

The relationship between self-concept, self-efficacy, emotional state, weight perception and food choice: Implications for marketers based on a Generation Y sample

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Declaration

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ABSTRACT

Numerous individuals daily partake in injurious consumption, such as excessive or unhealthy food choices. Individuals' incorrect food choices can have a negative effect on their weight, health and general quality of life. Marketers could and should play a pivotal role in influencing consumers' food choices, which will ultimately contribute to healthier individuals and societies as a whole.

The purpose of this study was to investigate the relationships between self-concept and food choice, self-efficacy and food choice, emotional states and food choice, and weight perception and food choice, and to highlight implications for marketers based on these findings. These relationships were investigated in a Generation Y sample. A sample of 383 college-aged¹ students of Generation Y completed a self-administered questionnaire that was designed based on previous studies. Respondents' weight perception was also investigated as many students from Generation Y try to change their weight perceptions through their food choices. Respondents' food choice was compared to the recommended food choice of the South African Department of Health (Department of Health, 2009).

Based on this comparison, it was proposed that marketers of food products should promote a decrease in respondents' meat consumption and an increase in milk, fruit, vegetable and starch consumption. Small yet significant relationships between respondents' specific food choices and self-concept, self-efficacy, emotional states and weight perception were found. Marketers can incorporate these relationships into their advertising campaigns and brand slogans in order to positively influence Generation Y to make healthier food choices.

Another significant finding was that male respondents indicated a higher ideal weight than their actual weight, while female respondents indicated a lower ideal weight than their actual weight. A relationship was also found between self-concept and weight perception for both men and women from Generation Y.

The significance of this study lies in the expansion of knowledge regarding the food choice behaviour of a Generation Y sample and the recommendations made to marketers based on relationships found between food choice and the constructs at hand. These recommendations can ultimately improve consumers' food choice.

¹ College- or university-aged individuals are 18 to 24 years old.

OPSOMMING

Verskeie individue neem daagliks deel aan nadelige verbruik, met inbegrip van oormatige of ongesonde voedselkeuses. Individue se foutiewe voedselkeuse kan hul gewig, gesondheid en lewensgehalte negatief beïnvloed. Bemerkers kan en behoort 'n belangrike rol te speel om individue te oortuig om gesonde voedselkeuses te maak.

Die doel van hierdie navorsing was om die verhouding tussen self-konsep en voedselkeuse, self-ekwiteit ('self-efficacy') en voedselkeuse, emosionele toestande en voedselkeuse en gewigpersepsie en voedselkeuse te ondersoek en om die implikasies hiervan gebaseer op hierdie bevindings aan bemarkers voor te lê. 'n Steekproef van 383 lede van Generasie Y het 'n vraelys ingevul wat ontwerp is op grond van vorige navorsing. Respondente se gewigpersepsie is ook bestudeer aangesien verskeie studente (universiteitsouderdom) van Generasie Y poog om hul gewigpersepsie te verander deur middel van hul voedselkeuses. Respondente se voedselkeuses is vergelyk met die voedselkeuses wat aanbeveel word deur die Suid-Afrikaanse Departement van Gesondheid (Department of Health 2009).

Op grond van die vergelyking is bevind dat bemarkers 'n afname in individue se vleisinname, en 'n toename in individue se melk-, vrugte-, groente- en styselname behoort te bevorder. Die ondersoek het getoon dat daar klein, maar beduidende verhoudings aangetref is tussen respondente se spesifieke voedselkeuses en self-konsep, self-effektiwiteit, emosionele toestande en gewigpersepsie. Bemarkers kan hierdie verhoudings in hul bemarkingsveldtogte en handelsmerk-slagspreuke inkorporeer.

Nog 'n beduidende resultaat was dat die manlike respondente 'n hoër ideale gewig as hul huidige gewig aangedui het, terwyl vroulike respondente 'n laer ideale gewig as hul huidige gewig aangedui het. Die resultate toon ook dat daar vir beide mans en vroue van Generasie Y 'n verhouding tussen self-konsep en gewigpersepsie is.

Deur middel van hierdie studie is kennis rakende die voedselkeuses van 'n steekproef van Generasie Y uitgebrei. Aan die hand van die verhoudings tussen voedselkeuse en respondente se self-konsep, self-effektiwiteit, emosionele toestande en gewigpersepsie, is daar aanbevelings vir bemarkers gemaak. Hierdie aanbevelings sal uiteindelik bydra tot die verbetering van Generasie Y se voedselkeuses.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTORY PERSPECTIVES

Countless individuals partake in injurious consumption daily. Injurious consumption can be defined as consumption of any product that causes damage to the individual, for example smoking and excessive drinking (Udupa, 2007). Incorrect food choices as another form of injurious consumption have received increased attention in academic debate as individuals can make excessive or unhealthy food choices that negatively influence their weight, health and general quality of life.

It is a universally recognised fact that food choice contributes to an individual's weight, and in turn to an individual's health. The World Health Organisation (2010) asserts that in 2005 approximately 1.6 billion people around the world were regarded as overweight or obese. In South Africa, almost 50% of the population can be classified as overweight or obese (Health24, 2009). Being overweight is hazardous as it can lead to the development of type 2 diabetes and heart-related diseases. It is estimated that 8% of cardiovascular diseases, 30% of cancers and 90% of type 2 diabetes can be prevented by making healthy food choices (Anderson & Bryngelsson, 2007, p. 31).

Other possible injurious effects of food choice include eating disorders such as anorexia, bulimia, binge eating and compulsive eating. Worldwide, approximately 70 million individuals suffer from some type of eating disorder (Examiner, 2010). According to Rozin, Bauer and Catanese (2003), diagnosed eating disorders can be viewed as the tip of an iceberg of different degrees of concern about food choice. Concern about food choice can lead to anxiety and worry (Rozin et al., 2003) and may therefore influence not only individuals' physical health, but also their quality of life.

Despite the fact that approximately 6.8% of South Africa's health care costs can be ascribed to obesity and approximately R14,9 billion could be saved if the nation became healthier (Peinke, 2009, p. 2). South African consumers continue to make unhealthy food choices. It is an undisputed fact that marketers attempt to influence behaviour via persuasive messages, of which many include the making of unhealthy food choices, such as fast foods and super-size meals high in fats and calories. Subsequently, it could also be argued that marketers could and should play a pivotal role in influencing consumers' food choices that would contribute to healthier individuals and societies as a whole.

1.2 BACKGROUND AND IMPORTANCE OF THE STUDY

It is the first time in history that there are more overweight/obese² individuals than underweight and malnourished individuals (Rosin, 2008). Today obesity is described as "... a health time bomb with the potential to explode over the next three decades ... Unless this time bomb is defused, the consequences for the population's health, ... and losses to the economy will be disastrous" (Donaldson in Lang & Heasman, 2004, p. 121). Since food choice contributes to individuals' weight, marketers presenting various food choice alternatives can ultimately influence an individual's weight.

However, food choice is a complex phenomenon. Numerous variables influence this decision-making process with the result that marketers who aim to change consumers' injurious food choices have to consider a multitude of constructs. An overview of the literature (Chapters 2 and 3 of this report) indicates numerous variables that influence food choice, including self-concept (Witte, Skinner & Carruth, 1991), emotional states (Leon & Chamberlain, 1973), weight perception (McFarlane, Polivy & Herman, 1998), knowledge of nutrition, attitude towards nutrient intake (Witte et al., 1991), culture (Lupton in Coleman, 2008), westernisation (Lehohla, 2006), country of origin (Peters, 1999), subjective norms (Stevens & Maclaran, 2008), self-efficacy (Parcel, Edmundson, Perry, Feldman, O'Hara-Tompkins, Nader, Johnson & Stone, 1995), income (Coleman, Butcher & Carson, 1984), food availability, habits and taste preference. These variables can be combined into a theoretical list of variables that influence food choice, and are discussed in more detail in Chapter 2.

Marketers of food choice and weight-loss products currently use taste, kilojoule-content, fat-content and nutritional values as different approaches to convince consumers to change their food choice. For example Special K (2009) emphasises taste, low kilojoule content and resulting weight loss, Weigh-Less endorses certain products based on its fat and nutrient content (Weigh-Less, 2009) and Clover suggests weight loss through its low glycaemic index (GI), low-fat milk (Clover, 2010). Numerous weight-loss programmes consider and incorporate the above-mentioned approaches together with psychological variables in their programmes aimed at changing individuals' food choice. However, it is evident that many marketers still do not capitalise on the use of psychological variables in their attempt to influence food choice behaviour. As a result, this study proposes that marketers should consider the relationships between self-concept and food choice, self-efficacy and food choice,

² Body mass index (BMI) is used to classify an individual as overweight or obese and is discussed in Chapter 3.

emotional states and food choice, and weight perception and food choice as a possible means to influence consumers' healthy food choice.

The following constructs are therefore central to this study and are defined and briefly motivated in the subsequent paragraphs.

Self-concept: Self-concept can be defined as the knowledge, beliefs, feelings and thoughts that one has about oneself (Graeff, 1996). Coleman (2008) believes that food choice forms part of who we are. Based on the definition of self-concept and Coleman's statement, it is possible that individuals' food choice is influenced by their self-concept; thus, a relationship worthy of marketers' consideration. Witte et al. (1991) indicate that self-concept influences food choice.

Self-efficacy: Self-efficacy can be defined as an individual's confidence in his or her capabilities and skills (Bar-On & Parker, 2000). Incorrect food choices may be influenced by an individual's perceived self-efficacy as self-efficacy can serve as a predictor of a variety of health-related behaviours (Luszczynska, Gibbons, Piko & Tekozel, 2004). Parcel et al. (1995) report a relationship between self-efficacy and food choice for children.

Emotional states: Emotional states include anger, sadness, fear, shame, love, contentment, happiness, etc. (Laros & Steenkamp, 2005). Leon and Chamberlain (1973) found that emotion influences food choice. Many individuals thus make certain food choices in order to deal with a specific emotional state. This is corroborated by McGraw (2003, p. 83) who states, "... more than 50 per cent of all overweight people use food to cope with anger, stress and other emotions".

Weight perception: Weight perception can be defined as the subjective perception of a person's body weight. The association between weight perception and food choice is obvious as individuals are motivated to change their food choice based on their weight perception. A person who is overweight may also continue to eat unhealthily – losing interest in the remote goal of weight loss (Coleman et al., 1984). McFarlane et al. (1998) investigated the influence of weight perception on food choice within a female sample and found a relationship between participants' food choices and weight perception.

Generation Y: Generation Y consists of individuals born between 1978 and 1999 (Herbison & Boseman, 2009). Noble, Haytko and Phillips (2009, p. 627) emphasise that college students in Generation Y is "... one of the most coveted consumer segments in history" as they are regarded as

trendsetters, early-adopters and an appreciated market segment due to their size and future disposable income. Retailers and marketers need more information about specific segments within Generation Y, for example college-aged³ consumers, to effectively position and target products meant for this segment (Noble et al., 2009). Therefore, the scope of the study was limited to university students from Generation Y – for convenience, specifically students from the University of Stellenbosch.⁴

Marketers of fast food, restaurants, supermarkets and weight-loss products often target students as they are viewed as influential, up-and-coming and yet sometimes vulnerable individuals. Many students yo-yo diet – a constant struggle between gaining and losing weight. This cycle is compounded when individuals use food as a means to deal with their emotions and a negative self-concept, which in turn leads to further food consumption, lack of self-control and so the cycle continues. This could lead to the development of injurious food consumption patterns.

1.3 IMPORTANCE OF THE STUDY

Since self-concept, self-efficacy, emotional state and weight perception may influence individuals' food choice, and food choice influences individuals' weight, health and quality of life, these variables are worth investigating as antecedents of food choice. Successfully influencing consumers' food choice through marketing can lead to an improvement in consumers' health, weight and quality of life. The importance of the study therefore lies in the expansion of knowledge regarding the food choice behaviour of a Generation Y sample and the empirically based recommendations to marketers to improve consumers' food choice behaviour. The study may also make a possible contribution to consumer behaviour literature.

1.4 RESEARCH QUESTION AND OBJECTIVES

Following from the above background, the research initiating question can be stated as follows:

Is there a relationship between self-concept, self-efficacy, emotional states, weight perception and food choice within a Generation Y sample?

³ College-aged consumers are 18 to 24 years old.

⁴ Sampling is discussed further in Chapter 4.

1.4.1 Literature objectives

From the research question, specific literature objectives were formulated for this study:

- to provide an overview of the various independent variables portrayed in the theoretical model and the relationship thereof with food choice;
- to investigate the nature of the constructs identified as the independent variables, as well as the relationship thereof with food choice; and
- to examine whether self-concept, self-efficacy, emotional states, weight perception and food choice influence males and females differently.

1.4.2 Empirical objectives

For the empirical component of this study, the following empirical objectives were set:

- to examine the relationship between self-concept and food choice;
- to examine the relationship between self-efficacy and food choice;
- to examine the relationship between emotional states and food choice;
- to examine the relationship between weight perception and food choice;
- to examine the relationship between weight perception and self-concept; and
- to investigate whether self-concept, self-efficacy, emotional states, weight perception and food choice influence males and females differently.

Lastly the following objectives were formulated regarding the implications and recommendations:

- to propose implications for marketers based on findings on the above objectives; and
- to make recommendations for future research.

1.5 METHODOLOGY

The research methodology for this study was designed to meet the objectives. An ex post facto research design was adopted. The literature review (Chapters 2 and 3) served as platform for the identification of the various constructs that were studied. A questionnaire was designed based on

previous studies to gather data from a convenience sample of Generation Y respondents (n = 383). Data were subjected to descriptive and reliability analysis, as well as correlation analysis to indicate the relationship between variables with the use of the Statistica 9 statistical package. The analysis of the results and data lead to conclusions regarding the various research objectives.

1.6 THESIS OUTLINE

Chapter 1 provides a background for the study. The motivation for the study, research question and subsequent objectives together with the research methodology, were stated.

In Chapter 2, food choice, self-concept and self-efficacy are presented. The association between self-concept and food choice, as well as self-efficacy and food choice are discussed.

The focus shifts to a discussion of emotional states and weight perception in Chapter 3. The relationship between emotional states and food choice and weight perception and food choice is examined. Generation Y is discussed thereafter as this generation formed the scope of the study.

Chapter 4 presents the methodology for the study. The objectives are revisited and the target population, chosen sample, measuring instrument and procedures used for statistical analysis are stated.

In Chapter 5, the research results of the study are presented and compared to a guideline of correct food choices set by the South African Department of Health. A discussion of the research results are provided in Chapter 6, together with the recommendations for marketers. Implications for marketers are offered with the Department of Health's recommended food choice as guideline. Recommendations for future research are made.

CHAPTER 2: FOOD CHOICE, SELF-CONCEPT AND SELF-EFFICACY

2.1 INTRODUCTION

Injurious consumption can be defined as consumption of any product that causes damage to the individual (Udupa, 2007). Therefore, unhealthy food choices by consumers can justifiably be classified as injurious consumption behaviour. When consumers engage in repeated unhealthy food choices, such behaviour contributes to the rising levels of obesity and related health problems worldwide. A recent study by GlaxoSmithKline, a pharmaceutical company, indicated that 61% of South Africans are overweight or obese (Groenewald, 2010, p. 8). Besides the United States and Britain, South Africa can be classified as the country with the fattest people (Hendricks, 2010). With these alarming statistics regarding the increase of overweight and obese individuals within the South African population, an investigation of the variables that influence individuals' food choices is justified.

For the purpose of this study, the relationship between self-concept, self-efficacy, emotional state, weight perception and food choice was investigated. In the following two chapters an investigation of each construct and its relationship with food choice will provide the necessary background for the generation of hypotheses that guided the empirical component of this study.

2.2 FOOD CHOICE

Food can be described as dull, exciting, luxurious and emotive and it is a product that no one can avoid or survive without (Coleman, 2008). Leon wittily states, "... one way out of making food choices is not to eat at all" (in Kayloe, 1993, p. 270). Given the relationships under investigation, components of food choice, the importance of healthy food choices and factors that influence individuals' food choices are discussed in the subsequent sections.

2.2.1 Components of food choice: food groups

Food choices form the basis of an individual's diet and food intake. According to the Collins English Dictionary (2003), *diet* is food that an individual consumes to control his/her weight. An earlier edition of the Concise Oxford Dictionary further describes *diet* as special food that serves a medical purpose or acts as a form of punishment (Fowler & Fowler, 1958). As diet is not the focus of this study, the term *food choice* is used to describe individuals' (usual) daily food intake.

From a nutritional perspective, food choices can be divided into different food groups that are often portrayed in the food pyramid using seven groups, namely grains, meat, milk, fruit, vegetables, fats and sweets (ThinkQuest, 2010). Mahan and Arlin (1992) revised the seven groups by combining fats, sweets and alcoholic drinks into one separate food group.

- The starch or grains group includes breads, bagels, cereals, muffins, crackers, spaghetti, rice, etc. (Mahan & Arlin, 1992). Grains provide the body with fibre (Dairy Council, 2010), certain vitamins (Department of Health, 2009) and energy from carbohydrates (ThinkQuest, 2010).
- The meat group includes red meat, chicken, fish, eggs, etc. These provide proteins and iron. Proteins are essential for facilitating growth of body tissue (Department of Health, 2009; Dairy Council, 2010; ThinkQuest, 2010).
- The milk food group includes milk, yoghurt, etc. that provides the body with calcium (ThinkQuest, 2010) that strengthens and facilitates bone growth (Lessonplans, 2010).
- Apples, apricots, bananas, grapefruit, cherries, oranges, etc. are examples of fruits (Mahan & Arlin, 1992) and these are a major source of vitamin C and other antioxidants (Department of Health, 2009).
- The vegetable group includes asparagus, beets, cabbage, broccoli, carrots, etc. (Mahan & Arlin, 1992), which are sources of vitamin A and C (ThinkQuest, 2010).
- Fats include oils, spreads, butter, margarine, salad dressings, etc. and are responsible for transporting vitamins in the body and providing energy (Lessonplans, 2010; Mahan & Arlin, 1992).
- Sweets or sugars include candy, fudge, jellies, puddings, etc. (Mahan & Arlin, 1992).

The components of food groups may differ slightly according to the source consulted, as different authors categorise food components differently. For example, some view corn as a vegetable while others, classify it as part of the starch group. The importance of healthy food choices is discussed subsequently.

2.2.2 The importance of healthy food choices

The recommended daily intake of each food group differs according to the source consulted. Anderson and Bryngelsson (2007) contend that the recommended food choices for a healthy diet often change and experts do not show consensus in this regard. Table 2.1 provides a comparison of the different recommended food intakes and highlights the large discrepancies that are evident

between various authors. These authors may base their recommendations on their own opinion, lifestyle and different experiences of the purpose of food choice. A comparison of recommended daily food choice is also problematical because of the authors' different portion sizes and categorisations of food choice groups.

Table 2.1: A comparison of different recommended daily food choice

Researcher	Recommended portions of					
	Fruits (hand palm size)	Vegetables (half a cup)	Grains/starch (half a cup)	Meat (hand palm size)	Milk (one cup)	Fats, sugars (teaspoonful)
Van der Merwe (personal communication, April 23, 2010)	2	12 ⁵		5	2	7
Mahan and Arlin, 1992	3–5		6–11	2–3	2–3	Avoid consuming too much
Department of Health, 2009	5		9–11	2–3	1–2	Eat sparingly

According to the Food-Based Dietary Guidelines, healthy food choices include starchy foods, vegetables, meat, fish, chicken, milk, eggs and water (Health24, 2009). In particular, 73% of an individual's food choices should be plant foods, 23% should be animal foods, and 2% should be fats and oils (Drescher, Thiele & Mensink, 2007, p. 648). Foods high in fat and salt should be limited (Health24, 2009).

The benefits of healthy food choices are numerous. These include not developing obesity and other diseases associated with lifestyle (Health24, 2009), for example osteoporosis (Richards, 2009), certain cancers, premenstrual syndrome, hyper-activity, heart diseases, arthritis (Peters, 1999), type 2 diabetes, hypertension (Klein, Burke, Bray, Blair, Allison, Pi-Sunyer, Hong & Eckel in Warziski, Sereika, Styn, Music & Burke, 2008), heartburn and infertility (Shreeve, 2002). According to the World Health Organisation, 80% of cardiovascular diseases, 30% of cancers and 90% of type 2 diabetes can be prevented by making healthy food choices (Anderson & Bryngelsson, 2007, p. 31). Lang and Heasman (2004) mention 16 types of cancers that are preventable by making the correct food

⁵ Van der Merwe (personal communication, April 23, 2010) combines vegetables and grains/starch into one group.

choices. Healthy food choices are thus critical to provide the body with fuel and nutrients, to improve mood, fertility, immune function and well-being and to slow down ageing (Richards, 2009).

Despite these benefits, many individuals still do not make healthy food choices. Subsequently, an investigation of the factors that influence individuals' food choices is justified.

2.2.3 Factors that influence individuals' food choices

Numerous factors (listed below) could impact on food choice, over and above the primary variables investigated in this study, namely self-concept, self-efficacy, emotional states and weight perception.

- Disposable income
- Knowledge of nutritional value
- Motivation
- Social interactions
- Subjective norms
- Dietary habits
- Westernisation
- Food availability
- Culture
- Food preference
- Variation
- Food choice trends
- External and internal influences
- Purchase situation and stage in decision-making process
- Gender
- Other factors

In order to acknowledge the complexity of food choice behaviour, these additional antecedents of food choice are presented in the subsequent paragraphs.

Disposable income: In 2005/2006, South Africans spent 16.6% of their consumption expenditure on food (Statistics South Africa, 2008, p. 28). According to Coleman et al. (1984), obesity (a consequence of unhealthy food choices) is six times more likely to occur in individuals of lower social class, whereas French, Perry, Leon and Fulkerson (1995) state that individuals from upper middle social-economies make healthier food choices. Rozin et al. (2003) support these findings and indicate a positive relationship between social class and concerns about health and diet.

Making healthy food choices could be regarded as more expensive than other standard food choices. However, one must consider the total amount of money spent on diet pills and other weight loss products by individuals who choose not to incur the costs of healthier foods. Overweight individuals

often incur additional costs for medical treatment, weight loss programmes and excess food consumption, whilst making healthy food choices could be less expensive than the costs incurred due to unhealthy food choices (Rosin, 2008). According to Groenewald (2010), individuals should consider purchasing healthy food as a long-term saving in cost because of its positive contribution to their health.

Knowledge of nutritional value: Rosin (2008) states that knowledge of nutrition is influenced by an individual's education level and the nutritional values displayed on food packaging. For example information regarding GI-levels, indicate the effect of food on blood glucose levels that could serve as a guideline for future food choices (Delport & Volschenk, 2007). Health24 (2009) argues that South Africa's obesity epidemic can be curbed by educating the nation. Initiatives to educate individuals about a healthy diet can include information about portion sizes and understanding food labels (Duffin, 2010). The Swedish National Food Administration developed a keyhole symbol for food packaging that indicates foods that are low in sugar, fat and salt or high in fibre (Anderson & Bryngelsson, 2007). A heart symbol is used in Finland similar to the one used by the South African Heart Foundation to endorse products low in sodium, fat and sugar (Anderson & Bryngelsson, 2007; Heart Foundation, 2010).

Motivation: Individuals' underlying motivation for consuming food can also influence their food choice, for example individuals may make certain food choices to satisfy their hunger and other food choices due to boredom with a regular food choice (Raynor & Epstein, 2001). According to Schaffner, Schroder and Earle (1998), individuals are motivated to dine out for numerous reasons including to have fun, to have a good meal, to satisfy a craving, to satisfy others, or because it is convenient. However, when weight loss is a primary motivation, food choices have to accommodate pleasurable consumption while facilitating weight loss (Nichter, 2000).

Social interactions: Food choices can also be influenced by social and other interpersonal interactions (Herman, Roth & Polivy, 2003). Consuming food in a social situation can be viewed as a challenging eating situation, which therefore influences individuals' food choice (Glynn & Ruderman, 1986). Some individuals avoid social eating situations where they are required or inclined to falter or deviate from their normal eating plan or to make food choices that are more acceptable to their eating partners (Anschutz, Van Strien & Engels, 2008). Eating socially (for example at a restaurant with friends) may also increase the time spent eating and influence an individual's food choice (Frewer & Van Trijp, 2007). Research conducted by McFerran, Dahl, Fitzsimons and Morales (2010) shows that

individuals eat less when the partner they are with chooses a small portion of food, and vice versa. Interestingly, individuals who usually consume small portions eat more and those who usually eat larger portions tend to eat more when other individuals are present during food choices (McFerran et al., 2010).

Subjective norms: Subjective norms may influence an individual's food choice because food choices can form part of social identity and convey a certain social identity to others (Roth, Herman, Polivy & Pliner, 2001; Smart, 1999). Subjective norms can be viewed as the perception that individuals have about generally acceptable standards set by society. Frewer and Van Trijp (2007) mention that the role of the subjective norm is especially evident in the appropriateness and preference of food choice, as well as the variety of food choices made. A person might regard, for example, more things edible when he or she is hungry at home, than with friends in a restaurant (Frewer & Van Trijp, 2007).

Dietary habits: Dietary habits are determined through meal composition and meal patterns and may influence individuals' food choices (Viljoen & Gericke, 2001). Individuals that follow a Western eating pattern habitually consume three meals and in-between snacks a day and change their eating pattern over weekends (Viljoen & Gericke, 2001). This is supported by Frewer and Van Trijp (2007, p. 4) who state that individuals make "indulgent" food choices on weekends and "more prudent choices" on weekdays. The National Food Consumption Survey found that children of different ages usually consume three meals per day and a third of the children in their sample consume in between snacks (Labadarios, Steyn, Maunder, MacIntyre, Gericke, Swart, Huskisson, Dannhauser, Vorster, Nesmvuni & Nel, 2005).

Westernisation: A concern regarding the influence of Westernisation and urbanisation on food choice is mentioned by some authors (Health24, 2009; Van Heerden, 2004). Individuals who move from rural communities to the city change their food choices and lifestyle and become physically inactive (Health24, 2009). Both Statistics South Africa (Lehohla, 2006) and Mumford (Hill & Bhatti, 1995) argue that a significant percentage of obesity and unhealthy food choice could be ascribed to the adoption of Western food choices.

Food availability: Food availability can be influenced by a country's soil and climate, which in turn influences year-round production (Schaffner et al., 1998). The availability or lack of healthier food at, for example, school cafeterias, fast-food restaurants and at home can influence an individual's food choices (Faith & Fontaine, 2007).

Culture: A person's heritage, traditions and ethnicity (as part of culture) may influence his or her food choices (Cartwright, Wardle, Steggle, Simon, Croker & Jarvis, 2003; Coleman, 2008). Different countries' staple food differs, for example rice in China and maize meal in South Africa. In the Mediterranean, individuals eat more fruit, salads, vegetables, olive oil, basil, fish, garlic, pasta and other spices (Peters, 1999). Moreover, food preference can be learned through socialisation processes such as imitation, or modelling of others' food choices, as well as repeated exposure to certain foods (Frewer & Van Trijp, 2007). Individuals' culture can also influence their meal patterns, food preparation, food's traditional significance and imply certain food as religious taboos, food combinations, who eats what with whom, and when specific food is served (Frewer & Van Trijp, 2007; Schaffner et al., 1998).

Food preference: Food preference can be viewed as the intended frequency of use or as the overall liking of a specific food. Different population groups may have different food preferences (Viljoen & Gericke, 2001). For example, most of the South African population groups indicated that they consume beef on a regular basis (Viljoen & Gericke, 2001). According to Rozin et al. (2003), taste plays a determinant factor in individuals' food choices, for example, an overall liking (e.g. yoghurt) and a disliking (e.g. cabbage) for certain types of food choices were present for most South African population groups (Viljoen & Gericke, 2001).

Variation: Specific food choices are made to incorporate variation in individuals' food intake. Dietary variety can be accomplished by incorporating several different foods into one meal or a new food in each meal course (Raynor & Epstein, 2001). In the study by Viljoen and Gericke (2001), coloured respondents ate a greater variety of items between meals. Frewer and Van Trijp (2007) believe that individuals in developed countries have more variance in their food choices. This may be because there is a wider variety of food choices available to such individuals, or because they have larger disposable incomes for their food choices.

Food choice trends: Food trends can also influence food choice. These include, for example meals that are less complicated to prepare as more individuals are not planning meals ahead of time, an increase in preference for food that is quick and easy to prepare and a new generation of individuals who do not know how to cook, or who are too tired to prepare a proper meal (Brody & Lord, 2007). Frewer and Van Trijp (2007) also acknowledge that individuals do not want to spend time or energy cooking and consuming food. A rise in consumer interest in organic food and herbal remedies is also

predicted as trends that could influence current and future food choice behaviour (Lang & Heasman, 2004).

External and internal influences: Numerous other external and internal influences can have an impact on individuals' food choices. These include parents, teachers, print media, influential reference groups, restaurants, nutritionists, social groups, economic status, experience and advertising (Schaffner et al., 1998, p. 68). Lang and Heasman (2004) mention that in the UK, advertising budgets of healthy foods, for example fruit and vegetable products, are considerable less than those of other more fattening foods. The larger advertising amount regarding fattening foods may influence individuals' food choices negatively. Smart (1999) blames fast food companies like McDonalds for destroying healthy traditions such as healthy food choices, home cooking and family restaurants.

Purchase situation and stage in decision-making process: A person's purchase situation may influence his or her food choice. For example, luxury food (such as expensive chocolates) is usually bought for a special occasion, an impulse food (for example ice cream) is bought because of a stimulus, and staple food is bought out of habit (Schaffner et al., 1998). Table 2.2 portrays the decision process of consumers' food choices. The food choice decision process can be simplified through substitutions, elimination of options, routinisation, restriction of options or focusing on one specific requirement (Frewer & Van Trijp, 2007). From Table 2.2 it is evident that different stages in the consumer decision-making process will be dominated by different consumer influences and product determinants, thus influencing food choice behaviour.

Table 2.2: Consumer's dietary decision process

Stage	Consumer influencers	Product determinants
Pre-action (acknowledge need)	Knowledge, habits, preferences, attitudes, motives, individuals, groups	Packaging, public relations, advertising
Search action (comparison)	Nutrition, household needs, hunger, physical and sensory comparison	Colour, aroma, shelf location, promotion appearance
Buying action	Sensory properties, value for money, need fulfilment	Price, packaging, brand, safety
Preparing action	Storage, cooking, serving	Versatility, convenience, attractiveness, ease
Eating action	Aroma, touch, taste, social needs, appearance	Nutrition, enjoyability, sensory factors
Post-action	Fullness, group approval, safety	Pleasant after-taste, stomach filling, digestibility

Source: Schaffner et al., 1998, p. 69

Gender: Women usually believe that their food choices contribute to their health (Rozin et al., 2003). Cartwright et al. (2003) mention that women consume less snacks, breakfast and fatty foods compared to men; however, the National Food Consumption Survey (Labadarios et al., 2005) asserts that there is no difference in the food consumption of male and female children. In terms of eating disorders, bingeing, dieting and purging are more common among women than among men (Rozin et al., 2003). This statement is supported by Anglé, Engblom, Eriksson, Kautiainen, Saha, Lindfors, Lehtinen and Rimpelä (2009).

Other factors: Schaffner et al. (1998, p. 59) mention that food choice is also determined by individual physiological and psychological make-up, age and technology. Frewer and Van Trijp (2007) note that sensory or hedonic features and anticipated consequences influence food choice. Consequences include health-related, social or post-indigestive consequences, while sensory features include taste, audition, vision and smell (Frewer & Van Trijp, 2007).

In the preceding section, the numerous antecedents that influence food choice have been discussed in order to give recognition to the complexity of food choice behaviour. In the following sections, the focus will shift toward the four antecedents that are of particular importance for this study, namely self-concept, self-efficacy, emotional state and weight perception.

2.3 SELF-CONCEPT

Self-concept will be considered in the following section to precede the discussion of the relationship between self-concept and food choice. The literature review will focus on the definition, antecedents, types as well as the marketing implications of self-concept.

2.3.1 Defining self-concept

The self was defined by Plato as the centre where a person's feelings, thoughts and actions are experienced (Walker, 1992). According to Graeff (1996), self-concept can be defined as the knowledge, beliefs, feelings and thoughts that one has about oneself. Mehta (1999) emphasises the overarching nature of self-concept by defining self-concept as the sum of all feelings and thoughts about oneself. In other words, self-concept is an individual's own concept – developed through knowledge, feelings and thoughts of the self.

A primary characteristic of self-concept is that it is not necessarily the objective assessment of the self, but rather the subjective thoughts and feelings that individuals have of themselves (Zinkhan & Hong, 1991). It involves certain ideas and perceptions, rather than concrete evaluations. When self-concept is studied from a consumer behaviour perspective, it can also be described as perceptions or ideas that a consumer has of what he or she is like (Goldsmith, Moore & Beaudoin, 1999). However, the literature indicates some inconsistency with the use of terminology. Both Graeff (1996) and Goldsmith et al. (1999) use the terms 'self-image' and 'self-concept' as synonyms. Furthermore, Zinkhan and Hong (1991, p. 348) maintain that self-concept is an image shaped by oneself. 'Self-efficacy belief' is used by Wender (2004) as a synonym for 'self-concept', whereas Bracken and Lamprecht (2003) use 'self-concept', 'self-image' and 'self-esteem' as synonyms or interchangeable constructs.

In terms of Graeff's (1996) definition, knowledge is considered as a component of someone's self-concept. This knowledge is stored in the person's memory and is built with a social guideline in mind. Individuals use their self-knowledge to form specialised self-concepts in order to function differently according to the specific situation (Cantor, Markus Niedenthal & Nurius in Showers, Abramson & Hogan, 1998).

Adding to the numerous definitions of 'self-concept', McConnell, Rydell and Brown (2009) include people's roles (for example as a mother or a wife) as the building blocks of self-concept or context-dependent selves. These roles manifest through multiple selves or different domains of the self (Schiffman & Kanuk, 2007). In accordance, Erdwins, Mellinger and Tyer (1981) believe that the roles women fulfil influence their evaluation of self.

Some researchers present self-concept as the sum total of different self-schemas that are formed for different parts of individuals' lives (Esplen, Stuckless, Berk, Butler & Gallinger, 2009; Walker, 1992). The importance of each schema's contribution to self-concept may differ. A schema that an individual values, will influence his or her self-concept more than another schema that he or she does not value as much at that particular time (Esplen et al., 2009). Each schema selects, interprets and integrates information received, and may develop a component of a person's self-concept (Mehta, 1999).

For the purpose of the current study, Graeff's (1996) definition of 'self-concept' was used as it recognises the multi-dimensional and subjective nature of 'self-concept'. Therefore, 'self-concept' is defined as the knowledge, beliefs, feelings and thoughts that one has about oneself.

2.3.2 Types of self-concept

The self-concept construct can be divided into different types of self-concepts, for example actual and ideal, physical, social, extended and personal self-concept. These self-concept types are discussed in the following paragraphs.

2.3.2.1 Actual and ideal self-concept

The distinction between actual and ideal self-concept is noted in literature. Actual self-concept is based on individuals' reality of themselves, while ideal self-concept is shaped by individuals' perception of their ideal self. Ideal self-concept could also be described as the reference point for comparing actual self-concept (Zinkhan & Hong, 1991). Actual self-concept represents one's ideas, thoughts and beliefs about oneself while ideal self-concept represents the ideas, thoughts and beliefs that one would like to have of oneself. When individuals evaluate their present or current self, this evaluation serves as their actual self-concept. Evaluation of their possible future self serves as their ideal self-concept that could also be viewed as goals (Langan-Fox, 1991).

2.3.2.2 Physical self-concept

Physical self can be portrayed through weight, posture and body image (Hutton, 1984). Different domains of physical self-concept include individuals' perceptions regarding their physical appearance, personality, attitude towards life and moral characteristics (Witte et al., 1991). According to Yu, Sung, Hau, Lam, Nelson and So (2008), physical self-concept includes perceptions about body fat or weight, appearance, strength, sport competence, flexibility, health coordination, physical activity and endurance. The Tennessee Self-concept Scale measures physical appearance, health, skills, sexuality and body build as different components of physical self-concept (Byrne, 1996).

The subjective nature of the perception of physical self-concept was confirmed in a study by Geller, Johnston and Madsen (1997) where participants' shape- and weight-based self-esteem scores were associated with perceived weight and shape, and not with participants' actual weight and shape. Participants' judgement of actual self-concept (based on their body image) may thus become clouded by their ideal self-concept. Within the South African context, a study by the Department of Health (1998) found that there was a significant difference between respondents' perceived and actual weight

as calculated through body mass index (BMI)⁶, thus providing further confirmation of the subjective nature of physical self-concept perception. This study will focus on physical self-concept in terms of weight perception (discussed in Section 3.3).

2.3.2.3 Social self-concept

Keltikangas-Järvinen (1990) argues that self-concept consists of the social self and the private self. Social self is determined by whether the individual believes that he or she is easy to like, and or popular, and can also be described as a person's perception of his or her worth and adequacy in terms of interactions with others (Byrne, 1996; Keltikangas-Järvinen, 1990). According to White and Argo (2008), social self-concept comprises personal identity and social identity, and situational factors can activate either the personal or social identity.

Schiffman and Kanuk (2007) propose that the social self can be divided into the actual social self-image and the ideal social self-image where the actual social self-image represents how individuals think society views them, and the ideal social self-image represents how individuals want society to view them. This view is supported by Zinkhan and Hong (1991).

2.3.2.4 Extended self-concept

An extended self-concept is mentioned by Schiffman and Kanuk (2007). They argue that brands are used as a tool to define individuals (in effect to determine individuals' self-concept) and such possessions can contribute to an extended self-concept in four ways. Firstly, a product can enable a consumer to do something he or she could not do before. In this situation, the product may alter consumers' beliefs of themselves and what they are capable of. Secondly, a brand can symbolise an achievement and create positive feelings about individuals through possession. Thirdly, the product can be associated with magic or luck, and as such can influence consumers' beliefs of themselves. Fourthly, the product can communicate status, and can therefore directly influence an individual's thoughts about him- or herself. Mention is also made that certain products could be viewed as an extension of the self, based on its ability to bring individuals closer to who they want to be, their emotional attachment to the product, or whether they view the product as a central part of their identity (Schiffman & Kanuk, 2007). This is supported by Wang and Wallendorf (2006) who conclude that

⁶ Body mass index (BMI) is discussed in Section 3.3.

materialistic consumers define their 'self' through possessions, and they therefore purchase expensive publicly consumed goods in order to express themselves to others.

2.3.2.5 Personal self-concept

Personal self-concept is defined as one's personal worth and personality and is also separated from one's relationship with others (Byrne, 1996). Personal self-concept forms part of the Tennessee Self-concept Scale, a widely recognised measuring instrument of self-concept (Byrne, 1996). Apart from personal self-concept, the scale also measures moral-ethical self-concept, family self, physical self-concept and social self. For the purpose of this study, respondents' personal self-concept was examined.

2.3.3 Marketing implications of self-concept

Marketers have to take deliberate actions to create a brand image that is congruent with their target audience's self-concept as consumers will prefer a product that has a brand image that complies with their own self-concept (Graeff, 1996; Ligas & Cotte, 1999; Mehta, 1999; Zinkhan & Hong, 1991).

In the subsequent sections, the marketing implications of self-concept are examined. The focus is on narrowing the gap between actual and ideal self-concept, the congruence effect of self-concept, and marketing messages to protect consumers' self-concept.

2.3.3.1 Narrowing the gap between actual and ideal self-concept

The gap between actual and the ideal self-concept can create inner conflict. If individuals' ideal self-concept is far removed from their actual self-concept (or reality), they will either strive to narrow the gap (by working to change their actual self-concept) or change their ideal self-concept (by lowering their expectations of themselves). Langan-Fox (1991) argues that women idealise the growth or development of their actual self-concept. Narrowing the gap between actual and ideal self-concept may serve as a lifetime struggle between who an individual thinks he or she is and who that individual wants to be.

Many individuals try to narrow the gap between their actual and their ideal self-concept by purchasing products that have a brand image that satisfies their ideal self-concept (Zinkhan & Hong, 1991).

Purchasing a brand that matches their ideal self-concept, serves as a step closer to narrowing the gap between actual and ideal self-concept. A product may be used as a means to the attainment of an ideal self-concept, for example purchasing an exercise bike to improve fitness and appearance or to appear athletic or health-conscious. In accordance, Wang and Wallendorf (2006) note that brands have symbolic meanings derived from self-concept. A product may be used as a symbol of the ideal self-concept – for example, one thinks that one's ideal self should eat organic or Woolworth's food.

Marketers should therefore concentrate on managing their products' ideal self-concept and not necessarily its actual self-concept since a brand that represents a person's ideal self-concept will receive better evaluations compared to a brand that represents a person's actual self-concept (Graeff, 1996; Zinkhan & Hong, 1991). This may be because consumers prefer brands that represent their ideal self to those that represent their actual self-concept (Mehta, 1999; Zinkhan & Hong, 1991).

2.3.3.2 The congruence effect of self-concept

In line with the congruency theory, Zinkhan and Hong (1991) argue that advertisements with higher congruence between the target market's self-concept and the brand's image will produce more positive attitudes toward the advertisements. In Graeff's (1996) study, the participants with higher congruence (between the product and their self-concept) reacted more positively towards the brand-image advertisement than to the product quality advertisement. However, one consideration of the congruence effect of self-concept is whether the target market is aware of their self-concept. Graeff (1996) contends that some consumers' self-concept may not be activated, and such consumers evaluate brands on their functional qualities instead of on the brands' congruence with consumers' self-concept. The activation of consumers' self-concept is therefore regarded as a prerequisite for the positive effect of the congruency theory. Marketers can activate consumers' self-concept by asking consumers to consider their self-image in marketing communications. It is emphasised that this should only be done when the consumer's self-concept is congruent with the brand's image (Graeff, 1996). More effective marketing campaigns can be implemented once marketers have established a 'fit' between the brand's image and the target market's self-concept (Graeff, 1996).

Table 2.3 highlights that the negative effect of incongruence can be limited by focusing on the product's functional attributes and therefore distracting consumers from comparing their self-concept with the brand's image.

Table 2.3: Adopting messages according to the congruence between brand image and consumers' self-concept

Congruence between brand and self-image	Advertisement encourages thoughts about	Effect on brand evaluation
Brand image = self-image	Self-image	Positive brand evaluation
Brand image ≠ self-image	Functional product attributes	Positive brand evaluation

Source: Graeff, 1996, p. 7

Graeff (1996) proposes that negative evaluations of product quality can be overcome by emphasising the product's brand image rather than the functional attributes. It is therefore important for marketers to consider whether their product is evaluated on its functional performance or on its congruence with consumers' self-concept. Marketing messages can thus be adapted to facilitate the evaluation of the product's competitive advantage – either based on functional or brand image attributes. Zinkhan and Hong (1991) state that, in any effect, advertisements that depict products similar to the target market's self-concept will obtain more positive attitudes from the target market than those that do not.

2.3.3.3 Marketing messages to protect consumers' self-concept

Marketers should take cognisance of the fact that individuals attempt to protect their self-concept. Individuals with high self-esteem only perceive information that is congruent with their self-concept, while those with low self-esteem are more easily influenced by a broader range of information (Wu, 2009). Information that is similar to a person's self-concept will be accepted while other dissimilar information will be rejected (Zinkhan & Hong, 1991). As a result, marketers may have to change their messages in order for it to be compatible with their target audience's existing self-concept.

2.3.4 Antecedents of self-concept

Various antecedents may influence self-concept as a construct. These variables are worth considering because of their possible direct or indirect influence on the relationship between self-concept and food choice. Age, ethnicity, self-esteem, individuals' environment and gender as antecedents will be briefly discussed below.

Age: Self-concept may fluctuate with age (Keltikangas-Järvinen, 1990). According to Zinkhan and Hong (1991), this phenomenon could arguably be due to individuals' ability to describe themselves with more detail as they grow older. Bracken and Lamprecht (2003) mention that adolescents have more positive self-concepts than children, but that adolescents' self-concepts diminish during adolescence. This may be because of various factors that influence adolescents' self-concepts during this part of their lives.

Ethnicity: Individuals who are part of a minority racial or ethnic group may be less integrated into a society and therefore have negative self-concepts (Hughes & Demo in Bracken & Lamprecht, 2003). For example, Bracken and Lamprecht (2003) mention that one study reports that African-American students have lower self-concepts than white students, and Jackson, Von Eye, Fitzgerald, Zhao and Witt (2010) indicate a difference in behavioural self-concept (a specific dimension of self-concept) attributed to different race groups.

Self-esteem: Self-esteem is regarded as a subdivision of self-concept, and is linked with social identity (Goldsmith et al., 1999; Perkins, Smith, Sprott, Spangenberg & Knuff, 2008). Wu (2009) believes that individuals who know less about themselves (for example underdeveloped self-concepts) usually have lower self-esteem, and that different levels of self-concept clarity can be based on individuals' different levels of self-esteem.

The environment: An individual's external environment can form his or her self-concept (Goldsmith et al., 1999). This is supported by Bracken and Lamprecht (2003) who postulate that self-concept may be attributed to an individual's environment and feedback from that environment that communicates absolute, comparative and ideal standards. Individuals then internalise such feedback as standards and norms (Niedenthal, Krauth-Gruber & Ric, 2006).

According to Bracken and Lamprecht (2003), a person's self-concept is developed through interactions with others and other individuals' reaction towards the person. Individuals' family and friends influence what they think of themselves. Other individuals' opinion or standards may force a person to re-examine and even change his or her self-concept.

Gender: Jackson et al. (2010) report that researchers found mixed results when it comes to self-concept and gender differences. Bracken and Lamprecht (2003) report no difference between the self-concept of men and women, while Hanes, Prawat and Grissom (in Bracken & Lamprecht, 2003)

speculate that men have better self-concepts than women. Jackson et al. (2010) found gender differences in different types of self-concept, namely academic and behavioural self-concept. No difference was reported for social self-concept.

In the preceding sections, food choice and self-concept as constructs were investigated. The focal point now turns to a theoretical background of the relationship between these two constructs.

2.4 THE RELATIONSHIP BETWEEN SELF-CONCEPT AND FOOD CHOICE

There are numerous variables that influence consumers' decision-making behaviour (for example food choice behaviour). Of these variables, psychological variables (for example self-concept) have been highlighted in the preceding sections. As food choice is a decision process and self-concept influences consumers' decision-making process, it can be argued that there is a relationship between these two constructs. This argument can be based on the following:

- food choice forms part of all individuals' lives;
- food choice contributes to individuals' self-concept; and
- previous researchers found a relationship between self-concept and food choice.

Food choice forms part of individuals' daily lives and is not made exclusively to fuel their bodies – it has greater significance. According to Coleman (2008), food choices form an integral part of who we are. This may be because food choices are part of individuals' daily routine and lifestyle, and often differ from person to person. Rozin et al.'s (2003, p. 137) research results show that 60% of a sample of college students indicated that eating was one of the most pleasurable parts of their day. Food choice may thus ultimately influence students' self-concept as food choice forms a memorable part of their daily lives and therefore may contribute to their perception of their lives and themselves. Based on Coleman's (2008) statement and a definition of self-concept as individuals' perception of themselves, it can be postulated that there is a relationship between self-concept and food choice.

Food choices can contribute to individuals' sense of self because of its contribution to individuals' culture and values (Lupton in Coleman, 2008) and therefore implies a relationship between self-concept and food choice. As mentioned in Section 2.2.1, people's roles (for example as a mother or a wife) or self-aspects are the building blocks of self-concept or context-dependent selves (McConnell et al., 2009). A person's self-concept, according to his or her role in the family, can be demonstrated

through food choice. For example, food prepared by a mother may symbolise her affection and care and could be exchanged for the love of the father and the children (Coleman, 2008).

Several researchers report a relationship between food choice and self-concept. A study by Goodrick, Pendleton, Kimball, Poston, Reeves and Foreyt (1999) found a relationship between low self-concept and binge eating.⁷ Newell and Hammig (1990) also report a relationship between self-concept and food choices. They attribute this relationship to the influence of food choice on weight and the influence of weight on an individual's self-concept (Newell & Hammig, 1990). A study by Witte et al. (1991) provided insight into the specific quality of women's food choices and their self-concepts. In their study, it was found that a *positive* self-concept can serve as a predictor of healthy food choices (Witte et al., 1991). It is therefore proposed that:

H1: There is a relationship between personal self-concept and food choice.

The relationship between self-concept and food choice is important as it can be utilised by food choice marketers as a segmentation tool. An individual with a certain type of self-concept can be expected to make certain types of food choices as different self-concepts can be categorised according to food choice. Dhalla and Mahatoo's (in Fox, 1989, p. 38) categorisation is illustrated in Table 2.4.

Table 2.4: Self-concept orientations based on food choices

Self-concept orientation	Implication for food choice
Pro-ecology	Dislikes any chemical ingredients
Food specialist	Enjoys exotic dishes
Health-conscious	Takes the long-term consequences of food intake into account
Time-saver	Values time-saving food
Lover of cooking	Prefers preparing food from scratch
Weight-conscious	Takes note of kilojoule-intake

Source: Dhalla & Mahatoo in Fox, 1989, p. 38

Schaffner et al.'s (1998) categorisation of self-concept and food choice includes a dieter (for weight-loss), a food faddist (eats healthily to promote his life expectancy), a calorie-conscious consumer, a fearful consumer (health-conscious) and a don't-care consumer. Witte et al.'s (1991) study associated specific contents of food with different self-concept orientations. For example, their sample's self-concept type called "Care about others" was associated with iron consumption (Witte et al., 1991, p. 1070). Self-concept could therefore be used to predict individuals' food choice and can be used by

⁷ Binge eating is discussed in Section 3.2.5.

marketers of food products as a segmentation tool to develop customised marketing messages for a specific target group.

Apart from self-concept, another variable that may influence individuals' food choice, and which should therefore be considered by food choice marketers, is individuals' self-efficacy in terms of food choice. Self-efficacy is discussed in further detail in the following section.

2.5 SELF-EFFICACY

Self-efficacy was originally proposed as a construct by Albert Bandura (AbuSabha & Achterberg, 1997). In the following section, definitions of self-efficacy, sources and variation in self-efficacy levels and the effect of self-efficacy on consumer behaviour will be considered.

2.5.1 Defining self-efficacy

Self-efficacy forms part of social-cognitive theory that proposes behavioural change through a change in self-efficacy (Madlensky, Natarajan, Flatt, Faerber, Newman & Pierce, 2008; Warziski et al., 2008). Social-cognitive theory is used to explain human behaviour and includes outcome expectancies, self-efficacy and incentives (AbuSabha & Achterberg, 1997).

Bar-On and Parker (2000) define self-efficacy as emotional competence. Individuals' self-efficacy may therefore be an emotionally based confidence in their capabilities and skills. According to Morris (2003), individuals with positive self-efficacy are able to cope in a wider variety of situations than those with negative self-efficacy. Self-efficacy is also defined as a person's perception of his or her personal skills and capabilities and the ability to achieve success through these skills and capabilities (Bandura, 1997; Reber & Reber, 2007; Spielberger, 2008). The individual's belief in his or her ability to overcome difficulties in performing a task or executing a specific behaviour (such as healthy eating) is emphasised in AbuSabha and Achterberg's (1997) definition of self-efficacy.

If individuals have high levels of self-efficacy, they believe that they can perform a task at the required level to obtain a desired outcome (Geller, Dzewaltowski, Rosenkranz & Karteroliotis, 2009). Bandura (1997) emphasises that self-efficacy affects human functioning by influencing individuals' motivation, cognition (in terms of forming goals) and mood or affect.

According to Geller et al. (2009), self-efficacy can be divided into two related but separate constructs, namely direct personal agency and proxy agency. Direct personal agency is an individual's belief in his or her own abilities to reach an outcome, while proxy agency is an individual's belief that others can help him or her to reach the desired outcome (Geller et al., 2009).

There may be confusion regarding the difference between self-efficacy, self-confidence and self-esteem as constructs. Self-confidence is a trait of self-efficacy and is an overall judgement of one's abilities, while self-efficacy applies to a specific behaviour or task at hand (AbuSabha & Achterberg, 1997). Self-efficacy can also be distinguished from self-esteem. Self-esteem describes individuals' perception of NO. 28 self-worth whereas self-efficacy refers to individuals' perception of their ability (AbuSabha & Achterberg, 1997; Glynn & Ruderman, 1986). AbuSabha and Achterberg (1997) explain this distinction by stating that individuals' self-esteem is based on a number of traits whereas their self-efficacy is associated with one behavioural task specifically.

2.5.2 Sources and variation in self-efficacy levels

Sources of self-efficacy include vicarious experience (watching others perform the behaviour), enactive attainment (performing the behaviour), verbal persuasion (informing others that he or she can perform the behaviour), and physiological feedback (bodily cues to assess an individual's capabilities of performing the behaviour) (Bandura in Warziski et al., 2008).

According to Clark, Abrams, Niaura, Eaton and Rossi (1991), self-efficacy with regard to food choices can vary and includes individuals' self-efficacy when confronted with the following:

- Negative emotions: resisting eating when feeling anxious, depressed, angry or when having experienced failure.
- Availability: resisting eating on weekends, when different foods are available and when high-calorie foods are available, for example at a party.
- Social pressure: resisting eating when having to say no to others, when it is impolite to say no, when others will be upset if you do not eat, and when under pressure from others.
- Physical discomfort: resisting eating when feeling physically run-down, when having a headache, when in pain or when feeling uncomfortable.
- Positive activities: resisting eating while watching television or reading, before going to bed and when feeling happy.

In accordance with Clark et al. (1991), AbuSabha and Achterberg (1997) argue that an individual's self-efficacy may differ according to the specific situation at hand.

2.5.3 The effect of self-efficacy on individuals' behaviour

Self-efficacy can influence a person's goals, performance, motivation and behaviour. Low self-efficacy leads to a lower set of aspirations, less commitment to goals and avoidance of complex tasks (Parcel et al., 1995). Spielberger (2008) mentions a positive relationship between self-efficacy and goal commitment.

Individuals usually avoid tasks that they know they will be unsuccessful in and execute those that they know they can easily perform (AbuSabha & Achterberg, 1997). Self-efficacy further determines the level of effort a person will put into achieving an outcome and subsequently also determines how long the person will continue this effort, when faced with obstacles (Oka & Chaboyer, 2001; Warziski et al., 2008). As a result, self-efficacy can be used to predict future behaviour (Glynn & Ruderman, 1986) as self-efficacy determines which behaviours individuals' choose and the effort they choose to put into the chosen behaviours.

As self-efficacy can affect individuals' behaviour, it is possible that self-efficacy may influence food choice behaviour. In the following section, the relationship between self-efficacy and food choice is considered.

2.6 THE RELATIONSHIP BETWEEN SELF-EFFICACY AND FOOD CHOICE

The relationship between self-efficacy and food choice can be examined by considering the relationship between self-efficacy and health behaviour and the effect of self-efficacy on food choice.

2.6.1 The relationship between self-efficacy and health-related behaviour

Self-efficacy can serve as a predictor of the development of a variety of health-related behaviours, such as dietary management and physical activity (Luszczynska et al., 2004; Oka & Chaboyer, 2001) and can be linked to it. According to Clark et al. (1991), self-efficacy can also be used to influence various addictive behaviours. Figure 2.1 illustrates the relationship between self-efficacy and

nutritional behaviour, and portrays self-efficacy as the outcome of individuals' self-esteem and self-confidence (AbuSabha & Achterberg, 1997).

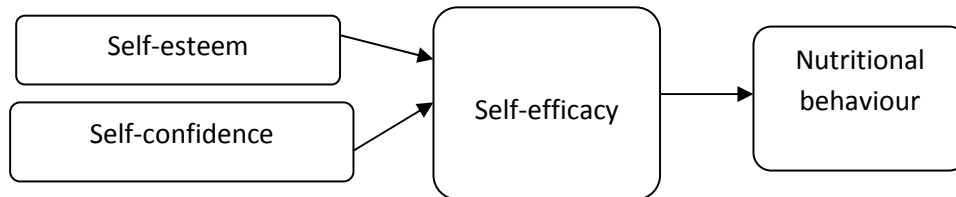


Figure 2.1: The relationship between self-efficacy and nutritional behaviour

Source: AbuSabha & Achterberg, 1997, p. 1130

Another model that associates self-efficacy and health behaviour, the health action process model, presents self-efficacy as an influencer of goals and intentions as part of a motivational stage of healthy behaviour (Schroder & Schwarzer, 2005).

2.6.2 The effect of self-efficacy on food choice

According to AbuSabha and Achterberg (1997), researchers report a relationship between self-efficacy and food choice. Different levels of self-efficacy may exist regarding the consumption of different food groups. For example, Geller et al. (2009) found different levels of self-efficacy for fruit consumption compared to vegetable consumption.

Luszczynska et al. (2004, p. 579) state, "... self-efficacy reflects optimistic self-beliefs about being able to control challenging environmental demands by taking action". In terms of an individual's food choice, this may imply controlling his or her appetite and food consumption. If a consumer believes in his or her ability to resist eating chocolates, he or she will probably not eat a chocolate – compared to other consumers who do not believe in their own capability of resisting chocolates (AbuSabha & Achterberg, 1997). Borg, Fogelholm and Kukkonen-Harjula (2004) suggest that dietary changes can be maintained by improving a person's self-efficacy, whereas a continued period of unsuccessful dieting can lead to lower eating self-efficacy (French & Jeffery, 1997). Likewise, Warziski et al. (2008) found that participants' made healthier food choices when their self-efficacy was increased through behavioural treatment. Luszczynska et al. (2004) also maintain that individuals with high levels of self-efficacy may make healthier food choices. Moreover, low levels of self-efficacy with regard to eating can be defined as a lack of control over eating (Glynn & Ruderman, 1986).

Therefore, for the purpose of the study, it is proposed that:

H2: There is a relationship between self-efficacy and food choice.

2.7 CONCLUSION

In this chapter, food choice, self-concept, self-efficacy and the relationship between self-concept and food choice as well as self-efficacy and food choice have been examined to provide a foundation for the research study. Self-concept and self-efficacy, as psychological variables, may influence an individual's decision making process and choices. For the purpose of this study, the role self-concept and self-efficacy play in individuals' food choices are considered. In Chapter 3, the focus shifts to emotional states, weight perception and its relationship with food choice. The relationship between self-concept and weight perception, as well as Generation Y will also be considered in the next chapter.

CHAPTER 3: EMOTIONAL STATES, WEIGHT PERCEPTION AND GENERATION Y

3.1 INTRODUCTION

In the preceding chapter, food choice, self-concept self-efficacy (and the possible relationships between the variables) have been discussed. In this chapter, the focus shifts to emotional states and weight perception and their relationship with food choice. Emotional states form part of every individual's daily life and influence decisions to different extents. As food choice directly contributes to individuals' weight perception, this variable should be contemplated when examining individuals' food choice. The characteristics of adult students from Generation Y are presented, as this age-cohort is regarded as important when studying food choice behaviour.

3.2 EMOTIONAL STATES

Emotional states or emotions can be defined as bodily and mental reactions to external events or memories of external events (Youngson, 2000). Subsequently, emotional states are internal states or dispositions that can be expressed externally through behaviour or expressions (Niedenthal et al., 2006). Examples of bodily expressions of emotional states include sweating, a change in heartbeat, trembling, a stomach ache and a dry mouth (Youngson, 2000).

Emotional states are regarded as "culturally formed" as culture influences different emotional responses to specific situations (Barker, 2004). Emotional states form part of a person's affective component and have a specific intensity, length, quality and physical reaction (Du Toit & Van der Merwe, 1970). Emotional states are distinguished from feelings (Reber & Reber, 2001) and moods (King & Meiselman, 2010). Feelings are viewed as a dimension of emotion; however, emotions are more intensely experienced than feelings (Reber & Reber, 2001). Moods (in contrast to emotional states) are not aroused by a specific event, and last longer than emotional states (Niedenthal et al., 2006).

Various authors propose different emotions that can be included within the definition of emotional states. According to Niedenthal et al. (2006), there are approximately 2 000 words that can be used to depict emotional states. Youngson (2000) argues that emotional states include anger, hate, joy, fear, jealousy, pride, shame, lust and grief, whereas Spielberger (2004) notes anger, happiness, anxiety,

fear, embarrassment, sadness and love as emotional states. In an effort to simplify the categorisation of emotions, five basic emotions are mentioned by Niedenthal et al. (2006), namely joy, sadness, disgust, fear and anger. Laros and Steenkamp (2005) emphasise the directional nature of emotions, and propose four basic positive and four basic negative emotions. Descriptive words are assigned to each of these basic emotional states (refer to Table 3.1).

Table 3.1: Basic emotional states

Negative emotional states				Positive emotional states			
Anger	Sadness	Fear	Shame	Pride	Love	Contentment	Happiness
Angry	Guilty	Tense	Ashamed	Pride	Romantic	Fulfilled	Thrilled
Frustrated	Sad	Scared	Humiliated		Passionate	Contented	Joyful
Jealous	Helpless	Afraid	Embarrassed		Sexy	Peaceful	Happy
Envious	Miserable	Worried			Loving		Pleased
Discontented	Nostalgia	Nervous			Warm-hearted		Hopeful
Unfulfilled	Depressed	Panicky			Sentimental		Relieved
Irritated							Enthusiastic
							Optimistic
							Encouraged

Source: Laros & Steenkamp, 2005, p. 1441

According to Sun and Wu (2008), individuals try to persist experiencing positive emotional states through their behaviour. Therefore, an individual's emotional states can reinforce certain behaviour or influence individuals to reject certain stimuli, in their attempt to experience positive emotional states (Stagner & Karwoski, 1952). Spielberger (2004) and Barker (2004) believe that emotional states have an extensive influence on work, outcomes, health, experiences, sense of meaning, relationships, mental health and possible addictions. Niedenthal et al. (2006) emphasise that emotional states are essential to keep social relationships intact and to facilitate individuals' reaction towards their environment.

In order to influence behaviour through marketing communications, many marketers appeal to individuals' emotional states rather than to their rational or practical side (Stevens & Maclaran, 2008). It can therefore be argued that, if emotional states influence individuals' behaviour, a relationship between emotional states and food choice (as a behaviour) is probable. This relationship, as contemplated in literature, will be discussed in the following section.

3.3 THE RELATIONSHIP BETWEEN EMOTIONAL STATES AND FOOD CHOICE

Coleman (2008) proclaims, "... all people share an intimate connection with food". Bohon, Stice and Spoor (2009) and Goossens, Braet, Van Vlierberghe and Mels (2009) emphasise that individuals may make certain food choices to increase positive emotional states and minimise negative emotional states. Therefore, individuals may eat certain foods or certain amounts of food to, for example, relieve feelings of stress, boredom, failure, frustration, loneliness, sadness, self-consciousness, fear, anger and guilt. Students, for example, are said to make healthier food choices when experiencing positive emotional states and vice versa (Lyman in Nolan, Halperin & Geliebter, 2010). Schlundt and Zimering (1988) mention that negative emotional states may in fact serve as predictors of overeating.

Food consumption may serve as a coping mechanism to deal with negative emotional states, and depends on the arousal and valence of the relevant emotional state (Goossens et al., 2009; Nolan et al., 2010). Eating is also described by Puhl and Latner (2007, p. 569) as a "misguided coping strategy" as individuals may use food to cope, distract, anaesthetise or hide themselves from negative emotional states (Brown, 2009; Goossens et al., 2009). According to Atkins (2003), food choices serve as some individuals' support system or comfort for the emotional states they experience, for example sadness or loneliness. A person may in fact have a hunger for contact, recognition and stimulus, and as a result may make food choices to fulfil a need for companionship, entertainment, nourishment, celebration or to avoid an emotional state (Brown, 2009; McGraw, 2003). Researchers encourage individuals to consider whether they are truly hungry or whether they are in fact only emotional – supporting the relationship between emotional states and food choice (Brown, 2009; Delpont & Volschenk, 2007; Steenkamp & Delpont, 2004).

According to Macht (2008), most researchers are undecided about the specific effect of emotional states on food choices; however, feelings of joy are reported to influence food choices (Macht, Roth & Ellgring, 2002).

In the following paragraphs, the two broad domains of literature regarding the relationship between emotional states and food choice will be discussed, namely:

- Food choice and emotional states
- Food choice, emotional states and the body

3.3.1 Food choice and emotional states

Strauss, Doyle and Kreipe (1994) as well as Polivy and Herman (1999) argue that strong emotional states (positive and negative) can change an individual's food choices. Boredom is specifically mentioned as one of the emotional states that predominantly lead to food consumption (Tanofsky-Kraff, Theim, Yanovski, Basset, Burns, Ranzenhofer, Glasofer & Yanovski, 2007) and both positive and negative emotional states can lead to individuals quitting their dietary regime (Schlundt & Zimering, 1988).

Negative emotional states may be avoided or suppressed by eating foods associated with memories of happier times (for example foods served during times of celebration, such as a birthday party of when positive attention was received) (Frewer & Van Trijp, 2007; Smart, 1999). These food choices can be described as comfort foods and they are soothing, sentimental or nostalgic (Wood, 2010). "Comfort foods are described as the gastronomic equivalent of a warm sweater, a kiss on the forehead or a favourite blanket" (Gordon & Smith, 2005). In addition, by always consuming food in response to negative emotional states, individuals may come to associate the experience of negative emotional states with food as a reward (Bohon et al., 2009). As a result, food becomes a constant and reliable companion, a means to experience positive emotional states.

Emotional states may influence the specific nature of a person's food choices. According to Wood (2010), food choices that are made to comfort an individual (to experience positive emotional states), are usually high in sugar or fat and provide a certain short-term bodily satisfaction. Sweeter food choices are frequently made during negative emotional states as they are thought to have a calming and relaxing effect (Coleman, 2008; Frewer & Van Trijp, 2007). Chocolate, ice cream and other dairy products are for example associated with emotions of desire (Stevens & Maclaran, 2008), while chocolates represent emotions of decadence, indulgence, reward, romance and sensuousness (Lupton, 1996). It may be in this vein that Cadbury's advertised one of their chocolates as a source of happiness (Stevens & Maclaran, 2008). Schlundt and Zimering (1988) argue that especially overeaters make food choices that include more kilojoules when wanting to experience positive emotional states.

Rozin et al. (2003) claim that some individuals' concern about food choice can lead to anxiety and worry especially when experiencing a loss of control (Goossens et al., 2009) and an increase in food consumption (Schlundt & Zimering, 1988). As a result, individuals may adapt their food choices

according to the level of stress that forms part of their day (Hutton, 1984; O'Connor, Jones, Ferguson, Conner & McMillan, 2008). This action may occur sub-consciously as participants in Hutton's (1984) study ate *more* without knowing it when they were placed in stressful situations. An increase in food consumption (O'Connor et al., 2008), as well as a decrease in food consumption (Cartwright et al., 2003) can be attributed to stress.

Foods high in fat, glucose or kilojoules are often consumed during times of stress (O'Connor et al., 2008; Wood, 2010). Oliver and Wardle's study (in Cartwright et al., 2003, p.363) found that 73% of the participants consumed more snacks due to stress, for example, on an examination day a student may consume more sweets and snacks as forms of energy.

According to Frewer and Van Trijp (2007), individuals' food choice is likely to be influenced by guilt, as an emotional state. Emotional eaters, who eat for emotional relief, have to deal with feelings of guilt because of their specific means of coping (McGraw, 2003). Feelings of guilt are experienced because of the imbalance between the desire for the product (food) and the negative consequences of using the product (gaining weight) (Soscia & Busacca, 2008).

Therefore, food choices may contribute to a sense of relief by easing a negative emotional state, but may also contribute to stress due to the individual's lack of control and the food choice's negative effect on his or her weight. This contradiction in the contribution of food to individuals' coping strategies for emotional states, and the negative influence on individuals' control may be illustrated through Wright's (2007) description of binge eating. Binge eating is a type of eating disorder where individuals eat too much and feel distressed due to their lack of success in weight-loss efforts and control over their eating (Wright, 2007). Binge eaters consume large amounts of food to make them feel better; however, thereafter try to follow a diet because they feel worse due to their lack of control over their eating. Bohon et al. (2009) mention that binge eaters report feelings of depression, guilt and anger when bingeing. Furthermore, binge eaters may consume more food after eating an unhealthy food with regard to their food choice regime (Kayloe, 1993). It can be speculated that binge eaters try to follow a strict food choice regime at first, develop the need to cope with their negative emotional states through food, and thereafter consume even more food to deal with the guilt and disappointment in their initial consumption of an unhealthy food.

According to Stevens and Maclaran (2008), women are encouraged to both embrace and restrict satisfying their needs by, for example indulging themselves in chocolates as a treat, but within limits.

Nichter (2000) argues that unacceptable food choices serve as a sign of personal weakness, while controlling one's food choices is a means of self-love or a form of power over one's life (Coleman, 2008). Advertisers therefore present justifications to reduce possible feelings of guilt associated with using a product (Soscia & Busacca, 2008). According to Stevens and Maclaran (2008), food items that are delicious and at the same time low in kilojoules are offered to facilitate needs of both restriction and indulgence.

3.3.2 Food choice, emotional states and the body

According to Coleman (2008), people experience certain parts of their body as they eat. McGraw (2003, p. 136) proposes that individuals experience a "physiological 'high'" when they consume food. This is supported by Bohon et al. (2009, p. 218) who report that emotional eaters "... show heightened brain response to food during a negative mood". Moreover, Kayloe (1993) describes food as a drug that can be used to erode unwanted emotional states. Food may have higher hedonic power for some individuals, and therefore an association between food, emotional states and the body is evident (Urbszat, Herman & Polivy, 2002). It is therefore proposed that:

H3: There is a relationship between food choice and emotional states.

To consider the hypothesis set, the different mediators in the relationship between emotional state and food choice have to be considered, and are discussed in subsequent paragraphs.

3.3.3 Mediators in the relationship between emotional state and food choice

Two mediators, namely body weight and gender, influence the relationship between emotional state and food choice and these will be discussed in the following sections.

Body weight: Tanofsky-Kraff et al. (2007) argue that emotional eating (eating because of an emotional state, such as sadness) is not associated with individuals' body weight. This may indicate that individuals who are not overweight may also take part in emotional eating. In contrast, Nolan et al. (2010) found a relationship between emotional eating and individuals' body mass index.⁸ McGraw (2003, p. 83) also states, "... more than 50% of all overweight people use food to cope with anger, stress and other emotions".

⁸ Body mass index is discussed in Section 3.3.

Gender: Upon investigation of the effect of gender on the relationship between emotional state and food choice, it becomes evident that most investigations do not include men in their samples and that there is no consensus on the matter (O'Connor et al., 2008). Goossens et al. (2009, p. 75) mention that girls are more inclined to become emotional eaters, while other studies report no gender difference. Snoek, Van Strien, Janssens, and Engels (2007) also claim that girls are more prone to develop emotional eating behaviour than boys. This finding is supported by a study including men and women by Schlundt and Zimering (1988). In contrast, male participants in Nolan et al.'s (2010) study ate more during both positive and negative emotional states, while women eat only in response to negative emotional states.

3.4 WEIGHT PERCEPTION

Weight perception can be regarded as the subjective perception of a person's body weight. Different perceptions of what is considered to be a healthy weight, underweight, overweight and obese exist. Chang and Christakis (in Neighbors, Sobal, Liff & Amiraian, 2008, p. 69) argue that 30% of adults have incorrect weight perceptions. A study conducted by the pharmaceutical company GlaxoSmithKline found that 52% of obese individuals and 78% of overweight individuals believe that they are healthy (Groenewald, 2010, p. 8). This may indicate that these individuals have incorrect weight perceptions. Weight perception can be regarded as more important than actual weight, as it is an individual's weight perception that ultimately influences his or her food choice, self-concept and weight management behaviour (Neighbors et al., 2008).

An accurate weight perception can be determined by calculating a person's body mass index (BMI). BMI is equal to an individual's weight divided by his or her height squared, which provides information about the individual's nutritional status (Department of Health, 1998; Wright, 2007). BMI can be used to determine whether an individual is underweight, normal, overweight or obese according to a specific standard for his or her weight and height (Department of Health, 1998). Wright (2007), on the other hand, categorises standard body weight by considering body frame and height in order to assist in determining accurate weight perception.

In the past, a heavier body weight was associated with health and prosperity (Lang & Heasman, 2004). Today obesity is described as "... a health time bomb with the potential to explode over the next three decades. Unless this time bomb is defused the consequences for the population's health, ... and losses to the economy will be disastrous" (Donaldson in Lang & Heasman, 2004, p.

121). The latest statistics from the World Health Organisation (2010) indicate that in 2005 approximately 1.6 billion people around the world were regarded as overweight or obese. According to Smeesters, Mussweiler and Mandel (2010, p. 930), the American population is the major contributor (59%) to these statistics followed by Europeans (40%). An alarming 57% of South African women and 29% of South African men are overweight (Milk SA, 2008). A recent study indicated that 61% of South Africans are overweight or obese (Groenewald, 2010, p. 8). As individuals' weight perception may influence their health, it is of the utmost importance that individuals have the correct weight perception in order for it to influence their behaviour and attitude positively (for example towards food choices). Factors that influence individuals' weight perception are considered in the following paragraphs.

3.4.1 Factors that influence individuals' weight perception

The Theory of Planned Behaviour can be used to describe various factors that influence individuals' weight perception as it incorporates subjective norms, perceived behavioural control and attitude (O'Connor & White, 2010). The Theory of Planned Behaviour considers behavioural factors, control beliefs and normative factors (O'Connor & White, 2010). According to this theory, individuals' attitude is a possible positive or negative evaluation of the outcome of a specific behaviour, while subjective norms are the perceived social pressure associated with the behaviour (O'Connor & White, 2010). Perceived behavioural control constitutes the degree of control an individual perceives to have with regards to the behaviour at hand (O'Connor & White, 2010). The Theory of Planned Behaviour also provides valuable insight for the subsequent discussion of the relationship between weight perception and food choice, as well as the relationship between weight perception and self-concept (Sections 3.4 and 3.5).

3.4.1.1 Subjective norms

Subjective norms can be defined as an individual's perception of the opinions of society and especially of people who are important to him or her (Lewis, 2008). Subjective norms exist about weights and shapes that are acceptable to society and that will be categorised as acceptable or even as perfect. Subjective norms regarding weight perception could be influenced by personal standards, gender, culture and family.

Personal standards: Individuals' weight perception can be affected by subjective norms that are formed by the person's own personal standards, but it may also be influenced by the media and

society. Consider the (sometimes unspoken) weight requirements for a fireman, an athlete, a horse jockey, a fashion model, a ballerina, a spokesperson and a gym instructor. A larger gap exists between the image of women portrayed in the media and the image of actual women. Female models portrayed in the media usually weigh less than most of the female population (Anschutz et al., 2008; Wiseman, Gray, Moismann & Ahrens, 1992). Furthermore, Wright (2007) blames the media and the fashion industry for the increase in eating disorders due to individuals' efforts to change their weight to equal that which is portrayed by the media and the fashion industry.

Gender: Subjective norms exist for women's acceptable weight, and this may influence their weight perception. According to Brown (2009), more pressure is put on women than on men concerning physical appearance and body shape. Nichter (2000) claims that girls are supposed to take part in a personal endeavour against weight gain. Women are conditioned to believe that they should have a certain appearance and that they should strive towards the perfect body portrayed in the media and advertising (Malinauskas, Raedeke, Aeby, Smith & Dallas, 2006). As a result, women often try to lose weight to earn approval from friends and men (Malinauskas et al., 2006).

Specific subjective norms also exist for men's acceptable weight and this also may influence their weight perception. According to Pickett, Lewis and Cash (2005), men strive towards an idealistic heavy and muscular body image, since a larger well-built male figure is portrayed as more acceptable in the media (Andersen & DiDomenico, 1992). In their study, Neighbors et al. (2008) found that men measure themselves against heavier, muscular males as the ultimate ideal. Notably, McCreary and Sadava (2001, p. 108) state, "... overweight men rated themselves as more attractive and healthier compared to overweight women". Rozin et al. (2003) argue that men are less concerned about their appearance than women. This is supported by findings by Malinauskas et al. (2006). The reason may be that overweight men view themselves as more acceptable to society compared to overweight women, as men may experience less subjective norms concerning weight and body image.

Culture: Individuals' culture may also influence their weight perception as "... different cultures have very different concepts of human beauty" (Coleman et al., 1984, p. 441). As mentioned before, if being overweight is acceptable in a person's culture, that person may not be motivated to lose weight. One study asserts that obese Mexican children were teased less than other obese children in the United States (Puhl & Latner, 2007). A study by Hill and Bhatti (1995) report that in their sample, more Asian girls wanted to be thin compared to white girls. This may be due to different acceptable weight perceptions according to their cultures.

Family: The perceptions and standards of family members regarding weight will influence a person's own perception and self-consciousness regarding weight. A specific family may view their fat baby as healthy whereas another might regard the same baby as unhealthy (Coleman et al., 1984). If an individual's whole family is overweight and satisfied with it, such individual may regard being overweight as acceptable and normal. According to McFerran et al. (2010), an individual has a greater chance of becoming obese when someone close to him or her is already obese.

3.4.1.2 Perceived behavioural control

Individuals' perceived behavioural control (determined by their health, gender and age) may influence their weight perception.

Health: An individual's current health status will influence his or her weight perception. For example, someone taking prescription drugs, hormones or anti-depressants will find it harder to lose weight (Atkins, 2003). This may be due to the adverse effect the medication has on metabolism and appetite. Individuals with an under-active thyroid or a metabolic disorder will also have difficulty losing weight (Atkins, 2003). Peters (1999) claims that no specific gene has been identified that may compel a person to be overweight. However, Shreeve (2002) argues that the largest percentage of variation in body fat can be explained by genetic composition. As a result, some individuals may change what they view as an acceptable weight based on their own health-related circumstances.

Gender: A study conducted by the Department of Health (1998) revealed that more than half of the women in South Africa are overweight. Kayloe (1993) proposes that it is harder for women to lose weight than for men. Women may therefore view their weight as acceptable because they believe it is too difficult to lose weight.

Age: Perceptions exist that the younger one is, the easier one can lose weight. As a result, some older individuals may view their weight as acceptable because they believe it is too difficult to lose weight. Atkins (2003) states that the influence of age on weight should be considered since metabolism slows down as people age. In contrast, Hutton (1984) argues that individuals can in fact maintain the weight they were in their twenties, if that weight was a healthy one. According to statistics from the Department of Health (1998), the trend towards obesity is found to a larger degree amongst older people who live in urban areas (Department of Health, 1998).

3.4.1.3 Attitude

Individuals' attitudes may influence their weight perception as some individuals may have an attitude of indifference towards their weight while others are constantly re-constructing, shaping and moulding their physical appearance (Stevens & Maclaran, 2008). Hill (in Hill & Bhatti, 1995, p. 176) notes that girls as young as 9 years old report a negative attitude toward their weight and body shape. Individuals who are caught in a life-long struggle with their weight may believe that the key to their happiness and success lies in losing their excess weight (Wright, 2007).

Brown (2009) asks why overweight individuals endure ridicule, shame and disapproval considering that the pleasure of food's taste deteriorates with satiation (Raynor & Epstein, 2001) and that people can lose weight by changing their food choices. A possible explanation is that people use being overweight to hide from others, to avoid being noticed as an individual or to avoid romantic relationships (Brown, 2009; Kayloe, 1993). Such people may accept disapproval of others based on their weight in view of the fact that once they lost the weight, disapproval can no longer be attributed to being overweight only. Individuals' attitude towards weight may thus ultimately influence their weight perception.

Marketers of food products should therefore consider the effect of their target market's weight perception on their food choice. The next part of this chapter is devoted to the relationship between weight perception and food choice.

3.5 THE RELATIONSHIP BETWEEN WEIGHT PERCEPTION AND FOOD CHOICE

It is a recognised fact that a person's food choices contribute to his or her weight. Simplified, the amount of kilojoules (energy) that an individual consumes offset by the amount of exercise, will determine a person's weight. Excess kilojoules may be in the form of glucose and will be stored as glycogen in fat or in the liver (Richards, 2009). Frewer and Van Trijp (2007) confirm that obese respondents have larger appetites and are able to consume more food than those with a normal weight, thus acknowledging the contribution of food choice to weight. McFerran et al. (2010) attribute obesity to the influence of portion sizes (and not necessarily only to certain types of food). Thus, individuals who consume more kilojoules through their food choices than they burn through exercise will gain weight, which in turn will influence their weight perception (Schlundt & Zimering, 1988).

Raudenbusch and Zellner (in McCreary & Sadava, 2001, p. 109) mention that up to 68% of male adolescents and college students who have normal weights, believe they are underweight and they are trying to gain weight through their food choices and strength training. In contrast, up to 67% of female adolescents and college students who have normal weights believe they are overweight and they are trying to lose weight through their food choices (Strauss in McCreary & Sadava, 2001, p. 109). These men and women have distorted weight perceptions and modify their food choices accordingly. Finesse (2010) indicates that 66% of their South African female sample believes that they are overweight or obese. A large percentage of these women could possibly have incorrect weight perceptions and in fact have a normal weight. This indicates that individuals often have incorrect weight perceptions and their weight perceptions ultimately influence their food choices.

The relationship between weight perception and food choice is reviewed next by considering the following:

- food choices as a means to change weight perception;
- the continuous struggle between food choice and weight perception;
- the influence of current weight perception on food choice;
- the influence of distorted weight perceptions on food choice; and
- weight perceptions of others that influence individuals' food choice.

3.5.1 Food choices to change weight perception

Individuals may make particular food choices to lose weight (i.e. through dieting) in an attempt to change their weight perception. These food choices may exclude or include certain product categories due to their contribution to weight, for example the incorporation of diet drinks or fat-free cheese into a person's food choices (Anschutz et al., 2008). Nichter (2000, p. 2) mentions that dieting can be referred to as a worldwide epidemic and that "... 60% of white girls are dieting at any given time". In fact, dieting can be regarded as the norm in contemporary society, according to French and Jeffery (1997). Evidence of this lies in the results of Hill (in Hill & Pallin, 1998, p. 406), which showed that children as young as 9 years are aware of the purpose of dieting. French et al. (1995) report that two thirds of female adolescents are trying to control their current weight. In addition, many women claim to make health-related food choices to hide the fact that they are on a weight-loss-related diet (Rozin et al., 2003).

Food choice regimes may range from modest attempts to become healthier, to extreme diets. French et al. (1995) found that individuals whose weight perception is far from their ideal weight may begin extreme dieting methods to lose weight faster. Shreeve (2002) describes the motivation of losing weight responsibly over a period of a year compared to losing weight quickly for an upcoming event as a delayed vs. an immediate reward. Extreme dieting methods and losing weight too quickly can negatively affect an individual's health.

3.5.2 Food choice and weight perception: a continuous struggle

Puhl and Latner (2007) write that frequent dieting and overeating are usually practiced by overweight individuals. In a study conducted by Nichter (2000), one respondent's claim that she was going on a diet momentarily eased her concerns about her weight perception. A person currently overweight and on a diet is also more acceptable to society than a person currently overweight and not trying to lose the weight (Nichter, 2000). Therefore, individuals' partaking in a continuous struggle with their current weight is more acceptable than individuals merely accepting their current weight and not actively trying to change it. Stevens and Maclaran (2008, p. 173) acknowledge that "... this identification of [individuals] with uncontrollable appetites as, at the very least, a self-fulfilling prophecy and, at the worst, as a stereotypical construct that ensures [individuals'] continued identification with the body, and their denigration because of this".

The struggle between food choice and weight perception may also include a struggle to achieve perfection. There is a desire among individuals to make perfect food choices in order to achieve their ideal weight perception (Urbszat et al., 2002). Success in a person's food choices implies not making any mistakes or eating different food choices than planned in their weight loss diet (Urbszat et al., 2002). According to Urbszat et al. (2002), one failure (consuming a forbidden food) diminishes any further effort to eat healthily on that day and may lead to over-consumption. Anticipated food intake may also change current food choice – for example knowing that one will be forced to consume unhealthy foods later in the day – may liberate current attempts to stick to healthy food choices earlier in the day. Another interesting point is that, if individuals are planning on starting a diet the next day (to change their current weight perception) they usually over-indulge on the day before the diet starts (Urbszat et al., 2002).

3.5.3 The influence of current weight perception on food choice

Food choices that are part of an established lifestyle may be hard to change. In their study, Vanden Auweele, Rzewnicki and Van Mele (1997) reported that both men and women in their sample were indifferent towards changing their lifestyles. The longer a person has followed a particular lifestyle, the harder it will be for him or her to change his or her lifestyle. Individuals who have been overweight their whole life may view this as an excuse to eat unhealthy – they may even quit trying to lose weight because of the difficulty and persistent effort needed to lose weight (Coleman et al., 1984).

A popular saying of Dr Phil (a well-known talk-show host) is that the best predictor of future behaviour is past behaviour. This view can be extended to weight. Overweight individuals may continue eating unhealthy because they believe that they will always be overweight. According to Peters (1999), overweight children usually become overweight adults. Frewer and Van Trijp (2007) also stress that children should be educated about the right food choices to prevent them from becoming obese adults.

3.5.4 Distorted weight perceptions and food choice

The association between distorted weight perception and food choice presents itself in numerous forms that all include some form of restrained eating. This refers to an eating pattern where individuals make conscious and deliberate restrained food choices and do not use hunger as a deciding factor as they want to be thinner (Anglé et al., 2009; Hill & Bhatti, 1995). Binge eating (as mentioned before as an eating disorder) is characterised by individuals' over-concern with their weight and body shape (Spitzer, Yanovski, Wadden, Wing, Marcus & Stunkard 1993). Binge eaters eat very little in order to lose weight and change their weight perception, and this eventually leads to a binging episode (eating more than they should) (Goodrick et al., 1999). Other manifestations include bulimia nervosa and anorexia nervosa, which is characterised by food choice behaviour directed towards changing a distorted weight perception (Peck & Lightsey, 2008).

3.5.5 Influence of others' weight perception on individuals' food choice

A study by McFerran et al. (2010) revealed that individuals change the amount of food they consume when in the presence of an obese individual. A possible reason may be that individuals do not want to be associated with obese individuals. Conversely, individuals in the study were reminded to make an

effort to eat healthier and smaller food portions when eating with slimmer individuals. Individuals on a diet can be reminded of their current weight perception and their decision to diet by viewing images of slim peers or slim models on television as these serve as inspiration or motivation for them to continue with their diet (Anschutz et al., 2008).

Therefore, it is proposed that:

H4: There is a relationship between weight perception and food choice.

In the preceding paragraphs, the relationship between weight perception and food choice was discussed. The fifth empirical objective of this study (as stated in Section 1.4.2) was to examine the relationship between weight perception and self-concept (refer to Section 2.2). In the next section, the literature related to this relationship will be discussed.

3.6 THE RELATIONSHIP BETWEEN WEIGHT PERCEPTION AND SELF-CONCEPT

Weight is incorporated in the definition of self-concept since physical appearance (that includes an individual's weight) is mentioned as a factor of self-concept (Witte et al., 1991). According to Esplen et al. (2009), self-concept is formed through schemas, one of which is an individual's body weight. Geller et al. (1997) also proclaim that individuals' weight and body shape can influence their self-concept or evaluation of self-worth. These findings are supported by Smeesters et al. (2010).

The relationship between weight perception and self-concept will be discussed by focusing on self-concept based on weight perception, the changing of weight perception to attain the ideal self-concept, and the interrelationship between subjective norms, weight perception and self-concept.

3.6.1 Self-concept based on individuals' weight perception

Nichter (2000, p. 7) writes that beauty serves as a determinant of individuals' self-worth. "... For women, much of their ... worth is tied to their body image and shape" (Freedman in Kayloe, 1993, p. 270). This may be because women believe that they are judged by society based on their physical appearance and that it is expected of them to have a certain physical appearance in order to be accepted by members of society. Therefore, obtaining an acceptable weight perception may serve as the key to some individuals' evaluation of self-worth (Hill, 1993; Malinauskas et al., 2006). Individuals may consequently base their self-concept on their weight perception.

Davison and Birch (2002) linked weight perception (as a form of status) with self-concept, as weight perception could serve as a sense of status because it differentiates people from others whom they perceive as overweight (thus engaging in social comparison regarding weight perception). Smeesters et al. (2010) mention that individuals' own body image perceptions are formed through social comparisons. Furthermore, if individuals are satisfied with their weight perception, they will usually use their own weight for social comparison (McFerran et al., 2010). For example, one study claims that bodybuilders have higher or more positive self-concepts than non-bodybuilders as the former's positive weight perception contributes to a positive self-concept (Finkenbergh & Teper in Pickett et al., 2005). A negative weight perception may also be associated with a character flaw, which in turn may influence self-concept. Many individuals believe that obese individuals should be able to control their weight and that they are obese because of over-indulgence (Bacon, Scheltema & Robinson, 2001). Managing one's weight, and therefore one's weight perception, can serve as a pre-requisite for success and beauty (Anschutz et al., 2008). Losing weight is also perceived as a means to gain control over one's life, as individuals try to control their social environment by controlling their weight (Nichter, 2000; Peters, 1999).

3.6.2 Changing one's weight perception to achieve an ideal self-concept

Ideal self-concept⁹ can also influence weight perception. "Lose weight! Increase energy! Look great! This book will show you how it's done" (Atkins, 2003, p. 3). This is only one example of a product that promises weight loss and an improved self-concept. If a person's self-concept is based on his or her weight, that person will have substantial motive to either improve or maintain his or her current weight, as a pre-requisite to improve or maintain his or her current self-concept. A respondent in Nichter's (2000) study stated that she believed that her life would be better once she had lost weight.

Smeesters et al. (2010, p. 931) propose that when respondents consider the difference between their weight and the perceived weight of a fashion model, they associate the model's weight with their ideal self-concept. This effect may depend on the difference between the model's appearance and the individual's appearance. Females generally regard any weight lower than their current weight as more attractive; however, some may choose to protect their self-concept by dismissing the model's image as unrealistic or inappropriate (Malinauskas et al., 2006; Smeesters et al., 2010). Weight perception could therefore be considered an obstacle in the path towards achieving an ideal self-concept.

⁹ Ideal self-concept was discussed in Sections 2.2.2.1 and 2.2.3.1.

3.6.3 Subjective norms, weight perception and self-concept

The relationship between weight perception and self-concept may be owing to subjective norms¹⁰ associated with weight perception. Coleman (2008, p. 176) comments, "... there are a plethora of unarticulated and overt regulations around the importance of the *civilised* body; that is, the body that is tightly contained, consciously managed, subject to continual self-surveillance, as well as surveillance on the part of others". This view is supported by Langan-Fox (1991) who proposes that the media and society portrays those with a slim body as having a well-managed, acceptable and organised life.

Overweight individuals are often portrayed as unacceptable and even being comic or ridiculous in advertising such as [television] advertisements (Stevens & Maclaran, 2008). Furthermore, Wright (2007) believes that society's disapproval and view of overweight individuals as unworthy or less intelligent have substantial social consequences for those individuals. These societal norms can influence individuals' self-concept because of the negative associations with heavier weight perceptions.

Therefore, it is proposed that:

H5: There is a relationship between weight perception and self-concept.

In Chapters 2 and 3, the five variables of importance for this study, namely food choice, self-concept, self-efficacy, emotional states and weight perception have been presented. As these variables will be investigated with the sample population from Generation Y, the focus now shifts to this generational cohort.

3.7 GENERATION Y

According to Herbison and Boseman (2009), Generation Y can be defined as individuals born in the period between 1978 and 1999¹¹ – the offspring of the Baby Boomers generation. Considerable variations exist regarding the dates used to differentiate between various age cohorts (refer to Table 3.2). For the purpose of this study, adults that form part of Generation Y, and more specifically university students, will be used as the sample.

¹⁰ Subjective norms were defined in Chapter 2, Section 2.1.3.

¹¹ For the purpose of this study, Herbison and Boseman's (2009) classification of Generation Y's date of birth (1978–1999) will be used.

Table 3.2: Variation in Generation Y's date of birth

Author(s)	Generation Y: born
Coley, 2009	during the 1980s and 1990s
Hawkins, Mothersbaugh & Best, 2007	between 1977 and 1994
Lower, 2008	between 1980 and 2001
Schiffman, Kanuk & Wisenblit, 2010	between 1977 and 2000

Generation Y is also referred to as the Millennium Generation (Schiffman & Kanuk, 2007), the Entitled Generation, Millennials (Lower, 2008) and the Echo Boom (Hawkins et al., 2007). The generation forms part of an age subculture that can be subdivided into adults, teens and kids (Schiffman & Kanuk, 2007). Characteristics, specific needs and marketing with regard to Generation Y will be discussed next.

3.7.1 Characteristics of Generation Y

Descriptive words that are used to describe characteristics of members of Generation Y include open-minded, culturally diverse, tolerant, savvy, fashion-conscious (Noble et al., 2009), less idealistic (McCrindle, n.d.), educated, the electronic generation, productive (Herbison & Boseman, 2009), entrepreneurial, optimistic (Galagan, 2006), impatient (Erickson, Alsop, Nicholson & Miller, 2009), more idealistic, edgy (Kotler & Keller, 2006), innovative, assertive, curious and emotionally expressive (Hawkins et al., 2007).

Generation Y can multi-task and has more energy than other generations (Herbison & Boseman, 2009). Lower (2008) mentions that members of Generation Y are very informal, highly adaptable, good listeners, flexible, get bored easily, process information easily, excel at teamwork, and embrace change (Lower, 2008). They are also willing to share information about themselves (Coley, 2009).

Generation Y is influenced by their environment, technology, disposable income and a need for praise and gratification. These characteristics are discussed next.

Environment: Generation Y's environment has exposed them to unique experiences compared to previous generations. They have for example experienced 11 September 2001, globalisation, the internet and environmentalism, (McCrindle, n.d.). Date-rape drugs, low-rise pants, 24-hour television, body piercing, reality shows and multiculturalism all characterise this period (Lower, 2008). Hawkins et

al. (2007) further mention that Generation Y grew up with equal employment opportunities for women, AIDS, divorces, dual-income households, gang violence, drugs and economic uncertainties as norms. Marketers have to consider Generation Y's environment as these characteristics may influence Generation Y's decision-making behaviour.

Technology: Television, radio and movies are said to influence Generation Y's culture, and not surprisingly their top three leisure activities include partying, going to the movies and listening to the radio (McCrindle, n.d.). Cellular communication plays a distinctive role in Generation Y's communication. Based on an Australian sample, McCrindle (n.d., p. 2) reports that 74% of all text messages are sent by members of Generation Y. They prefer communicating through text messages or social networking websites (like Facebook and Twitter) rather than through a face-to-face conversation (Herbison & Boseman, 2009).

Disposable income: According to Morton (2002), Generation Y generally has a larger disposable income than any other teen group in history. McCrindle (n.d., p. 3) also mentions that they are "... the most materially endowed and entertained generation of teenagers ever". It can for example be portrayed through "... the Generation Y mantra of 'I want it all, and I want it now'" (Erickson et al., p. 48). This can be attributed to the fact that most of its members have no financial responsibilities (McCrindle, n.d.). Generation Y is highly educated and may therefore have a substantial disposable income in the future (Herbison & Boseman, 2009, p. 33; Noble et al. (2009). Marketers of food products should therefore consider Generation Y as a viable marketing segment that continues to have a large disposable income, now and in the future.

A need for praise and gratification: Generation Y wants to be entertained and praised and to receive instant gratification (Erickson et al., 2009). Their members desperately need guidance and can be viewed as high maintenance, as they are used to their parents coming to their rescue in any situation – often referred to as helicopter parents (Coley, 2009; Herbison & Boseman, 2009). Generation Y has received praise for mere participation since childhood and as a result Generation Y is "... the most rewarded, recognised, and praised generation in living memory" (Galagan, 2006, p. 27). This may have contributed towards their negative attitude towards authority. According to Erickson et al. (2009), Generation Y does not respect lines or authority, the corporate pecking order or protocol. Marketers have to consider that marketing messages aimed at Generation Y should reward and recognise Generation Y as individuals in order for them to identify with it.

3.7.2 Specific needs of Generation Y

The above characteristics of Generation Y may influence their specific needs, with regard to their self-concept, body image and food choice. These specific needs are discussed next.

Self-concept: Generation Y (specifically college-students from this generation) has to form independence (from their parents) and find their own identity with the result that they are influenced by a need for freedom, trying to blend in or stand out, finding brands with a similar personality to their own and finding themselves (Noble et al., 2009). A “delicate sense of self” is mentioned as one of their characteristics (Herbison & Boseman, 2009, p. 33), possibly because members of Generation Y want to make a difference and know that their work has meaning (Coley, 2009; Erickson et al., 2009). According to Sebor (2006), members of Generation Y view themselves as special and they have a sense of self-awareness and individual identity that characterise their self-concepts.

However, Generation Y often experiences a conflict between fitting in with friends (gaining their acceptance) and being an individual (establishing who they are) (Noble et al., 2009). Their self-esteem may be based on friends’ acceptance and they are willing to put in the effort to gain this acceptance (McCrinkle, n.d.). Part of this acceptance could be routed in body image. Specific needs regarding Generation Y’s body image are discussed in the next section.

Body image: For the purpose of this study, it is worth mentioning that, apart from self-concept, body image (as related to physical self-concept) is one of the factors that concerns adolescent and college-aged Generation Y’s (McCrinkle, n.d.). Both Nichter (2000) and Rozin et al. (2003) confirm that college students have to deal with more pressures not to be overweight (compared to when they were younger), and American undergraduates are very concerned about their weight.

According to Snoek et al. (2008), adolescents often attempt to lose weight in order to achieve a thinner body image. Many students then gain weight as they first enter university – possibly because of their new independence regarding their food choices and lifestyle (Roberts, 2007). Malinauskas et al. (2006) describe this as an epidemic resulting in students dieting to manage their weight.

Food choice: Members of Generation Y have specific needs regarding their food choices, namely the need for customisation and exotic flavours which could be attributed to the need for a heightened or exhilarating eating experience (Food: How Gen Y eats, 2009). They are educated about the nutritional

values and ingredients of food and require health, wellness, as well as weight-control-related food choices (Food: How Gen Y eats, 2009; Roberts, 2007). Specific food choices are used by up to 83% of female students to change their weight (Nutrition Journal in Roberts, 2007, p. 25). Marketers have to consider these and other factors when marketing food choice to Generation Y.

3.7.3 Marketing and Generation Y

Generation Y can be viewed as trendsetters, early adopters and a coveted market segment due to their size as well as current and future disposable income. However, the authors contend that marketers still do not have enough information regarding specific segments within Generation Y and their unique consumer decision-making processes (Noble et al., 2009).

Generation Y is conscious about marketing tactics and tend to screen out marketing messages (McCrinkle, n.d.; Noble et al., 2009). Therefore, it is very important that truthful advertising messages reach members of Generation Y (Hawkins et al., 2007; Noble et al., 2009). They have specific media habits, for example preferring electronic media over reading, and a preference for receiving information in small quantities (Lower, 2008). Marketers should therefore develop unique, truthful, suitable and short marketing messages that appeal to Generation Y's actual or ideal self-concept that would subsequently influence their buying decision behaviour (Noble et al., 2009).

3.8 CONCLUSION

Marketers of food products predominantly use taste- and nutrition-related information in their advertising campaigns (see examples in Appendix A). Taste and nutrition-related information are therefore regarded as predominant factors that individuals consider when making food choices. However, the literature review presented in Chapters 2 and 3 proposed that individuals' food choice is furthermore influenced by their self-concept, self-efficacy, emotional state and weight perception. These relationships and subsequent hypotheses are portrayed in Figure 3.1. The hypotheses that are proposed present new possible considerations for marketers of food products as the variables that influence individuals' food choice are examined.

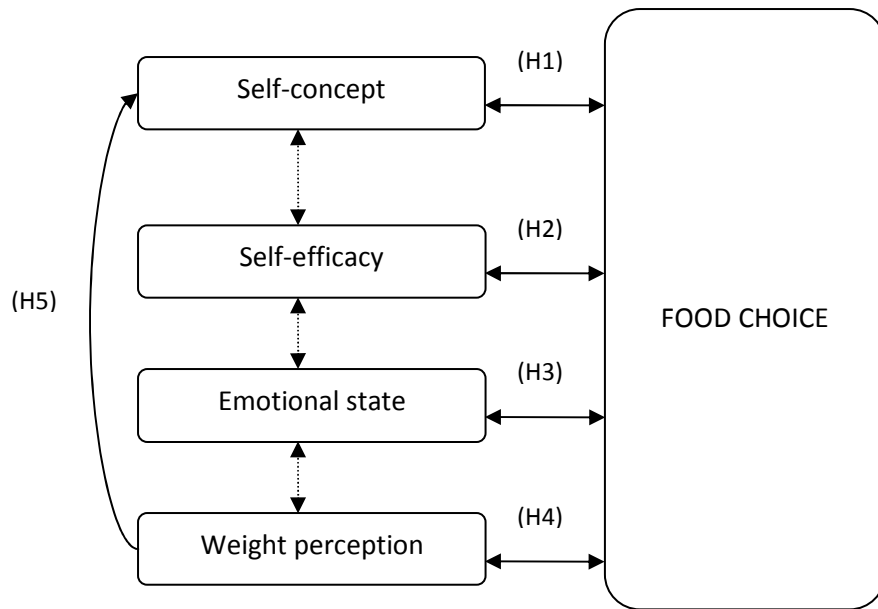


Figure 3.1: Hypotheses for the relationship between self-concept, self-efficacy, emotional state, weight perception and food choice

In Chapter 4, the research methodology that was followed to investigate the stated hypotheses empirically will be discussed. Chapters 5 and 6 will present the results, discussion and recommendations for marketers in order to shed light on the influence of the investigated variables on Generation Y's food choice behaviour.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTROUCTION

The previous two chapters presented the literature background for this study. This methodology chapter provides insight into primary research, sampling and data analysis procedures undertaken to achieve the set objectives. Quantitative data was gathered with the use of a self-administered questionnaire. The sampling methods that were used to choose the respondents are presented in this chapter. The quantitative data collected was analysed in order to test the hypotheses. The study's research design is discussed subsequently.

4.2 RESEARCH DESIGN

The research design, as the plan or framework of the research process, incorporates the sampling techniques and procedures for gathering and analysing data, with the objectives of the study in mind (Zikmund & Babin, 2007). An ex post facto research design was implemented to achieve the set objectives. Ex post facto research is a research design that is conducted after an occurrence has transpired and without changing the circumstances of the occurrence (Punch, 1998). It provides the researcher with a sense of direction and information regarding the specific nature of a phenomenon and is a "valuable exploratory tool" (Cohen, Manion & Morrison, 2007, p. 268). Possible disadvantages of ex post facto research include difficulty in interpreting results and that reverse causation should be kept in mind as the identified cause may in fact be the effect (Cohen et al., 2007). Some researchers view ex post facto research as a "too flexible method" that is also problematical when no single variable or factor is the cause of the phenomenon at hand (Cohen et al., 2007, p. 269). An ex post facto research design was suitable for this study because of considerations regarding time (limited, with regards to respondents' availability and final data analysis), environment (constantly changing, with regards to the sample's food choices) and the purpose of this study (to test the hypotheses at hand and to provide practical implications for marketers based on the findings). The hypotheses, target population, sample, measuring instrument and statistical analysis of the study are discussed below.

4.3 HYPOTHESES REVISITED

A hypothesis is a statement or proposition that explains a specific outcome and is usually set based on theoretical reasoning (Zikmund & Babin, 2007). A conclusion regarding the specific outcome can then be made by testing the hypothesis at hand. The aim of the study is to examine the relationship between self-concept, self-efficacy, emotional state, weight perception and food choice based on the following hypotheses:

H1: There is a relationship between self-concept and food choice.

H2: There is a relationship between self-efficacy and food choice.

H3: There is a relationship between emotional states and food choice.

H4: There is a relationship between weight perception and food choice.

H5: There is a relationship between weight perception and self-concept.

4.4 TARGET POPULATION

For the purpose of this study, the population consisted of university students from Generation Y. The choice of Generation Y is primarily motivated by the “need [that] exists to understand narrower segments of Generation Y’s purchasing patterns” (Noble et al., 2009, p. 625).

Students of Stellenbosch University form part of Generation Y and were therefore appropriate as a target population for the study. Stellenbosch University has approximately 26 000 students of which the majority falls within the age group of Generation Y. These students are mainly South African men and women of different racial groups between the ages of 18 and 25. Approximately 10% of the students are from outside South Africa (University of Stellenbosch, 2009). Approximately 16% of the students are coloured, 68% are white, 2% are indian and 14% are black (University of Stellenbosch, 2009). In 2009, there were 12 723 male and 3 520 female students registered at Stellenbosch University (University of Stellenbosch, 2009). Although it is possible to speculate that most of the students are from families of Living Standards Measure 7–10, many may still have a limited disposable income on campus. There are also students from lower LSM-groups studying with bursaries.

4.5 SAMPLE

A sample of 383 full-time Stellenbosch students was recruited by means of convenience sampling. Convenience sampling is a non-probability sampling method that is easier and less expensive (Blomberg, Cooper & Schindler, 2008). It provides the researcher with a quick method to inexpensively obtain data (Kumar, Aaker & Day, 2002). Disadvantages of convenience sampling include a risk of possible bias in responses and the fact that results cannot be generalised to the target population or group (Kumar et al., 2002; Churchill & Iacobucci, 2002.).

The questionnaire was made available to students in three first-year Business Management classes. These classes were selected based on availability of students and the size of the classes. These classes are attended by undergraduate students who are between the ages of 17 and 22. Because of their age, the students formed part of Generation Y and therefore qualified as sampling elements. The risk of a possible bias in responses was minimised because students of different ages and from different departments of the economic and business science faculty were included in this first-year class.

Students were asked to voluntarily complete the questionnaire and they were instructed that the questionnaire results would be used to investigate their food choices as per instructions on the questionnaire.

4.6 MEASURING INSTRUMENT AND DATA GATHERING

A self-administered questionnaire, based on previous research studies, was deemed the most appropriate data-gathering technique as the topic under investigation was of a personal nature and quantitative, and a large amount of data would be beneficial to test the hypothesis. It was proposed that respondents would answer the questions of a personal nature more honestly, because the questionnaire was self-administered and therefore anonymous. For the specific purposes of the study, the questionnaire was based on modified versions of existing questionnaires to determine the relationship between self-concept, self-efficacy, emotional states, weight perception and food choice within a South African Generation Y sample. Respondents were asked to indicate the portions of their food choice as well as the degree to which they agree with certain statements. Possible disadvantages of the measuring instrument include that respondents may have misinterpreted or answered some of the questions without proper contemplation. The questionnaire (Appendix B) consisted of 6 sections (100 items) that will be discussed in the following sections:

- Section A – Food choice (24 items)

- Section B – Emotional states and food choice (22 items)
- Section C – Self-efficacy (20 items)
- Section D – Self-concept (18 items)
- Section E – Weight perception (6 items)
- Section F – Demographic information (10 items)

4.6.1 Food choice – Section A

An adapted version of Labadarios et al. (2005)'s National Food Consumption Survey was used to determine respondents' food choices. The questionnaire was originally designed to investigate South African children's food consumption and was to be completed with the help of a trained interviewer.

Respondents were required to indicate all the food and drinks they had consumed for a period of 24 hours, for example, during breakfast, lunch, dinner, late at night and as in-between snacks. According to Willett (1998), the number of days required in a diet recall questionnaire, depend on the objectives of the study. For the purposes of this study, a one-day recall was deemed suitable, since the recall of one day's diet would provide adequate and more accurate information about the respondents' food choices. Respondents were asked to indicate which day's food choice they recalled.

Indicating portion sizes of food choice: "Accurate quantification of amounts of foods consumed is a critical component of data collection for the 24-hour recall" (Willett, 1998, p. 51). Many individuals may not know the exact weight of the food they consumed. To simplify respondents' quantification, a teaspoonful, a cupful, a slice, a matchbox and hand palm size were used as indicators of portion sizes. According to Van der Merwe (personal communication, April 23, 2010), a registered dietician, these quantifications were acceptable in practice.

Provision was made on the questionnaire where respondents could indicate any other food choices. Allowing respondents to indicate any other specific foods consumed, provided more specific information than a structured list of food items alone and increased accuracy (Willett, 1998).

Content of the food choice questionnaire: According to the South African Food Based Dietary Guidelines (Department of Health, 2009), food groups can be divided into milk, fruit and vegetables, starch and meat. Items in the questionnaire represented all of these food groups (refer to Table 4.1).

Fats, sugars and beverages were added as three additional food groups after consultation with Van der Merwe (personal communication, April 23, 2010).

Items categorised as “infant foods” in the National Food Consumption Survey (Labadarios et al., 2005), were excluded from the questionnaire. Items labelled “cakes” were combined with “tarts” as it shortened and simplified the questionnaire. “Cooked vegetables” was renamed “vegetables” to include consumption of raw vegetables. Alcohol consumption was included as part of “beverages”, as this forms part of Generation Y’s usual beverage choices. Potatoes were specifically mentioned as an example in the “bread” category to emphasise that it is regarded as a starch and not a vegetable.

In Section F (Demographic information), respondents were asked whether they had consumed any fast food the previous day and how many times per month they usually consume fast foods or take-aways. Additional characteristics of respondents’ food choices were determined by asking how much money they usually spend on food per day and who usually prepares their food.

Comparing food choice portions: Consumption of each food group was summarised based on the number of portions consumed as indicated by respondents. Consumption could then be compared to the number of daily servings recommended by the South African Food Based Dietary Guidelines (FBDG) of the Department of Health (2009).

Table 4.1: Food groups: Section A

Food group	Item label	Item number
Beverages	Tea and coffee, cold drinks/juice and alcohol	1, 2, 4,
Milk	Milk and yoghurt	3
Fruit and vegetables	Vegetables, fruit and salad	7, 11, 21
Starch	Breakfast cereals, starch, bread (slice) and potatoes	5, 6, 15
	Cake and tarts, cookies and special breads	13, 14
Fat	Spreads for bread, sauces and dressings	8, 9, 10,
Sugar	Puddings, sweets and chocolates	12, 17
Meat	Eggs (1), cheese (matchbox size), meat and fish	16, 18, 19, 20

4.6.2 Emotional states – Section B

The relationship between emotional states (conscious states that respondents could reflect on) and food choices was determined in Section B of the questionnaire using an adapted version of the Emotional Appetite Questionnaire, originally developed by Geliebter and Aversa (2003). The psychometric properties of the questionnaire were deemed acceptable with a reported Cronbach Alpha of .57–.78 (Geliebter & Aversa, 2003). The questionnaire was also successfully applied by Nolan et al. (2010), who reported Cronbach Alpha values ranging between .6 and .8.

Respondents were asked to consider whether they eat in response to certain emotions and emotional situations and then to indicate their responses on a 5-point Likert scale ranging from 1 = “strongly disagree” to 5 = “strongly agree”. Items in Section B represented nine negative and five positive emotional states, as well as five negative and three positive emotional situations (refer to Table 4.2). The original question “*As compared to usual, do you eat when you are ...*” was replaced with “*I usually eat when I feel ...*” to determine whether the relationship between emotional states and food choice formed part of respondents’ daily lives.

Table 4.2: Emotional Appetite Questionnaire: Section B

Section	Item number
Positive emotional state	3, 6, 11, 12, 14
Negative emotional state	1, 2, 4, 5, 7, 8, 9, 10, 13
Positive emotional situation	18, 20, 22
Negative emotional situation	15, 16, 17, 19, 21

According to Niedenthal et al. (2006), the emotional situations recalled should be those encountered during a usual day and not in strange or extreme situations. The emotional situations included in the Emotional Appetite Questionnaire were: when under pressure, receiving good news, losing money or property, after a heated argument, a tragedy of someone close to you, falling in love, engaging in a hobby or ending a relationship (Nolan et al., 2010). The item “*losing money or property*” was changed to “*losing money or personal belongings*” since students do not usually own property.

4.6.3 Self-efficacy – Section C

An adapted version of the Weight Efficacy Lifestyle Scale (WEL) (originally developed by Clark et al. in Warziski et al., 2008) was used to determine the relationship between self-efficacy and diet among Generation Y. The WEL contains 20 items and the reported Cronbach Alpha reliability ranges between .7 and .9 (Clark et al., 1991). Warziski et al.'s (2008) use of a 10-point Likert scale in the WEL was not deemed suitable for this study because it was regarded as unnecessarily as having too many scale points that could not be clearly differentiated. Response options were therefore changed to allow respondents to indicate their level of confidence in each statement on a 5-point Likert scale ranging from 1 = "not confident at all" to 5 = "very confident". To compel respondents to be specific about their convictions, the third response in the Likert scale was labelled "not confident or unconfident" instead of "unsure".

Bandura (in Glynn & Ruderman, 1986, p. 404) states, "... accurately assessing self-efficacy requires a detailed analysis of the components of the desired behaviour and the circumstances under which it must be performed"; therefore each item in the WEL applies the phrase "*I can resist eating*" to a specific situation. These situations were categorised in five eating self-efficacy domains, namely negative emotions, availability, social pressure, physical discomfort and positive activities (Clark et al., 1991) as portrayed in Table 4.3. Each domain was represented by four items.

Table 4.3: The Weight Efficacy Lifestyle Scale: Section C

Sections	Item number
Negative emotions	1, 6, 11, 16
Availability	2, 7, 12, 17
Social pressure	3, 8, 13, 18
Physical discomfort	4, 9, 14, 19
Positive activities	5, 10, 15, 20

4.6.4 Self-concept – Section D

A sub-scale of the Tennessee Self-concept Scale was used to determine the respondents' self-concept. Other self-concept scales, for example Witte et al.'s (1991) scale were not deemed suitable as they include items to measure self-image and self-discovery. According to Byrne (1996), the Tennessee Self-concept Scale is one of the most popular self-concept scales and often used by researchers. The complete scale consists of 100 items, examining respondents' identity, self-

satisfaction, behaviour, self-criticism, total conflict, moral-ethical self, personal self and family self (Newell & Hammig, 1990).

For the purposes of the study, respondents' personal self-concept was of importance. Personal self-concept represents an individual's sense of personal worth and adequacy, excluding perceptions regarding the individual's relationship with others (Byrne, 1996). Personal self-concept is therefore distinguished from physical and social self-concept. The personal self-concept sub-scale comprises 18 items and reported an acceptable reliability coefficient of .73 (Jamaludin, Ahmad, Yusof & Abdullah, 2009).

A 5-point Likert type scale was used for the current study. Response options were labelled ranging from 1 = "not true at all" to 5 = "very true". To compel respondents to determine their opinions, the central value in the Likert scale was labelled "not true or false" instead of "unsure". Of the 18 items included, nine were negatively worded and nine positively worded items. Respondents' personal self-concept values below the 50th percentile represented a low self-concept (Newell & Hammig, 1990).

4.6.5 Weight perception – Section E

The sub-scale of the Physical Self-description Questionnaire (PSDQ) was used to determine respondents' weight perception in this study. According to Byrne (1996), the scale was originally developed by Marsh, Richards, Johnson, Roche and Tremayne (1994) and measures different elements of physical self-concept, namely health, coordination, physical activity, sports competence, global physical self-concept, body fat, endurance, body esteem, flexibility, strength and appearance (Fletcher & Hattie, 2004). The PSDQ was previously used by Yu et al. (2008), and acceptable psychometric properties were reported. For the purposes of the current study, the body fat sub-scale (6 negatively worded items) was used to examine weight perception on a 5-point Likert scale. This sub-scale reported an acceptable Cronbach Alpha of .93 in previous applications (Fletcher & Hattie, 2004).

Respondents were asked to indicate their responses to the declarative statements regarding their weight (Byrne, 1996). Responses were labelled ranging from 1 = "completely false" to 5 = "completely true". To compel respondents to determine their conviction, the third response in the Likert scale was labelled "not true or false" instead of "uncertain".

To further investigate respondents' perception of the relationship between food choice and weight perception, respondents were asked (Section A: Item 24) whether their current weight influences their food choices, and they also had to indicate their approximate current weight and ideal weight (Section F: Items 9 & 10).

Specifically for the purpose of this study, respondents were also asked to indicate their height, actual and ideal weight and whether their actual and ideal weight influence their diet (Section E). These questions were placed at the end of the questionnaire, to prevent bias during the food choice survey.

4.6.6 Demographic information – Section F

Respondents were asked to indicate their age, gender and home language in Section F. Respondents' height and weight was used to determine their body mass index. As mentioned before, BMI is equal to one's weight divided by one's height squared (Wright, 2007). To determine the respondents' environment within which they usually make their food choices, respondents were asked to indicate whether they were currently living with their parents, in a university residence/hostel or in private accommodation.

4.7 STATISTICAL ANALYSIS

Data from the completed questionnaires were coded in Excel and analysed with Statistica 9 by means of descriptive and inferential statistics. Coding errors were minimised with the help of a programmed Excel template that included the coding ranges for each item. The sample size of each section was adjusted for missing values (with a minimum of $n = 346$ and a maximum of $n = 383$). Sections of the questionnaire that was not properly completed were not included for the analysis and the sample size was adjusted accordingly. Thirty seven of the questionnaires included items that were not answered properly (to form a minimum n of 346 completed questionnaires).

Descriptive statistics include the locus, modus, average, standard deviation and variance (Blomberg et al., 2008). Demographic characteristics were also analysed with the use of descriptive statistics. Cronbach's Alpha was used to investigate the reliability of the results. A Cronbach's Alpha .8 is regarded as very reliable (Gliem & Gliem, 2003). A satisfactory Cronbach's Alpha coefficient is above .7 (Pallant, 2001). If a sub-scale has less than ten items, the inter-item correlation should be

considered to determine reliability (Pallant, 2001). A satisfactory value is between .2 and .4 (Pallant, 2001).

Table 4.4: Strength of the relationships between variables

Relationship's strength	r-value
Small	$r = .1 - .29$ or $r = -.1 - -.29$
Medium	$r = .3 - .49$ or $r = -.3 - -.49$
Large	$r = .5 - 1$ or $r = -.5 - -1$

Source: Cohen in Pallant, 2001

Pearson correlation analysis (r) is a standardised way of measuring covariance and can be used to examine the relationship between two variables and indicates the magnitude and the direction of the relationship in question (Zikmund & Babin, 2007). An important pre-requisite for Pearson correlation analysis, is that the dependent variable must be a continuous variable (Zikmund & Babin, 2007). Correlation analysis was used to examine the relationship between the dependent variable (food choice) and the independent variable (self-concept, self-efficacy, emotional states, weight perception). The r -value indicates the strength and direction of the relationship between variables. It ranges from +1, which signifies a perfect positive correlation, to -1, which signifies a perfect negative correlation (Dillon, Madden & Firtle, 1994). A perfect positive or perfect negative relationship can be portrayed as a straight line on a graph (Dillon et al., 1994). The strength of the relationship can be interpreted with the r -value as portrayed in Table 4.4. A negative r -value indicates a negative relationship, while a positive r -value indicates a positive relationship.

4.8 CONCLUSION

The research methodology in Chapter 4 provided the blueprint for the gathering of data to determine the relationship between self-concept, self-efficacy, emotional states, weight perception and food choice. Respondents represented adult members of a Generation Y student sample. The quantitative data was analysed with the use of descriptive and inferential statistics, including the mean, standard deviation, Pearson r correlation and Cronbach's alpha analysis. In the following chapters, the focus will turn to the results of the study and discussion thereof.

CHAPTER 5: RESULTS AND DISCUSSION

5.1 INTRODUCTION

In the previous chapter, the research methodology of the study was discussed. In this chapter, the focus turns to the research results. The results will be discussed and related to previous findings as reported in literature, for possible explanations and comparisons. The research findings are presented hereafter by considering the sample profile, reliability analysis, determination of food choices, self-concept, the relationship between self-efficacy and food choice, the relationship between emotional states and food choice and lastly, weight perception.

5.2 SAMPLE PROFILE

The respondents who participated in this study ($n = 383$) were between the ages of 17 and 22. Therefore, the respondents form part of Generation Y in concurrence with Herbison and Boseman's (2009) Generation Y definition that includes individuals born between 1978 and 1999. Participants' age, gender, living arrangements, and weight are summarised in Figure 5.1. Forty-four per cent of the respondents were male and 56% were female. The large number of male participants in the sample also provided the study with a unique advantage, as most previous research regarding food choice behaviour and related variables, did not include men in their samples (O'Connor et al., 2008). The majority of the participants were either Afrikaans-speaking (49%) or English-speaking (43%). The participants predominantly indicated (51% of participants) that they were staying in a hostel.

Respondents' average actual body weight was 67.13 kg and the average ideal body weight was 65.06 kg. Respondents' height and weight were used to determine their BMI. Participants' average BMI was approximately 23 ($n = 344$). According to the classification of BMI by the Department of Health (2009), this average BMI may be classified as a healthy body weight. Twenty per cent of the respondents had a BMI of more than 24.9, which classified them as overweight or obese. As previously mentioned, a recent study by GlaxoSmithKline (Groenewald, 2010, p. 8) found that 52% of obese individuals and 78% of overweight individuals believe that they are healthy. The respondents who were classified as overweight or obese may therefore also not be aware of their classification as overweight or obese.

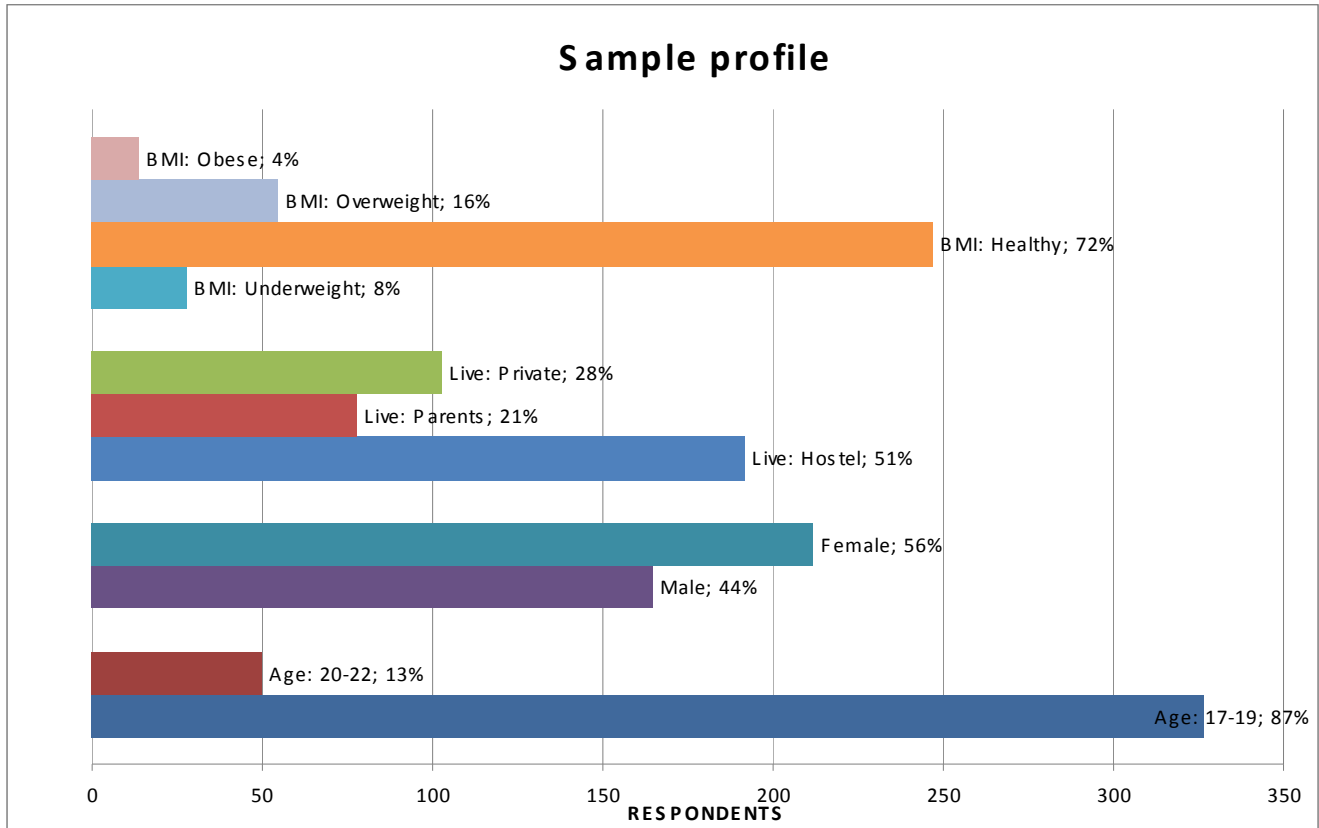


Figure 5.1: Sample profile

GlaxoSmithKline (Groenewald, 2010, p. 8) indicated that 61% of South Africans are currently overweight or obese compared to 20% in the present study's Generation Y sample who can be classified as overweight or obese. This represents a much smaller percentage and could indicate that the majority of Generation Y is healthier than the rest of the South African population. However, Nichter (2000) writes that college students have to deal with more pressures not to be overweight. It may thus be that members of Generation Y maintain a healthy weight during their student years and thereafter gain weight when the pressure not to be overweight decreases.

5.3 RELIABILITY ANALYSIS

Cronbach Alpha is used to determine the reliability or internal consistency of a measurement (Zikmund & Babin, 2007). The current study's Cronbach Alpha values are portrayed in Table 5.1. A satisfactory Cronbach Alpha coefficient is above 0.70, while a Cronbach Alpha of 0.85 may be regarded as very reliable (Gliem & Gliem, 2003; Pallant, 2001). The Cronbach Alphas of the sub-scales for self-concept

($\alpha = 0.81$), self-efficacy in terms of negative emotions ($\alpha = 0.75$) and availability ($\alpha = 0.75$), emotional state ($\alpha = 0.71$ – 0.84) and weight perception ($\alpha = 0.95$) were all above the satisfactory level.

Table 5.1: Reliability

Sub-scale	Number of items	Average inter-item correlation	Standard deviation	N	Cronbach Alpha
Self-concept	18	0.20	8.0	359	0.81
Self-efficacy					
___ Negative emotions	4	0.43	3.2	374	0.75
___ Availability	4	0.43	3.2	374	0.75
___ Social pressure	4	0.34	3.0	373	0.67
___ Physical discomfort	4	0.34	2.8	371	0.66
___ Positive activities	4	0.26	2.8	375	0.58
Emotional state					
___ Negative emotional state	9	0.37	7.1	360	0.83
___ Positive emotional state	5	0.53	4.4	361	0.84
___ Negative emotional situation	5	0.47	4.2	346	0.80
___ Positive emotional situation	3	0.45	2.6	364	0.71
Weight perception	6	0.77	6.1	372	0.95

Three sub-scales of the self-efficacy measurement reported Cronbach Alpha values lower than 0.70. The sub-scale for self-efficacy in terms of social pressure revealed a Cronbach Alpha of 0.67, which is slightly below the acceptable level of 0.70 (refer to Table 5.1). However, because the sub-scale had less than ten items, the inter-item correlation should be considered (Pallant, 2001). A satisfactory value is between 0.20 and 0.40 (Pallant, 2001). The average inter-item correlation of the sub-scale was 0.34 and is therefore acceptable. The self-efficacy in terms of the physical discomfort sub-scale (four items) revealed a Cronbach Alpha of 0.66. However, the average inter-item correlation of the sub-scale was 0.34 and is therefore acceptable. The positive activities sub-scale (four items) revealed a Cronbach Alpha of 0.58, which is far below the acceptable level of 0.70. The average inter-item correlation of the sub-scale was a satisfactory 0.26.

5.4 DESCRIPTIVE STATISTICS

5.4.1 Descriptive statistics of self-concept

A sub-scale of the Tennessee Self-concept Scale was used to determine the respondents' self-concept. Descriptive statistics of respondents' reported self-concept are summarised in Table 5.2. The mean score for item D11 indicated that respondents believed that the statement "I hate myself" was

not true.¹² Respondents also reported that they are cheerful individuals (item D1) and that they often change their mind (item D16). Overall, mean values for self-concept were above average, indicating that respondents had a fairly good self-concept. These results are supported by the literature review, since members of Generation Y need guidance, but believe that they are special (Herbison & Boseman, 2009; Sebor, 2006).

Table 5.2: Descriptive statistics: Self-concept¹³

Section	Item	Mean (5-point Likert scale ¹⁴)	Standard deviation	N
D1	I am a cheerful person.	4.06	0.70	379
D2	I have a high self-control.	3.85	0.85	378
D3	I am a calm person and easy to befriend.	3.99	0.76	379
D4 (reversed)	I am hated.	3.99	0.87	378
D5 (reversed)	I am not important.	3.97	0.95	377
D6 (reversed)	I can no longer think straight.	4.02	0.98	378
D7	I am satisfied with myself now.	3.54	0.98	377
D8	I am as intelligent as I wish to be.	3.19	1.11	377
D9	I am a good person.	4.09	0.68	373
D10 (reversed)	I am not the person I hope to become.	3.53	1.06	372
D11 (reversed)	I hate myself.	4.45	0.81	376
D12 (reversed)	I am someone who gives up easily.	4.05	0.97	376
D13	In any situation, I can take care of myself.	3.92	0.83	376
D14	I can solve my problems easily.	3.67	0.78	375
D15	I am willing to admit my mistake without feeling angry.	3.58	0.85	375
D16 (reversed)	I often change my mind.	2.60	0.94	376
D17 (reversed)	I often act without thinking first.	3.11	1.05	376
D18 (reversed)	I try to escape from facing a problem.	3.34	1.03	376

5.4.2 Descriptive statistics of self-efficacy

The relationship between self-efficacy and food choice was investigated with the Weight Efficacy Lifestyle Scale (WEL), which includes five sub-scales, namely negative emotions, availability, social pressure, physical discomfort and positive activities (developed by Clark et al., 1991) on which respondents had to indicate their self-efficacy with regard to resisting eating in numerous situations. A 5-point Likert scale was used where response options were labelled ranging from 1 = “not confident at all” to 5 = “very confident”. The lowest value in Table 5.3, 2.49 on the 5-point Likert scale, indicates that respondents were generally not confident in their ability to resist eating when many different kinds

¹² For the purpose of the discussion, mean values are rounded up or down to the nearest decimal number.

¹³ The reversed items in the table are statements of Section D that were negatively worded.

¹⁴ 5 = very true, 4 = true, 3 = not true or false, 2 = true, 1 = not true at all

of food are available. The highest value (3.89) was reported for respondents' ability to resist eating while reading or when they have a headache.

Table 5.3: Descriptive statistics: Self-efficacy

Sub-scale of self-efficacy	Item	Section	Mean (5-point Likert scale)	Standard deviation	N
Social pressure	I can resist eating even when I have to say "no" to others.	C3	3.60	1.02	374
	I can resist eating even when I feel it's impolite to refuse a second helping.	C8	3.57	1.11	377
	I can resist eating even when others are pressuring me to eat.	C13	3.45	1.09	375
	I can resist eating even when I think others will be upset if I don't eat.	C18	3.41	1.05	376
Negative emotions	I can resist eating when I am anxious (nervous).	C1	3.74	1.06	377
	I can resist eating when I am depressed (or down).	C6	3.38	1.18	377
	I can resist eating when I am angry (or irritable).	C11	3.87	0.98	376
	I can resist eating when I have experienced failure.	C16	3.45	1.10	374
Availability	I can control my eating on the weekends.	C2	3.23	1.13	377
	I can resist eating when there are many different kinds of food available.	C7	2.49	1.05	378
	I can resist eating even when I am at a party.	C12	3.30	1.15	373
	I can resist eating even when high-calorie foods are available.	C17	3.40	1.07	376
Physical discomfort	I can resist eating when I feel physically run down.	C4	3.24	1.14	376
	I can resist eating even when I have a headache.	C9	3.89	1.00	376
	I can resist eating when I am in pain.	C14	3.95	0.93	373
	I can resist eating when I feel uncomfortable.	C19	3.77	0.94	376
Positive activities	I can resist eating when I am watching TV.	C5	3.03	1.18	377
	I can resist eating when I am reading.	C10	3.89	0.95	376
	I can resist eating just before going to bed.	C15	3.62	1.09	375
	I can resist eating when I am happy.	C20	3.75	0.96	376

Respondents reported self-efficacy in terms of availability (refer to Table 5.3) indicating that they were fairly confident in their ability to resist eating based on the availability of food. The only measurement

where confidence was slightly lower was for respondents' ability to resist eating when different kinds of food were available. Participants may not believe in their ability to resist eating when different kinds of food are available, because of their need for a heightened or exhilarating eating experience (Food: How Gen Y eats, 2009).

With regard to self-efficacy in terms of positive activities, respondents' scores were average based on confidence. In terms of their ability to resist eating while watching television, the score was slightly lower. A possible explanation might be that, in some instances, respondents may form a habit of eating while watching television and therefore come to associate watching television with food consumption. As respondents also indicated that they usually eat when they feel bored (refer to Section 5.4.3), consuming food while watching television may positively contribute to the experience of watching television. Generation Y's need for entertainment, as mentioned by Erickson et al. (2009), may also be satisfied by consuming food while watching television.

5.4.3 Descriptive statistics of emotional state

The relationship between emotional states and food choice was investigated by means of the Emotional Appetite Questionnaire that was originally developed by Geliebter and Aversa (2003). On the 5-point Likert scale, the smallest value in Table 5.4, 2.05, indicates that respondents disagreed with the statement that associated their food choices with emotions of fear. The highest value on the 5-point Likert scale, 3.65 was reported for experiencing boredom.

In terms of negative emotional states, scores were averaged based on the relationship between negative emotional states and food choice. In the instance of eating when feeling bored, respondents agreed that they usually eat when they feel bored, with a mean score of 3.65 (refer to Table 5.4), supporting respondents' indication that they find it more difficult to resist eating when watching television (which is often accompanied by feelings of boredom) (refer to Table 5.3). Of the respondents, 69.6% either agreed or strongly agreed that they usually eat when they felt bored. This finding is also mentioned by Tanofsky-Kraff et al. (2007). In accordance, members of Generation Y are said to seek a heightened or exhilarating eating experience (Food: How Gen Y eats, 2009). It may be that individuals deal with their boredom by consuming food, because they feel busier when they are consuming or preparing food.

Table 5.4: Descriptive statistics: Emotional state

Sub-scale of emotional state:	Item	Section	Mean (5-point Likert scale ¹⁵)	Standard deviation	N
Negative emotional state	I usually eat when I feel sad.	B1	2.42	1.27	368
	I usually eat when I feel bored.	B2	3.65	1.17	375
	I usually eat when I feel angry.	B4	2.15	1.11	370
	I usually eat when I feel anxious.	B5	2.72	1.28	369
	I usually eat when I feel frustrated.	B7	2.57	1.16	369
	I usually eat when I feel tired.	B8	2.31	1.19	370
	I usually eat when I feel depressed.	B9	2.76	1.30	373
	I usually eat when I feel frightened.	B10	2.05	1.00	369
	I usually eat when I feel lonely.	B13	2.90	1.27	369
Positive emotional state	I usually eat when I feel confident.	B3	2.35	1.06	367
	I usually eat when I feel happy.	B6	2.98	1.14	367
	I usually eat when I feel relaxed.	B11	3.05	1.18	370
	I usually eat when I feel playful.	B12	2.57	1.15	370
	I usually eat when I feel enthusiastic.	B14	2.45	1.077	367
Negative emotional situation	I usually eat when under pressure.	B15	2.73	1.35	355
	I usually eat after a heated argument.	B16	2.08	1.00	367
	I usually eat after a tragedy of someone close to you.	B17	2.10	1.06	368
	I usually eat after ending a relationship.	B19	2.42	1.16	367
	I usually eat after losing money or personal belongings.	B21	2.22	1.02	369
Positive emotional situation	I usually eat when falling in love.	B18	2.15	1.02	365
	I usually eat when engaged in an enjoyable hobby.	B20	2.56	1.13	368
	I usually eat after receiving good news.	B22	2.56	1.14	370

Rozin et al.'s (2003) sample of college students indicated that eating was one of the most pleasurable parts of their day. In terms of positive emotional states, respondents did not disagree or agree strongly regarding statements about positive emotional states and food choice. An association between food choices and emotions of relaxation was indicated by Frewer and Van Trijp (2007), who mentioned that

¹⁵ 5 = strongly agree, 4 = agree, 3 = do not disagree or agree, 2 = disagree, 1 = strongly disagree

certain foods have a calming and relaxing effect. This was however not strongly supported by the findings of this study.

Respondents' scores were below average ("disagreed to some extent") with regard to statements that associated their food consumption with negative and positive emotional situations. It may be that respondents were not aware of the association or that they were in denial as Brown (2009) stated that individuals often use food to anaesthetise or hide themselves from negative emotional states.

5.4.4 Descriptive statistics of weight perception

Based on the results in terms of respondents' weight perception (refer to Table 5.5.) it seems that the respondents had a positive weight perception. Respondents mostly disagreed with statements regarding their weight, indicating that they did not think they were overweight or fat (see Table 5.5). Respondents may have reported a positive weight perception because of the rather blunt or harsh statements used in section E of the questionnaire to determine their weight perception.

Table 5.5: Descriptive statistics: Weight perception

Section	Item	Mean (5-point Likert scale)	Standard deviation	N
E1	I am fat.	2.12	1.09	375
E2	My waist is too large.	2.19	1.17	375
E3	I have too much fat on my body.	2.34	1.19	375
E4	I am overweight.	2.01	1.11	375
E5	My stomach is too big.	2.35	1.22	374
E6	Other people think that I am fat.	1.92	1.00	373

It may also be that respondents did not want to admit that they have a negative weight perception, because respondents' weight perception could have influenced their self-concept or evaluation of self-worth (Geller et al., 1997). Participants' weight perception may also not have been based on their actual BMI, as Groenewald (2010) mentioned that many overweight and obese individuals believe that they are healthy. It is however interesting to note that the BMI of the sample (as reported in Section 5.2) was classified as a healthy body weight on average.

5.5 DETERMINING FOOD CHOICES

Respondents' food choices were determined by means of a 24-hour recall questionnaire, and the following findings were evident.

Expenditure: Forty-three per cent reported that they usually spend R30 or less per day on their food choice purchases (refer to Table 5.6). This finding contradicts Morton's statement in Noble et al. (2009) that Generation Y has the largest disposable income of any teen group in history. In contrast to the sample's reported spending, the South African population spent 16.6% of their consumption expenditure on food in 2005/2006 (Statistics South Africa, 2008, p. 28). The spending reported by the sample may be less, because students in the sample either preferred less expensive food and the convenience of fast food despite their relatively large disposable income, or they may have had a smaller disposable income while studying. Another possible explanation for respondents' low food expenditure may be the fact that 72% indicated that they live with their parents or in a hostel (refer to Figure 5.1) where food is provided.

Table 5.6: Respondents' daily food expenditure

Daily food expenditure	Percentage of respondents
R0–R30	43%
R31– R60	39%
R61–R90	15%
R91–R120	3%
R120+	1%

Fast food consumption: The majority of the respondents (70%) did not consume fast foods the previous day (a Sunday). A possible reason for this finding is that meals may be prepared on Sundays as fast foods are not traditionally bought on a Sunday. It can be claimed that Generation Y generally spends Sundays at home or with family and therefore does not purchase fast foods. Respondents' monthly fast food consumption is illustrated in Figure 5.2. As the majority of the sample spent R30 or less per day on food products (refer to Table 5.6) and consume fast foods 1–6 times per month (see Figure 5.2), Generation Y presents a lucrative market segment for low-priced fast food restaurants.

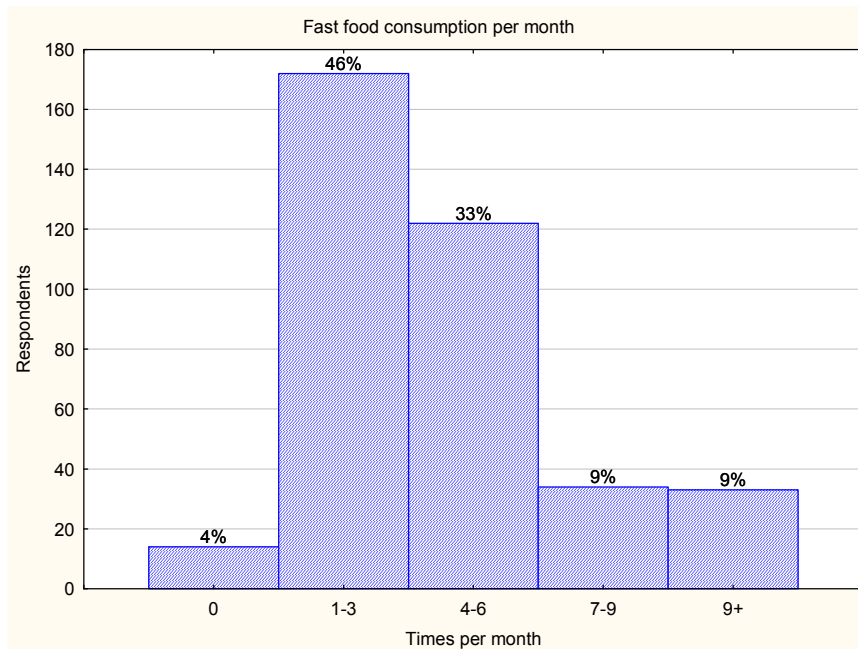


Figure 5.2: Fast food consumption of Generation Y sample per month

Recommended food consumption: A comparison between respondents' food choices and the recommended food consumption of the South African Department of Health (2009) is portrayed in Table 5.7.

On average, respondents disclosed an over-consumption of meat and an under-consumption of fruit, vegetables and starch. Forty-four per cent of the respondents consumed more than three portions of meat per day (the recommended maximum). Seventy-one per cent of the respondents consumed less than five portions of fruit and vegetables, and 90% consumed less than the recommended minimum of nine portions of starch.

In contrast to the South African Department of Health's recommended starch consumption, the Canada's Food Guide recommends 7.25 portions of starch (Mahan & Escott-Stump, 2008). According to this standard, approximately 76% of the respondents consumed less than the Canadian recommended portions of starch per day.

Table 5.7: Comparison between respondents' food choices and recommended consumption

Food choice groups	Recommended consumption (Department of Health, 2009)	Respondents' consumption			
		Average	Under	Adequate	Over
Milk (one cup)	1–2	1.2	23% (< 1 portion)	68%	9% (> 2 portions)
Fruit (hand palm size) and vegetables (half a cup)	5	3.5	71% (< 5 portions)	10%	19% (>5 portions)
Meat (hand palm size)	2–3	3.6	14% (< 2 portions)	42%	44% (>3 portions)
Starch (half a cup)	9–11	5.2	90% (< 9 portions)	5%	5% (>11 portions)
Fat (teaspoonful)	Eat sparingly	2.7	-	-	-
Sugar (teaspoonful)	Eat sparingly	1.8	-	-	-

Twenty-three per cent of the respondents consumed less than one portion of milk. It may be that college-aged Generation Y respondents in this sample are not aware of recommended food consumption or do not consider these recommendations when they make their food choices. The fact that the majority of the respondents resided in a hostel, could also have contributed to this finding, as food is prepared for them and they have to make their food choices from the prepared food choices on offer on a particular day.

5.6 SELF-CONCEPT AND FOOD CHOICE (H1)

Members of Generation Y view themselves as special (Sebor, 2006), optimistic (Galagan, 2006), innovative and assertive (Hawkins et al., 2007). All these adjectives relate to and indicate a positive self-concept. In accordance, respondents indicated on average a positive personal self-concept by responding with a 4 ("true") on the 5-point Likert scale items. Therefore, it can be concluded that the Generation Y sample had a positive self-concept. A possible explanation is that individuals try to protect their self-concept (Zinkhan & Hong, 1991). Respondents may have rejected statements that would portray a negative self-concept, as these statements would ultimately harm their self-concept.

A relationship between self-concept and food choice was postulated (H1). Respondents were asked to indicate their food choices in Section A, and thereafter their self-concept in Section D. By first considering their food choices, their evaluation of their self-concept should have taken their food

choices into account. However, no significant relationship could be found between self-concept and food choice for the total Generation Y sample. Further investigation revealed that gender moderated this relationship, as weak, yet significant, relationships were found between self-concept and food choice for male participants in the study (as portrayed in Table 5.8). Witte et al. (1991), in contrast, found a relationship between self-concept and food choice within a sample of females. Their sample, however, included women between the ages of 18 and 35.

Table 5.8: Significant relationships between self-concept and food choice (males)

The relationship between self-concept and consumption of:	Pearson r-value	Pearson p-value	Sub-group	N
Meat	0.17	0.04	Male	153
Milk	0.16	0.04	Male	156
Starch	0.17	0.04	Male	155
Fruit and vegetables	0.17	0.03	Male	157
Sugar	0.19	0.01	Male	158

Some relationships were found between male participants' self-concept and their consumption of meat ($r = 0.17$), milk ($r = 0.16$), starch ($r = 0.17$), fruit and vegetables ($r = 0.17$) and sugar (puddings, sweets and chocolates) ($r = 0.19$). Therefore, an increase in the self-concept of male respondents leads to an increase in their consumption of meat, milk, starch, fruit and vegetables and sugar. The weak significant relationships between certain food choices and self-concept within the male Generation Y sample provided partial support for H1.

It can therefore be postulated that, when the self-concept of male members of Generation Y became more positive, their consumption of certain food groups increased because they felt confident and entitled to make these food choices. Additional results could also shed light on this relationship as a relationship between self-concept and weight perception was found for both males and females (discussed in Section 5.9.2). An ideal higher weight (compared to their current weight) was reported by male respondents while an ideal lower weight was reported by female respondents (refer to Section 5.9). The relationship between the male respondents' self-concept and their food choice may thus be based on their ideal weight perception and the relationship between their self-concept and weight perception. As their ideal weight perception is usually higher than their current weight, an increase in food choice and consumption may be associated with an increase in weight and in turn an increase in the male respondents' self-concept. A relationship between self-concept and food choice may consequently not exist for female members of Generation Y, because of the relationship between their self-concept and a lower ideal weight perception.

5.7 THE RELATIONSHIP BETWEEN SELF-EFFICACY AND FOOD CHOICE (H2)

A relationship between self-efficacy and food choice was proposed (H2). As mentioned previously, the relationship between self-efficacy and food choice was investigated with the Weight Efficacy Lifestyle Scale (WEL), which includes five sub-scales, namely negative emotions, availability, social pressure, physical discomfort and positive activities (developed by Clark et al., 1991).

Respondents were confident about their self-efficacy in terms of food choice (ability to resist eating). Interestingly, a male participant wrote “Why would I want to resist eating?” on this section of the questionnaire. The “social stigma associated with overeating”, mentioned in Glynn and Ruderman (1986, p. 411), was not found in the case of this male respondent. Weak significant ($p < 0.05$) relationships were evident between specific food choices and sub-scales of self-efficacy (refer to Table 5.9). Therefore, H2 is partially supported.

Table 5.9: Significant relationships between self-efficacy and food choice

The relationship between self-efficacy and food choice		Pearson r-value	Pearson p-value	Total group or sub-group	N
Self-efficacy in terms of:	Food choice group:				
Social pressure	Fat	-0.11	0.04	Total	361
	Fat	-0.17	0.02	Female	201
	Sugar	-0.10	0.05	Total	367
Availability	Sugar	-0.16	0.01	Total	367
	Sugar	-0.16	0.02	Female	204
	Milk	-0.16	0.03	Female	207
Physical discomfort	Fat	-0.13	0.01	Total	360
	Fat	-0.17	0.03	Male	157
	Milk	-0.17	0.01	Female	206
	Meat	-0.11	0.05	Total	361
Positive activities	Sugar	-0.11	0.04	Total	369
	Starch	-0.17	0.02	Female	206
	Sugar	-0.14	0.04	Female	206
	Fat	-0.10	0.05	Total	363

5.7.1 Self-efficacy (negative emotions) and food choice

Respondents had an average mean score of 3.6 for the four questions of the sub-scale with a standard deviation of 0.82. This indicates that the respondents felt confident in their ability to resist eating when experiencing negative emotions. No significant relationship between self-efficacy in terms of negative emotions and food choice was found. No gender differences were evident between self-efficacy (negative emotions) and food choice. According to Nolan et al. (2010), the effect of emotional

states on food choice depends on the arousal and valence of the relevant emotional state. As mentioned before, it may be that merely naming the emotional states may not have been enough for respondents to recall their food choice behaviour related to the emotional states at hand.

5.7.2 Self-efficacy (social pressure) and food choice

Respondents indicated confidence in their ability to resist eating when experiencing social pressure. Small negative relationships were found between self-efficacy in terms of social pressure and fat ($r = -0.11$) as well as sugar consumption ($r = -0.10$). Therefore, an increase in respondents' self-efficacy in terms of social pressure may be associated with a decrease in their fat and sugar consumption. This finding shows limited support for Luszczynska et al.'s (2004) statement, that a consumer with high levels of self-efficacy may make healthier food choices. This finding also supports McFerran et al.'s (2010) statement that social interactions and other interpersonal factors influence food choices. The specific association between fat and sugar consumption with social pressure may be due to these food choices' popularity. If individuals would like to consume sugar and fat as food choices, but avoid it due to its unhealthy nature, social pressure could present an excuse to give in to the desire for sugar and fat consumption.

5.7.3 Self-efficacy (availability) and food choice

Respondents were on average neither "confident" nor "unconfident" in their self-efficacy regarding the availability of food choices. A small negative relationship ($r = -0.16$) between self-efficacy in terms of availability and sugar (puddings, sweets and chocolates) was found. Furthermore, a small negative relationship between self-efficacy in terms of availability and milk ($r = -0.16$) and sugar ($r = -0.16$) was found for female participants of the sample. This finding suggests that, if female respondents' self-efficacy in terms of availability was increased, their milk and sugar (puddings, sweets and chocolates) consumption would decrease. Therefore, if female participants' belief in their capability of resisting sugars (when sugars are readily available) was increased, their actual consumption of sugars would decrease. This finding is supported by AbuSabha and Achterberg (1997) who mention that, if people believe in their ability to resist eating chocolates, they will probably not eat chocolates – compared to other individuals who do not believe in their own capability of resisting chocolates. This phenomenon may be because women believe that resisting puddings, sweets and chocolates can be regarded as a skill or strength that not all women can achieve.

5.7.4 Self-efficacy (physical discomfort) and food choice

Respondents indicated that they were generally confident in their ability to resist eating while experiencing physical discomfort. Small negative relationships were found between respondents' self-efficacy in terms of physical discomfort and meat ($r = -0.11$), as well as fat consumption¹⁶ ($r = -0.13$). Female participants revealed a small relationship, though larger compared to male participants, between self-efficacy in terms of physical discomfort and milk consumption ($r = -0.17$ compared to male participants $r = 0.01$). Male respondents revealed a small relationship, though larger compared to women, between self-efficacy in terms of physical discomfort and fat consumption ($r = -0.17$ compared to female participants $r = -0.08$).

It may be that individuals believe that meat and fat products will provide them with the required energy and nutrients to make them feel less physically run-down and in pain. As mentioned before in Section 3.2.2, McGraw (2003, p. 136) proposes that individuals experience a "physiological 'high'" when they consume food. "Comfort foods are described as the gastronomic equivalent of a warm sweater, a kiss on the forehead or a favourite blanket" (Gordon & Smith, 2005). Milk products may serve as women's comfort foods when they experience physical discomfort.

In addition, by always consuming food in response to negative emotional states (attributed to the physical discomfort), individuals may come to associate the experience of negative emotional states with food reward (Bohon et al., 2009). It can be argued that respondents could not resist certain food choices (specifically meat and fat for this Generation Y sample, and milk for females) during physical discomfort (low self-efficacy in terms of physical discomfort) because in the past, these foods served as an easy way to lessen their physical discomfort and to make them feel better.

5.7.5 Self-efficacy (positive activities) and food choice

Respondents indicated confidence in their ability to resist eating during positive activities. Small negative relationships were found between self-efficacy in terms of positive activities and respondents' fat ($r = -0.10$) and sugar consumption (puddings, sweets and chocolates) ($r = -0.11$). This result indicates that an increase in respondents' self-efficacy in terms of positive activities is associated with a decrease in respondents' fat and sugar consumption. This association may be due to individuals'

¹⁶ Refer to Table 5.9.

habit of consuming fat and sugar (puddings, sweets and chocolates) while watching television, reading, before going to bed and when happy.

Specifically for females respondents, a small relationship, though larger compared to men, was found between self-efficacy in terms of positive activities and starch ($r = -0.17$, compared to male respondents $r = 0.01$) and sugar ($r = -0.14$, compared to male respondents $r = -0.07$) consumption.

As mentioned before in the literature review,¹⁷ food choices that are made to comfort the consumer (to experience positive emotional states), are usually high in sugar or fat and provide a certain short-term bodily satisfaction (Wood, 2010). Consumers with low levels of self-efficacy in terms of positive activities may consume fat and sugar as food choices to increase the positive emotional states they experience during the positive activities. Certain food choices may be associated with memories of home or contentment (American Heritage in Wood, 2010). Respondents' lack of self-efficacy with regard to positive activities may be the result of an association between the positive activity and fat and sugar consumption they hold in memory.

5.8 THE RELATIONSHIP BETWEEN EMOTIONAL STATES AND FOOD CHOICES (H3)

A relationship between food choice and emotional states was proposed (H3). The Emotional Appetite Questionnaire, used to determine the Generation Y sample's emotional states and food choice, contained sub-sections regarding negative emotional states, positive emotional states, negative emotional situations and positive emotional situations. Specific relationships were found between food choice and these sub-scales of emotional states (refer to Table 5.10). Therefore, H3 is accepted.

5.8.1 Negative emotional state, negative emotional situation and food choice

On average, respondents neither disagreed nor agreed with statements regarding their food choices and negative emotional states. The Pearson correlation between negative emotional state and food choice for the total sample ($r = 0.15$),¹⁸ suggests a weak relationship between respondents' negative emotional state and milk consumption. Therefore, an increase in respondents' food consumption attributed to negative emotional states can be associated with a small increase in respondents' milk consumption. This relationship is marginally higher for females ($r = 0.17$) than for males.

¹⁷ See Section 3.2.3.

¹⁸ Refer to Table 5.10.

In terms of negative emotional situations, respondents from the Generation Y sample disagreed with statements associating their food choices with negative emotional situations. The Pearson r-value associating food choice with negative emotional situations, ($r = 0.12$), was found with regard to the total samples' milk consumption (the female sub-group reported a higher correlation of $r = 0.18$). The association between negative emotional states and negative emotional situations and respondents' milk consumption may be the result of respondents' desire to feel better (during the negative emotional state or situation) in accordance with Stevens and Maclaran (2008) who indicated an association between dairy products with emotions of desire.

Table 5.10: Significant relationships between emotional states and food choice

The relationship between emotional states and food choice		Pearson r-value	Pearson p-value	Total group or sub-group	N
Sub-scale of emotional state:	Food choice group:				
Negative emotional state	Milk	0.15	0.01	Total	355
	Milk	0.17	0.01	Female	200
Positive emotional state	Milk	0.13	0.01	Total	356
	Starch	0.24	0.01	Total	353
	Fat	0.24	0.01	Total	350
	Meat	0.16	0.01	Total	351
	Milk	0.17	0.03	Male	156
	Starch	0.28	0.01	Male	155
	Fat	0.25	0.01	Male	154
	Meat	0.15	0.04	Female	195
Negative emotional situation	Milk	0.12	0.03	Total	341
	Milk	0.18	0.01	Female	197
Positive emotional situation	Milk	0.12	0.03	Total	359
	Starch	0.16	0.01	Total	356
	Fat	0.16	0.01	Total	352
	Fat	0.17	0.04	Male	152
	Starch	0.16	0.02	Female	201

5.8.2 Positive emotional state, positive emotional situation and food choice

The positive emotional state section was used to determine whether respondents' positive emotional states influence their food choice. On average, respondents neither disagreed nor agreed with statements associating their food choices and positive emotional states. A small relationship, based on an r-value of between 0.10 and 0.29, as stated by Pallant (2001), was found between positive emotional states and milk, starch, fat and meat consumption (as shown in Table 5.10). If respondents' positive emotional state increased, a small increase in respondents' milk, starch, fat and meat consumption could be expected.

In terms of gender, a small relationship¹⁹ was found between male respondents' milk ($r = 0.17$), starch ($r = 0.28$) and fat ($r = 0.25$) consumption and their positive emotional state. For female respondents, a small relationship was found between their meat consumption ($r = 0.15$) and their positive emotional state eating.

In terms of positive emotional situations, the respondents on average disagreed with statements associating their food choices with positive emotional situations. A small relationship was found between positive emotional situation eating and milk ($r = 0.12$), starch ($r = 0.16$) and fat ($r = 0.16$) consumption. A small relationship was also found between positive emotional situation and male respondents' fat consumption ($r = 0.17$) and female respondents' starch consumption ($r = 0.16$).

A possible explanation for these relationships is that respondents' consumption of milk, starch and fat contributes to their positive emotional states and make such situations even more enjoyable. In accordance, Rozin et al.'s (2003, p. 137) research results showed that 60% of a sample of college students indicated that eating was one of the most pleasurable parts of their day. Members of Generation Y may consume milk, starch and fat products when falling in love, engaging in an enjoyable hobby or when receiving good news, because of the pleasurable experience of consuming these food choices.

¹⁹ Refer to Table 5.6.

5.9 WEIGHT PERCEPTION

Most respondents (92%) actual weight differed from their ideal weight perception. This finding supports findings by Rozin et al. (2003) who reported that American undergraduates are very concerned about their weight and weight perception. This concern with weight may be due to individuals' belief that the key to happiness and success lies in losing any excess weight (Wright, 2007). Stevens and Maclaran (2008) mentioned that individuals are constantly re-constructing, shaping and moulding their physical appearance. Respondents' actual and ideal weight perceptions are portrayed according to gender in Figures 5.3 and 5.4.

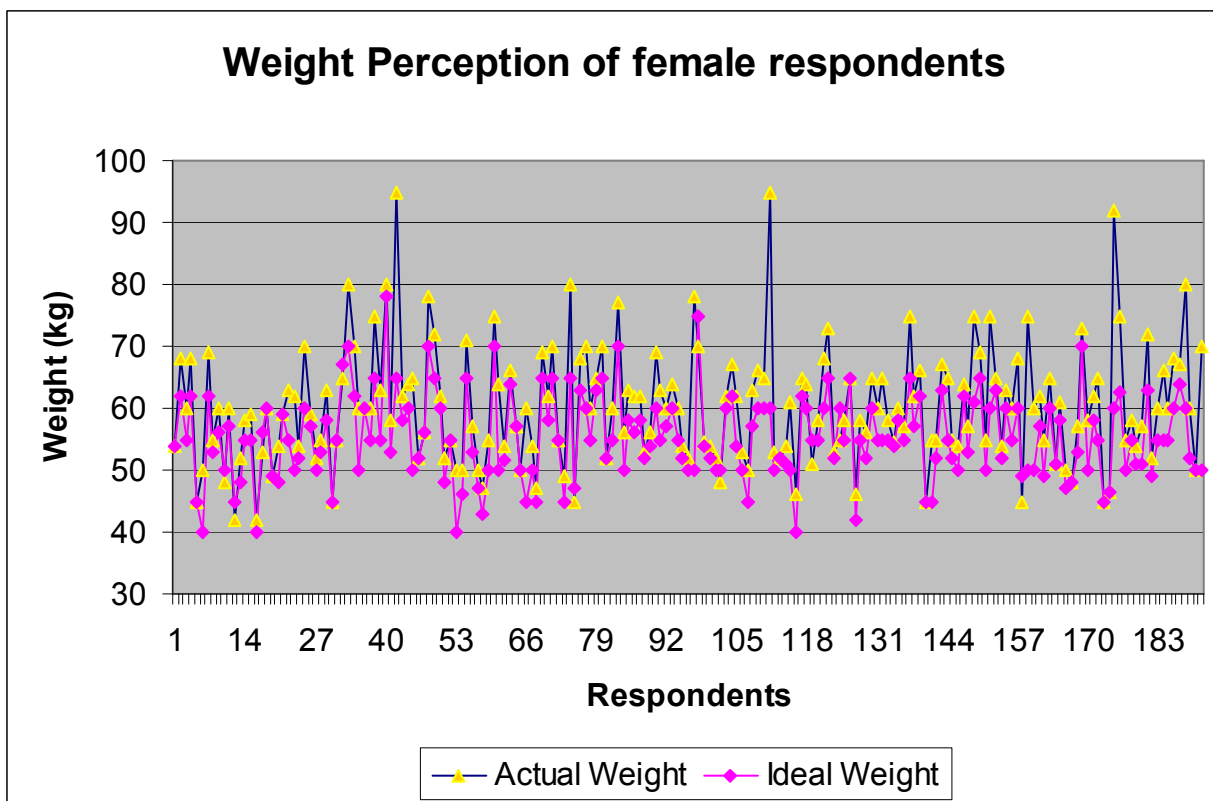


Figure 5.3: Female respondents' actual and ideal weight perception

Female respondents' ideal weight (average of 55.31 kg) was lower than their actual weight (average of 60.38 kg) while most of the men's ideal weight (average of 77.35 kg) was higher than their actual weight (average of 75.11 kg). This finding confirms Malinauskas et al.'s (2006) finding that females generally regard any weight lower than their current weight as more attractive.²⁰ Furthermore,

²⁰ Refer to Figure 5.3.

Neighbors et al.'s (2008) study indicated that men measure themselves against heavier, muscular males as the ultimate ideal. It may be that female members of Generation Y aspire to be petite or thin individuals (for example fashion models), while male members aspire to heavier and muscular individuals (for example rugby players or bodybuilders).

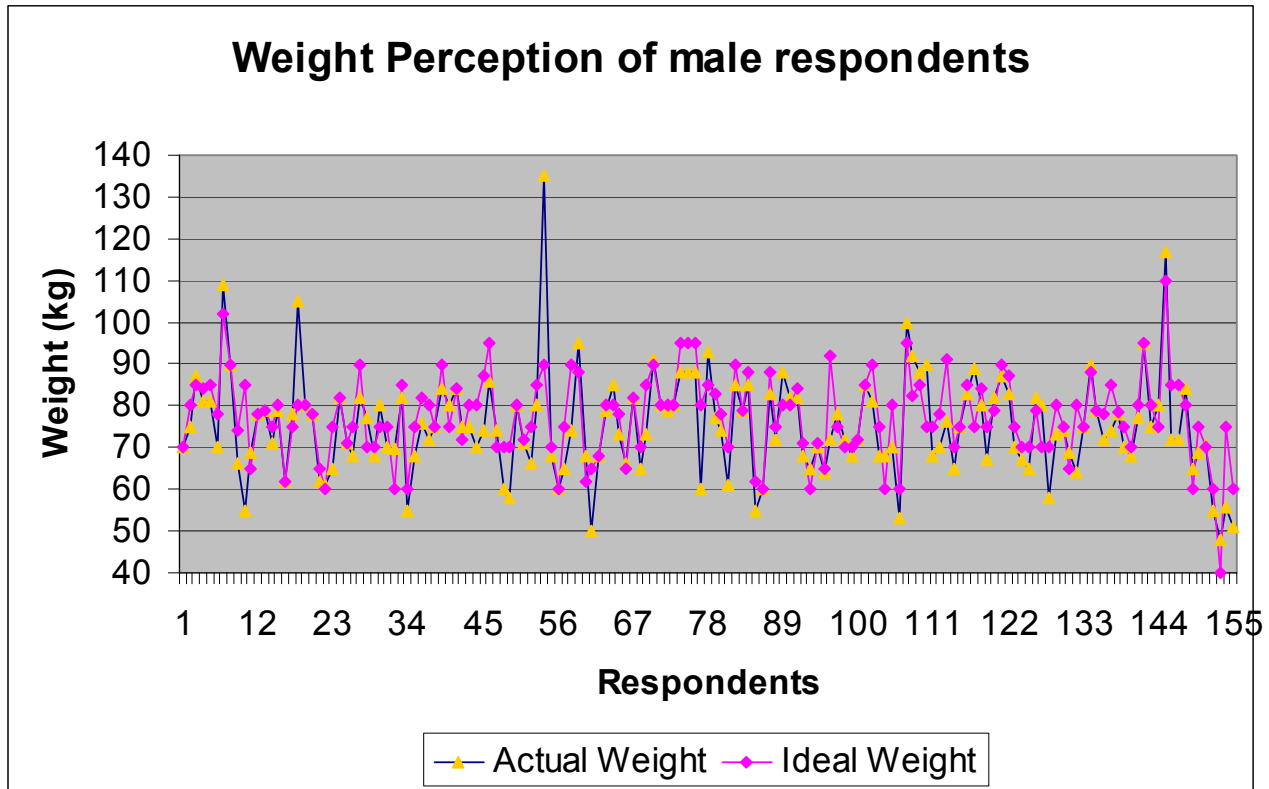


Figure 5.4: Male respondents' actual and ideal weight perception

The argument by Rozin et al. (2003) and also by Malinauskas et al. (2006) that men are less concerned about their appearance than women, is therefore not supported. Men from Generation Y may also experience a desire or pressure to change their weight, in the sense that men strive to gain weight (as muscle mass). Heavy and muscular men may be viewed by society as stronger and more attractive compared to skinnier men.

5.9.1 The relationship between weight perception and food choice (H4)

A relationship between weight perception and food choice was proposed (H4). Forty-three per cent of the respondents (of which approximately 32% were female) indicated that their current weight does

influence their food choices. Small negative relationships (see Table 5.11) were identified between participants' weight perception and their fat ($r = -0.13$), meat ($r = -0.14$), and starch consumption ($r = -0.18$).

Table 5.11: Significant relationships between weight perception and food choice

The relationship between weight perception and consumption of:	Pearson r-value	Pearson p-value	Total group or sub-group	N
Fat	-0.13	0.01	Total	360
Meat	-0.14	0.01	Total	360
Starch	-0.18	0.01	Total	363

Since the weight perception statements were negatively worded, small negative relationships may imply that an increase in weight perception could be associated with a decrease in fat, meat and starch consumption. Therefore, H4 is partially accepted. No significant relationships were found between weight perception and the consumption of milk, fruit and vegetables and sugar products.

The significant relationship between meat, starch and fat consumption and weight perception, may be ascribed to the negative associations of meat, starch and fat with weight gain. Stevens and Maclaran (2008) mention that consumer behaviour is focusing more on the human body since an association between body and mind on the one hand, and consumption on the other is being formed. As 43% of the present study's respondents stated that their current weight influences their food choice, the association between a negative weight perception and less meat, starch and fat consumption may be based on their efforts to lose weight or to maintain their current weight.

5.9.2 The relationship between weight perception and self-concept (H5)

A relationship between weight perception and self-concept was proposed (H5). Results indicated a relationship between weight perception and self-concept. ($r = -0.32$). The strength of the relationship may be regarded as medium (see Figure 5.5). Therefore, H5 is accepted.

The negative r-value can be interpreted as follows: an increase in the values of respondents' self-concept responses is correlated with a decrease in the values of respondents' weight perception responses. Since the weight perception scale was negatively worded and the self-concept scale was positively worded, an increase in respondents' positive self-concept is correlated with a decrease in

respondents' negative weight perception. Thus, when the respondents' self-concept increases (becomes more positive), their weight perception becomes more positive (they have less negative weight perceptions) and vice versa.

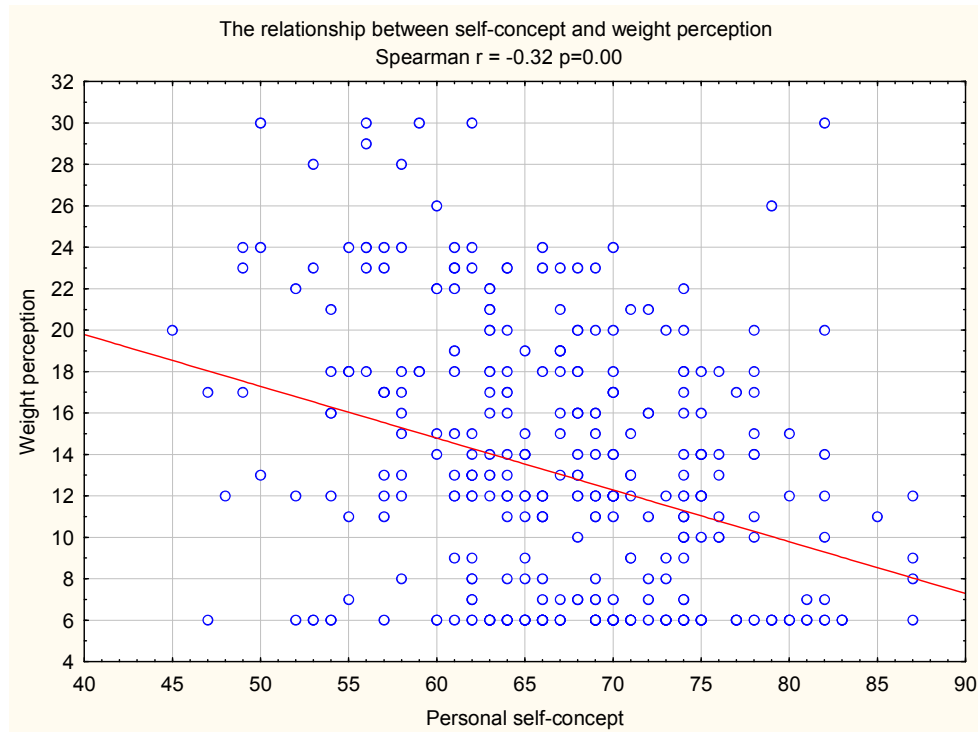


Figure 5.5: The relationship between weight perception and self-concept

These results are supported by Geller et al. (1997) and Smeesters et al. (2010) who proclaim that individuals' weight and body shape can influence their self-concept or evaluation of self-worth. Weight maintenance (to obtain an acceptable weight perception) may serve as the key to some individuals' evaluation of self-worth (Hill, 1993; Malinauskas et al., 2006).

As mentioned before, college students have to deal with pressures not to be overweight (Nichter, 2000).²¹ Individuals from Generation Y may regard weight as an indicator of an individual's strength or character. In other words, an individual's strength or character is judged by his or her success in dealing with the pressures not to be overweight, and by maintaining a healthy weight. Coleman (2008) states that controlling one's food choices is a means of self-love or a form of power over one's life. The connection between a positive weight perception and a positive self-concept may therefore lie in the negative associations related to overweight individuals. Being overweight may be regarded as

²¹ Refer to Section 3.6.2 of the literature review.

unacceptable to society and as a sign of personal weakness (based on a lack of control over one's own food choices).

5.10 SUMMARY OF HYPOTHESES

For the purpose of this study, hypotheses were set and tested with the use of statistical analyses. A summary of the hypotheses tested can be presented as followed:

- H1: There is a relationship between self-concept and food choice.
This hypothesis was partially supported within a male Generation Y sample.
- H2: There is a relationship between self-efficacy and food choice.
The hypothesis was partially supported within the Generation Y sample.
- H3: There is a relationship between emotional states and food choice.
This hypothesis was accepted.
- H4: There is a relationship between weight perception and food choice.
The hypothesis was partially accepted.
- H5: There is a relationship between weight perception and self-concept.
This hypothesis was accepted.

5.11 CONCLUSION

In this chapter, the research results were discussed and compared to findings mentioned in the literature review. A reliability analysis and the sample profile were also considered. The findings propose significant relationships between respondents':

- milk consumption and negative emotional situations;
- milk consumption and positive emotional situations;
- meat consumption and self-efficacy in terms of physical discomfort;
- meat consumption and positive emotional states;
- starch consumption and positive emotional situations;
- starch consumption and weight perception;
- sugar consumption and self-efficacy related to availability, social pressure and positive activities; and
- fat consumption and self-efficacy related to social pressure, physical discomfort and positive activities.

Based on the findings of this study, implications and recommendations for marketers are presented in the next chapter.

CHAPTER 6: RECOMMENDATIONS AND IMPLICATIONS

6.1 INTRODUCTION

In this study, the relationships between self-concept, self-efficacy, emotional state, weight perception and food choice within a Generation Y sample were investigated. The purpose of the investigation was to provide implications and recommendations to marketers of food products based on the findings, which could ultimately improve Generation Y's food choices.

This chapter presents these practical recommendations and implications based on the research results discussed in Chapter 5. The results propose (based on the comparison of respondents' food choices and the recommended food consumption of the South African Department of Health in Table 5.7) that marketers of food products could improve college-aged students from Generation Y's food choices by means of promoting a decrease in meat consumption and an increase in their milk, fruit, vegetable and starch consumption. A decrease in respondents' fat and sugar consumption is also advisable. Marketers could persuade college-aged students from Generation Y to change their food choices by considering the variables that influence their food choice. Food choices influence members of Generation Y's health, weight and their general quality of life. By improving food choices, marketers will in due course improve Generation Y's health, weight and quality of life.

In the following sections, more specific recommendations and marketing implications are discussed regarding the sample profile and food choice, self-concept and food choice, self-efficacy and food choice, emotional state and food choice, weight perception and food choice, and lastly weight perception and self-concept.

6.2 SAMPLE PROFILE AND FOOD CHOICE

Age: The respondents in the current study were between the ages of 17 and 22 and formed part of Generation Y. As this generation is a sought-after market segment, the results from the study could contribute valuable information to marketers of food and weight-related products.

BMI: Since 20% of the sample were classified as overweight or obese according to BMI calculations, it was important to consider the variables (such as self-concept, self-efficacy, emotional states and weight perception) that influence food choice (as food choices ultimately influence weight). Marketers

should inform consumers how to calculate their BMI and should also encourage consumers to calculate their BMI and modify their food choices accordingly (to obtain a healthy BMI). As mentioned before, because consumers' weight perception may influence their health, it is of the utmost importance that consumers have the correct weight perception in order for it to influence their behaviour and attitude towards their food choices positively.

Twenty per cent of the college-aged Generation Y sample who was overweight or obese will require healthy food products in order to make healthier food choices to lose their excess weight. As mentioned before, Peters (1999) says that overweight children usually become overweight adults. If this concept applies to college-age²² members of Generation Y, 20% will stay overweight as they become older. Marketers who try to forecast demand can predict that a percentage of Generation Y will require healthy food products in order to lose their excess weight. Convincing these individuals that they are currently overweight or obese could be accomplished by informing college-aged students from Generation Y how to calculate their BMI. It should be noted that Generation Y prefers receiving information in small quantities, as mentioned in the literature review²³ (Lower, 2008). Information about BMI calculations should therefore be presented as short and as simple as possible. Information on how to calculate BMI could be communicated on food packaging or in marketing communication regarding food products. A decrease in the number of overweight or obese individuals (due to the increase in their BMI awareness) will ultimately decrease the negative influence of obesity on the nation's economy and weight-related illnesses.

Marketers who recognise the added pressure on university/college students not to be overweight may gain a competitive advantage in the food products market. For example, marketers could emphasise the association between their specific food product and its effect on the individual's weight. This could increase consumers' level of involvement in food choices and improve their purchasing decisions, which in turn could shift their focus from merely satisfying their hunger to considering the food product as a determinant of their weight.

Respondents' living arrangements and fast food consumption: Marketers of food products should consider college-aged students from Generation Y's reported fast food consumption and their spending on food choices. Low-priced food products that are easy to prepare (for example noodles, grilled vegetables or other convenient and easy to prepare food products) may satisfy the needs of the

²² College-age individuals are 18 to 24 years old.

²³ Refer to Section 3.6.3.

28% of the sample who live privately. These individuals serve as a niche market because of their new responsibility to prepare their own food and their introduction to the food industry as independent buyers and decision-makers. Marketers could inform individuals in their advertisements that they do not have to turn to fast food restaurants for less expensive and convenient foods. Marketers of healthy, easy to prepare food products could, for instance, hand out free samples of their product at first-year university events or gatherings. This will allow students to sample and – hopefully – embrace the food product as a convenient, but healthy food choice (without any perceived risk).

6.3 SELF-CONCEPT AND FOOD CHOICE

In view of the fact that the respondents reported a positive self-concept, marketers could stress that Generation Y's food choices should reflect their positive knowledge, beliefs, feelings and thoughts about themselves by the healthy food choices they make.

Marketers of food products could for example develop marketing messages that affirm the relationship between self-concept and food choices, for example: “eat [our product] because you like yourself”. These statements could bring the association between the food product and individuals' self-concept to mind and increase the perceived value of their food choices.

Marketers should also maintain this positive self-perception when portraying college-aged members of Generation Y in advertisements. As mentioned before in the literature review,²⁴ information that is similar to a person's self-concept will be accepted, while dissimilar information will be rejected (Zinkhan & Hong, 1991). Erickson et al. (2009) claim that Generation Y wants to be praised.²⁵ In view of the fact that the respondents in the current study reported a positive self-concept, marketing messages should reinforce this belief (positive self-concept) in order to be accepted, for example, by confirming that the target market consists of intelligent consumers who believe they are important. Marketers could portray college-aged members of Generation Y as individuals who possess a positive outlook on their personal worth and personality, and should, for example state, “You are intelligent, easy to befriend and can take care of yourself – that's why you choose [our product]” in the copy of an advertisement.

²⁴ Refer to Section 2.2.3.3.

²⁵ Refer to Section 3.6.1.

As described by Graeff (1996), marketers could make consumers aware of the relationship between their self-concept and the product at hand (for example a food product), but should only do so if the consumer's self-concept is congruent with the image of the presented food choice. An increase in the positive self-concepts of male college-aged students from the Generation Y sample was correlated with an increase in their sugar, meat, milk, starch and fruit and vegetable consumption. Marketers could therefore increase men's milk, starch, fruit and vegetable consumption, by associating men's ideal self-concept with the specific food choices. Persuasive communication messages could portray men with positive self-concepts making good food choices and thus further strengthening positive self-concepts as individuals try to narrow the gap between their actual and their ideal self-concepts by purchasing products that have a brand image similar to their ideal self-concept (Zinkhan & Hong, 1991). In milk, starch, fruit and vegetable advertisements, marketers could use a male figure whom men of the target market admire in terms of the male figure's self-concept.

6.4 SELF-EFFICACY AND FOOD CHOICE

The relationship between self-efficacy and food choice may be discussed by focusing on self-efficacy (in terms of resisting eating in specific situations) in terms of availability, social pressure, physical discomfort and positive activities. Implications for marketers based on this relationship are discussed in the following paragraphs.

6.4.1 Self-efficacy in terms of availability

The results revealed a small but significant relationship²⁶ between self-efficacy in terms of availability (on weekends, when different foods are available, when high-calorie foods are available, and at a party) and female respondents' milk and sugar consumption. It is recommended that marketers encourage female consumers of Generation Y to decrease their consumption of puddings, sweets and chocolates, by either increasing their self-efficacy in terms of availability of food or by simply decreasing the availability of foods high in sugars, or substituting it with healthier food options. One self-efficacy definition states that self-efficacy is an optimistic reflection of beliefs regarding the ability to handle challenges through actions (Luszczynska et al., 2004). Marketers could educate female members of Generation Y to avoid situations where the availability of food choices high in sugar can

²⁶ Relationships are based on Pearson p- and r-values that are portrayed in Table 5.9.

be foreseen (decreasing availability). For example, if consumers believe they cannot resist chocolates, then they should not keep chocolates at home.

Consumers may increase self-efficacy in terms of availability by consciously consuming healthier food choices before being faced with the availability of sugar/unhealthy food choices. Marketers could, for example, present sweeter fruits (such as watermelons or other fruit) by way of persuasive marketing communication, as a healthy alternative to consume on weekends or before going to a party (instead of the high-calorie foods available at the party).

6.4.2 Self-efficacy in terms of social pressure

An increase in participants' self-efficacy in terms of social pressure (saying no to others, it is impolite to refuse a second helping, others pressuring me, and others will be upset if I don't eat) can be associated with a decrease in their fat and sugar consumption.

Marketers could therefore decrease consumers' fat and sugar food consumption by increasing their self-efficacy in terms of resisting certain food choices when experiencing social pressure. As mentioned in Section 2.5.2 of the literature review, if individuals, for example, believe in their ability to resist eating chocolates, the probability of them consuming chocolates is decreased (AbuSabha & Achterberg, 1997). Educating consumers to say no to unhealthy food choices when experiencing social pressure, could increase their self-efficacy in managing social pressure and encourage healthier food choices. Marketers could, for example, use "A friend who forces you to eat unhealthily, is no friend" or "Never compromise on healthy food choices for anyone" as slogans in an advertising campaign.

A possible image differentiation for healthier food products could be presented at social gatherings as an alternative to food choices that are high in sugar and fat. Marketers could, for example, offer a branded platter of healthy snacks (as a tasty and socially acceptable food choice) to take to social gatherings. Health biscuits, nuts, vegetables and low-fat spreads on a platter labelled "Delicious party treats for those who value their health" is an example. These healthy alternatives could be seen as "being my own person and resisting the temptation of eating unhealthily" if correctly portrayed in persuasive communication, thus strengthening self-efficacy in terms of food availability and social pressure.

6.4.3 Self-efficacy in terms of physical discomfort

Small negative relationships were found between self-efficacy in terms of resisting eating while experiencing physical discomfort (feeling physically run-down, having a headache, being in pain and feeling uncomfortable) and meat and fat consumption. An association between self-efficacy in terms of physical discomfort and milk consumption was also found in female participants.

Marketers could use the participants' low self-efficacy in terms of resisting eating when experiencing physical discomfort, to encourage a decrease in students from Generation Y's meat and fat consumption (by communicating the disadvantages of consuming excessive amounts of meat and fat) and an increase in women's milk/dairy product consumption (by communicating the nutritional value of milk products). Clover (2007b), for example, states that their yoghurt provides energy to individuals. Based on the female respondents' relationship between self-efficacy in terms of resisting food when experiencing physical discomfort and milk consumption, Clover could communicate that their yoghurt provides an energy boost for example copy stating, "Yoghurt, the energy boost you need when you feel tired".

6.4.4 Self-efficacy in terms of positive activities

An increase in respondents' self-efficacy in terms of resisting eating during positive activities (watching TV, reading, before going to bed and when happy) could be associated with a decrease in respondents' fat and sugar consumption. Consumers should be encouraged by marketers to make healthier food choices while reading, watching television or before going to bed. Marketers should communicate to consumers (for example, during the National Nutrition week, 9–13 October each year) that the main purpose of food choices is nutrition and that food should not be used for leisure or entertainment. On the other hand, marketers could also use respondents' low self-efficacy in terms of resisting eating during positive activities by directing food choices towards healthier choices. They could, for example, suggest, "Next time you watch TV, don't reach for a chocolate – grab our delicious fruits instead!"

6.5 EMOTIONAL STATE AND FOOD CHOICE

The following recommendations are made based on food choices related to respondents' positive and negative emotional state and situations experienced.

6.5.1 Negative emotional states and situations – implications for food choice

The majority of the respondents (69.6%) agreed or strongly agreed that they usually eat when they feel bored. Marketers should therefore attempt to offer healthy food choices (with interesting packaging) to consumers for consumption during boredom. A food choice that is tasty and entertaining to open or prepare (for example, yoghurt with added promotional items such as a brain teaser) could serve as a healthy choice to alleviate boredom. Furthermore, marketers of food products could identify situations where college-aged members of Generation Y experience boredom and utilise these situations as point-of-purchase opportunities. Examples include selling healthy food products at any activity where individuals are required to queue or wait to be served (e.g. car wash on campus, student registration, [or](#) any queues).

An increase in respondents' negative emotional state (when feeling sad, bored, angry, anxious, frustrated, tired, depressed, frightened or lonely) and negative emotional situation (when under pressure, after a heated argument, after a tragedy, after ending a relationship or after losing money or belongings) could be associated with a small increase in respondents' milk consumption. This finding provides marketers of milk products with a better understanding of consumers' emotional state, situation or frame of mind that could impact on the consumption of dairy products. Numerous food advertisements (including those for dairy products) make use of emotions to convince consumers to purchase specific food products, for example buying ice cream when feeling frustrated and experiencing "relief" after eating the advertised product.

Feelings of guilt are experienced because of the imbalance between the desire for the product (food) and the negative consequences of using the product (gaining weight) (Soscia & Busacca, 2008). Marketers could encourage consumers' milk consumption by depicting milk as a healthy food choice during negative emotional states and situations. This may in turn decrease possible feelings of guilt. Marketers could, for example, state that, when consumers feel sad, bored, angry, etc., they should not consume sweets, but should instead choose milk or yoghurt as healthy options/alternatives.

Bohon et al. (2009) argued that, by always consuming food in response to negative emotional states, individuals may come to associate experiences of negative emotional states with food reward. Consuming dairy products during negative emotional states and situations will allow consumers to regard these products as a healthy food reward and a healthy coping mechanism. Consumers could be sensitised by, for example, brand placements in a television programme or movie. Here marketers

could show a soap-opera actress eating a large tub of yoghurt to make her feel better after breaking up with her boyfriend, rather than a box of chocolates.

6.5.2 Positive emotional states and situations – implications for food choice

A small, yet significant relationship between respondents' positive emotional state (feeling confident, happy, relaxed, playful and enthusiastic) and their meat consumption was found. Educating members of Generation Y (for example, in an educational marketing campaign) regarding the negative consequences of consuming too much meat and of the Department of Health's (2009) recommended portions of meat, could decrease college-aged students of Generation Y's association between positive emotional states and meat consumption.

A small relationship can be reported between positive emotional situations (when falling in love, engaged in an enjoyable hobby or receiving good news) and the milk, starch and fat consumption of respondents. Marketers could depict milk and starch consumption in a positive usage situation such as a celebration. For example, an advertisement could portray a family celebrating good news whilst eating spaghetti or dairy products together. As mentioned in the literature review, memories of foods served during times of celebration or positive attention, can then be held in memory (Frewer & Van Trijp, 2007). Marketers could use these positive emotional states to enhance memory of the association between the consumption of healthy food products and positive emotional situations.

6.6 WEIGHT PERCEPTION AND FOOD CHOICE

As most respondents' actual weight perception differed from their ideal weight perception, college-aged students from Generation Y is a viable market segment for products aimed at changing consumers' weight perception (for example weight-loss products).

Females in the sample had a lower ideal weight than their actual weight;²⁷ however, the opposite was true for most of the male respondents' whose ideal weight was higher than their actual weight.²⁸ Implications for marketers include portraying certain food choices as a means to gain weight (for men of Generation Y) and to lose weight (for women of Generation Y). There are various food choices available for women who want to lose weight, but there are not as many offered to men who want to

²⁷ Refer to Figure 5.3.

²⁸ Refer to Figure 5.4.

gain weight. Consequently, Generation Y men who strive to increase their weight could be a viable market segment. Food that contains more kilojoules, such as starch, could be offered to these men as a food choice to gain weight.

Marketers who target men from Generation Y also have to consider the use of male actors or models as endorsers of their products. According to the present study's findings, marketers should choose male actors, models or other endorsers who are heavier and more muscular in body shape in order to gain the target market's approval or to stimulate their aspiration levels. The ideal is for the male actor in the advertisement to fit the target market's ideal weight perception. The fit could encourage product acceptance as the consumer experiences congruency between their ideal self-concept and the product's brand image.

Educating consumers about healthy food choices to lose or gain weight, and what an appropriate ideal weight is, cannot be neglected. This could be achieved by informing individuals how to calculate and interpret their BMI. Strauss (in McCreary & Sadava, 2001) reports that female adolescents and college students who have normal weights believe they are overweight and they are consequently trying to lose weight through their food choices. Female participants from Generation Y in the current study who indicated that their ideal weight was lower than their actual weight, may have been dieting to change their weight perception. Marketers of food products could offer healthy food products to these women. A supplier of frozen vegetables could, for example, state, "A low-kilojoules food choice for those who want to drop the extra kilos" instead of mentioning that their vegetables are easy to prepare and contain no preservatives. The focus should thus be on the design and copy of persuasive communication and the ability to recognise underlying motives of Generation Y consumers.

An educational marketing campaign to correct consumers' incorrect ideal weight perceptions could be considered (for example, as part of Obesity week, 15–19 October each year). Consumers who have a normal weight should be encouraged to accept their current weight. The campaign could employ attractive celebrities who are respected by college-aged students from Generation Y and whose weights do not match Generation Y's ideal weight perceptions. Marketers could, for example, use a female celebrity with a normal weight (not necessarily very skinny) and a male celebrity with a normal weight (not necessarily heavy and muscular) according to BMI calculations. The campaign will therefore portray that achieving an "ideal weight" (as perceived by the individual) does not serve as a pre-requisite for success and beauty (Anschutz et al., 2008). This campaign could furthermore

promote healthy food choices by encouraging women who participate in unhealthy dieting practises, to accept their current weight.

Since the weight perception statements in Section E of the questionnaire were negatively worded, small negative relationships imply that an increase in a negative weight perception may be associated with a decrease in meat, fat and starch consumption. The relationship between meat, starch and fat consumption and negative weight perception, may be due to the associations of meat, starch and fat with weight gain. Marketers could encourage consumers to increase their starch consumption (see Table 5.7) without increasing their negative weight perception. Emphasis could be placed on the daily recommended portions of starch intake and on the essential nutrients that starch provides to individuals. A supplier of maize, corn, wheat, flour and other starch-based products, could for instance claim that consumers could incorporate bread into their daily food choices without weight gain (contributing negatively to their weight perceptions). They could, for instance, use “Add bread to your day without adding to your hips” as their marketing claim or slogan. Offering customised food products to members of Generation Y that will not negatively influence their weight, for example low-kilojoule breads and cereals, should also be considered when targeting individuals with a negative weight perception.

Forty-three per cent of respondents indicated that their current weight does influence their food choices. This finding provides marketers of food products with insight into members of Generation Y’s decision-making process regarding food choices. According to this finding, marketers have a substantial marketing segment of consumers from Generation Y who consider their weight when making food choices. McCrindle (n.d.) mentioned that members of Generation Y want to be understood. This need could be satisfied by acknowledging that college-aged students from Generation Y consider their current weight during food choices. Marketers could incorporate an appropriate weight-related message into their food choice advertisement and thereby add to the target market’s perceived value of the food brand. Consider, for example, the marketing campaign of Milk SA (2008), which states, “Healthy body weight – the dairy way” and “Supa slenda, rediscover dairy”.

6.7 WEIGHT PERCEPTION AND SELF-CONCEPT

A positive relationship between weight perception and self-concept was reported (see Section 5.5.2). The implication was that, when respondents’ self-concept increases (becomes more positive), their weight perception accordingly increases (becomes more positive) and vice versa. The relationship

between a positive weight perception and a positive self-concept may be rooted in the negative associations towards overweight individuals. Being overweight may be regarded as unacceptable to society and as a sign of personal weakness. Marketers play a role in this perception as overweight individuals are often portrayed as unacceptable and even as being comic, lazy, unsuccessful or ridiculous in (television) advertising (Stevens & Maclaran, 2008).

Marketers could exploit the relationship between individuals' self-concept and weight perception to their advantage. Self-concept could, for example, be used to persuade college-aged consumers of Generation Y to purchase weight-loss-related products. Through marketing communication, marketers could claim that by improving their weight, individuals could come to love themselves again and be the person they want to be. Marketers may however have to distinguish between using self-concept in weight-gain products for men and weight-loss products for women, as different ideal weight perceptions exist for men and for women.²⁹ The ethical responsibility towards consumers can also not be negated in any form of persuasive communication.

6.8 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Limitations of the study and recommendations for future research are discussed based on the study's sampling method, measuring instruments and scope of research results.

Sampling: Lower (2008, p. 80) claimed, "... sweeping statements about any generation are stereotypes". A limitation regarding the sample for this study is that the study only included students from Stellenbosch University, and therefore results cannot be generalised to the entire Generation Y population. Furthermore, the students from one specific class (Business Management) were approached. Future research should consider including other subgroups of Generation Y in the research sample in order to increase the generalise ability of the results to the greater South African Generation Y consumer segment. Another possible limitation is that sampling took place on one day of the week (a Monday). Different food choices may have been reported by respondents if sampling took place on different days of the week.

Measuring instrument: Results of dietary recall questionnaires are dependent on respondents' short-term memory of their food consumption (Willett, 1998). Respondents in the current study may have

²⁹ These differences were discussed in Section 6.6.

indicated incomplete food choices due to forgetfulness. Future researchers could consider using interviews instead of self-administered questionnaires, to prompt respondents to remember their food consumption in more detail. However, a multi-method research methodology was not feasible for this study due to financial and time limitations.

The attempt to limit the length of the questionnaire (due to respondents' time constraint) prohibited the incorporation of more detailed food choice lists. Water intake, for instance, was not included in the questionnaire. A precise recommended intake of fat, beverages and sugar (puddings, sweets and chocolates) was not available. Specific food groups may have overlapped with other food groups. For example, the starch group contained cookies, cakes and tarts, which may all also be classified under sugar consumption.

According to Nolan et al. (2010), the effect of emotional states on food choice depends on the arousal and valence of the relevant emotional state. It may be that merely naming emotional states may not have been enough for respondents to recall their food choice behaviour related to the relevant emotional states. Future research could consider describing a specific emotional situation (for example, a stressful situation) and then to enquire whether respondents would consume food in such a situation. Respondents may also be asked to indicate which specific foods they consume during different emotional states. This will allow marketers to know which specific food choices are used to deal with specific emotional states by individuals. These could then be used in persuasive marketing communications.

Another possibility for future research is to include pictures or samples of specific food choices and then to ask respondents to indicate their self-efficacy towards resisting eating. The questionnaire used in the present study asked respondents whether they could resist eating in a specific situation. If respondents were asked to indicate whether they could resist eating in a specific situation (for example, when having to say no to others), after being shown a picture of the specific food choice at hand (for example, a portion of a chocolate cake), their answers might have differed from the current results due to the priming effect.

The participants' indication of their weight and height might have been inaccurate. Future research could consider actually measuring and weighing the respondents. A more accurate and precise comparison of respondents' actual weight and their weight perception could then be made.

Respondents could have reported a positive weight perception because of the blunt or harsh statements used in section E of the questionnaire to determine their weight perception. Future research should consider replacing statements from section E like “I am fat” and “I am overweight” with “Sometimes I think I am fat” and “I am slightly overweight”. These more subtle or “forgiving” wording could have resulted in different findings regarding respondents’ weight perception. Thus, great care should be taken when phrasing items that could offend respondents or influence them to give an untruthful or inaccurate response.

Research results: Inaccurate reporting of psychological constructs and food choices could have occurred due to respondents’ possible social desirability responses. “It was, of course, known for a long time that people say other things than they do, especially when an emotional and much debated topic like healthy eating is involved” (Frewer & Van Trijp, 2007, p. 109). Respondents in this study might not have reported their food choices correctly and truthfully, as the questionnaire was completed in a less than ideal class setting where participants were exposed to the influence of their class friends. Personal interviews could address this problem as respondents might be encouraged to be honest in a private and therefore safe environment, and more detailed answers could then be prompted.

The findings and related recommendations were therefore presented and interpreted with the necessary circumspection and caution, given the nature of the limitations.

6.9 CONCLUSION

The aim of the present study was to investigate the relationship between four independent variables, namely self-concept, self-efficacy, emotional states, weight perception, and food choice as dependent variable. Findings indicated that there is a relationship between these individual constructs with certain elements of food choice; therefore, marketers aiming to change the food choices of college-aged students from Generation Y should consider the students’ self-concept, self-efficacy, emotional state and weight perception.

Respondents’ food choices were compared with the recommended food choices proposed by the Department of Health (2009). Respondents in the current study consumed more than the recommended portions of meat and less than the recommended portions of milk, starch, fruit and vegetables. Small, yet significant relationships between specific food choices and the variables at

hand were found. Based on these small relationships and the respondents' current food choices, marketing implications were proposed.

Generation Y's milk consumption could be increased by increasing their negative emotional state eating, their positive emotional situation eating and their negative emotional situation eating. Respondents' meat consumption could be decreased by increasing their self-efficacy in terms of physical discomfort and decreasing their positive emotional state eating. Starch consumption could be increased if marketers encourage an increase in positive emotional situation eating and a decrease in respondents' negative weight perceptions. Marketers could decrease sugar consumption by increasing college-aged students from Generation Y's self-efficacy related to availability, social pressure and positive activities. Fat consumption could be decreased with an increase in self-efficacy related to social pressure, physical discomfort and positive activities. Specific marketing implications according to gender were discussed.

An interesting finding was that male respondents indicated a higher ideal weight than their actual weight. Female respondents indicated a lower ideal weight than their actual weight. A relationship was also found between self-concept and weight perception for both male and female participants from Generation Y.

Cognisance should however be taken of gender differences and the impact thereof on the relationships between the constructs. By considering these implications, marketers could positively influence Generation Y's food choices and in turn contribute to an improvement in Generation Y's health, weight and quality of life.

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MARKETING FOOD PRODUCTS

Food group	Example of product	Marketing claim
Meat	I&J Chicken Burgers	No artificial colourants (I&J, 2009a)
	I&J Fish fingers	Contains omega-3 fatty acids (I&J, 2009b)
Milk	Nutriday Yoghurt	Energy, absorption, balance, intestinal flora, lactose digestion and low cholesterol (Clover, 2007b)
	Clover fat free milk	Great taste, no fat (Clover, 2007a)
Fruit	True-cape Top red apples	Delicious (True-cape, 2010)
	PnP small yellow apples	Crisp, sweet and juicy
Vegetables	McCain Harvestime mixed vegetables	No additives, no preservatives, easy to use and prepare
	PnP tomatoes	Ripe and juicy
Starch	Sasko Everyday brown bread	Source of fibre (Sasko, n.d.)
	Kellogg's Corn Flakes	Contains essential nutrients and carbohydrates (Kellogg's, 2010)



Completing this questionnaire is anonymous and voluntary, but will be greatly appreciated. It is very important that you answer honestly. It takes approximately 7 minutes to complete.

QUESTIONNAIRE

The relationship between self-concept, self-efficacy, emotional states, weight perception and food choice: implications for marketers based on a Generation Y sample.

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Study leaders: Prof. R. du Preez & Dr. M. Terblanche-Smit

Date: May 2010

SECTION A: RECALL THE FOOD AND DRINKS YOU CONSUMED YESTERDAY (FOR EXAMPLE DURING BREAKFAST, LUNCH, DINNER, LATE NIGHT AND AS SNACKS).

Please indicate the portion sizes of the food that you consumed yesterday, where '1' portion represents a cup.

1.	Tea and coffee	For example: tea, rooibos, coffee, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
2.	Cold drinks/Juice	For example: apple juice, apricot, mango, orange, guava, peach, granadilla, grape, pear, naartjie, carbonated drinks, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
3.	Milk and yoghurt	For example: milk, yoghurt.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
4.	Alcohol	Beer/Ciders=1 can/bottle, Wine=1 glass, spirits=1 tot, ready-to-drink (for example Brutal Fruit)=1 bottle, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

Please indicate the portion sizes of the food that you consumed yesterday, where '1' portion represents HALF a cup.

5.	Breakfast cereals	For example: maltabella, maize meal, sour porridge, oats, honey crunch, muesli, pronutro, fruit loops, special k, all bran, rice crispies, coco pops, weetbix, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
6.	Starch	For example: rice, spaghetti, macaroni, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
7.	Vegetables	For example: beans, cauliflower, carrot, cabbage, broccoli, beetroot, potato peas, onion, mushroom, mixed vegetables, tomato, sweet corn, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

Please indicate the portion sizes of the food choices that you made yesterday, where '1' portion represents a <u>teaspoonful</u>.			
8.	Spreads on bread	For example: beef fat, butro, butter, fish paste, meat paste, jam, honey, syrup, margarine, meat spread, marmite, peanut butter, sandwich spread, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
9.	Sauces	For example: cream sauce, chocolate sauce, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
10.	Dressings	For example: mayonnaise, olive oil, french dressing, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
Please indicate the portion sizes of the food choices that you made yesterday, where '1' portion represents a <u>hand palm size</u>.			
11.	Fruit	For example: apple, apricot, figs, raisins, peach, orange, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
12.	Puddings	For example: apple, baked, instant pudding, jelly, pancake, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
13.	Cake and tarts (slice)	For example: banana loaf, carrot cake, fruit cake, sponge cake, chocolate cake, swiss roll, apple, coconut, milk, tipsy, jam, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
14.	Cookies and special breads	For example: custard slice, doughnuts, éclairs, gingerbread, koeksisters, raisin bread, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
15.	Bread (slice) and potatoes	For example: bread, rolls, potatoes, provita, cream crackers, scones, rusks (1), muffins (1), vetkoek, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
16.	Eggs (1)	For example: boiled, poached, fried, scrambled, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

17.	Sweets and chocolates	For example: chewing gum, chocolates, fruit sweets, ice lollies, jelly sweets, peanuts, marshmallows, popcorn, potato chips, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
18.	Cheese (matchbox size)	For example: cheddar, gouda, cottage cheese, cream cheese, macaroni cheese, pizza, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
19.	Meat	For example: bacon, beef, biltong, frankfurter, ham, chicken, in bobotie, cornish pie, stew, lasagne, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
20.	Fish	For example: bokkems, kipper, galjoen, snoek, fish cakes, fish fingers, haddock, sardines, tuna, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+
21.	Salad	For example: asparagus, avocado, coleslaw, lettuce, mixed, etc.	<input type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4+

22. Please indicate any other foods (not listed above) you consumed yesterday, in the space below.

Type	Portion	Type	Portion

23. Which day was yesterday?

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

24. Does your current weight influence your food choices? yes no

SECTION B: Please indicate to which degree you agree OR disagree with the following states, where '1' represents Strongly Disagree and '5' represents Strongly Agree.

		Strongly Disagree	Disagree	Do not disagree or agree	Agree	Strongly Agree
		1	2	3	4	5
1.	I usually eat when I feel: Sad					
2.	Bored					
3.	Confident					
4.	Angry					
5.	Anxious					
6.	Happy					
7.	Frustrated					
8.	Tired					
9.	Depressed					
10.	Frightened					
11.	Relaxed					
12.	Playful					
13.	Lonely					
14.	Enthusiastic					
15.	I usually eat: when under pressure					
16.	after a heated argument					
17.	after a tragedy of someone close to you					
18.	when falling in love					
19.	after ending a relationship					

		Strongly Disagree	Disagree	Do not disagree or agree	Agree	Strongly Agree
		1	2	3	4	5
20.	when engaged in an enjoyable hobby					
21.	after losing money or personal belongings					
22.	after receiving good news					

SECTION C: Please indicate your level of confidence with regards to the following situations, where '1' represents Not Confident at all and '5' represents Very Confident.

		Not confident at all	Not confident	Not confident or unconfident	Confident	Very confident
		1	2	3	4	5
1.	I can resist eating when I am anxious (nervous).					
2.	I can control my eating on the weekends.					
3.	I can resist eating even when I have to say "no" to others.					
4.	I can resist eating when I feel physically run down.					
5.	I can resist eating when I am watching TV.					
6.	I can resist eating when I am depressed (or down).					
7.	I can resist eating when there are many different kinds of food available.					
8.	I can resist eating even when I feel it's impolite to refuse a second helping.					

		Not confident at all	Not confident	Not confident or unconfident	Confident	Very confident
		1	2	3	4	5
9.	I can resist eating even when I have a headache.					
10.	I can resist eating when I am reading.					
11.	I can resist eating when I am angry (or irritable).					
12.	I can resist eating even when I am at a party.					
13.	I can resist eating even when others are pressuring me to eat.					
15.	I can resist eating just before going to bed.					
16.	I can resist eating when I have experienced failure.					
17.	I can resist eating even when high-calorie foods are available.					
18.	I can resist eating even when I think others will be upset if I don't eat.					
19.	I can resist eating when I feel uncomfortable.					
20.	I can resist eating when I am happy.					
<p>SECTION D: Please indicate <input checked="" type="checkbox"/> to which degree you agree OR disagree with the following states, where '1' represents Not true at all and '5' Very True.</p>						
		Not true at all	Not true	Not true or false	True	Very True
		1	2	3	4	5
1.	I am a cheerful person.					
2.	I have a high self-control.					

		Not true at all	Not true	Not true or false	True	Very True
		1	2	3	4	5
3.	I am a calm person and easy to befriend.					
4.	I am hated.					
5.	I am not important.					
6.	I can no longer think straight.					
7.	I am satisfied with myself now.					
8.	I am as intelligent as I wish to be.					
9.	I am a good person.					
10.	I am not the person I hope to become.					
11.	I hate myself.					
12.	I am someone who gives up easily.					
13.	In any situation, I can take care of myself.					
14.	I can solve my problems easily.					
15.	I am willing to admit my mistake without feeling angry.					
16.	I often change my mind.					
17.	I often act without thinking first.					
18.	I try to escape from facing a problem.					

SECTION E: Please indicate <input checked="" type="checkbox"/> to which degree you agree OR disagree with the following states, where '1' represents Completely False and '5' Completely True.						
		Completely False	False	Not true or false	True	Completely True
		1	2	3	4	5
1.	I am fat.					
2.	My waist is too large.					
3.	I have too much fat on my body.					
4.	I am overweight.					
5.	My stomach is too big.					
6.	Other people think that I am fat.					
SECTION F: Please complete the following information:						
1. Gender <input type="checkbox"/> Male <input type="checkbox"/> Female						
2. Age _____						
3. Home language _____						
4. Did you consume any fast foods yesterday? <input type="checkbox"/> yes <input type="checkbox"/> no						
5. How much money do you usually spend on food per day? <input type="checkbox"/> R0-R30 <input type="checkbox"/> R31-60 <input type="checkbox"/> R61-R90 <input type="checkbox"/> R91-R120 <input type="checkbox"/> R150+						
6. How many times per month do you usually eat fast food/takeaways? <input type="checkbox"/> 0 <input type="checkbox"/> 1-3 <input type="checkbox"/> 4-6 <input type="checkbox"/> 7-9 <input type="checkbox"/> 9+						

7. Who usually prepares your food? <input type="checkbox"/> Parents <input type="checkbox"/> Friends/Family <input type="checkbox"/> Shop/restaurant <input type="checkbox"/> Yourself <input type="checkbox"/> Hostel
8. Where do you currently live? <input type="checkbox"/> With parents <input type="checkbox"/> In hostel <input type="checkbox"/> Private accommodation
9. Approximate height _____cm
10. Approximate current weight _____kg
11. Approximate <i>ideal</i> weight _____kg

THANK YOU!!!!!!!