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1 Introduction

The article reports on the findings from a formative, qualitative study research with young adults in higher education settings. Following the suggestion of Hastings (2007a), focus groups were used in order to understand the perceptions, motives, barriers and needs of the target audience towards healthy eating.

This article outlines how social marketing concepts could be used to create a plan to influence Greek young adults aged 18-23 years to adopt a healthier diet. The main theoretical approach is the total process planning model (National Social Marketing Centre 2006), which was employed to analyse the situation and develop an evidence base to help inform a social marketing programme and shape food policy developments. The 18-23 age group was selected because of evidence that the Greek national diet is becoming less healthy; widespread concerns that this will adversely affect the long-term health of young people; and, a desire at the policy level to devise strategies to influence young peoples' dietary choices for the better.

~~Lefebvre (2012) proposes that social marketing involves the application of marketing methods to address social problems, bringing together research, evidence-based practice, social-behavioural theory and insights from individuals, influencers and stakeholders. The outcomes of social marketing “are associated with change among individuals, organizations, social networks and social norms, communities, businesses, markets and public policy” (Lefebvre 2012).~~

The use of social marketing to promote healthy nutritional habits has been studied in the USA, Canada, Australia and New Zealand, and within Europe in the UK, Denmark, Italy, Belgium, Netherlands, Norway, Switzerland, France and Germany (Carroll et al. 2000; Hastings 2007b; Stead et al. 2007; Thornley et al. 2007; Gracia-Marco et al. 2010; Howlett et al. 2010; Kirchhoff et al. 2011; Stead et al. 2011; Aschemann-Witzel et al. 2012; Domegan et al. 2012; Lefebvre 2013). To our knowledge, this is the first study from Greece that uses a social marketing framework and concepts in order to develop a strategy that is more likely to help a specific target audience to adopt healthy eating habits. This work sheds light on the current failure of food policy to tackle nutritional problems and explored how social marketing could contribute to this policy deficit and to changing Greek food consumption behaviour. The article provides suggestions for the main components of a social marketing

programme in a downstream and upstream level, based on the target audience's insight (Niblett 2007). According to Gordon (2013), both downstream and upstream social marketing refers to *“the adaptation and application of marketing, alongside other approaches”*, but downstream social marketing focuses on changing the individual citizen's behaviour while upstream social marketing seeks to influence *“the behaviour of decision makers and opinion formers which alters the structural environment and has a resultant positive influence on social issues”*. Finally, the marketing concepts of competition (Hastings 2003) and exchange (Hastings and Haywood 1994) were also studied.

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2 Background and Literature

In Greece, the “nutrition transition” (Popkin 2006) involved a shift from the Mediterranean diet pattern of high consumption of fruit, vegetables, fish and non-refined cereals to patterns that include a high consumption of red meat, dairy products and confectionery (Lagiou and Trichopoulou 2001; Arvaniti et al. 2006). Greeks eat outside the home a great deal and make considerable use of ready-made meals (Aristidis Daskalopoulos Foundation 2006; INKA 2008), resulting in negative consequences for the population's health in terms of increased rates of non-communicable diseases and the prevalence of obesity (Psaltopoulou et al. 2004; Trichopoulou et al. 2005; Panagiotakos et al. 2007; OECD.stat 2012) .

Food choice is a complex behaviour that can be influenced by several factors and situations such as culture, special occasions, policies, psychological factors, biological factors, environmental costs and social elements (Drewnowski 1997; Asp 1999; Lambert et al. 2002; Lang et al. 2009; Stead et al. 2011). This complexity may explain why social marketing efforts have so far had limited success in achieving the

appropriate outcomes (Carroll et al. 2000; Stead et al. 2007). Hence, in order to increase the effectiveness of any initiatives, it is suggested that social marketing should be a part of an intervention mix to confront address unhealthy eating behaviours (Lagarde et al. 2007; Thorpe et al. 2008; Walls et al. 2011), **while at the same time, social marketing initiatives should follow a “planned, consumer-oriented process that employs the full marketing mix” (Carins and Rundle-Thiele 2013, p.3).** Considering It is essential to addresses the multifaceted nature of influences on eating behaviour, representing the tcontinuum of interventions he combination of bothfrom upstream (at the level of policy and environmental changes) and to downstream initiatives (such as education and information) to tackle obesity and nutrition-related non-communicable diseases is essential (Hastings 2007a; Hoek and Jones 2011; Lefebvre 2011; Wymer 2011;). Therefore, the research results were not only focused on downstream but also tried to reveal the opportunities for upstream social marketing implications which could also be a part of a more viable framework of interventions, particularly in the context of the economic recession occurring at the time the research was undertaken.

Social marketing benchmark criteria suggest that any social marketing initiative should be informed by a relevant theory (French and Blair-Stevens 2006). Several theoretical frameworks are commonly used in the context of social marketing initiatives: the health belief model, the theory of reasoned action, the social cognitive theory, the theory of planned behaviour, social network theory, stages of change, and the diffusion of innovations (Lefebvre 2001; Luca and Suggs 2012). Other theories that are less widely used are the social-ecological model of the determinants of health and the heuristic judgement theory. Nevertheless, Luca and Suggs’ (2012) systematic review revealed that the effectiveness of social marketing initiatives could be diminished in the absence of an explicit theoretical basis.

It is not possible here to discuss all relevant theories of behaviour change - for extensive reviews see Jackson (2005), Aunger and Curtis (2007) and Darnton (2008). A number of theoretical approaches were considered as the basis for this research, seeking to cover different analytical levels (from the individual to the environment) and different underlying perspectives (psychological and sociological). Several theories helped to develop the discussion guides for the primary research. The empirical research then provided insight into the relative usefulness of different theories in explaining complicated and multifaceted eating behaviour. These also

contributed to the methodology including the structure of data collection as well as the triangulation of analysis, by allowing data to be explored from the perspective of multiple lenses.

Starting from a focus on the individual, the Health Belief Model (Janz and Becker 1984) considers people's perceptions of positive and negative consequences that a specific behaviour could have on their health. This, along with the perceived severity of these consequences, could lead them to adopt or avoid specific behaviours. In this context, the perception of health improvement when adopting healthy eating habits and avoiding unhealthy could finally influence people to engage with healthy nutritional habits. Moreover, based on the Theory of Planned Behaviour (Ajzen 1991), beliefs, attitudes, norms, perceived behavioural control and self-efficacy of the individual about dietary matters play an important role in the final eating behaviour. In addition, the Persuasion Knowledge Model (Friestad and Wright 1994) explains how people react when they feel that someone is trying to manipulate them. If the recipients believe that persuasion is the intent of the message, then they become more cautious and evaluate messages more carefully; a consequence may be an increased likelihood to change their views (Wright et al. 2005; Kirmani and Zhu 2007). This theory accommodates the understanding of how people react to the food marketing stimuli and how they perceive the different media and channels that communicate these messages. Furthermore, according to the Social Cognitive Theory (Bandura 1991) people adopt specific behaviours, like eating behaviours, when observing and finally modelling others. Therefore, this theory introduces the meaning of significant others that could affect people's nutritional habits. Another theory that embraces the issues of easiness and accessibility is Heuristic Judgement Theory (Harvey 1998) which argues that people make most of their decisions based on other factors like inertia or habit, rather than after rational analysis, especially in cases where lots of effort is required.

Looking at the aggregate level of behavioural analysis, behavioural economics conceives of people as rational beings who weigh up the advantages and disadvantages before acting in a certain way (Diamond and Vartiainen 2007). This suggests that, in social marketing, formative research to understand the target audience's motives and barriers is a necessary step before developing a specific intervention (Diamond and Vartiainen 2007; Kotler and Lee 2008). Furthermore, the Social-ecological Model of the Determinants of Health (Dahlgren and Whitehead

1991) describes that people's behaviour can be influenced by the environment that they live in and include individual lifestyle factors, social and community networks, living and working conditions and general socio-economic, cultural and environmental conditions, as well as public policy environments (Gregson 2001). In addition, the theory of social networks (Wasserman and Faust 1994) explains how behaviours like unhealthy eating could be spread through the influence of social networks highlighting the effects that networks like family, spouses, friends and colleagues could have on people's actions. For example, according to Christakis and Fowler (2007) those that associate with obese and overweight people in their networks have increased risk to end up obese too.

Going one step further and looking at eating behaviour within the market context, there has been criticism of the role of corporate marketing in allegedly promoting unhealthy eating behaviours. Lefebvre (2003) contends that "healthy eating" messages have to compete with messages designed to promote foods high in sugar, fat and salt originating from the food industry. In this context, many academics, adopting a critical marketing theory perspective, argue that the international food industry influences people's food choices for the worse (Grier and Kumanyika 2008; Chandon and Wansink 2012; Hastings 2013). This is based on the perception that the power of international food companies (Hawkes 2005) and big food retailers (Lang and Heasman 2004) "contaminates" local food cultures with westernised, fast-food patterns (Lang et al. 2009), and affects people's food choices by making decisions about food availability, access, price, and promotion in order to maximise profits (Hawkes 2008). Therefore, they suggest that in order to reverse this situation, the "industry has to be part of the solution" (Hastings and Saren 2003).

3 Methodology

For a number of reasons, young adults were considered chosen to be an appropriate group for research. **The nutritional social marketing initiatives review by Carins and Rundle-Thiele (2013) revealed that adults are a neglected target group for nutritional interventions.** In particular, young adults are prone to unhealthy eating behaviour (Kafatos et al. 2000; Fotiadou and Hassapidou 2001; Papadaki et al. 2007) especially after embarking on third level education when they begin to live away from their families (Beasley et al. 2004; Sharma et al. 2009; Riddell et al. 2011). It is recognised

that for this group unhealthy behaviours are often a temporary stage because of the pressures of studying often away from their families and many will revert to healthier eating behaviours later in life or in the lifespan, but it is important to encourage healthy eating behaviours in order to prevent the establishment of unhealthy nutritional habits (Richards et al. 2006). Since they seem to succumb to unhealthy food options and food behaviours at this stage and, given the target audience's "reachability" (Kotler and Lee 2008), that they could be targeted inside their education institutes (Cohane and Pope 2001), they constituted an ideal target group for research and future interventions (Tsouros et al. 1998). Moreover, young adults are the future and if we consider the long-term effect of policy (and social marketing) actions, this generation are the people who are going to face and have to deal with the results of any initiatives taking place now. In addition, inside the educational institutes they participate in political parties and political initiatives so they have the potential to influence future policies in the country. Therefore, young adults were selected as the focus for this study.

Qualitative research was judged to be the best way to get an in-depth understanding of the phenomena that have not been previously explored (Silverman 2003) and also gives the opportunity to the research subjects to express their views and beliefs about the issues under investigation (Denzin and Lincoln 2008). Focus groups were used to explore and understand the reasons and dynamics of the target audience's eating behaviour, motivation and barriers towards adopting healthy eating habits (Robinson 1999; Krueger and Casey 2000). These behaviours often result from relations with other people and focus groups were judged to be the best way to gather data to understand these interactions (Carson et al. 2001).

The research design included nine focus groups, each of 5-8 young adults aged 18-23. Potential participants were approached through nine education institutes. Participants were selected purposefully to include young adults from different socio-economic backgrounds, across different academic subjects and cohorts (Creswell 2003). In order to increase the degree of representativeness, during the recruitment process there was an effort to balance the following factors: gender, level of studies (all 4 years) and living inside or outside the family. The groups were mixed, in order to reflect the real group dynamics that may occur (Robinson 1999; Krueger and Casey 2000) and their duration varied between 55 and 90 minutes. The participants were from nine different Education Institutes in Athens, Greece, studying social and health

sciences, arts, engineering and informatics, business, finance and languages. More details on the focus groups participants are presented in Table 1.

All the participants received an information letter and filled in a consent form. Ethical approval was obtained from the researchers' own universities in the UK and Greece. These documents were first sent to the lead professors of the different departments or to the universities' deans in order to gain approval to conduct the research. After this first consent, the next step of recruitment included the researcher visiting classes to inform the potential participants about the research and invite their prospective participation. Those interested in participating in the research had to inform the researcher and a place and time of meeting were arranged.

Table 1: Focus Groups Demographic Characteristics

Number of participants													
Focus Group Number	Total	Gender		Income			Year of studies					Living status	
		Female	Male	Low	Average	High	1	2	3	4	5	With family	Without family
1	7	5	2	2	5	-	7	-	-	-	-	2	5
2	6	4	2	1	5	-	3	2	-	1	-	4	2
3	6	2	4	6	-	-	3	1	1	1	-	-	6
4	7	5	2	4	2	1	-	-	-	7	-	5	2
5	7	3	4	2	3	2	-	3	4	-	-	6	1
6	8	4	4	3	5	-	3	3	1		1	6	2
7	5	5	0	-	4	1	-	5	-	-	-	5	-
8	7	6	1	2	5	-	-	-	1	6	-	4	3
9	6	0	6	3	1	2	-	1	-	-	5	6	-
Total	59	34	25	23	30	6	16	15	7	15	6	38	21

The focus groups were conducted with the use of a focus group discussion guide helped structure the ways in which the groups were conducted. This was developed based on other informed by guides that had been used for similar purposes in other countries, customised to meet the specific aims of this research in Greece REFS?????. In addition, theories of behaviour change were explicitly linked to the topics covered during the focus group discussions. Table 2 shows how the theories

presented in the previous section are linked with the thematic areas discussed during the focus groups.

Table 2: Topic Guide Link to the Theory

Theoretical Models	Topic guide areas of discussion
Health Belief Model	Perceptions about healthy and unhealthy eating.
Theory of Planned Behaviour	-Perceptions about healthy and unhealthy eating. -Motives towards and barriers inhibiting the adoption of healthy nutritional habits.
Persuasion Knowledge Model	Sources and channels of information about nutrition and food, issues of trust and the role of marketing.
Social Cognitive Theory	Influences towards the adoption of healthy nutritional habits like friends, family, peers, scientists and role models.
Heuristic Judgement Theory	Motives towards and barriers inhibiting the adoption of healthy nutritional habits (focus on subconscious decisions).
Behavioural economics	Motives towards and barriers inhibiting the adoption of healthy nutritional habits.
Social-ecological Model of the Determinants of Health	- Impact of the external food environment on the adoption of healthy eating habits. - Perceived role of the key agencies of the Greek food system, i.e. State, Civil Society and Food Supply Chain, towards nutritional issues.
Theory of social networks	Influences towards the adoption of healthy nutritional habits especially through networks of friends and peers.
Critical marketing theory	Impact of the external food environment on the adoption of healthy eating habits (focus on the impact of marketing on their food choices).

Should you also link this to analysis?

To meet the research aims, and taking account of the various behavioural theories introduced earlier in this article, the focus group discussion guide included topic areas investigating participants' motives, barriers, attitudes and beliefs towards healthy eating. Other areas of exploration during the focus groups included understanding whether the environment in their education institutes and in general in the country can help them make healthy food choices. Furthermore, the participants were prompted to make suggestions that would facilitate any healthy eating efforts and to talk about their own experiences in the education system and the wider Greek

environment. Finally, they were asked to identify and discuss the role that key agencies in the Greek food system play in the promotion of healthy eating habits. To familiarise the participants with the food system players that could affect eating choices, they were introduced to Lang (2005) “triangle model” that includes the food supply chain, the state and the civil society along with a plethora of agencies within each sector.

The discussion guide was pre-tested for its clarity and its content with one group, which was not included in the data analysis. Potential participants were contacted by letter, handed out during lectures with the permission of the professors. In order to minimise bias in their responses, the participants were informed that their eating habits and their attitudes towards eating and food in general would be discussed, and were given no indication that the focus was on health. The groups were administered by the researchers and were recorded.

All the focus group data were transcribed and initially coded by the researchers into MS Word documents. The coding process was based on Barbour’s (2008) suggestion about “a pragmatic version of grounded theory” using *a-priori* and *in-vivo* codes. The first codes were theoretically derived and based on the topic guide questions, and the later codes emerged from the focus group data. The data were also coded by an independent researcher to assess reliability (Silverman 2003), and the inter-rater reliability was characterised as excellent based on a Cohen’s Kappa coefficient of 0.921. Where views conflicted on coding, there was a discussion between the researchers in order to achieve a common view. The findings are presented under the following headings which arose from the analysis WHICH WAS DONE BY?????

- Perceptions about healthy and unhealthy eating.
- Sources and channels of information about nutritional issues.
- Motives, barriers and influences towards the adoption of healthy nutritional habits.
- Impact of the external food environment on the adoption of healthy eating habits.
- Perceived role of the key agencies of the Greek food system, i.e. State, Civil Society and Food Supply Chain, towards nutritional issues.
- Proposals for future improvements.

4 Findings

4.1 Perceptions about Healthy Eating and its Link to Health

The majority of the participants related good health to healthy eating habits. On the other hand, some respondents said that they worry about their health but they do not want to “get stressed” by following a healthy lifestyle.

Their perceptions about what is healthy and unhealthy eating are presented in no particular order in Table 3.

Table 3: Participants' Opinions about Healthy and Unhealthy Eating

What they consider to be healthy eating	What they consider to be unhealthy eating
<ul style="list-style-type: none">• Balanced meals• Lots of fruits, vegetables and water• Adherence to the Mediterranean diet• Try to avoid sweets & fast foods• Combination of foods to take all the important nutrients• Small quantities of food• A good breakfast• It depends on the way of cooking (no fried, no excess of salt, creams and dressings)• Homemade foods	<ul style="list-style-type: none">• Fast foods• Food not cooked at home• Fats of animal origin• Low consumption of fruits and vegetables• Snacks consumption• Fried foods• Sweets• Fizzy drinks, coffee and alcohol• Lots of meat

In order to explore their knowledge in relation to healthy and unhealthy eating, participants were asked to discuss the perceived benefits and problems they get when eat and drink in healthy and unhealthy ways (based on what they referred to as healthy and unhealthy eating habits). The findings have been summarised in Table 4.

Table 4: Participants Opinion about Benefits of Healthy Eating Habits and Problems of Unhealthy Eating Habits.

Benefits of healthy eating and drinking	Problems of unhealthy eating and drinking
<ul style="list-style-type: none">• Better socializing• More energy• Avoid obesity• Feel good physically and mentally• Better mood• Live longer• Hair, nails and skin look good• No heart diseases• No cholesterol• Have a beautiful body• Balanced blood pressure	<ul style="list-style-type: none">• Obesity• Cardiovascular diseases• Psychological problems• Appearance problems• High cholesterol• Lack of vitamins• Fatigue• Insomnia• Headaches• Lack of energy

4.2 Sources and Channels of Information

For many of the participants the main channels through which they receive messages about healthy eating were reported as television and the internet, while only a few mentioned magazines, newspapers and the radio. Some also reported going directly to doctors and dieticians to seek this advice.

When they were asked to discuss the sources of information that they trust, the majority talked about scientists, while some participants referred to their family and friends. Concerning the reported trustworthy channels the internet was raised by most

of the participants because “... *you can compare unlimited information*” (male, average income, third year, lives alone). TV shows were also mentioned by a few especially when there is a scientist talking about healthy eating because they “*trust the person, not the channel*” (male, high income, fifth year, lives with family). On the other hand, most of them said that they do not trust TV advertisements but in some degree they could be influenced by them.

The majority across the focus groups also reported that they do not read the GDAs and the ingredients on food packaging because they don’t care about these messages or because they don’t understand them.

4.3 Reported Motives, Barriers & Influences for the Adoption of Healthy Eating Habits

In order to reveal the reasons that enable or discourage young adults from adopting healthy nutritional habits, the respondents were asked to discuss the motives and the barriers that they face in their effort to adopt healthy eating habits. Table 5 summarises their more prominent responses.

Table 5: Participants’ Motives and Barriers in an Effort to Adopt Healthy Nutritional Habits.

Motives to Adopt Healthy Eating Habits	Barriers to Healthy Eating Habits
<ul style="list-style-type: none"> • Be healthy • Have a good appearance / avoid being obese • Feel good (psychological factors) • It improves our socializing • We show respect to ourselves 	<ul style="list-style-type: none"> • Lack of time to prepare healthy meals • Fast food as temptation (they taste good and they are everywhere) • Friends and other people who eat unhealthy food • Refusal to try/lack of interest • Lack of knowledge of ways to prepare healthy meals

The respondents also reported that they trust scientists but they are influenced mostly by friends and family. The family was identified as important mainly because they cook and shop for them or by transferring the culture of healthy eating patterns. Friends were important because they feel “*cool*” and they improve their “*socializing*” when they eat the same food as their peers. There were also focus groups where the important role of specialists like doctors and dieticians was discussed as a motive to adopt healthy eating habits.

4.4 Impact of the Food Environment and the Role of Key Agencies towards Nutrition

The participants were asked to discuss whether the food environment, including food marketing, availability, prices and other initiatives by the state, the food industry and the civil society, could influence their eating habits and in what way. It was generally agreed that the food environment in Greece and at the education institute where they study is not supportive of healthy choices.

Most of the participants said that they would like to have more healthy alternatives in the education institute where they study but only if this is combined with strict controls to ensure food quality. Many complained of not having enough time in between classes to have a proper lunch so they have to eat something on the go.

The weaknesses of environmental support were also shown when the respondents were asked to recall any initiative concerning healthy eating, obesity and nutrition in general. Only a few respondents could recall such initiatives, which mostly included advertisements on the TV against obesity and eating disorders. Many respondents proposed that the State should put more effort into promoting healthy eating because *“they [state initiatives] can have no impact when they are abstract...”* (male, low income, fifth year, lives with family), so, *“there should be more messages in more places”* (female, first year, average income, lives with family) for longer periods of time and at greater frequency.

Regarding the role of the main three food system sectors (Lang 2005), there was a strong tendency in the discussion to believe that the State does little in order to support healthy eating behaviours, the food supply chain *“is powerful”* (woman, low income, fourth year, lives alone) and *“can deceive us in order to make profits”* (woman, average income, third year, lives with family), while civil society tries to intervene but there is no satisfactory support from the government.

For the future, they identified cooperation among these three sectors with the State playing the major role through regulations and education in order to promote healthy eating behaviours. The majority of the participants agreed that their educational institutions should develop, promote and support healthy eating by increasing the availability of healthy choices and creating class schedules that provide sufficient time to eat well.

5 Analysis and Discussion

5.1 The Nutritional Beliefs of Greek Young Adults

An extensive research on the current nutrition-related initiatives taking place in Greece led to the conclusion that this is the first study to document the health concerns and preferred information sources relating to nutritional issues that matter to Greek young adults. Hence, it provides the basis for pioneering work in the Greek process of policy and campaign development.

The interpretation of the findings could lead to specific recommendations for downstream and upstream initiatives to promote healthy eating habits among young adults and this section discusses the main concerns for social marketers arising from the research findings.

According to Kotler and Lee (2008) there is a need to decrease the monetary and nonmonetary costs of the desirable behaviour in order to become more appealing to the target audience. In this case, based on the reported findings, the monetary costs of healthy eating are the prices of healthy foodstuffs, while nonmonetary costs include stress, time to socialise with friends, pleasure, time and effort to prepare healthy meals.

Not unusually for this age group, fast-foods were associated with immediate gratification and being with friends, while healthy foods were associated with family and relatives (Contento et al. 2006; Shepherd et al. 2006; Sharma et al. 2009; Stead et al. 2011). Therefore, healthy eating as a means to perform better in everyday activities and improve physical appearance (benefiting the social life) should be emphasised in a social marketing programme.

The concept and effectiveness of peer modelling interventions was also embraced by the review of Thornley et al. (2007), the study of Burchell et al. (2013) who raised the importance of peers influence among college students and the successful “the Food Dudes” social marketing programme targeting children (Lowe et al. 2004). Moreover, some participants highlighted the stress they experienced when trying to eat healthily. Smith (2007) and French (2008) suggest stress elimination through “products” that promote ease, happiness and popularity. So, any communication messages should emphasise the adoption of healthy eating habits with

ease and the positive consequences of healthy eating. This approach has also been adopted by the effective social marketing programme “Go for 2&5” in Australia that focuses on increasing vegetables and fruit consumption (Kirchhoff et al. 2011).

Taste is another factor that deflects many of the participants away from healthy foodstuffs because they rate pleasure over health, despite their awareness of unhealthy eating’s negative consequences albeit in the long term. The evidence of this study suggested that Greek young adults perceived healthy food to be “boring” in taste. Other issues are time constraints due to hectic schedules and their conviction that preparing healthy food is time consuming. Other countries try to tackle these issues by teaching people how to prepare tasty, fast and healthy meals, as in the case of the national healthy eating social marketing programme in New Zealand (<http://www.feedingourfamilies.org.nz/>) and the Safefood campaigns in Ireland (<http://www.safefood.eu/en/Consumer/>) that provide healthy recipes and tips for their target audiences in their websites. By following these tips and recipes people could have new taste experiences and they may alter their preferences towards healthy foods. Of course, initiatives like these could not work in isolation but rather in the context of other structural changes like healthy food availability and lower prices.

The analysis also revealed that some participants lack knowledge concerning the consequences of unhealthy eating. In broad terms, they were able to identify obesity and some non-communicable diseases. However when it came to micro-issues, such as reading labels and understanding the consequences of their actions, they could not do that. Accurate labelling of foodstuffs has been proposed, in the context of a wider portfolio of activities, as a measure to tackle obesity (Swinburn et al. 2005). The lack of understanding of food labels could be solved by teaching people how to read them or by upstream initiatives to avoid misleading and ambiguous labelling as proposed by the European Union (EU Law No 1169/2011) and the World Health Organization (WHO/Europe 2004).

In addition, reported contradictory messages about healthy eating show the importance of controlling information flows and promoting foods appropriate for a healthy lifestyle. In this context, the internet could be used along with scientists’ contribution, as most of the participants reported that they are heavy users of the internet and they trust scientists. The importance of the internet and social media in social marketing programmes was also highlighted by Lefebvre (2007).

Considering the “place” of a social marketing programme, the participants revealed that they spend most of their time inside the educational institutions where they study. So, initiatives to promote healthy eating would be more effective if they take place in all settings, as proposed by Dooris and Doherty (2009) in their report on Healthy Universities. This approach could also be in favour of Greek policy makers who need to design policies in the context of the financial crisis with very limited budgets.

There are authors who argue that downstream interventions can only have a short-term effect on people’s behaviour; therefore, other initiatives should be adopted to support long-term adoption of healthy eating behaviours, like policy measures and legislation (Dobson et al. 2000; Caraher and Coveney 2004). The participants’ views about healthy and unhealthy eating (Tables 2 and 3) shows that they are aware of healthy eating components and importance, however, they engage in unhealthy eating behaviours. Their perceptions about healthy and unhealthy eating do not operate as separate categories but as tensions when people balancing these things within their busy lives. They know that healthy eating is good, however they admit that taste, price and time are more important and this reflects the tensions that exists between beliefs and actual behaviour, leading to the conclusion that knowledge, attitude and behaviour are divided, as it is also supported by Shove (2010) in her paper about climate change. This is also introduced by Adams and White (2005) and Jackson (2005) who support that healthy eating is a complex behaviour affected by internal and external stimuli that could affect the final behaviour in the wider context that the individual acts. Awareness is only factor in the process of healthy eating and can be circumvented by making healthy foods and easier choices.

5.2 Applicability of Theoretical Models

Despite doubts about theoretical models’ adequacy to reflect the complexities that surround and affect eating behaviours (Adams and White 2005) there is still evidence of their usefulness for designing and implementing healthy eating interventions (Lefebvre 2013), *justifying the call for theory use in social marketing initiatives by Luca and Suggs (2012)*. Different theoretical models have different

things to say about various attitudes and behaviours (see Table 6 for the case of Greek young adults). So, the findings indicate that no one theoretical model can comprehensively help to explain the eating behaviour of the specific target audience, being in accordance with the view of Aunger and Curtis (2007, p.3) who argue that “much more work is needed before psychologists will come to any agreement about the nature of the real constructs that exist in human brains. Only with these defined and described will it be possible for health psychologists to interact around an agreed set of terms for the determinants of behaviour”.

Table 6 summarises which determinants of Greek young adults’ eating behaviour are explained by the main theories used to develop the research topic guide. These theories were previously introduced in section 2, while in section 3 the way in which they were addressed through the focus group topic guide was explained. Aunger and Curtis (2007) have suggested that researchers commonly appear to advocate one model, and that comparisons between models would be helpful. Table 6 provides this kind of comparison in the context of the empirical data from this study. In Table 6 we see that the model that maps most closely on to the factors raised by Greek young adults is the Social-ecological Model of Health (Dahlgren and Whitehead 1991), which is a societal, policy-based theoretical model rather than purely psychological one. Even this model fails to include the dynamics of all the factors that can affect people’s behaviour, supporting Darnton’s (2008) view that these theoretical models can only constitute a guide to help understand people’s behaviour but they cannot provide a specific context about the specific influencers and about the extent of the influence that each factor can have. This also reflects the “micro-macro” problem raised by Watts (2011).

Table 6: Influencers of Young Adults Eating Behaviour in Greece and Theoretical Models of Behaviour

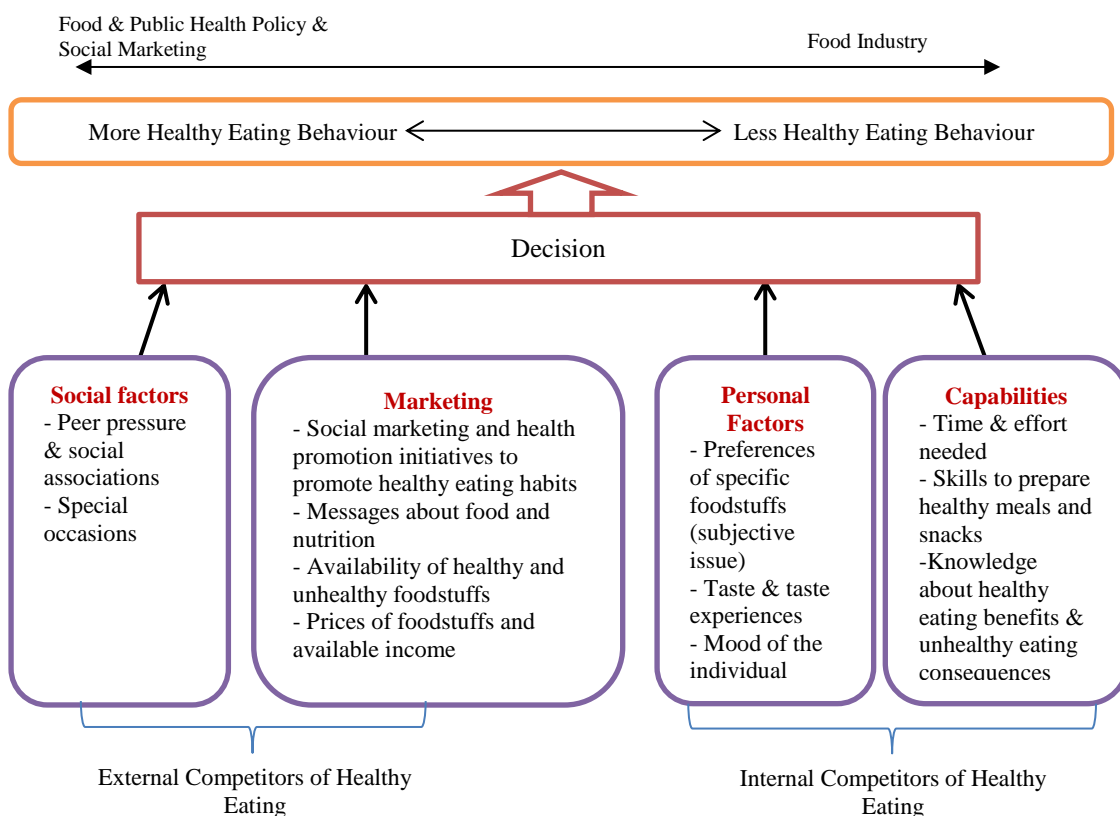
Findings from the research...	Theoretical Models of Behaviour								
	Health Belief Model	Theory of Planned Behaviour	Persuasion Knowledge Model	Social Cognitive Theory	Heuristic Judgement Theory	Behavioural economics	Social-ecological Model of Change	Theory of social networks	Critical marketing theory
Unhealthy food promotion	x	x	x	x			x		x
Convenience of unhealthy foods (easy to store)					x	x	x		x
Availability of foodstuffs				x	x	x	x		x
Price of foodstuffs				x		x	x		x
Lack of time					x	x	x		
Taste and preferences				x		x	x		x
Feelings, inertia and mood (psychological factors)					x	x	x		
Peer pressure (what others do and think)		x	x	x			x	x	
Knowledge	x	x	x				x		
Messages about food (role of person, channel & media that communicates the message)	x		x			x	x	x	x
Skills to prepare healthy food		x					x		

Therefore, there is a need to understand the different factors that affect the behaviour of different people and this can only happen through specific research on different segments of the population (Hastings 2007a). This is eventually what social marketing theory can contribute to the attempt of understanding people's choices and

behaviours (Lefebvre 2011), since it is one of the most comprehensive methods of behaviour change (Aunger and Curtis 2007).

Initiatives only are effective when combined with wider structural changes (Caraher and Coveney 2004). In this context, upstream social marketing orientation is inevitable (Lefebvre 2011; Wymer 2011). The respondents indicated that environmental issues were important barriers to healthy eating habits and that the situation inside the education institutes is not very supportive. It follows that the need for structural, wider-environmental changes could be met through upstream social marketing initiatives that would target the appropriate key stakeholders (Hastings 2007a; Wymer 2011). In general, the role of food policy is vital in equilibrating the different forces inside the Greek food system that affect health and wellbeing of the whole country as well as the situation inside the education institutes. Figure 1 illustrates the factors that affect eating decision making according to the views of the participants, showing how both upstream and downstream initiatives are appropriate in order to facilitate movement in the direction of healthier eating behaviour (towards the left of the diagram).

Figure 1: Factors that Affect the Decision about Eating Behaviour among Young Adults in Greece



6 Conclusion & Recommendations

This article highlights the importance of initiatives within a particular context which could lead to more effective and efficient interventions (Dooris and Doherty 2009). The results also showed the potential of the basic 4Ps (product, price, place, promotion) in the case of Greek young adults, as well as the importance of a fifth P for Policy, which should be considered in order to help develop supportive environments and structures to facilitate the effective application of the main marketing mix and “get from the micro choices to the macro phenomena” (Watts 2011).

Formative research revealed that young adults in Greece are not very satisfied with Greek systems for health promotion and support of healthy-eating initiatives. Many weaknesses within the Greek food and nutrition system have been mentioned, stemming from the Government’s failure to develop and maintain a rational, well-operated and flexible system that could support public health improvement initiatives. Political scandals and the economic crisis taking place at the time of this research

have disappointed citizens who daily face an environment which cannot support their efforts for a better life. As the environment in Greece and at educational institutions is considered unsupportive, the vast majority of the participants insist that there is a need for advocacy and pressure to force the key stakeholders to promote healthy eating as well as other healthy lifestyle initiatives. Other studies also showed that simply giving people information is insufficient (Stead et al. 2007).

This leads to the conclusion that upstream social marketing is necessary to influence key stakeholders in order to reverse this situation, change the unsympathetic environment and consequently support downstream initiatives that targets the primary audience. This follows the old mantra of making healthier choices the easier choices.

Therefore, this article suggests implementing social marketing initiatives with a downstream and upstream orientation to help young adults adopt healthy eating habits. Based on the research findings, there are four key target audiences for upstream social marketing initiatives:

- The responsible authorities of the Greek state i.e. Ministry of Health and Ministry of Rural Development and Food to increase, in quality and quantity, initiatives that promote healthy eating. The educational institutions to increase availability and promotion of healthy alternatives and develop more convenient daily schedules that can facilitate the consumption of proper meals and schedule strict controls to assure quality of the foodstuffs.

- The canteen owners of the education institutions could receive monetary incentives to provide healthy alternatives in their canteens, in order to provide more healthy products. Moreover, their contracts with the institutions could include specific healthy alternatives that they should sell and fines could be imposed on them in case that they do not cover these requirements. In the UK, “Healthy Universities” (Dooris and Doherty 2009) also promote the introduction of healthy alternatives inside education institutes.

- The food industry, in order to develop and promote healthier alternatives at low prices and unambiguous labelling on their products, as also strongly proposed by (Wymer 2010) who suggests that social marketing should focus on those responsible for the outburst of the obesity epidemic.

The Greek Ministry of Health and the Ministry of Rural Development and Food are important bodies that should consider these recommendations in a wider

public health and food policy context. Moreover, for the development of an appealing marketing mix towards healthy eating, a pre-testing of proposed actions should be undertaken and more specified goals must be set according to the available resources.

Social marketing can only work effectively when combined with other initiatives like education, policies, regulations and advocacy and should never be considered separately from the wider, integrated context of healthy eating promotion initiatives and policies. Economic adversity makes it all the more important that the issue of healthy eating is addressed. Economic crisis does offer opportunities to promote healthy eating among this group by adopting upstream social marketing initiatives to promote structural changes. Also, actions in close-settings that can be better controlled could save resources and may be more appealing to those in charge. The challenge is to encourage policy-makers to create those nutritional policies that could eliminate negative environmental influences in order to support healthy eating choices, because, what is missing in Greece is regular strategy, planned process and systematic work in order to achieve the target of behavioural changes.

So, this article stresses the need of cooperation in both downstream- targeting young adults inside their education institutes- and upstream level - to inform key food policy influencers- and suggests ways to reduce the healthy eating barriers and reinforce the motives towards a healthy nutritional behaviour. **This upstream focus is in line with the future directions of social marketing initiatives as suggested by Carins and Rundle-Thiele (2013) who found a predominance of downstream initiatives.** Based on the exchange theory of social marketing (Bagozzi 1975; Hastings 2007a) “hard” policy initiatives, like unhealthy products distribution and promotion regulations, could increase the cost of the current unhealthy behaviour, while social marketing initiatives inside the Education Institutes could reduce the perceived costs of unhealthy eating.

7 Limitations & Future Research

Young adults from other cities and rural areas could have been included in the study. Nevertheless, the fact that the participants were from different areas of Greece, who came to study in the capital, reduces this limitation. Future studies may consider including other target groups and also the pre-testing of these proposals would be of great interest. These results may be useful to future designing of healthy eating

interventions targeting young adults. Moreover, further research to apply social marketing in Greece could contribute to the prevention of nutrition-related diseases and high obesity rates observed in this European region. Especially in the context of the economic recession preventive measures, like social marketing initiatives, can contribute to saving expenditure for treatment at a later stage.

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