

From theory to plate: Developing a stakeholder's engagement model within a social marketing strategy to promote the adherence of the Mediterranean diet in higher education

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Abstract:

Mediterranean diet has gained prominence as a potentially healthier dietary choice for promoting overall well-being and long-term sustainability. Some previous studies have adopted the social marketing framework to investigate change behaviours towards healthier eating habits, but the adoption of social marketing strategies to foster adherence to the Mediterranean diet remains unexplored. This research aims at bridging this gap, by addressing the imperative demand for an integrative approach to stimulate healthier eating habits in HEIs' canteens, through menu interventions, in three Mediterranean countries: Croatia, Portugal and Turkey. This paper pursues two primary research objectives: firstly, the formulation of a stakeholder priority matrix to distinctly identify principal stakeholders and their levels of influence and dependency within the social marketing program; and secondly, the development of a stakeholder engagement model tailored to the unique socio-cultural contexts of each country, aiming to refine social marketing strategies in accordance with stakeholders' requirements.

Supported by a qualitative research framework, various stakeholders were chosen to participate in the development of the priority matrix and stakeholder engagement model for each respective country. Primary and secondary data were collected in each country. Secondary data allowed to contextualized national food/nutrition policies in (higher) education in Portugal, Turkey and Croatia. Additionally, it was also necessary to collect data to contextualize the higher education setting of each country and their food offer (inside and outside campus). Regarding primary data each country defined a list of stakeholders from different segments with whom interviews had to be scheduled, totalizing 30 exploratory interviews.

Findings revealed that is not enough to create a single stakeholder engagement model throughout the social marketing plan in a more global perspective, as if one solution fits all. This study highlights the importance of designing glocal social marketing strategies, embedding glocal models of stakeholder engagement: standardizing the tools and practices that are possible and adapting what is necessary so that it has success in different national realities.

Keywords: Mediterranean diet; social marketing; stakeholder engagement model; priority matrix

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1. Introduction

The Mediterranean diet is rising as a potentially healthier option to promote wellbeing and long-term sustainability, and is being largely discussed as a positive contributor to reach SDGs. Aiming to comply with the UN2030 Sustainable Development Goals (11) (directly: 3 - good health and 12 - responsible consumption and production; 17 - partnerships for the goals; indirectly: 2 – zero hunger; 13 - climate action; 14 - life below water and 15 - life on land), this project intends to use the Food Service sector as a means to modulate eating behaviours and stakeholder's and consumers' perception towards food. In the light of such debates, this paper aims at contributing to the social marketing literature, by exploring its potential to promote students' adherence to Mediterranean diets on higher education institutions (HEI) through menu interventions. Previous studies have adopted the social marketing framework to investigate change behaviours towards healthier eating habits. However, despite this unequivocal link between Mediterranean diet and healthy eating, the adoption of social marketing strategies to foster the adherence to such diet, remains unexplored, particularly in the context of HEIs.

Additionally, research on food consumption habits has predominantly focused on individual stakeholders, neglecting the multifaceted nature of food choices within more complex institutional frameworks (Story et al., 2008; Swinburn et al., 2011). While these investigations yield valuable insights, there remains a gap in the literature regarding a holistic examination that incorporates multiple stakeholder perspectives (consumers, food providers, and decision-makers) across a broader spectrum of variables. Hence, as different stakeholders call for different engagement designs, we consider that crossing the Social Marketing Framework with the Stakeholder Engagement Model, provides a solid basis to understand how to engage key stakeholders in the implementation of a program aimed at changing and influencing dietary habits towards healthier food choices based on the Mediterranean diet within public HEIs canteens. It is important to note that behavioural change in such contexts, demands a systemic and holistic approach, able to engage a diverse range of stakeholders, beyond those whose behaviour is expected to change.

This research project aims at developing an action plan to promote changes in the food offer addressing proximity to the Mediterranean Food Pattern, creating, and offering mostly plant-based meals, with seasonal and local food products, engaging stakeholders through social marketing strategies. The project will focus on a specific context (university canteens), but it has the potential to be applicable to other food service contexts (e.g., hospital, social institutions, military and sports

facilities). Although the importance of eating habits throughout the life cycle is recognized, the periods from childhood to adolescence are considered crucial for the adoption and development of healthy eating habits that will reflect on these individuals in the future, as adults. In this context, the academic environment is undoubtedly a health-promoting environment and can be an important agent for encouraging appropriate eating behaviours, providing the means for practical and repeated learning over time. This period offers the opportunity to form health-related habits and behaviours, characterized by experimentation and test of new concepts, like other plant-based food pattern, that in a wider sense includes the Mediterranean diet.

Embracing a cross-national study, this research aims at bridging these gaps, by addressing the imperative demand for an integrative approach to stimulate healthier eating habits in HEIs' canteens in three Mediterranean countries: Croatia, Portugal and Turkey. Hence two research goals are explored in this paper: firstly, it aims at designing a stakeholder priority matrix to clearly identify key stakeholders and their degrees of influence and dependence inside the social marketing program, and secondly, it seeks to develop a stakeholder engagement model, tailored to the specific socio-cultural landscape of each country, in order to better craft social marketing strategies aligned with stakeholders' needs.

The paper is organized as follows. The next section presents the theoretical background adopted in this research, divided in two main topics: Mediterranean diet in HEI's food offerings and the social marketing framework. This is followed by the research design where the methodological decisions and research steps are explained. Section four delves into the main findings of this research, which led to the identification of the priority matrix and the stakeholder engagement model. At the end of paper, final conclusions are provided.

2. Theoretical background

2.1 Mediterranean Diet in HEI's Food Offerings

In Europe, it is estimated that an average of 165 million meals are produced in food service every day (Food Service Europe, 2022). Therefore, this sector constitutes an important setting for public health interventions, potentially educating consumers and modulating behaviours through the meals provided. Few studies were found on food service offers in canteens from higher education canteens. Nevertheless, these studies have characterized these meals as unbalanced, high in calories, fat,

saturated fat, salt, sugars, meat and processed meat, supplying low quantities of vegetables, whole-grains, fruit, nuts, pulses and olive oil, presenting a pattern drifting away from the Mediterranean diet (Šatalić et al., 2004). Moreover, university students are in a transition to adulthood, in which lifestyles are influenced by several factors that condition decision-making: namely the distance from the family, sudden changes in routines, namely in terms of schedules, changes in the surrounding environment and more independence and autonomy, particularly in eating. In the first year of higher education, there is a tendency to gain weight and increased prevalence of overweight and obesity (Garrido & Prada, 2016), which are related to increased risk of chronic noncommunicable diseases (Vadeboncoeur et al., 2015).

As with general population (Baydemir et al., 2018), college students' adherence to Mediterranean Diet is far from ideal (Cena et al., 2021). For instance, a cross sectional study including over 6200 students in eight countries, found that the highest Mediterranean diet score was recorded in Spain, followed by Italy, whereas the lowest was found in Turkey, followed by Croatia (Travé & Gandarias, 2011). A recent study including nutrition and dietetic students in a Turkish university (Madencioglu & Yucecan, 2022) found that adherence was poor for 31% and moderate for 69% of the students, and it tended to decrease towards their final year at the university. Similar low adherence was found for medical students (Quarta et al., 2021).

Another interesting aspect of prior research about eating habits on campus, is that it has mainly focused on a single stakeholder – typically the college students/consumers - and on a narrow set of outcome variables, such as satisfaction or gender (Barić et al., 2003). Although these studies provide important clues about the determinants of adherence to canteen food offer, namely, lack of time as a main barrier to healthy eating habits, or lack of cooking skills (Vélez-Toral et al., 2020), to the best of our knowledge, research has yet to address this issue using an integrative approach of multiple stakeholders (e.g., the students, the food providers, deciders) across a set of individual and contextual variables. One of the strategies, empirically verified, designed to promote change behaviour, within such an integrative approach is Social Marketing. Its contributions to health and well-being of citizens are positively recognized by many entities in the health system. Hence, the following section delves into the context and usefulness of the Social Marketing framework.

2.2 The Social marketing framework

Social Marketing provides a strategic framework to investigate how to promote behavioural change towards collective welfare. It is concerned with the preferences and needs of a given target audience

to better design interventions aligned with such needs. In the specific context of public health interventions towards healthier dietary habits, such framework has been particularly useful (Andreasen, 1994). Social marketing framework seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for the greater social good. Social Marketing practice, in particular, integrates research, best practice, theory, audience and partnership insights, to inform the delivery of competition sensitive and segmented social change programmes that are effective, efficient, equitable and sustainable (European Social Marketing Association).

According to Domegan (2021) social marketing strategists recognise that engaging 'with' individuals, rather than acting 'for' them or 'on their behalf', to stimulate long-lasting behavioural changes, demands a profounder appreciation of the behavioural, cultural, social and infrastructural issues that shape decisions around consumption and production. This approach does not expect mass behavioural change from the targeted population in a 'one-size fits-all' manner, as if one social marketing campaign could serve all purposes. When social marketing aims for a systems-wide, comprehensive and transformative behavioural shifts, it integrates three additional core principles (Kemper & Ballantine, 2020): i) employs a dynamic system thinking perspective when addressing an issue (philosophical stance), ii) utilises a variety of methods (methodological stance) and iii) recognises multiple levels and opportunities for intervention (action stance).

According to Donovan (2011) and Marchioli (2006) there are key considerations for social marketing programs in public health: (i) fit the social marketing model to the program objectives and country context; (ii) ensure coordination among key players for effective market segmentation; (iii) conduct research to ensure appropriate social marketing program design and implementation; (iv) use the power of social marketing to introduce and scale up access to product (benefits); (v) invest in behaviour change communication; and (vi) plan for sustainability since the beginning. Therefore, a well-planned social marketing campaign requires studies around the outside and inside environments, market research, behaviour change goals, and integrated marketing mix in order to encourage the target audience to changing their behaviour in favour of health and well-being. Establishing and managing long-term partnerships that include different groups of stakeholders - consumers, government, NGOs, retailers and other players - are key elements in the application of mid and upstream social marketing to complex issues, particularly in implementation and evaluation stages. On one hand, involving stakeholders during the goal-setting stage can expand measures of programme efficiency, value creation, sustainability, policy implementation and awareness. On the other hand, feedback from stakeholder groups with differing levels and types of investment in the

project communicate valuable understanding of the programme and offer a “behind-the scenes” perspective on the programme’s impact and effectiveness during pilot implementation, with areas identified for future expansion (Hodgkins et al., 2019).

The Stakeholder Engagement Model, in turn, was first introduced by Freeman (1984), to suggest that complex decision-making in institutional settings should be anchored in the correct identification and engagement of key stakeholders. According to this model, achieving desirable outcomes is highly dependent on grasping in-depth understanding of the interests and level of influence of third parties who might affect or be affected by the decision-making. Stakeholder engagement reminds social marketing practitioners and researchers about the importance of involving different actors, beyond consumers, who are also affected by the behaviour. When not involved in the outset of the design and planning process, some stakeholders may serve as a barrier to designed offerings. Hence, a successful program identifies which stakeholders to prioritise and how to manage complex relationships between multiple stakeholders involved in the delivery of social marketing interventions (Hodgkins et al., 2019). It is also important to note that previous literature is extremely limited in systematically identifying and encouraging stakeholder participation in social marketing systems. Such as in commercial marketing we assist to a new marketing myopia focusing mainly on the customer and excluding other stakeholders from the equation (McHugh et al., 2018). For this reason, McHugh et al (2018) demands for stakeholders to be systematically identified and managed through the intervention design, planning and implementation. A broad spectrum of stakeholders is required if a collaborative social marketing system change agenda is to be achieved in the face of wicked, commons or sustainable problems. As the authors clearly state “research is interactive; it is “with” and not “on” priority groups and audiences” (p. 167). Hence, in-depth understanding on which stakeholders need to be involved and at what stage of the social marketing process may yield insights into why some interventions change behaviour and why others do not. Limited stakeholders’ involvement in the design of social marketing interventions, limits the potential of the program, while intense engagement leads to high quality decision making (Buyucek et al., 2016).

3. Research Design

3.1 Methodological approach and participants

Underpinned by a qualitative research design, various stakeholders were selected to participate in the design of the priority matrix and the stakeholder engagement model of each country, namely student associations, food service providers, HEI’s social services and HEIs’ decision makers, resulting in a total of thirty interviews. Participants were asked to identify key stakeholders and their degrees of

dependence and influence towards the implementation of healthier food choices in their HEIs' canteens. Such insights allowed to design a stakeholder priority matrix for each country in a first stage, which was followed by the development of the stakeholder engagement model, in a second stage, as illustrated in figure 1.

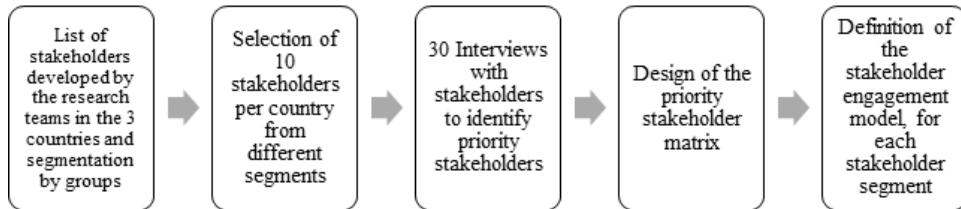


Figure 1: Research design

3.2 Data collection

Primary and secondary data were collected in each country, with different but complementary goals. Firstly, a huge amount of secondary data was retrieved to provide a national characterization of the national food/nutrition policies in (higher) education in Portugal, Turkey and Croatia (annex 1). This stage allowed to collect data regarding the main characteristics of the national policies (e.g., guidelines about mandatory/prohibited foods), the identification of the responsible organisms (e.g., Education or Health Ministry's or special task forces) as its targets (i.e., public and/or private institutions; education levels). Additionally, it was also necessary to collect data to contextualize the higher education setting of each country and retrieve information about: number of universities, number of students, food services in canteens and other facilities such as cafés, restaurants, vending machines inside campus, as well as other offers outside campus but closely distant (daily offers, prices, menus).

Regarding primary data, and as above mentioned, each country defined a list of stakeholders (annex 2) from different segments with whom interviews had to be scheduled. A total of 30 exploratory interviews (10 per country) were conducted where each participant was asked (see annex 3 for the full template of the interview guide):

- If they could suggest key entities or individuals (stakeholders) that we needed to consider as important for the success of the project, and their degree of importance.
- About their opinion regarding higher education students' food habits in their country, particularly if, and how, students' food habits change after starting university studies.
- About their opinion concerning the food offer in higher education institutions canteens (e.g.

food safety; diversity of offer; number of meals provided)

- d) To rank the influence of each stakeholder on students' food habits in university context or on the offer in canteens from 1 (low influence) to 3 (high influence)
- e) To rank the degree to which the success of the project relies on its stakeholder from 1 (low dependence) to 3 (high dependence).

4. Findings

4.1 National characterization of food/nutrition policies

One of the first tasks that proved to be decisive to kick off the social marketing plan and included in the diagnosis phase was the characterization of the national contexts of food and nutrition policies.

Table 1 provides a summary of Portugal, Croatia and Turkey contexts.

| Country | National characterization of food/nutrition |
|----------|--|
| Portugal | In the context of Portuguese higher education, there is an absence of specific food policy legislation. However, broader regulatory recommendations, such as the <i>Estratégia Integrada de Promoção da Alimentação Saudável</i> (EIPAS), standing for Integrated Healthy Eating Promotion Strategy, are applicable. EIPAS, a collaborative effort among various ministries and the General Directorate of Health, seeks to encourage healthy eating habits and improve nutritional health, contributing to chronic disease prevention (Direção Geral da Saúde, 2020). The <i>Programa Nacional de Promoção da Alimentação Saudável</i> (PNPAS), standing for National Healthy Eating Promotion Program, partnering with EIPAS, launched the <i>Selo de Excelência Alimentação Saudável no Ensino Superior</i> initiative, that is Healthy Eating Excellence Seal in Higher Education. This initiative acknowledges universities that promote nutritional well-being by revising their food services and fostering nutritional awareness within the academic sphere (Direção Geral da Saúde, 2019). Additionally, PNPAS has set forth guidelines for university residence food services, aiming to refine dietary habits through educational efforts, infrastructure enhancement, and food service regulation. Finally, the <i>Federação Académica do Porto</i> (FAP), standing for Porto Academic Federation, and the Directorate-General of Health have partnered to promote health within universities. Their joint framework recommends the adoption of health-centric strategies, such as formulating inclusive and accessible policies within Social Action Services and creating health-supportive environments in student living spaces, dining facilities, and other areas. |
| Croatia | The cornerstone of Croatian student nutrition policy is the "Regulation on the conditions and procedures for exercising the right to cover the costs of Student Nutrition" issued by the Ministry of Science and Education. This regulation outlines the criteria for receiving financial assistance from the Ministry, details the conditions for providing nutrition services, and stipulates the responsibilities of service providers. Central to the regulation is the establishment of the National Commission for the Control of Student Nutrition and Local Commissions for the Control of Student Nutrition, responsible for overseeing the implementation of measures and services. The National Commission, comprising five members including student representatives, draws up a list of approved dishes and products for student restaurants, restricting offerings to items on the list. Thirteen Student Centres across Croatia, including one in Zagreb, administer student meals, each forming a local commission to monitor services. Under the current regulation, students receive a subsidy of 71.24% for daily menus and 50% for other products. Despite widespread interest in updating the regulation, no changes have been made since its issuance in 2013. Efforts to revise the regulation have been ongoing, with proposals to separate norms and dishes and significantly expand the number of approved dishes, particularly with input from coastal universities advocating for more Mediterranean options. Additionally, there are increasing demands from coeliac disease associations for menu changes, alongside a rising request for vegan options. However, the election of a new National Commission, crucial for regulatory updates, remains pending, with uncertainty surrounding its timing and composition. |

| | |
|--------|---|
| Turkey | The Turkish government has adopted a comprehensive approach to tackle nutritional issues, encompassing legislative reforms, strategies for dietary challenges, agricultural directives, educational endeavours, and specialised programs for at-risk populations. Within the academic sphere, universities have established Health, Culture, and Sports Departments dedicated to nutritional planning and student support. Public university meals, subsidised by the government, adhere to strict quality controls and are aligned with national dietary guidelines, promoting reduced intake of energy-dense nutrients and enhanced fibre consumption. The foodservice process is meticulously managed, with a focus on allergen information and hygiene. Menus cater to a variety of dietary needs, including vegan options, and aim to support financially disadvantaged students. The government's efforts extend to inter-ministerial collaborations, formulating holistic policies that span nutrition, agriculture, food labelling, and health education. Fiscal measures, such as taxes on sugary drinks, are implemented to curb unhealthy consumption patterns. The Turkey Nutrition Guide, a dynamic document reflecting the latest dietary data and studies, underpins the nationwide promotion of sound eating habits and food safety. Additionally, ongoing initiatives concentrate on risk mitigation, educational outreach, and systematic monitoring to advance public health and address nutritional issues effectively. |
|--------|---|

Table 1: Characterization of food/nutrition policies

4.2 National characterization of food offers in HEIs

In terms of the food offers in HEIs, it was also necessary to characterize the three national settings regarding in campus and off-campus food offerings. Table 2 summarises these data.

| | | Portugal | Turkey | Croatia |
|---|---|---|--|----------------------------------|
| Number of HIEs under intervention | | 10 | 2 | 1 |
| Total number of students | | 131.808 | 63.373 | 69.000 |
| % of total of HEI students in the country | | 37% 359397 (only public) | 0,9% 7 million (public/ private) | 52% (151.827 public/ private) |
| Canteens | | 51 | 2 | 15 |
| Other food service at campus | Cafes/Snack Bars | 64 | 28 | Some (not measured) |
| | Restaurants | 7 | 5 | 2 |
| | Vending Machines | 184 (majority not under supervision of universities social service – lack of information) | 114 | Yes. Not measured |
| Food service outside campus | Most of the colleges are located in the city centres, which implies greater access to food supply, an alternative to canteens (e.g. restaurants, fast food, supermarkets, cafes, snack bars). A minority of faculties are located outside city centres, which means that there is less access to this type of offer | | | |

Table 2: National characterization of food offers in HEIs

In Portugal ten public higher education institutions (four universities and six polytechnic institutes) revealed a notable similarity in food offers across institutions, despite their geographical dispersion. Food offers typically consist of three or more meal options (including meat, fish or vegetarian dishes). Prices are student-friendly, ranging from approximately €2.50 to €3.951. In terms of meal availability, most institutions provide lunch options throughout the five weekdays. However, weekend offerings are generally scarce. A minority of canteens also offer dinner services, while only one guarantees breakfast availability. In Turkey two universities were analysed: one public and one

private. University canteens offer 21 meals per week, which includes 3 meals per day (including breakfast), available 7 days a week. In Croatia a single public university was analysed, representing 52% of enrolled students in higher education in this country. Food offers in universities are concentrated in the Student Centre. Generally, there are two meals (lunch and dinner), and occasionally breakfast is also available. Some canteens are closed on weekends. In terms of food service outside university campuses (in a range of 1 km), the situation is quite consistent across the three countries. In universities where campuses are located in city centres (which is the majority), there is a wide range of food options available, including fast-food restaurants, snack bars, cafes and supermarkets offering ready-to-eat meals. This competitive landscape poses challenges for promoting healthier eating habits.

4.3 Identification of stakeholders

In the use of a stakeholder engagement methodology, it is essential to start with an exercise to identify all the stakeholders that are considered important to consider in the success of the project. This list was, first, defined within each team of researchers from the three countries. After the interviews, other stakeholders that had not been considered at first, were suggested and included. The total list of stakeholders considered for this project is available in the Annexes. Interestingly the final result was quite similar in terms of the total number of stakeholders mentioned. The division by stakeholder segments presented in Table 3, was done *à posteriori*. Upper level stakeholders include those responsible for European/national/local policies. HEIs, the students and the canteens were considered to be the main target of this project. The segment of nutritionists/dietitians was autonomous because there were several references to them in different contexts. Finally, the other stakeholders considered, as can be seen in the global listings in the annex, are quite fragmented between parents, media, vending machines, companies, students, residents and cafes, for example. The biggest difference we can highlight from this phase was the higher number of stakeholders referred to at the upper level in Turkey and Croatia when compared to Portugal. In Portugal, there is a greater reference to several different stakeholders within the IES.

| | | Portugal | Turkey | Croatia |
|------------------------------|---------------|----------|--------|---------|
| Total number of stakeholders | | 29 | 26 | 29 |
| Number by segments | Upper level | 4 | 8 | 7 |
| | HEI | 8 | 4 | 5 |
| | Students | 6 | 4 | 4 |
| | Canteens | 2 | 4 | 4 |
| | Nutritionists | 2 | 3 | 3 |
| | Other | 7 | 4 | 7 |

Table 3: Stakeholders by segments

3.1 Priority Matrix

The prioritization of stakeholders was initially carried out during a working meeting with each research team from each country. Subsequently, thirty interviews were conducted with stakeholders considered central to determining the priority stakeholders. The criteria defined for characterizing the stakeholders were as follows:

- **Dependence:** This dimension evaluates the degree to which the project relies on the stakeholder for its success. It considers how much the project depends on the stakeholder's resources, support, or engagement to achieve its goals and objectives.
- **Influence:** This dimension measures the stakeholder's ability to affect the Project activities, decision-making processes, and reputation. Stakeholders with higher influence can significantly impact the project operations, reputation, and long-term success.

From the analysis of these two moments, a characterization table of stakeholders was first created, considering the two chosen criteria: dependence and influence. The main contribution expected in engaging stakeholders was important in the discussion within team members and will be important in the social marketing plan.

| Stakeholder | Dependence | | | Influence | | | Main contribution expected in engaging with this stakeholder |
|-------------|------------|-------------|-----------|-----------|-------------|-----------|--|
| | 1 Low | 2 Medium | 3 High | 1 Low | 2 Medium | 3 High | |
| ... | | | | | | | |

Table 4: Dependence vs Influence

After filling out table 4, it was possible to construct the prioritization matrices for stakeholders in each of the countries. This exercise allowed us to identify four different levels of prioritization. The most critical stakeholders are those located in the upper right corner of the matrix. Therefore, it is necessary to establish closer forms of engagement throughout the various phases of the social marketing plan to ensure the achievement of the set objectives.

3.2 Priority Matrices

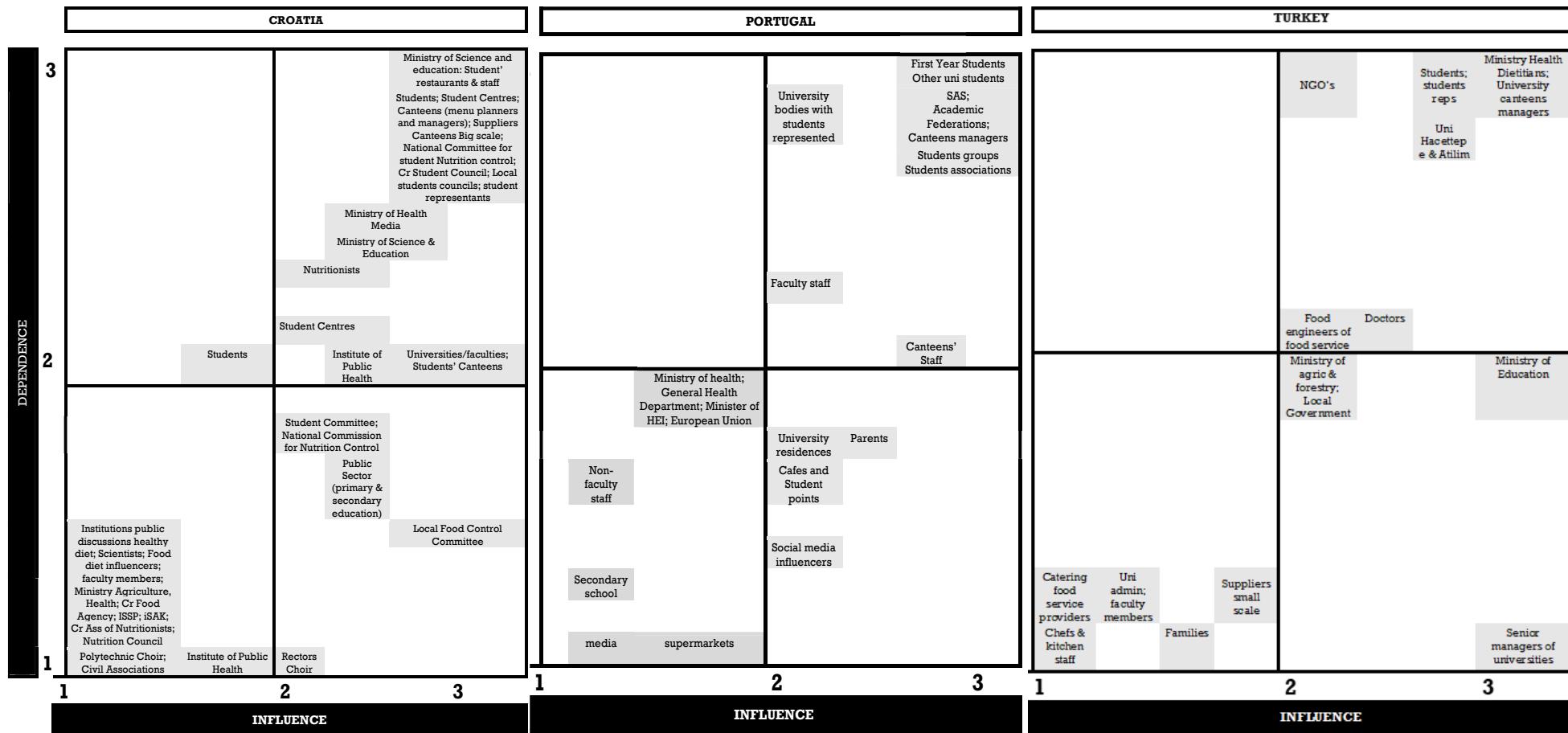


Table 5: Priority Matrices

3.3 Stakeholder Engagement Model

After identifying various levels of stakeholder prioritization, a stakeholder engagement model was developed. It is crucial that there are heightened levels of engagement for the most prioritized stakeholders in each of the three countries. This alignment between the prioritization matrix and the engagement model is critical to ensure an effective social marketing plan, a connection that was not previously explored in studies on the implementation of social marketing strategies aimed at promoting healthy eating habits. Table 4 illustrates the model document, which was compiled by each national team. This exercise facilitated significant alignment, initially within the national research teams and subsequently across international teams. For the sake of clarification, table 3 presents the labels and dimensions used in the stakeholder engagement model presented in tables 4 and 5.

| Type of engagement | Phase Social MKT Plan | | | Engagement Tools |
|---------------------------------|--|----------------|---------------------|---|
| 1- Inform/Communicate | 1. Diagnostic 2. Objectives 3. Preparation 4. Implementation 5. Final evaluation 6. Dissemination | 1. Diagnostic | 4. Implementation | Emails, Survey, interview, Consultant panel/Advisory Committee; Conference/Seminar, Press Releases, Partnership, Social media ... |
| 2- Consultant | | 2. Objectives | 5. Final evaluation | |
| 3- Dialogue (Consultation panel | | 3. Preparation | 6. Dissemination | |
| 4. Partnership | | | | |

Table 6: Labels for stakeholder engagement model

To provide insight into the information systematized within the three engagement models defined for the social marketing plan, we present the global results of engagement types and the phases of the social marketing plan where stakeholder engagement would occur. The numbers presented indicate the frequency with which stakeholders were mentioned by each country (the list of stakeholders by country can be found in Annex 1). Regarding the type of engagement, we observed that Level 1 – Inform is predominant across all three countries. Considering that the levels Dialogue and Partnership imply a higher degree of engagement, it is noteworthy that Portugal prioritizes maintaining this level of involvement with twelve stakeholders, while Turkey focuses on eleven. Croatia, however, intends to engage at a higher level with only five stakeholders. In terms of the social marketing plan stages where this engagement takes place, the highest incidence was observed during Phase 6 – Dissemination. However, the most significant disparity arises in the Objective Definition phase, where Portugal identified a need to engage with more stakeholders than the other two countries. Following the development of stakeholder engagement models for each national context by individual teams, it becomes crucial to convene a larger meeting. This meeting aims to align strategies and address any differences that may have emerged during the model development process.

| Organisations / Individual | | Function / Job Description | | Why are stakeholders? | Type of engagement | Engagement tool | When (Phase of Social Marketing Plan) | Reason to engage |
|----------------------------|----------------|--|--|--|--------------------|---|---------------------------------------|--|
| UPPER LEVEL | European Union | to be defined | | Decision makers for global policies regarding food | Inform | e-mail;website; final conference | 6 | Produce information and guidelines. Final conference moderation. Dissemination of project results |
| | WHO | Head WHO European Office for the Prevention and Control of NCDs | | Global orientations | Inform | e-mail;website; final conference | 6 | Produce information and guidelines. Final conference moderation. Dissemination of project results |
| | PNPAS/DGS | Diretor of "Programa Nacional de Promoção da Alimentação Saudável" (PNPAS) | | Responsible for the Portuguese Food Program in the General Directorate of Health | Consultant | interview; e-mail;website; final conference | 1 and 6 | knowledge about field and responsible for "Selo de Excelência "Alimentação Saudável no Ensino Superior"; produce information and guidelines. Final conference moderation. Dissemination of project results |
| | DGE | Nutritionist / Direção Geral de Educação | | Responsible for national guides about food offer in education | Inform, Consultant | e-mail;website; final conference | 1 and 6 | Consultation on eating habits in secondary school canteens. receptivity, difficulties felt. |

Table 7: Stakeholder engagement model

| Type of engagement | | | | Phase of social marketing plan | | | |
|--------------------|----------|--------|---------|--------------------------------|----------|--------|---------|
| | Portugal | Turkey | Croacia | | Portugal | Turkey | Croacia |
| 1-Inform | 15 | 14 | 14 | 1-Diagnosis | 20 | 11 | 14 |
| 2-Consultant | 9 | 0 | 8 | 2-Objectives | 17 | 7 | 8 |
| 3-Dialogue | 5 | 2 | 3 | 3-Preparation | 17 | 12 | 13 |
| 4-Partnership | 7 | 9 | 2 | 4- Implementation | 17 | 13 | 9 |
| | | | | 5-Final evaluation | 17 | 8 | 12 |
| | | | | 6-Dissemination | 26 | 22 | 21 |

Table 8: Stakeholder engagement model: frequency counting per country

4. Conclusions

Findings allowed to conclude that, given the expected differences between sociocultural, economic and political landscapes between countries, priority stakeholders and their levels of dependence and influence, are quite different per country. Moreover, differences between in-campus operational management practices of food services also lead to divergent perceptions regarding who should be considered as key stakeholders. The cross-comparative analysis of the data retrieved from the three countries, revealed that certain key stakeholders are recognised across the three contexts, specifically students, universities, canteens and nutritionists/dietitians. However, it was found that the reality of the legal/political and social framework of the three countries significantly shaped the identification and prioritization of specific stakeholders. For example, in Croatia there is a greater centralization of operations in the Ministry of Science and Higher Education while in Turkey, this falls into the Council of Higher Education. Furthermore, the context of each country requires tailored engagement strategies for specific stakeholders. For instance, Croatia has thirteen student centres offering meal services to students nationwide, as, for example, in Zagreb. Each centre establishes a local commission, which monitors students' nutrition. In Portugal, the academic student federations play a pivotal role in advocating for students' interests and rights before their HEIs, government, and other organizations.

This paper allowed to conclude that a social marketing strategy aimed at changing eating habits of HEIs' students in three different countries, needs to consider an effective stakeholder engagement methodology. Research on cultural differences in social marketing strategies and particularly in stakeholder engagement methodology, is scarce. Therefore, this paper contributes to expand the literature on the topic. Moreover, it also contributes to researchers and social marketing professionals by sharing working tools for involving stakeholders who were defined in a social marketing program that aims to improve the eating habits of university students in three different countries.

Findings revealed that is not enough to create a single stakeholder engagement model throughout the social marketing plan in a more global perspective, as if one solution fits all. This study highlights the importance of designing glocal social marketing strategies, embedding glocal models of stakeholder engagement: standardizing the tools and practices that are possible and adapting what is necessary so that it has success in different national realities.

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ANNEXES

Annex 1: List of stakeholders, by country

PORUGAL

| Segment of stakeholder | Stakeholder | Number by segments |
|------------------------|--|--------------------|
| UPPER LEVEL | European Union | 4 |
| | WHO | |
| | PNPAS/DGS | |
| | DGE | |
| HEI | HEIs - Nutritionists | 8 |
| | HEI - SAS -administrator | |
| | HEI - SAS - technicians | |
| | Academic Board Faculty/University | |
| | Faculty staff + researchers | |
| | Non Faculty staff | |
| | University bodies with students representatives ex Pedagogical Council | |
| | Specific HEI Programs for healthy eating at campus (ex.PASS IPL) | |
| | | |
| Students | Students Association | 6 |
| | Federation of Academic Student | |
| | Students' Groups/Clubs HEI | |
| | National Association of Nutrition Students | |
| | Students in Portuguese HEI – 1 st year | |
| | Other Students in Portuguese HEI | |
| Canteens | Catering Services Providers (Managers and nutritionists) | 2 |
| | canteen staff | |
| Nutritionists | Associação Nutricionistas | 2 |
| | Ordem dos nutricionistas | |
| Other stakeholders | Media | 7 |
| | Cafes and locals where students study and meet | |
| | University Students Residences | |
| | Vending machines companies | |
| | Secondary schools | |
| | Supermarkets | |
| | Parents | |
| Total | 29 | |

CROATIA

| Segment of stakeholder | Stakeholder | Number by segments |
|---|---|--------------------|
| Upper level | Ministry of Science and education/State | 7 |
| | Ministry of Agriculture | |
| | Institute of Public health | |
| | Ministry of Health | |
| | National Commission for Nutrition Control | |
| | Croatian Food Agency | |
| | Institutions public discussion healthy diet | |
| HIES | Universities/Faculties | 5 |
| | Rectors Choir | |
| | Polythecnic Choir | |
| | Faculty members | |
| | Student Centers/Community of Student Centers | |
| Students | Students/Students choir | 4 |
| | Students union/Associations | |
| | Cr Student Council /Local students councils | |
| | Student Committee | |
| Canteens and student restaurants | Canteens Suppliers (Big Scale) | 3 |
| | Students Canteens (Menu Planners and Managers); | |
| | Student restaurants and staff | |
| Nutritionists | Nutrition Council center | 3 |
| | Cr Association of Nutritionsts | |
| | Nutritionists | |
| Other stakeholders | Civil Associations | 7 |
| | Public Sector (Primary and secondary education) | |
| | ISSP; iSAK - Academic Cards Information System (ISAK), Information System of Student Rights (ISSP). | |
| | Scientists | |
| | Local food Control Comitee | |
| | Media | |
| | Food Diet Influencers | |
| | Total | 29 |

TURKEY

| Segment of stakeholder | Stakeholder | Number by segments |
|--|---|--------------------|
| Upper level Governmental bodies | Ministry of Agriculture and Forestry | 8 |
| | Municipalities/Local Governments | |
| | CoHE (Council of Higher Education) | |
| | Ministry of Health | |
| | Ministry of Health, General Directorate of Public Health, Department of Healthy Nutrition and Active Life | |
| | Ministry of Education | |
| | National Nutrition Council | |
| | National Menu Planning Council | |
| HEI | Presidence and senior management | 4 |
| | Academic units of Hacettepe and Atilim University | |
| | Hacettepe University Department of Health, Culture and Sports | |
| | Hacettepe University Press and Media Coordinator | |
| Students | Student representative of Hacettepe University | 4 |
| | President of Atilim University Nutrition and Dietetics Student Society | |
| | Student communities and student groups; | |
| | Nutrition and dietetics students | |
| Canteens | Chefs and kitchen staffs | 4 |
| | Catering providers | |
| | Food engineers in food service | |
| | Food service dietitians | |
| Dietitians | Dietitians Clinical | 3 |
| | dietitians/private dietitians | |
| | Turkish Dietetic Association | |
| Other stakeholders | Doctors | 4 |
| | Families/parents | |
| | Suppliers | |
| | NGO SUYADER | |
| Total | 26 | |

Annex 2: Interview guide for Stakeholder priority identification



Interview guide | Stakeholder engagement model

Brief presentation of the project:

MedDiet4Campus - This project, developed in Portugal, Turkey, and Croatia, aims to identify the compliance of food service menus with the Mediterranean Diet in public high education institution canteens, pinpointing opportunities to intervene, namely: 1) promoting changes in the food offer addressing proximity to the Mediterranean Food Pattern, creating, and offering plant- based meals, with seasonal and local food products and 2) developing tailored social marketing strategies to engaging stakeholders to encourage healthier and sustainable food habits.

To achieve the objectives researches will: 1) develop and index to evaluate compliance of menus with the Mediterranean Diet; 2) evaluate perceptions, barriers and facilitators through self-administered surveys and in-depth interviews; 3) develop of a 1-month meal plan framework; 4) develop tools concerning the concept premises to empower the catering employees and consumers to understand the proposed menu methodology; 5) develop a new food concept/product “student bag” (meal on the go) and test it for industry scale up; 6) use previous diagnose to develop social/emotional marketing strategies directed to stakeholders and consumers to achieve food behaviour change.

The project's main ambition is to change the food service paradigm, by creating and implementing a new healthy and sustainable food service concept that truly complies with the Mediterranean diet, as well as solutions that comply with consumers new needs.

We are contacting some persons/organisations to find out if there are more entities or individuals (stakeholders) that we need to consider in this project for its success, as well as to assess its degree of importance.

1. What is your opinion regarding high education students' food habits in our country?
 - a. How many of them use student canteens (question for only selected stakeholders)?
 - b. Do students' food habits change after starting university studies? In what sense?
2. What is your opinion concerning the food offer in high education institutions canteens?
 - a. Regarding the food safety; diversity of offer; number of offered meals,....
3. Can you identify some individuals or organisations that you consider to be very important to take in count in the university students' food behaviour change in our country?
 - a. In general
 - b. In students' canteens
4. How would you rank the influence of each stakeholder on students food habits in university context or on the offer in canteens from 1 to 3 (where 1 refers to “*low influence*” and 3 refers to “*high influence*”)?

| # | Stakeholders' name | 1 Low influence | 2 Medium Influence | 3 High Influence |
|---|--------------------|-----------------------|--------------------------|------------------------|
| | | | | |

| | | | | |
|---|--|--|--|--|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| n | | | | |

5. Can you justify more your previous answer?
 6. How would you rank the degree to which the project MedDiet4Campus relies on the stakeholder for its success from 1 to 3 (where 1 refers to “*low dependence*” and 3 refers to “*high dependence*”)?

| # | Stakeholders' name | 1 Low dependence | 2 Medium dependence | 3 High dependence |
|---|--------------------|------------------------|---------------------------|-------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| n | | | | |

7. Can you justify more your previous answer?

Concepts:

Dependence: This dimension evaluates the degree to which the project relies on the stakeholder for its success. It considers how much the project depends on the stakeholder's resources, support, or engagement to achieve its goals and objectives.

Influence: This dimension measures the stakeholder's ability to affect the Project activities, decision-making processes, and reputation. Stakeholders with higher influence can significantly impact the project operations, reputation, and long-term success.

In the final of the interview, you should finish this form with the

| Stakeholder | Dependence | | | Influence | | | Main contribution expected in engaging |
|-------------|------------|-----------------|-----------|-----------|-----------------|-----------|--|
| | 1 Low | 2 Mediu m | 3 High | 1 Low | 2 Mediu m | 3 High | |
| | | | | | | | |
| | | | | | | | |

Annex 3: National characterization



NATIONAL CHARACTERIZATION DOCUMENT

Partner(s):

Institution:

Country:

NATIONAL FOOD/NUTRITION POLICIES IN (HIGHER) EDUCATION

Please describe the main characteristics of the national policies (e.g., guidelines about mandatory/prohibited foods); the identification of the responsible organisms (e.g., Education or Health Ministry's or special task forces) as the targets (i.e., public and/or private institutions; education levels)

CONTEXTUALIZATION OF THE HIGHER EDUCATION INSTITUTION

Faculties / scientific areas /degrees

Number of students



Food Service at Campus

Main canteen(s)

Canteen: Refeição social, a preço controlado, serviços sociais das universidades

[Describe the main features, namely the type of offer like set menus; pricing (controlled price or regular price; Examples) the number of daily options; lunch and/or dinners]

| |
|--|
| |
|--|

Other Food Service at Campus

| Type | Number | Description |
|--------------------|--------|-------------|
| Cafes / Snack-bars | | |
| Restaurants | | |
| Vending Machines | | |
| Other: | | |

Food Service Outside Campus

Please include a brief description of the location of the campus (e.g., city center; business park) and surrounding food service options (e.g., fast food restaurants; healthy eating stores; supermarkets offering ready-to-eat meals, etc.). – **1 km**

| |
|--|
| |
|--|

Observations:

| |
|--|
| |
|--|