try a new attempt of losing weight, felt hopeful that this time they would succeed at it (Rand & Stunkard, 1977). Setting a realistic weight loss goal that is reachable seems to be hard since a lot of the weight loss attempts fail. When asked about weight loss goals, people are selecting goals that are two or three times larger than average weight change outcome observed in treatments (Linde, Jeffery, Finch, Ng & Rothman, 2004). On average people set a weight loss goal of losing between 24% and 30% of their initial weight. Although some researchers argue that setting a high weight loss goal is motivating and will encourage greater weight loss (Casazza, Fontaine, Astrup, Birch, Brown, Bohan Brown & McIver, 2013), setting a realistic weight loss goal is considered to be very important, as people will become frustrated for not reaching their ideal body weight. In the clinical practices of adopting more realistic

weight loss goals it is shown that having a realistic weight loss goal and being able to reach their goal, will have a positive effect of psychosocial variables (Linde, Jeffery, Levy, Pronk & Boyle, 2005).

The present study aims to identify factors that are associated with realistic weight loss goal setting. Previous research already showed key factors that influenced women's perception on losing weight (Polivy & Herman, 2000; Polivy & Herman, 2002). In this study the following factors and the correlations between key factors will be examined: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts. First people with overconfidence have a strong favourable view of themselves and think they can accomplish more than they actually can (Baumeister, Heatherton, & Tice, 1993). Hence it is likely that people with overconfidence will set higher and more unrealistic weight loss goals. Second, in our western society there is a social cultural norm of the importance of being thin (Paeratakul, White, Williamson, Ryan & Bray, 2002). People who have a higher belief in being thin is important will set a higher weight loss goal. The third factor is the perceived newness of the new diet. New dieting books, programs and gurus all make people believe that the perfect body is just around the corner. Because of the great beliefs people have in these new diets and new approaches compared to their previous approaches and diets, they will set higher weight loss goals (Beaufort & Vandamme, 2008). Fourth, people differ in the extent they believe they have influence on good and bad things that happen in their lives (Elfhag & Rössner, 2005). People with an internal locus of control believe that they can influence their own future and have a better idea of their own abilities, hence they will make lower and more realistic weight loss goals. People with and external locus of control over estimate their own abilities and belief that their success is depend on faith and luck. They will set higher and more unrealistic weight loss goals for themselves. The last factor is the number of previous weight loss attempts. Women try multiple times to lose weight. Every attempt they will learn something about their own weight loss abilities (Benabou & Tirole, 2000). That will make women more realistic and it will be assumed that they will set lower weight loss goals.

Realistic goal setting in losing weight is important in starting a new weight loss attempt. A more realistic weight loss goals will help in losing weight, will keep the people motivated and has a positive effect at psychosocial factors as well-being and happiness (Linde, et al., 2004). A realistic weight loss goal is determined by a goal that is reachable and obtainable for the individual. A reachable weight loss goal will be a weight loss between 5 and 10% of their initial weight and should be stated in kilograms. This research fills the knowledge gap in how to set a more realistic weight loss goal by women. In this research the unique combination of women who are dissatisfied with their body weight, want to lose weight but did not started yet at their new weight loss attempt is used. This combination will help to identify the factors or combination of factors that will help to make a more realistic weight loss goal. To identify these factors a survey will be conducted and only women can participate. The identification of these factors or combination will enhance the understanding of weight loss goal setting and how to help women to make them more realistic.

#### The research aim for this research is:

Which of the factors or what combinations of these factors: overconfidence, thinness ideal, internal locus of control, newness of planned weight loss approach and number of previous attempts determine realistic weight loss goal setting by woman?

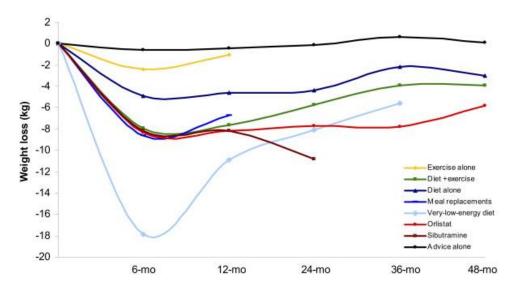
The results of this research will give a better understanding of which factors or combination of factors will increase the realistic weight loss goal setting by women. By a better understanding of the effects of these factors on weight loss goal settings, we can better predict if a weight loss goal could be successful or not when starting at a new weight loss attempt. A better understanding of the factors, could help women in the future to set more realistic weight loss goal prior to their new weight loss attempt. New insights about weight loss goals setting will enhance the likelihood of succeeding at new weight loss attempts.

# 2. Theoretical framework

#### 2.1. The effectiveness of weight loss through dieting

People always try to improve themselves in ways they think they could succeed (Polivy & Herman, 2000). Changing your own behaviour is seen as something doable. Dieting and thereby reducing your weight is perceived as doable and the reason why a lot of women try to reduce their weight. Although a lot of women try to lose weight and maintain a healthy lifestyle, the majority of them does not succeed (Meule, Papies & Kübler, 2012). These new trends relate more to the female population than to the male population. The prevalence of reducing weight or maintaining weight is higher among women than among men (Serdula, Mokdad, Williamson, Galuska, Mendlein & Heath, 1999). Women are more concerned about the lifestyle trends and about their body image. Even when women have a healthy BMI they try to lose weight and be thinner and slimmer. Women are 1.5 more likely to attempt a new healthy lifestyle or reduce their weight than the male population in the world (Meule, et al. 2012). Dieting, and the wish to lose weight together with a new healthy eating habit are the new lifestyle trends in western society.

Among those who try to lose weight, different kinds of strategies are used. 55% of the people who intend to lose weight use a formal program or even professional assistance (French, Jeffery & Wing, 1994). The remaining 45% tries to lose weight on their own. Women who are participating in an official weight loss program reported that they wanted to lose 35% of their initial weight (Douketis, Macie, Thabane & Williamson, 2005). People use different strategies to lose weight, in the review research of Douketis, et al. (2005), they examined studies who investigated a dietary lifestyle in order to lose weight and the weight loss efficacy. The review research of Franz, Wormer, Crain, Boucher, Histon, Caplan & Pronk, (2007), examined after the review of Douketis, et al., (2005), the eight most used weight loss interventions with the weight loss efficiency. In figure 1, the eight weight loss interventions are shown. When people had started with their new diet, the weight loss was the most after six months. It resulted in a mean weight loss of 5 to 9% of their initial weight. The critical point of maintaining this new weight starts after six months. People who succeeded in losing weight in those six months, found it difficult to maintain their weight loss. 43% of the people who participated in the research of Klem, et al. (1997), indicated that they found it difficult. Those first months till two years after losing weight, is a vulnerable period for people who lost weight (Wing & Hill, 2001). This period is vulnerable because their new and healthy lifestyle is not totally integrated in their way of living. It is very common that people who lost weight, regain their weight in following period after losing the weight. It is very hard for people to obtain the healthy lifestyle that is necessary for maintaining the weight loss. Already 50% of the dieters will increase their fat intake and decrease their physical activity level in their first year after dieting, and will regain their weight or even gain weight in the first year (Wadden, Sternberg, Letizia, Stunkard & Foster, 1988; Wing & Hill, 2001). Around 10% of the people who successfully lost weight, succeed in keeping some weight of for a longer period (Germov & Willimans, 1996). People who succeed at keeping the weight off for two years will continue their successful weight management (Klem, et al., 1997). When people would like to lose weight they have to make reasonable weight loss goals for themselves. Only a weight loss of 3 to 4% of their initial weight is maintained after the first and second year. It seems to be very difficult to lose more weight and maintain that weight loss (Doutekis, et al., 2005).



Figuur 1: Different diets (Franz, et al.,. 2007).

The three most common used interventions of losing weight are: only increasing the physical activity, modifying dietary intake and the last intervention is a combination of modifying the dietary intake and increasing the physical activity (Serdula, et al., 1999). When people try to lose weight by dietary intake they will decrease the intake of calories and of food that contain a lot of fat (Franz, et al., 2007). Another way of losing weight is increasing the physical activity level. People who increase their physical activity will increase their level by at least 150 minutes of physical activity per week (Serdula, et al., 1999). But people who try to lose weight, by only increasing their physical intensity or by replacing meals and food for healthy meals and food, will abandon their diet already after one year (Doutekis, et al., 2005). Trying to lose weight by only modifying their dietary intake is a successful method in reducing weight, but it is harder to lose weight than the combination of increasing the physical activity and modifying the dietary intake (Doutekis, et al., 2005; Serdula, et al., 1999). Giving attention to food intake and increasing the physical activity is the most effective method to lose weight and keeping the weight off for a long period of time.

# 2.2. False Hope Syndrome and realistic weight loss goal setting in a new weight loss attempt

Polivy and Herman proposed the phenomenon of False Hope Syndrome in 1999. This False Hope Theory explains why women try a new attempt in dieting despite previous failures. The False Hope Syndrome is a disconnection between the unrealistic expectations and weight loss goal setting and realistic abilities to achieve those expectations and goals (Olson, Visek, McDonnell & DiPietro, 2012). It is a cycle that continues indefinitely, where in women fail and try again to lose some weight (Polivy & Herman, 2002).

Although failure of a new weight loss attempt is rather a rule than an exception, people cycle through several of new attempts (Prochaska, DiClemente, & Norcross, 1992). Altering or changing a behaviour requires a lot of effort, motivation and perseverance. But those elements seem to be hard to maintain for people and eventually they fail in trying to change their behaviour and in their weight loss attempt. They will acknowledge that their weight loss goal was set too high and was too difficult to reach (Polivy & Herman, 2002). These individuals' in the beginning become demoralised, but after a while they will begin to think about new action for their new weight loss attempt. Belief and hope in the new actions and plans for their new weight loss attempts are powerful factors to try again. The hope and confidence that this time it is possible to lose weight, is often false (Polivy & Herman, 2002). The hope that women encounter is based on prior success and experiences of others, but the hope is false because permanent successes is extremely rare (Polivy & Herman, 1999). The likelihood of a successful diet is according to Polivy & Herman 10%. Women try at least five or six times before they accomplish such a weight loss success. But with every new attempt women start with new hopes and high expectations of

losing weight and keeping the weight off (Polivy & Herman, 1999). The way women see this is that eventually the diets that they try will pay off and they will reach their ideal body weight and weight loss goal (Polivy & Herman, 2002). And with reaching their ideal body weight it will bring them all of the promised rewards.

When women start a diet they tend to accomplish a certain weight loss goal. While they lose some weight initially in the beginning of the diet, ultimately they fail in achieving their ultimate weight loss goal (Polivy & Herman 2002). This failure is due to the dieter's unrealistic high expectations of success at the beginning of the diet. People often believe that they can lose more weight, with less effort in less time than is realistic. The problem in this attempts is the overconfidence that people have (Polivy & Herman, 2000).

Having failed the dieting attempt women interpreted their failure in such a way that with a few alterations the next dieting attempt will definitely succeed (Polivy & Herman 2002). They blame the unsuccessful diet attempt on their own lack of willpower and commitment and to their unrealistic high weight loss goals. When women start a new dieting attempt, they will start this attempt with the same hopes and high expectations as the previous ones, because they believe that this time they will have the willpower and commitment to succeed (Polivy & Herman, 2002). With the beliefs of their own willpower and commitment women will set again their weight loss goal at an unrealistic high amount. Neither the goal nor the dream weight are associated or adjusted with regard to previous dieting experience. Women even believe that with some adjustments to the diet, the goal and their dream weights are attainable.

Overconfidence and setting unrealistically high weight loss goals are the centre of the False Hope effect (Polivy & Herman, 2002). For women who would like to lose weight it is important that they set realistic weight loss goals. Adopting goals that they are likely to achieve, improves the weight loss and has a positive effect on psychosocial outcomes (Linde, et al., 2004). It will increase the happiness and well-being of the individual. While setting unrealistically high weight loss goals is associated with a negative effect on task performance and the psychological well-being of the individual. Not being able to reach their goal weight, will make a person insecure and disappointed in themselves.

#### 2.3. Key factors influencing realism in the new weight loss attempt

In the next part of this research, the key factors mentioned in the introduction will be discussed. With help of the existing literature the influence of the factors on weight loss goal setting in a new weight loss attempt will be investigated. At the end of every factor a hypothesis will be given about the influence of the factor on the weight loss goal.

#### 2.3.1. General overconfidence

People tend to pursue tasks they know they can accomplish, and try to avoid tasks that are too complicated (Abusahba, & Achterberg, 1997). Individuals try to improve themselves in ways they think they can succeed. Weight management is perceived as something that is possible to change and losing weight is a task that can be accomplished (Polivy & Herman, 2002). The greater the confidence in accomplishing the task, the greater amount of effort there is put into the task (Abusahba, & Achterberg, 1997). A greater self-confidence and self-esteem implies that one can control the outcomes of the task and will succeed at it. The feeling of being in control and a high self-esteem are the more basic traits of confidence (Bearden, Hardesty, & Rose, 2001). Confidence in succeeding at a task enhances the motivation and will-power of individuals to begin a task (Bénabou, & Tirole, 2002).

It is proposed that self-esteem is related to confidence in one's abilities to perform and succeed at a task (Bearden, et al., 2001). Individuals with higher self-esteem enhances consumers' confidence in the possibility to lose weight (Polivy & Herman, 1999). Individuals with higher self-esteem are more likely to have a higher weight loss goal, than individuals who have a lower self-esteem (Bearden, et al., 2001). People with lower self-esteem have lower expectations for their performance and will therefore perform worse than people with high self-esteem (Polivy, Heatherton, Herman, 1988). Women with lower self-esteem are less confident in the success of their next weight loss attempt and will therefore not have the power to resist the challenges that dieting brings

with them. Although a higher weight loss goal will motive them to lose more weight, the higher weight loss goal is often unrealistic and is very hard or even not possible to reach. A higher weight loss goal is harder to reach, and the change of failure increases. This is called overconfidence. The overconfidence of dieting people is one of the biggest reason for setting unrealistic high weight loss goal and not being able to succeed at it. A strong self-confidence or high self-esteem is not security of accomplishing the task. Some weight loss goals are simply unrealistic or too hard to reach.

When people make decisions involving committing themselves to a particular goal, their positive illusion about themselves and the overconfidence, create a tendency to set goals too high for themselves (Polivy, 2001). People who have overconfidence have the tendency to make unrealistic positive claims about themselves. People with a rapturous view about themselves, over estimate what they could accomplish and therefore select goals that are too difficult to reach (Baumeister, et al., 1993). Setting more realistic goals for the self is related to be able to predict one's own performance level and have an accurate self-knowledge. While people with overconfidence have a strong favourable view of themselves and think they can accomplish more than they actually can. They tend to make more optimistic predictions about the future, performances and goals.

People who do well at a job or task will grow in self-esteem. People who succeed at their job will feel better about themselves, and when you feel better about yourselves you will perform better at the task (Baumeister, Campbell & Krueger, 2003). High self-esteem encourages the confidence to tackle a difficult task and enable people to derive satisfaction from these successes. This high self-esteem leads to a superior and extensive positive self-knowledge. People have the tendency to overestimate their skills and have an overconfidence in their own self- control. The difference between their perceived control and skills and their actual level of control and skills ability is the optimistic bias. (Helweg-Larsen & Shepperd, 2001). It is shown that people have an optimistic bias in the anticipated speed and effort at achieving the desired weight loss goals (Polivy & Herman, 2002). The overestimation of the self will lead to a greater confidence in succeeding at their new weight loss attempt. The overestimation and the overconfidence of the self, lead to a high and unrealistic weight loss goal.

Women with a higher self-esteem will have a greater confidence in succeeding at their next weight loss attempt. They will have a higher motivation and will-power to succeed at their weight loss goal. But this high self-esteem will lead to overconfidence in one's own ability. This overestimation about one's ability and the overconfidence in performing at a task will lead to an unrealistic weight loss goal at a new weight loss attempt.

#### Hypothesis 1:

Women with general overconfidence will set a higher weight loss goal in their new weight loss attempt.

#### 2.3.2. The thinness ideal and the dieting world

The fixation of the thinness ideal for women comes from a sociocultural norm in western society of being thin (Paeratakul, et al., 2002). The pervasiveness of the thinness ideal for women can be explained by the greater social cultural emphasize on the female physical attractiveness (Jones, et al., 2004). This sociocultural norm of thinness is coming from family, peers and from the media. The media is a big promoter of this thin ideal, 95% of the images in the media are showing ultra-thin models in their campaigns (Holmstrom, 2004). The enormous promotion of the thin ideal has led women to believe that they should try to meet this ideal in order to be successful or attractive. Women seek this ideal body weight not only for health reasons but also because this ideal body weight is the sociocultural norm that symbolise self-control, success and acceptance in the western culture (Brownell, 1991). When women are constantly exposed to this thinness standard in the media it sets a norm that women have to be thin in order to be judged as sexually attractive and appealing to men (Watson & Vaughn, 2006). Due to this norm, women will set unrealistic high weight loss goals, because not only are thin women seen as more attractive and successful, heavy people are thought to be lazy and unattractive.

Women believe that being thin will improve their lives in several aspects. Dieters believe that personal objectives in one's life will be achieved more easily when one is thin (Cooper & Fairburn, 2001). People, who seek this thin body ideal, expect rewards (Brownell, 1992). These rewards can be external advantages or internal advantages.

It is believed that losing weight and striving for the ideal body, symbolize control and will make us more attractive and more successful in professional and personal accounts (External benefits) (Brownell, 1992; Polivy & Herman, 2000). But the ideal body and being thin will give us also more self-confidence and a feeling of self-worth (Internal benefits). Although women believe all these notions, there are no studies that support these notions (Brownell, 1992). The expectations of the anticipated outcomes of reaching the ideal body are completely managed by the media (Polivy & Herman, 2002). So it is not surprising that women inflate the notions of reaching this ideal body weight.

The thin ideal in the western society is directly related to body dissatisfaction by women and with dieting (Homan, 2010). The internalization of the thin ideal leads to body dissatisfaction in women and body dissatisfaction leads to weight loss attempts. Media images, advertisements, models and celebrities have shown a tighter and more perfect body profile than a couple of years ago. During the 1950s, curved women were accepted in western society (Lamb, Jackson, Cassiday & Priest, 1993). With the advent of the super models and the media attention they have received, the ideal body for women has changed from curvy to very thin. Women compare their own body with the bodies of the models and the bodies of the models are always thinner, slimmer and more attractive than the body of themselves. This social comparison is a cognitive judgement which is connected to self-judgement (Jones, et al., 2004). Women want to relate themselves with the ultra-thin models in the media and start dieting in order to fulfil on this thin body ideal and to be as attractive as the models. A lot of women will have therefore a negative self-judgement. Dieters who relate themselves to the very slim models in the media, believe that when they are thin, they will have success and be more attractive to men (Lamb, et al. 1993). But in fact people who have the tendency to evaluate themselves in weight and shape are associated with weight regain (Elfhag & Rössner, 2005). Making a comparison with the models, dieters will highly overestimate their ability to lose weight (Kruger & Dunning, 1999). Losing weight is a more difficult task and takes longer than many who try realize at the beginning of their weight loss attempt, and this ultra-thin idea is for a lot of women simply unachievable (Polivy & Herman, 2002; Brownell, 1991). Inability to become as thin as the models increases body dissatisfaction tremendously among women. With this increasing body dissatisfaction and negative selfjudgement women will set higher weight loss goal, to reach this ideal body weight and to enjoy the positive believed anticipated outcomes of being thin.

Women who read magazines articles about dieting or dieting and weight loss books are more likely to engage in dieting behaviour and are more controlling their weight (Droz & Marques-Vidal, 2014). The media is an important factor in the social environment that shapes the nutrition behaviour of the people (Guillen & Barr, 1994). The media provides different models and information streams in order to provide information about nutrition and health. The proportion of articles and advertisement about nutrition and dieting tremendously increased between 1959 and 1988 (Guillen & Barr, 1994). The increasing number of articles and advertisements about dieting reflects the growing pressure for women to be thin (Guillen & Barr, 1994; Kim & Lennon, 2006).

Women who are dissatisfied with their body and would like to have perfect bodies are more likely to believe in diet programs, diet gurus and diet medicines (Stephens, Hill & Hanson, 1994). Models who represent the cultural standard of being thin are used to represent these new diet products and dieting books. When buying these weight losing or weight controlling products, women compare themselves with the models in the advertisements (Koskela, n.d.). Studies conformed that women who are dissatisfied with their own bodies, will buy more easily products that are represented by thin models who meets the thinness ideal (Stephens, et al., 1994). It makes women believe that with buying those products they will become thin as well without any effort. Even nutrition books that promote untested ideas on dieting behaviour and weight control, even when they are criticized by experts and professors have become bestsellers (Brownell, 1991). The belief of the people in the new diets and the promises that they will make the dieters thin, is bigger than the weight loss will be in reality. But the dieters will blame external attribution for failure to their diet rather than blaming the unsuccessful diet (Polivy & Herman, 1999). Which explains why dieters try each new diet that comes along and believe everything that the diet gurus are saying. While people already tried some old dieting techniques that failed, they put in new hopes

and believes in the new diets and dieting gurus. Despite previous failures, they still believe that with the new diet and diet gurus their weight loss attempt will succeed.

The cultural tradition and the societal need to be thin is the perfect fuel for the diet industry. The numbers of dollars spent in this industry is around 33.8 million dollars each year (Droz & Marques-Vidal, 2014). There are now various television talk shows and books that sell diet pills, creams and foods that make you lose weight (Brownell, 1991). Each of this products make use of the dilemma of the chronic dieters (Fraser, 1997). Chronic dieters want to lose weight, but do not want to quit eating. They want to lose weight, but do not want to put any effort in it. These programs and dieting books make you believe that the perfect body is malleable, even when you are overweight or obese (Brownell, 1991). With women's great belief in the diet gurus, who make you believe that the perfect body is achievable for everyone and the big promise and hopes that the new diet gives, it is not surprising that women will set a high weight loss goals for themselves. The diet gurus and new diets will make you believe that the perfect and ideal body is just around the corner.

Dieting advertisement campaigns and dieting gurus emphasize the misery of being overweight (Beaufort & Vandamme, 2008). They give the idea that overweight people are lazy, their life unhealthy and that they are ugly. The only way of becoming a happier and a successful person is to use the new diet products and diet books. The diet gurus represent themselves and their products as the only products that help you contain a healthy lifestyle and to lose a significant amount of weight (Fraser, 1997). The diet gurus give the impression that by only using some diet products the perfect body is easily achieved. The devotion of women to the diet gurus reflects to the cultural norm of being thin (Koskela, n.d.). Hence advertisements, dieting books and dieting gurus all make you believe that losing weight can be done quickly, safely, without any effort and the dieters do not have to suffer from hunger when losing weight (Koskela, n.d.). They promote a thin body as ideal and show how easily it is to achieve this thin ideal body (Kim & Lennon, 2006). People who desire weight loss believe the dieting campaigns and that the desirable weight loss is more reachable and easier to attain than is often the case. People's expectations about the large weight loss that should be reachable lead them to set a high often unrealistic weight loss goal before they start with their new weight loss attempt. Women seek to a body that makes them in control, successful and they want to reach this body without any effort. Hence how the more women find it important to be thin, the higher their weight loss goal will be.

#### Hypothesis 2:

- The higher one's importance is on being thin, the higher the body weight loss goal will be in their new weight loss attempt.

#### Hypothesis 3:

- The more the new weight loss attempt is perceived to be different and new from previous attempts, the higher the weight loss goal will be set.

#### 2.3.3. The external and internal locus of control

Locus of control is a one of the most studied variable in the social sciences (Rotter, 1990). Locus of control helps to explain individuals' differences and can predict behavioural actions. It refers to the degree in which a person expects to be able to influence the outcome of their behaviour. People who believe that life is a consequence of their own actions and believe they can influence their own future, have an internal locus of control. People who perceive life as a determinate of fate, chance or luck, have an external locus of control (Elfhag & Rössner, 2005). As Rotter (1990), explained in his article with the help of numerous reviews and research, the positive correlation between internal locus of control and health behaviour. It is believed that people with a higher internal locus of control have healthier behaviour. Women are more likely to be on a diet and have higher self-esteem when they have an internal locus of control (Stotland & Zuroff, 1990). They have a positive self-perception of previous weight loss attempts and both perceive a need to lose weight and feel more confidence in their ability to do so.

Some parts of the concept of locus of control can be explained with the theory of fundamental attribution error. How committed a person is to start with a diet is dependent on their attitude towards losing weight (Schifter & Ajzen, 1985). The attitude depends on references a person has to previous weight loss attempts. People have a

selective memory and they are more likely to remember previous successes than failures. How people explain and draw experience from their previews weight loss attempts, can be understood by the fundamental attribution theory. People have a bias in person-perception, they overestimate their personal and dispositional cases of behaviour and underestimate the influence of situational constrains (Tetlock, 1985). People will view successes as something that was caused by themselves and will blame failures to something that was caused by an external factor. This typically view on success and failures is called self-service bias and is part of the fundamental attribution error theory (Jellison & Green, 1981).

A positive evaluation about the previous attempt will give them a more positive attitude towards a new attempt at losing weight. A positive attitude towards dieting will give dieters a new intention to start at a new weight loss attempt. But the intention for losing weight is something different than the real action of starting to lose weight. The intention of pursuing a behaviour refers to the perceived ease or difficulty of losing weight and if your belief in the influence you have on your own future (Stotland & Zuroff, 1990). People who believe that life is a consequence of their own action and can influence their own future, have an internal locus of control (Elfhag & Rössner, 2005). While the external locus of control is related to perceiving external reasons for being overweight or why the weight loss attempts failed. People who are absorbed in their everyday daily lives might lack the motivation to start with their behaviour to lose weight (Sniehotta, Schwarzer, Scholz & Schüz, 2005). Even when action is taken to lose weight, it is important not to get distracted by external factors and protect oneself from external temptations.

Often overestimate people their own degree of control to self-regulate their body shape, and miscalculate the influences of external factors and physiological constraints (Polivy & Herman, 2000). People have imperfect knowledge about their own abilities and underestimate the degree of effort they have to put into their weight loss attempt (Benabou & Tirole, 2000). People who failed in their weight losing attempt, are more likely to blame an external rather than blaming the diet or themselves. Blaming the failure to an external event helps the dieter to avoid facing the facts (Polivy & Herman, 2002). Due to the self-serving bias people blame their losses to a situational factor rather than to something that they themselves did wrong. People who have an external locus of control often overestimate their own degree of self-control and avoid facing facts. They would rather believe that when they failed once it was caused by something that was outside of their control to change, the next time they will succeed just because of luck or faith. They do not alter their weight loss goals and keep having the same hopes and believes as before. Therefor they will keep setting a high weight loss goal that is unrealistic to reach.

As long as the focus of their weight failure is on an unstable element of an external event, it allows the dieter to put the blame on something that can be changed next time (Polivy & Herman, 2002). It is very easy for them to blame stressful life events or blaming it at their surrounding environment or social support (Elfhag & Rössner, 2005). When dieters fail at their weight loss attempt it will show as if they did not had enough willpower, then the dieters who did succeed (Norcross, Ratzin & Payne, 1989). Even people with an internal locus of control will blame failures of their previews weight loss attempts to something that was outside of their own possibilities to change, due to the fact the self-service bias. The difference between the internal and external locus of control will be that people with an internal locus of control view willpower as something that could be changed in the next weight loss attempt and people with an external locus of control have faith that they can succeed the next time cause of luck and faith. Dieters will regain their confidence in their own ability and willpower to make the next weight loss attempt a successful one.

The self-serving bias and blaming the failures of the weight loss attempts to external attempts, will give the dieters the confidence that the next time they can succeed and can control some of the factors. An individual's perception of personal control in itself leads to a high degree of personal confidence and a higher confidence in their own ability to succeed (Tobias & MacDonald, 1977). How higher their self-control is in their new weight loss attempt, how higher their motivation is which lead to a higher confidence in succeeding at their new weight loss attempt. When women have a higher internal locus of weight control, their self-control at the new weight loss attempt is higher (Elfhag & Rössner, 2005). With high beliefs in the possibility of changing your own future by yourselves, and feeling more in control will lead to a more realistic weight loss goal setting. Due to the fact that women are aware that only they themselves, and no one else, can change the future for them.

People want to feel in control and improve themselves in ways that they can succeed (Polivy & Herman 2002). Beginning a diet or continuing one, enhances the feeling of people of being in control. People with an internal focus of control have better ability to take full responsibility over one's own action, and are more successful at completing a task (Elfhag & Rössner, 2005). These people have higher self-esteem, a positive perception of their previews weight loss attempts, feel the need to try again in a new weight loss attempts and feel more confident in their own ability and willpower to do so (Stotland & Zuroff, 1990). Having a higher internal control of the self, is related to a more realistic view of weight loss goal setting in their new weight loss attempt.

#### Hypothesis 4:

 The higher the external locus of control in failing a diet, the higher the weight loss goals set in a new weight loss attempt.

#### Hypothesis 5:

- Women with a higher internal locus of control for losing weight, will set a lower weight loss goal in a new weight loss attempt.

#### 2.3.4. Number of weight loss attempts

It is known in literature that maintaining a diet and maintaining their weight loss is difficult (Polivy & Herman, 2002). People who like to lose weight circle to multiple weight loss attempts before they succeed. People who like to change, are taking action to modify their addiction, but a large percentage do not successfully maintain their action on their first attempt (Prochaska, et al. 1992). For example, 85% of the people who quit smoking relapse and recycle back to the beginning of making plans to quit smoking. While they are already making plans to consider a new attempt, they are still learning from their previews attempt and recent efforts. Most of those who relapse do not revolve endlessly in the same circle, but try to learn from their mistakes and try something different the next time. We could believe that people who try to lose weight will not succeed at their first attempt. They will try a new weight loss attempt a couple of times and will learn from them. Each time they will try again to lose weight they will try to do something new and will alter the things that went wrong the previous weight loss attempt.

Dieting is recognized and attempted at a younger age than ever before. Girls already start with weight loss attempts when they are teenagers. Women are reported as having a much stronger history with dieting than men. Nearly 75% of the total male population have not tried a new weight loss attempt in the last year, which was 57% for women (Blokstra, Burns & Seidell, 1999). 27% of the female population reported that they tried to lose weight at least two times in the preceding year. 19% of the obese female population had lost 5 kilo gram of more and tried more than five times to lose weight. Because women already start at a young age with trying to lose weight they have a greater history with dieting and will have learned a lot from all their previews failed weight loss attempts. In their new attempt at losing weight, they will change some weight loss action or try a whole new diet. After five or six previous weight loss attempts the chance that women succeed at their new weight loss attempt is increasing (Heatherton & Nichols, 1994). They learned from their previous attempts what went wrong and make more realistic new plans for their next weight loss attempt.

Between the intention to lose weight and behavioural actions to lose weight is planning. Planning is a self-regulatory strategy, who links the intention and the concrete action together (Gollwitzer & Schaal, 1998). Planning helps to avoid spontaneous, habitual responses to situational cues. By planning individuals form a mental representation of the target situation which helps them to detect critical situation sooner and makes dangerous external cues more easily accessible. People who have developed a detailed plan are more likely to incorporate the dieting behaviour in their daily lives and are more commit to their diet (Schifter & Ajzen, 1985). While women try again to lose weight and try multiple times, they will learn overtime more about their own abilities (Benabou & Tirole, 2000). What is achievable and what is not. So when they will learn more about their own abilities, they will set more realistic goals and will make more realistic plans for their next weight loss attempt. Those more realistic goals and carefully planning the new weight loss attempts will help grow their confidence in their new weight loss attempts.

Women feel confident in themselves that this time they will succeed at their new weight loss attempt and reach their ultimate weight loss goal, in spite of what previous attempts may say (Polivy & Herman, 2002). They will set new more realistic weight loss goals and they will try to reach those weight loss goals with new behavioural dieting action or even whole new diets to lose weight.

#### Hypothesis 6:

- Women with a higher number of previous weight loss attempts, will set a lower weight loss goal in their next weight loss attempt.

#### 2.4. Conceptual model

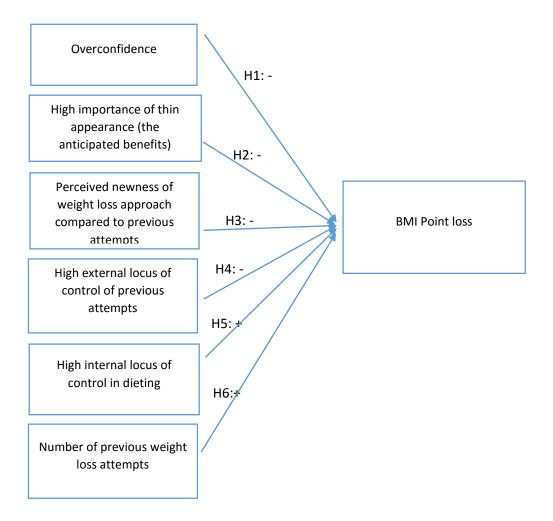
The theoretical results and hypotheses of this study are combined in a conceptual model (see Figure 1). This model illustrates the composition and relationships between the concept and the factors. The model can be divided into two parts. The key predictors and the dependent variable. This conceptual model will explain in what way the key predictors influence the dependent variable.

At the left side of the model are the key predictors for the weight loss goal set by women as a percentage of the Body Mass Index. The key predictors that influence the weight loss goal are: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts. These factors determine if the weight loss goal set by women will be at a higher, more unrealistic weight loss goal or at a lower, more realistic weight loss goal.

This conceptual model includes several hypotheses based on the existing literature. The first hypothesis that is made is that women with general overconfidence will set a high weight loss goal. Women who suffer from overconfidence will create a tendency to make unrealistic positive claims about themselves, and make an overestimation what they could accomplish (Baumeister, et al., 1993). The second hypothesis is based on literature about the western thinness ideal. Women who feel the pressure of being thin and want to conform to this beauty ideal, will make them set higher and more unrealistic weight loss goals (Kim & Lennon, 2006). The third hypothesis, is about the perceived newness of the new diets that women try. How new the next diet is perceived as, the bigger the believes of women is in succeeding at their new weight loss attempt (Droz & Marques-Vidal, 2014). This will make them set higher weight loss goals. The next two hypotheses are based on the literature of internal and external locus of control (Elfhag & Rössner, 2005). These two factors refer to the way how people think they could influence the outcomes of their behaviour. The more in control they are, the more confidence they will have in themselves and the better they are in setting realistic weight loss goals. The external locus of control is the opposite. The more women think that luck or other factors are influencing their change of success, the more unrealistic their weight loss goal will be. The number of previous attempts will make women more realistic in their weight loss goal (Benabou & Tirole, 2000). They will set lower weight loss goals in the supposition that this time they will succeed at their new weight loss goals.

The conceptual model is a graphical explanation for the relationships between all these factors. When the model is tested, data will be used to examine whether there is an influence between the key predictors: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control, the number of previous weight loss attempts and the how Body Mass Index (BMI) point they want to lose.

Figure 1 Conceptual model of study



# 3. Methodology

#### 3.1. Design

Data were collected through an online survey. Only those respondents who gave their informed consent participated in the study. It was important that all the participants wanted to lose weight in the future and that they wanted to lose more than three kilograms. All participants who did not want to lose weight or wanted to lose less weight than three kilograms are removed from the data. To test the hypothesis, the survey is assessed by the different key factors: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts. All the participants had to fill out their current weight in kilograms, their length in centimetre, and how much weight they wanted to lose. From these questions the current BMI was calculated and the amount of BMI points the participant wanted to lose. The participants were asked to honestly respond to the questions in the online survey. The order of the key-factors in the question was randomized. The survey can be found in appendix 7.1..

#### 3.1.1. Participants

Only women could participate in the survey. Women are more concerned about their weight, have a higher prevalence of body dissatisfaction and have a higher prevalence of dieting than men (Carlson, 2004; Canpolat, et al., 2005). They also tend to set higher and more unrealistic weight loss goals than men (Linde, et al., 2005). Within the literature of realistic weight loss goal setting it is said that a non-surgical weight loss between the 5% and 10% is reachable (Linde, et al., 2004, Linde, et al., 2005, and Anderson, Lundgren, Shapiro & Paulosky, 2003). In this paper a weight loss goal that is between 5-10% in kg, will be classified as realistic. Weight loss goals higher than 10% will be seen as unrealistic.

The sample was recruited through a mailing list of Wageningen University. To reach a wider population, the survey was also posted on social media (Facebook accounts). Before women could participate in the survey they were invited to read the disclaimer regarding the scope of the study and the safety treatment of the information they provide. After reading and agreeing on the informant consent they could participate. Through the use of the mailing list and social media no particular exclusion of women was made this to seek for a representative sample of women. In this research only Dutch-speaking individuals could participate, in order to minimize the cultural differences.

In this study 272 participants contributed to the online survey. Of those 272 participants 10% (28 respondents) wanted to lose less than three kilograms. In this study the three kilogrammes limit was a screening criteria so 28 respondents were not used in the data analyses. The total sample that was used to analyse the data was 244 respondents (N=244). Participants were M(age) = 36.9 (SD= 16.5, range=18-91) years old. Almost all participants who participated in the study were Dutch 97.5%. 80,7% of the respondents had an education level of University of Professional education or higher and the other 19,3% finished high school or secondary vocational education. Table 1: Respondents weight descriptives show the main characteristics of the respondents participated in the online survey.

Characteristics	Total Sample		
Sample			
Female respondents	272		
Female respondents > 3KG	244		
Age			
Average age of the respondents (SD)	36.9 (16.5)		
Education level			
University	128 (52.7%)		
University of Professional education	68 (28%)		
Others	47 (19.3%)		

Table 1: Respondents Descriptives

#### 3.1.2. Measures

#### Dependent variable

The dependent variable in this research is the desired weight loss goal set by women in BMI points. To calculate the BMI of the participants' questions were asked about height in cm and weight in kg. To calculate the BMI a formula (weight (KG)/ height (M)<sup>2</sup> was used. To calculate the BMI the height in cm was transformed to height in meters. In order to research the desired weight loss goal, a question was asked about how much kilograms the women wanted to lose. Subtracting this weight loss goal from the current weight of the respondents is how their desired weight was calculated. With this desired weight the new and desired BMI of the respondents was calculated.

The dependent variable is measured by the difference between current BMI and new BMI. The *M(currentBMI)*= 25.5 (*SD*=4.6) and *M(NewBMI)*=22.9 (*SD*=3.7). At average the respondents wanted to lose *M(BMIpoint)*=2.6 of their BMI. The variable *BMIpoint loss* was used as the dependent variable. Looking at the statistics from Centraal Bureau from Statistiek, the average Dutch women is 167,5 cm and weight 71 kg, this makes a BMI from 25.2 (CBS, Statline, 2015). This data shows that the average Dutch woman is 170 cm and weights 73 kg with a BMI of 25.5. it can be concluded that we measured the average Dutch women in this study.

#### Key predictor variables

#### General overconfidence

General overconfidence was measured with 15 question based on the general overconfidence study of Klayman, Soll, González-Vallejo & Barlas, (1999). The participants had to choose between two already given answers followed by a response line in how confident they feel about the correct answer given. The general overconfidence score was calculated as the difference between the mean subjective probability of a correct answer and the proportion of the correct answer. A positive value indicated a general overconfidence with the participant and a negative value indicates an underconfidence with the participant.

#### Thinness ideal

The questions used to measure the importance of being thin came from two different scales. The questions are derived from the sociocultural attitudes towards appearance scale (SATAQ-3) and from physical appearance comparison (PACS-R) (Thompson, van den Berg, Roehrig, Guarda & Heinberg, 2004; Schaefer & Thompson, 2014). Not all the questions from the two scales were relevant for this research, I derived only the most important questions from the scales. Questions as: 'Being thin is important' and 'I would like my body to look like the people in the media'. These questions are measured with a five point Likert scale (1='strongly agree' and 5='strongly disagree').

To analyse if the results from the online survey are reliable, Cronbach's Alpha was calculated. The reliability of the independent variable has to be higher than 0,7 in this research in order to be reliable. The Cronbach's Alpha of the independent variable: importance of thin appearance was 0,831 (N=6). For the variable importance of thin appearance, the average scores of the questions are calculated. With this average score the rest of the data is analysed.

#### Perceived newness of new weight loss attempt

For testing the perceived newness of new diets, questions are made to test the believes and hopes participants had of the new diets. These questions try to find out how different the participants perceive their new weight loss attempts in comparison to the previous weight loss attempts. The four questions are ranged in a five point Likert scale (1='strongly agree' and 5='strongly disagree').

The reliability test is used to analyse if the independent variable: perceived newness of new weight loss attempt was reliable. The Cronbach's Alpha of the variable was 0,858 (N = 4), which is seen as reliable in this research.

The average score of the questions that measure the perceived newness of the weight loss attempt is calculated. The average score is used to analyse the rest of the data in the research.

#### Internal and External locus of control

To test the internal and external locus of control, the scale of Stotland & Zuroff (1990) was used. They made one scale for two concepts: the internal locus of control and the external locus of control. The participants have to fill in six questions about: 'I can control my own weight' and 'The reason that I am over weight is just because of bad luck'. These question are asked with a five point Likert scale (1='strongly agree' and 5='strongly disagree').

The independent variable internal locus of control and external locus of control both have the same reliability problem. Both of the variables did not have a Cronbach's Alpha of 0.7 or higher (internal locus of control = 0.44, external locus of control = 0.51). Therefor the average scores are not calculated for both of the independent variables, but all the questions that measure the internal and external locus of control are used to analyse the rest of the data.

#### Previous weight loss attempts

The questions to test the factor: previous weight loss attempts, are related to the diet history of the participants. These questions seek to find out how many times the participants have tried to lose weight and if they alter their goal after failing an attempt. The scores of the variable *Number of previous attempts* are used in the rest of the data analyses. The variable is measured on the hand of a single question: 'how many times did you try to lose more than three kilograms in the last five years?'.

#### **Control variables**

Finally, a set of control variables were measured. These questions included age and education level. The final questions included in the survey were questions about self-reported weight (kg), and height (cm) in order to calculate the body mass index from the participants.

## 3.2. Data analysis

Data were analysed with SPSS. In this research a regression analysis was conducted between the key predictor and the dependent variable. The regression variable was conducted to see if there is an influence between the independent variables general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control, the number of previous weight loss attempts and the dependent variable BMI point loss.

In the gathered data there was one set that did not seem to comply. This woman would like to lose 77 kilograms, with a height of 1,63 meters and a current weight of 137 kilograms. This means that she would like to lose 56% of her initial weight. This is a huge number and far from realistic. Although this research is about unrealistic weight loss goals it was decided to delete this woman from the data set. She is removed from the data set because without her the range of the CI 95% became a lot smaller and the data more reliable.

#### 3.2.1. Reliability analyses

To analyse if the results from the online survey are reliable enough to test the hypotheses, Cronbach's Alpha is conducted. If the variables used in this research are reliable Cronbach's Alpha has to be higher than 0,7. Table 2: reliability analysis, shows the Cronbach's Alpha from the independent variable.

	Cronbach's Alpha	N
Importance of thin appearance	0,831	6
Perceived newness of weight loss approach	0,858	4
Internal Locus of Control	0,439	3
External Locus of Control	0,505	3

Table 2: Reliability analyses

# 4. Results

#### 4.1. Descriptive statistics

Descriptive statistics for the study are shown in table 3: Weight descriptives. These descriptive statics show that the largest part of the respondents have a normal weight (56%) with a BMI between the 20 and 25, but still 41.5% of the respondents are overweight or obese. The respondents wanted to lose at average 1.3 kilograms less weight in their new weight loss attempt (M = 6,9) than in their previous weight loss attempt (M = 8,2). On average they wanted to lose 2.6 BMI point.

65.6% of the respondents wanted to lose 10% or less of their initial body weight and put down a realistic weight loss goal, but 34.6% of the respondents wanted to lose an unrealistic weight loss goal of more than 10% of their initial weight. Within the literature of realistic weight loss goal setting it is supposed that a non-surgical weight loss between the 5% and 10% is reachable (Linde, et al., 2004, Linde, et al., 2005, and Anderson, et al., 2003). To analyse the weight loss goals of the respondents a division is made between realistic weight loss goals (< = 10%) and unrealistic weight loss goals (> 10.01%).

Characteristics	Total Sample
ВМІ	
Normal weighted (BMI 20-25)	136 (56%)
Overweight (BMI 25-30)	70 (28.8%)
Obese (BMI 30->)	31 (12.7%)
Weight loss attempt	
Average attempts	3.4 (3.4)
Average weight loss previews attempt (SD)	8,2 kg (7)
Average weight loss new attempt (SD)	6,9 kg (6.4)
Average BMI	
Current BMI (SD)	25.5 (4.6)
New BMI after weight loss (SD)	22.9 (3.7)
Weight loss goal	
Realistic weight loss goal	160 (65.6%)
Unrealistic weight loss goal	84 (34.6%)

Table 3: Weight descriptives

#### 4.2. Analyses

In order to evaluate the influence of the independent variable (general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts) at the dependent variable (BMI Point Loss) a regression analyses is conducted. The demographic factor: age is used in the regression analyse as a control variable. An overview of the data is shown in table 4: Regression analyses data.

#### **BMI Point Loss**

Independent Variable	Mean*	Std. Error	Beta	t-value	p-value
Psychological factors					
Overconfidence	-15.7	0.01	0.11	1.74	0.08
Thinness ideal	2.7	0.16	-0.02	-0.24	0.81
Perceived newness of new diet	3.4	0.12	-0.29	-4.55	0.00
Previous weight loss attempts	3.4	0.03	0.16	2.49	0.01
ILC 1**	1.9	0.13	0.08	1.63	0.21
ILC 2**	2.9	0.11	-0.05	-0.70	0.48
ILC 3**	2.5	0.12	0.30	4.79	0.00
ELC 1**	3.9	0.16	0.06	0.99	0.32
ELC 2**	3.8	0.15	-0.00	-0.11	0.91
ELC 3**	3.3	0.11	0.11	1.64	0.10
Demographic factors	3.3	0.11	0.11	1.04	0.10
		0.00	0.08	1.23	0.22
Age Adjusted R2		1.48	0.08	1.23	0.22

Table 4: Regression analyses data

The regression analyses revealed that the individual importance of being thin had no significant effect at the BMI Point loss of women (t 11 (df)= -0.24, P= 0.81). The sociocultural norm of being thin in western society has no significant effect at women for their weight loss goals. At average (M= 2.7, SD= 0.68) the respondents did not agree with the statements in the scale of the individual importance of being thin. The women in the sample also did not agree with the statements that measured the perceived newness of the new diet (M=3.4, SD=0.84) data of the independent variable perceived newness of the new diet show a significant effect (t 11(df)= -4.55, P= 0.00) at the desired BMI Point loss of women.

All the respondents in the sample tried to lose more than three kilograms of weight once before. On average they tried 3.4 times (*SD*=3.4) to lose more than three kilograms. The reported number of repeated weight loss attempts had a significant effect at the BMI Point loss (t 11 (df)= 2.49, P=0.01). Women who went through multiple weight loss attempts wanted to lose less weight in their new previous weight loss attempts. The trend of wanting to lose less weight at a new weight loss attempt is also shown in the weight descriptives (table: 3). In the previous attempts the respondents wanted to lose 8,2 kg (SD=7) and in their new weight loss attempt they would like to lose 6.9 kg (SD=6.4).

The independent variables internal locus of control and external locus of control are both not reliable. Therefor both of the variables are not proven to have an influence at the BMI point loss of women. Analysing the questions that measure the internal or external locus of control of the respondents; only one question of the internal locus of control showed a significant effect at the BMI Point loss and none of the external locus question had a

<sup>\*</sup> Mean is the mean of the Likert scale (1= totally agree 5 = totally disagree).

<sup>\*\*</sup>Questions to measure the internal locus of control (ILC) and the external locus of control (ELC). The explanation of the questions can be found in the appendix 7.2.

<sup>\*\*\*</sup> Reported beta coefficients are standardised.

<sup>\*\*\*\*</sup> Significant independent variable are bold (P < 0.05).

significant effect. The question: I have the control over my own body weight (t 11(df)= 4.79, P= 0.00) had an effect over the BMI Point Loss of women.

The average confidence of the women in the sample is M=-15.7 (SD= 19.5). This negative number indicates that the women in the sample have a general underconfidence in life. The general underconfidence of the sample had no significant effect at the wanted BMI point loss of women (t 11(df)= 1,74, P= 0.08).

The hypothesises were tested in order to summarize the results. The results are shown in table 5: Hypothesis key predictors).

Hypothesis key predictors		p-value	
General overconfidence	(H1 -)	Not significant	
Individual importance of being thin	(H2 -)	Not significant	(P=0.81)
Perceived newness of new weight loss attempt	(H3 -)	Significant	(P=0.00)
External locus of control	(H4 -)	Not significant	
Internal locus of control	(H5 +)	Not significant	
Number of previews weight loss attempts	(H6 +)	Significant	(P=0.01)

Table 5: Hypothesis key predictors

The hypothesis: Women with a general overconfidence set a higher weight loss goal in their new weight loss attempt cannot be tested. Due to the fact that the women in this sample have an underconfidence (M=-15.7), but there can be concluded that underconfidence has no significant effect at the weight loss goal settings by women (P= 0.08). The hypothesis of internal locus of control (Women with a higher internal locus of control for losing weight, will set a lower weight loss goal in a new weight loss attempt) and external locus of control (The higher the external locus of control in failing a diet, the higher the weight loss goals set in a new weight loss attempt) are both not proven in this research, because both of the variables were not reliable enough. The hypothesis of the independent variable: importance of being thin (The higher one's importance is on being thin, the higher the percentage body weight loss goal they expect in their new weight loss attempt) can be rejected (P= 0.81).

Both the hypothesises of the independent variables: the perceived newness of the new diet (*The more the new weight loss attempt is perceived to be different and new from previous attempts, the higher the weight loss goal will be*) (P=0.00); and the number of previous weight loss attempts (*Women with a higher rate of previous weight loss attempts, will set a lower weight loss goal in their next weight loss attempt*) (P=0.01) have a significant effect at the weight loss goal settings by women.

<sup>\*</sup>The independent variable have a negative or positive influence at the dependent variable BMI Point loss.

<sup>\*\*</sup> General overconfidence is not tested because of the calculated underconfidence of the sample.

<sup>\*\*\*</sup> The independent variables Internal and External control do not have a p-value because they were not reliable.

# 5. Discussion and conclusion

This study was inspired by the phenomenon of the False Hope Syndrome (Polivy and Herman, 2000). A major goal of this study was to investigate the weight loss goal settings by women. More than one third of the participants (35%) in the study set an unrealistic weight loss goal for them-selves and wanted to lose more than 10% of their initial body weight. The False Hope Syndrome model implies a disconnection between the expectations and the realistic ability to achieve those expectations. One reason why women fail in their dieting attempt is because of their unrealistic weight loss goals. This study evaluated which of the following factors: general overconfidence, individuals' thinness ideal, the newness of the taken approach compared to the previous approaches, individuals' internal locus of control and the number of previous weight loss attempts could contribute to a more realistic weight loss goal setting by women.

The statistical analyses show a significant effect when women perceive a new diet as newer they will set a higher weight loss goal. Although women in the survey on average did not agree with the statements about the influence of diet gurus, their influence is bigger than the participants realize. It is not remarkable that women get influenced by new diet gurus or diet foods, every year more than 33,8 million dollars are spend in this industry (Fraser,1997). The proportion of articles and advertisement about nutrition and dieting have tremendously increased. The increased exposure of articles and advertisement represented by ultra-thin models are contributing to the believes that the diet gurus and new diets food want to give you. Namely that the perfect and ideal body is just around the corner if you just try this new diet (Kim & Lennon, 2006). Diet gurus, dieting advertisements and campaigns all make women believe that losing weight can be done without any effort, safe and quick (Koskela, n.d.) The new diet that women want to try are always more efficient and effective than the previous diet according to the diet gurus. Although women believe that they are not influenced by the believes and promises of a new diets made by a diet guru or advertisement campaign, unconsciously they will set a higher weight loss goal for themselves. Dieting advertisement, campaigns and dieting gurus emphasize the misery of being overweight (Beaufort & Vandamme, 2008). They give the idea that overweight people are lazy and unsuccessful in life. Although these are only threats, the fear of been seen as lazy and unsuccessful contributes to the fact that women want to believe the promises the diet gurus and the new diet foods make.

The remarkable thing is that although women unconsciously get influenced by new diets and diet gurus, they do not get influenced by the western sociocultural norm of being thin. Although the western society put a lot of emphasis on the importance of being thin, with the ultra-thin models supporting advertisements campaigns, the respondents do not believe that being thin will make them more successful or attractive in life which is correlated with a higher weight loss goal (Cooper & Fairbun, 2001). An important reason could be that girls who are younger are more and easily influenced by society and peers to be thin than older women. Younger girls are more insecure about their bodies and about their weight than boys (Carlson, 2004; Canpolat, et al., 2005). Girls see models in campaigns as highly attractive and successful. Girls compare themselves to these ultra-thin models and peers and feel insecure. In order to feel less insecure, they want to look just like those models and start to diet. As shown in the literature about number of previous weight loss attempts when women get older they get a more realistic overview of what is achievable and what is not. They will recognize that the bodies shown by models and in society are not realistic for themselves. Recently there has been a shift in the emphasis of the western society of being thin. The society still emphasizes the importance of being thin but connect it with the importance of being healthy and don't connect it with being successful or attractive (Wright, O'Flynn & Macdonald, 2006). The media as well put their gravity in the fact that being thin (related to a normal BMI 20-25) will make us healthier, being overweight does not make us unsuccessful or less attractive. This could be another reason why women are not as much influenced by the media anymore, because the media and society do not emphasize the thin ideal as the beauty norm anymore.

The findings in this study suggest that women who have tried a couple of times before to lose weight, want to lose less weight on their new weight loss attempt. This suggests that women get more realistic in their goals after repeatedly trying to lose weight This finding is conform the literature research. Over time people learn about their own abilities of what is achievable and what is not. When women make plans for a new diet they will consider their failures and try to alter them in their new weight loss attempt (Prochaska, et al., 1992; Hügelschäfer & Achtziger, 2014)). This more carefully planning of their weight loss attempts and having a better

overview about their own abilities will help in setting a more realistic weight loss goal. Another explanation which has to be taken into account is that when women get older it gets more accepted when they put on some weight. Younger women are more vulnerable to the pressure that the western society put on them. Younger women feel more pressure to conform to what the society and peers wants them to be and want to be seen as attractive by peers and others (Jones, 2004). But when women get older they will get a more realistic view about what is achievable and what is not realistic to achieve (Benabou & Tirole, 2000). As well the pressure of being thin and being seen as highly attractive diminish. It is more accepted in the society that they are a little overweight and they are less vulnerable to what society or peers want them to be.

The influence of the factors: general overconfidence, internal locus of control and external locus of control are not proven in this study. The results of this study show that the women in this study have a general underconfidence. A possible explanation for the absence of a significant effect on weight loss goal setting, is that women are quite realistic about their own skills (Hügelschäfer & Achtziger, 2014). Which could be confirmed with the literature about the number of previous attempts. When women try to lose weight multiple times they learn about their own ability in performing a task. Setting more realistic goal for themself is related to predict one's own performance level and an accurate self-image. The women who are more realistic about their own skills sometimes underestimate their own performance. This is probably what happened in this particular study. This more realistic view and underconfidence these Dutch women have is also due to cultural differences. Professor Geert Hofstede researched cultural differences with the developed cultural dimension framework (Clark, Eckhardt, & Hofstede, 2003). Polivy and Herman are two American researchers and the False Hope Syndrome is mostly based on the American culture and American women. According to Hofstede America has a masculine culture; in which society will be driven by competition, achievement and success. While the Netherlands has a more feminine culture in which quality of life is a sign of success. American women have to be more confident in their own abilities and be more masculine in order to be successful compared to women in the Netherlands. These cultural differences between American women (masculine) and Dutch women (feminine) could be the reason why the women in the Netherlands suffer from some underconfidence.

The problem with the factors internal locus of control and external locus of control was the reliability. A reason for this unreliability could be that this research transformed the questions of the scale of Stotland & Zuroff (1990), to match this dieting study. The questions were specificly made to measure the internal locus of control or external locus of control by dieeting women, while the regular questions used in the Stotland & Zuroff scale are used to measure the general internal locus of control or external locus of control.

The unreliability of the factors internal and external locus of control is one of the main limitations in this study. To investigate if these factors have influence in weight loss goal settings by women further research on the internal and external control of dieting of women should be conducted. Another point of thought is that the participants had to report their own height and weight. Especially weight can be a sensitive factor for women and it could be that they did not answer the question truthfully. There is also a possibility of a self-selection bias. People who participated in this study could have given different answers than the people who did not participate. This research could measure if there is an influence of the factors at realistic weight loss goal settings by women. Furthermore this study did not make a distinction between normal weighted women (BMI 20-25), overweight women (BMI 25-30) and obese women (30 >) while those three segments of women could have different mind-sets in dieting and weight loss goals setting. This should be taken into account in future research. Also the focus of this study was on western society. While the western society puts an emphasis on being thin and losing weight other societies do not embrace the same societal norms. It should be taken into account that because the literature is based on western society and 100% of the respondents is originating from a western society the implications of this study can only be used for women originating from a western society.

Sumarizing, the results suggest that the False Hope Syndrome model implies a connection between the expectations and the realistic ability to achieve those expectations. There is some evidence that the False Hope Syndrome exists, but not with the certainty that Polivy and Herman (2002) described. 35% of the Dutch women in our sample are setting an unrealistic weight loss goal and are more likely to fail their new weight loss attempts. In the research of Polivy and Herman (2002) they state that 10% of the dieters will succeed in their weight loss attempt and will make a realistic weight loss goal, while in this research 65% of the women make a realistic

weight loss goal and have a higher possibility to succeed at their weight loss attempt. When women want to lose weight it is necessary to help them set realistic weight loss goals. In the research of Polivy and Herman they give overconfidence as a possible explanation of the high weight loss goal setting by women. While in America because of cultural differences this could be possible in the Netherlands women in general suffer from underconfidence. As a professional it is important to help women get a realistic view of their own abilities and performance level. The more aware a woman is of her own capacities and what she can do, the more she is capable of setting a realistic weight loss goal for herself and increases the probability of succeeding at her weight loss attempt. It is important to make clear to women who would like to lose weight, that it requires some strength and perseverance. Women are unconsciously influenced by diet gurus and new diets foods who make them believe that the perfect and ideal body is just around the corner, but in real life it is proven that promises made by the diet gurus and diet foods are not true. Women can make realistic weight lose weight goals and increase the probability of succeeding at their new weight loss attempts, when they let themselves not get influenced by the diet gurus and new diet foods. As well as having a realistic view of their own capabilities and abilities.

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# 7. Appendix

#### 7.1. Survey

#### Informed consent

Hartelijk dank dat u mee wilt werken aan dit onderzoek!

Momenteel ben ik bezig met mijn masterscriptie voor de Wageningen Universiteit. Deze vragenlijst maakt deel uit van mijn scriptieonderzoek. Veel vrouwen doen verscheidene pogingen om af te vallen, soms met succes, soms zonder succes. Dit onderzoek richt zich specifiek op vrouwen die in het verleden al eens een poging hebben gedaan om af te vallen en in de nabije toekomst zichzelf opnieuw een doel stellen om af te vallen. Daarbij kijk ik in deze studie specifiek naar de factoren die meespelen wanneer vrouwen zich opnieuw een doel willen stellen om af te vallen.

Deze vragenlijst is uitsluitend bedoeld voor vrouwen die aankomend jaar een nieuwe poging willen ondernemen om gewicht te verliezen.

Het invullen van de vragenlijst zal ongeveer 5 minuten duren. Er zijn geen goede of foute antwoorden bij dit onderzoek. Ik verzoek u wel de vragen waarheidsgetrouw in te vullen. Als deelnemer van dit onderzoek blijft u geheel anoniem.

U kunt op ieder moment beslissen om te stoppen met invullen. Voor eventuele vragen kunt u contact opnemen met Rudy Ruijter (rudy.ruijter@wur.nl)

Alvast hartelijk dank voor uw bijdrage aan dit onderzoek!

#### **General Questions**

Dit onderzoek begint met een aantal vragen over uw geplande poging om af te vallen, over uw lengte en huidige gewicht

- 1. u bent een?
  - a. Man b. vrouw
- 2. Bent u bewust van plan het aankomend jaar gewicht te verliezen?
  - a. Ja b. nee c. ik weet het nog niet
- 3. Hoeveel gewicht bent u van plan te verliezen in uw geplande poging?
- 4. Wat is uw huidige lengte in centimeters?
- 5. Wat is uw huidige gewicht in kilogrammen?

#### Importance of thin appearance

De volgende vragen gaan over het schoonheidsideaal in de westerse samenleving en hoe belangrijk u deze vind.

Geef aan in hoeverre u het eens bent met de volgende uitspraken.

- 1. Slank zijn is belangrijk.
- 2. Ik wil graag slank zijn.
- 3. Slank zijn maakt mij aantrekkelijker.
- 4. Slank zijn maakt mij succesvoller.
- 5. Slank zijn geeft mij meer zelfvertrouwen.
- 6. Ik wil er net zo uitzien als de modellen en mensen uit de media en tijdschriften.

#### Perceived newness of weight loss approach

Aankomende vragen hebben betrekking op de aankomende afval poging in vergelijking met de voorgaande afval poging.

Geef aan in hoeverre u het eens bent met de volgende uitspraken.

- 1. De manier waarop ik dit jaar wil afvallen is heel anders dan voorgaande keer.
- 2. Het dieet waarmee ik dit jaar wil afvallen is heel anders dan voorgaande keer.
- 3. Mijn aanpak van afvallen is dit jaar is echt nieuw.
- 4. Mijn motivatie dit jaar is veel groter dan voorgaande keer.

#### Internal belief and external belief

Volgende vragen gaan over uw controle over het dieet en afval poging.

Geef aan in hoeverre u het eens bent met de volgende uitspraken.

- 1. Door het beperken van wat men eet, kan men gewicht verliezen.
- 2. leder van ons is direct verantwoordelijk voor het eigen gewicht.
- 3. Ik heb controle over mijn eigen lichaamsgewicht.
- 4. De reden dat ik wat te zwaar ben is gewoon door pech.
- 5. Vaak heb ik weinig of geen invloed op de dingen die mij overkomen.
- 6. Mislukte afval pogingen komen door externe factoren (als stress).

#### **Diet history**

Aankomende vragen hebben betrekking op u geschiedenis met afvallen en diëten.

- 1. Hoe vaak heft u in de afgelopen vijf jaar een poging tot afvallen gedaan?
- 2. Voorgaande afval poging wilde ik... kilo verliezen.

#### **General overconfidence**

Aankomende vijftien vragen zijn kennis vragen, u kunt steeds kiezen uit twee antwoorden. Beantwoord de volgende vragen naar welk antwoord u denkt dat het juiste is en hoe zeker u er over bent dat het antwoord juist is. Het is hierbij belangrijk dat u eerlijk aangeeft hoe zeker u bent dat dit het juiste antwoord is of niet. Het maakt dus niet uit of dit ook daadwerkelijk het juiste antwoord is of niet.

- 1. Welke stad had meer inwoners in het jaar 2014?
  - a. Maastricht (122)
- b. Leiden (121)

Niet zeker

(range between 0 % and 100 %)

Zeer zeker

- 2. Welk museum had meer bezoekers in het jaar 2014?
  - a. Van Gogh museum (1,6 m)
- b. Stedelijk museum (800.000)

Niet zeker

(range between 0 % and 100 %)

Zeer zeker

- 3. Welke van deze twee steden heft een hoger gemiddeld temperatuur in juli?
  - a. Barcelona (30 graden
- b. Milan (28 graden)

Niet zeker

(range between 0 % and 100 %)

Zeer zeker

- 4. Welke van deze twee food items bevat meer calorieen?
  - a. 100 gram becel boter (410)
- b. Twix (277)

Niet zeker

(range between 0 % and 100 %)

Zeer zeker

5. Welke van deze toeristische activiteiten had meer bezoekers in het jaar 2014?

a. London Eye (3,5) b. Eiffel tower (Paris) (6) Niet zeker (range between 0 % and 100 %) Zeer zeker 6. Welke van deze Europese bergen is hoger? a. Mont Blanc (France) (4810) b. Elbroes (Russia) (5642) Niet zeker (range between 0 % and 100 %) Zeer zeker 7. Welke rivier is langer? a. Rijn (1235 km) b. Maas (925) Niet zeker (range between 0 % and 100 %) Zeer zeker 8. Op welke pool is het kouder? a. De Noordpool b. de Zuidpool (v) Niet zeker (range between 0 % and 100 %) Zeer zeker 9. Op welke pool leven de ijsberen b. Zuidpool a. Noordpool(v) Niet zeker (range between 0 % and 100 %) Zeer zeker 10. Hoeveel McDonalds zijn er in Nederland? a. 246 (v) b. 311 Niet zeker (range between 0 % and 100 %) Zeer zeker 11. Hoe oud was de oudste vrouw ter wereld? a. 122(v) b. 119 (range between 0 % and 100 %) Niet zeker Zeer zeker 12. Hoe laag is het laagste punt van Europa a. 31 meter onder het zeeniveau b. 22 meter onder het zeeniveau (v) Niet zeker (range between 0 % and 100 %) Zeer zeker 13. Welke appel is de meest geteelde appel in Nederland a. Jonagold b. Elstar (V) Niet zeker (range between 0 % and 100 %) Zeer zeker 14. Hoeveel auto's zijn er in Nederland verkocht in het jaar 2014? a. 390.402 (v) b. 410.237 (v) (range between 0 % and 100 %) Niet zeker Zeer zeker 15. Hoeveel botten telt het menselijk lichaam a. 206 (V) b. 305 Niet zeker (range between 0 % and 100 %) Zeer zeker

#### **General questions**

Dit onderzoek eindigt met een aantal algemene vragen.

- 1. Wat is uw hoogst genoten opleiding?
- 2. Wat is uw leeftijd?
- 3. Welke nationaliteit heeft u?

# 7.2. Questions Internal and External locus of control

- ILC 1 = By districting what you eat, you can lose weight.
- ILC 2 = Everybody is responsible for his or hers own weight.
- ILC 3 = I have the control about my own body weight.
- ELC 1= the reason why I have a little overweight is just because of bad luck.
- ELC 2 = Most of the time I have no influence of the things that happen to me.
- ELC 3 = Stress or other external factors is the reason why weight loss attempts fail.